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Additional comments /
Commentaires supplémentaires:

Various pagings.

In Sessional paper No. 10, Annual report of the Department of Railways and Canals ... 30th June, 1896, page xxxiii is incorrectly numbered page xxxii.

In Sessional paper No. 10, Part III, Railway subsidies, page 14 is incorrectly numbered page 11.

SESSIONAL PAPERS

VOLUME 7

SECOND SESSION OF THE EIGHTH PARLIAMENT

OF THE

DOMINION OF CANADA

SESSION 1897



891028

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OF THE
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1. Report of the Auditor General, for the year ended 30th June, 1896. Presented 30th March, 1897, by Hon. W. S. Fielding.....*Printed for both distribution and sessional papers.*

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2. Public Accounts of Canada, for the fiscal year ended 30th June, 1896. Presented 30th March, 1897, by Hon. W. S. Fielding.....*Printed for both distribution and sessional papers.*
- 2a. Estimates of sums required for the service of the Dominion, for the year ending on the 30th June, 1898. Presented 8th April, 1897, by Hon. W. S. Fielding.
Printed for both distribution and sessional papers.
- 2b. Supplementary Estimates for the year ending 30th June, 1897. (For the Militia attending the Queen's Jubilee.) Presented 20th May, 1897, by Hon. W. S. Fielding.
Printed for both distribution and sessional papers.
- 2c. Supplementary Estimates for the year ending 30th June, 1897. Presented 10th June, 1897, by Hon. W. S. Fielding.....*Printed for both distribution and sessional papers.*
- 2c.* Supplementary Estimate for the year ending 30th June, 1897. (Post Office Department.) Presented 14th June, 1897, by Hon. W. S. Fielding.....*Printed for both distribution and sessional papers.*
- 2d. Supplementary Estimates for the year ending 30th June, 1898. Presented 18th June, 1897, by Hon. W. S. Fielding.....*Printed for both distribution and sessional papers.*
- 2e. Further Supplementary Estimates for the year ending 30th June, 1898. (Intercolonial Railway extension to Montreal.) Presented 23rd June, 1897, by Hon. W. S. Fielding.
Printed for both distribution and sessional papers.
3. List of Shareholders of the Chartered Banks of Canada, as on the 31st December, 1896. Presented 5th April, 1897, by Hon. W. S. Fielding.....*Printed for both distribution and sessional papers.*
- 3a. Report of dividends remaining unpaid and unclaimed balances in the Chartered Banks of Canada, for five years and upwards, prior to 31st December, 1896.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 3.

- 4.** Report of the Superintendent of Insurance, for the year ending 31st December, 1896.
Printed for both distribution and sessional papers.
- 4a.** Preliminary statements of the business of Life Insurance Companies in Canada, for the year ending 31st December, 1896. Presented 29th June, 1897, by Hon. W. S. Fielding.
Printed for both distribution and sessional papers.
- 4b.** Abstract of Statements of Insurance Companies in Canada, for the year ended 31st December, 1896. Presented 5th April, 1897, by Hon. W. S. Fielding.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 4.

- 5.** Report of the Department of Trade and Commerce, for the fiscal year ended 30th June, 1896. Presented 25th March, 1897, by Sir Richard Cartwright.
Printed for both distribution and sessional papers.
- 6.** Tables of the Trade and Navigation of Canada, for the fiscal year ended 30th June, 1896. Presented 30th March, 1897, by Hon. W. Paterson.....*Printed for both distribution and sessional papers.*

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- 7.** Inland Revenues of Canada. Excise, &c., for the fiscal year ended 30th June, 1896. Presented 26th March, 1897, by Sir Henri Joly de Lotbinière....*Printed for both distribution and sessional papers.*
- 7a.** Inspection of Weights, Measures, Gas and Electric Light, for the fiscal year ended 30th June, 1896. Presented 26th March, 1897, by Sir Henri Joly de Lotbinière.
Printed for both distribution and sessional papers.
- 7b.** Report on Adulteration of Food, for the fiscal year ended 30th June, 1896. Presented 26th March, 1897, by Sir Henri Joly de Lotbinière.....*Printed for both distribution and sessional papers.*
- 8.** Report of the Minister of Agriculture of Canada, for the calendar year 1896. Presented 23rd April, 1897, by Hon. W. Mulock.....*Printed for both distribution and sessional papers.*
- 8a.** Report on Canadian Archives, 1896. Presented 23rd April, 1897, by Hon. W. Mulock.
Printed for both distribution and sessional papers.

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- 8c.** Report of the Director and Officers of the Experimental Farms, for the year 1896.
Printed for both distribution and sessional papers.
- 8d.** Criminal Statistics for the year 1896.....*Printed for both distribution and sessional papers.*

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- 9.** Annual Report of the Minister of Public Works, for the fiscal year ended 30th June, 1896. Presented 9th April, 1897, by Hon. J. I. Tarte*Printed for both distribution and sessional papers.*
- 10.** Annual Report of the Department of Railways and Canals, for the fiscal year ended 30th June, 1896. Presented 5th April, 1897, by Hon. A. G. Blair...*Printed for both distribution and sessional papers.*

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- 11.** Annual Report of the Department of Marine and Fisheries (Marine), for the fiscal year ended 30th June, 1896. Presented 26th May, 1897, by Hon. L. H. Davies.
Printed for both distribution and sessional papers.
- 11a.** Annual Report of the Department of Marine and Fisheries (Fisheries), for the fiscal year ended 30th June, 1896. Presented 26th May, 1897, by Hon. L. H. Davies.
Printed for both distribution and sessional papers.

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- 11b.** Special reports containing notes on the natural history of the lobster, with special reference to the Canadian lobster industry. *Printed for both distribution and sessional papers.*
- 11c.** Discolouration in Canned Lobsters. *Printed for both distribution and sessional papers.*
- 11d.** Report of the joint commission relative to the preservation of the fisheries in waters contiguous to Canada and the United States. *Printed for both distribution and sessional papers.*

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- 11e.** Report of the Chairman of the Board of Steamboat Inspection, etc., for calendar year ended 31st December, 1896. *Printed for both distribution and sessional papers.*
- 12.** Report of the Postmaster General for the year ended 30th June, 1896. Presented 28th May, 1897, by Hon. W. Mulock. *Printed for both distribution and sessional papers.*
- 12a.** Supplement to the Report of the Postmaster General, for the year 1896, with reference to the letting of certain contracts for mail service. Presented 4th June, 1897, by Hon. W. Mulock. *Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 10.

- 13.** Annual Report of the Department of the Interior, for the year 1896. Presented 12th May, 1897, by Hon. W. Mulock. *Printed for both distribution and sessional papers.*
- 13a.** Summary Report of the Geological Survey Department, for the year 1896. Presented 29th June, 1897, by Hon. S. A. Fisher. *Printed for both distribution and sessional papers.*
- 13b.** Report by Hon. T. Mayne Daly on his visit to Great Britain and Ireland in the interests of emigration to Canada, 1896. Presented 14th April, 1897, by Hon. C. Sifton. *Not printed.*

CONTENTS OF VOLUME 11.

- 14.** Annual Report of the Department of Indian Affairs, for the year ended 30th June, 1896. Presented 5th April, 1897, by Hon. C. Sifton. *Printed for both distribution and sessional papers.*
- 15.** Report of the Commissioner of the North-west Mounted Police Force, 1896. Presented 22nd April, 1897, by Hon. W. Laurier. *Printed for both distribution and sessional papers.*

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- 16.** Report of the Secretary of State of Canada, for the year ended 31st December, 1896. Presented 30th March, 1897, by Hon. S. A. Fisher. *Printed for both distribution and sessional papers.*
- 16a.** Civil Service List of Canada, 1896. Presented 30th March, 1897, by Hon. S. A. Fisher. *Printed for both distribution and sessional papers.*
- 16b.** Report of the Board of Civil Service Examiners, for the year ended 31st December, 1896. Presented 22nd April, 1897, by Hon. S. A. Fisher. *Printed for both distribution and sessional papers.*
- 16c.** Annual Report of the Department of Public Printing and Stationery, for the year ended 30th June, 1896, with a partial report for services during six months ending 31st December, 1896. Presented 29th June, 1897, by Hon. S. A. Fisher. *Printed for both distribution and sessional papers.*
- 17.** Report of the Joint Librarians of Parliament, for the period since the close of the session in October, 1896. Presented 25th March, 1897, by the Hon. The Speaker. *Printed for sessional papers only.*
- 18.** Report of the Minister of Justice as to Penitentiaries of Canada, for the year ended 30th June, 1896. Presented 9th June, 1897, by Hon. C. Fitzpatrick. *Printed for both distribution and sessional papers.*

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19. Report of the Department of Militia and Defence of Canada, for the year ended 31st December, 1896. Presented 8th April, 1897, by Sir Richard Cartwright.
Printed for both distribution and sessional papers.
20. Return to an Order of the House of Commons, dated 28th September, 1896, giving particulars in reference to the Eighth General Election for the House of Commons of Canada. Presented 29th April, 1897.—*Mr. Lavergne* *Printed for both distribution and sessional papers.*
21. Copy of an Order in Council relative to the issue of licenses to United States fishing vessels. Presented 26th March, 1897, by Hon. L. H. Davies. *Not printed.*
22. Statement of Governor General's Warrants issued since last session of parliament, on account of fiscal year 1896-97. Presented 30th March, 1897, by Hon. W. S. Fielding. *Not printed.*
23. Return of Treasury Board Over-Rulings on appeals from decisions of the Auditor General, between the sessions of 1896 and 1897. Presented 30th March, 1897, by Hon. W. S. Fielding.
Printed for sessional papers.
24. General Order of the Exchequer Court. Presented 30th March, 1897, by Hon. S. A. Fisher.
Not printed.
25. Return to an order of the House of Commons, dated 28th September, 1896, for a return of all papers and correspondence regarding the claims of Messrs. Penhallwick, of Edenwold, for destruction of machinery by Indians. Presented 5th April, 1897.—*Mr. Davin* *Not printed.*
26. Return to an address of the House of Commons to his excellency the Governor General, dated 14th September, 1896, for a copy of all correspondence in connection with all grants of land in the town of Revelstoke to J. A. Mara, ex-member for Yale and Cariboo, and the order in council under which the said grants were made. Presented 5th April, 1897. *Mr. Bostock* *Not printed.*
- 26a. Return to an address of the House of Commons to his excellency the Governor General, dated 14th September, 1896, for a copy of all correspondence and the order in council of the 11th July, 1890, by which a grant of land in the town of Revelstoke was made to the Kootenay Smelting and Trading Company. Presented 5th April, 1897.—*Mr. Bostock* *Not printed.*
27. Return to an address of the House of Commons to his excellency the Governor General, dated 14th September, 1896, for a copy of all correspondence in connection with grants of land within the railway belt in British Columbia made by the province subsequent to the date when the lands in the belt passed under control of the government of Canada, and of the orders in council of the 29th March, 1895, and the 6th December, 1895, setting forth the terms of the agreement between the government of Canada and the province of British Columbia, acting on behalf of the grantees. Presented 5th April, 1897.—*Mr. Bostock* *Not printed.*
28. Statement of expenditure on account of miscellaneous unforeseen expenses, from 1st July, 1896, to 24th March, 1897. Presented 5th April, 1897, by Hon. W. S. Fielding. *Not printed.*
29. Statement of all superannuations and retiring allowances in the civil service during year ended 31st December, 1896, giving name, rank, salary, service, allowance and cause of retirement of each person superannuated or retired, also whether vacancy filled by promotion or new appointment, and salary of any new appointee. Presented 5th April, 1897, by Hon. W. S. Fielding. *Not printed.*
30. Statement of the moneys expended in payment of bounties on iron and steel manufactured from Canadian ore, the persons to whom paid, the places at which the iron and steel was manufactured, together with copies of the regulations governing such payments, as required by the Act 57-58 Victoria, chapter 9. Presented 7th April, 1897, by Hon. W. Paterson. *Printed for sessional papers.*
31. Return furnished annually by the Canadian Pacific Railway Company under the provisions of section 8 of 49 Victoria, chapter 9, being a list of all lands sold by that company from 1st October, 1895, to the 1st October, 1896. Presented 13th April, 1897, by Hon. C. Sifton. *Not printed.*
- 31a. Return under resolution of the 20th February, 1882, in so far as the same is furnished by the department of the interior, respecting the Canadian Pacific Railway Company. Presented 13th April, 1897, by Hon. C. Sifton. *Not printed.*

 CONTENTS OF VOLUME 13—*Continued.*

32. Return of orders in council which have been published in the *Canada Gazette* and in the *British Columbia Gazette*, in accordance with the provisions of: (1st) Clause 91 of the Dominion Lands Act, chapter 54 of the Revised Statutes of Canada. (2nd) Subsection (d) of section 38 of the regulations for the survey, administration, disposal and management of Dominion lands within the 40-mile railway belt in the province of British Columbia. (3rd) Section 46 of the North-west Irrigation Act. Presented 13th April, 1897, by Hon. C. Sifton..... *Not printed.*
33. Return to an order of the House of Commons, dated 10th May, 1897, for a copy of the evidence taken by Inspector Fletcher when investigating charges made last November against the postmaster of Northfield, British Columbia. Presented 28th May, 1897.—*Mr. Davin*..... *Not printed.*
34. Statement of the affairs of the British Canadian Loan and Investment Company, as on the 31st December, 1896. Presented 20th April, 1897, by the Hon. The Speaker..... *Not printed.*
35. Return to an address of the House of Commons to his excellency the Governor General, dated 12th April, 1897, for copies of all orders in council, reports to council, petitions, memorials or other documents relating to the Manitoba School Question, not already submitted to this House. Presented 20th April, 1897.—*Mr. La Rivière*..... *Printed for both distribution and sessional papers.*
36. Statement of all bonds registered in the department of the secretary of state, since last return (1896) and submitted to parliament in accordance with section 23 of chapter 19, of the Revised Statutes of Canada. Presented 20th April, 1897, by Hon. S. A. Fisher. *Not printed.*
37. Return to an address of the House of Commons to his excellency the Governor General, dated 5th April, 1897, for copies of all correspondence relating to the retirement of Messrs. Bompas, Bischoff & Co., and the appointment of Mr. Charles Russell as solicitor for the Dominion government in London. Presented 22nd April, 1897.—*Mr. Foster*..... *Not printed.*
38. Return to an address of the House of Commons to his excellency the Governor General, dated 28th September, 1896, for copies of despatches, minutes of council, and correspondence relating to the formation of an international customs bureau for Brussels. Presented 26th April, 1897.—*Sir C. Hilbert Tupper*..... *Not printed.*
39. Tariff of fees and expenses for holding elections in the North-west Territories and British Columbia, fixed by the governor in council, under section 121 of the Dominion Elections Act, and amendments to the said tariff. Presented 26th April, 1897, by Hon. W. S. Fielding. . *Not printed.*
40. Return to an order of the House of Commons, dated 30th April, 1897, for copies of instructions to customs collectors *re* tariff resolutions and reciprocal tariff. Presented 30th April, 1897.—Hon. W. Paterson..... *Not printed.*
41. Return to an order of the House of Commons dated 5th April, 1897, for copies of all calls for tenders and specifications for the same and detailed answers thereto made since the last session of parliament in respect of the printing of government notes, stamps, etc., of all correspondence in connection therewith had with the government or any member thereof and with the minister of finance or the officers of his department, copies of all reports made thereon to the minister of finance and to council, together with all minutes to council passed in relation thereto, and a copy of the contract entered into between the government and the successful tenderer. Presented 3rd May, 1897.—*Mr. Foster*..... *Printed for distribution only.*
42. Return to an address of the House of Commons to his excellency the Governor General, dated 5th April, 1897, for a return showing how many convicts were liberated from the different penitentiaries in Canada since the month of July, 1896; giving their names and the dates when they were convicted, and showing why they were liberated, and the names of those who obtained their pardon for them; also the names of those whose sentences were commuted. Presented 5th May, 1897.—*Mr. Bergeron*..... *Not printed.*
43. Return to an order of the House of Commons, dated 28th September, 1896, for copies of all correspondence which has passed between the government and party or parties in reference to the "Montreal, Ottawa, Georgian Bay Canal" scheme; also all papers in connection with any application for financial aid towards this project. Presented 5th May, 1897.—*Mr. Poupore*.. *Not printed.*
44. Return to an order of the House of Commons, dated 28th September, 1896, for copy of all reports, valuations and all other papers relating to lands in the township of South Monagan, county of Peterboro', flooded by reason of the construction of a dam at Hastings, Ontario, and owned by Joseph Clarke and others. Presented 5th May, 1897.—*Mr. Kendry*..... *Not printed*

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45. Return to an order of the House of Commons, dated 2nd September, 1896, for copies of all memorials, reports, correspondence, plans and papers in relation to the construction of a bridge in front of Quebec, or in the vicinity, to connect the Intercolonial Railway with the Canadian Pacific Railway. Presented 5th May, 1897.—*Mr. Langehier* *Not printed.*
46. Return to an order of the House of Commons, dated 3rd May, 1897, for copies of all correspondence between the department of Indian affairs at Ottawa and the officers of the Indian department at Regina and at Winnipeg, respecting the furnishing supplies to the St. Paul Industrial School; also the correspondence between the department at Ottawa and the Hudson Bay Company at Winnipeg. Presented 10th May, 1897.—*Mr. Davin* *Not printed.*
47. Return to an order of the House of Commons, dated 11th May, 1897, for a copy of the opinion of the minister of justice with respect to statutory increases. Presented 11th May, 1897.—*Hon. L. H. Davies* *Printed for sessional papers.*
48. Return to an order of the House of Commons, dated 21st April, 1897, for copies of all documents, correspondence, reports, etc., having reference to the appointment of Thomas E. Anderson to the position of collector of customs in the town of Napanee. Presented 11th May, 1897.—*Mr. Wilson* *Not printed.*
49. Report of the commissioners to examine into the affairs of the Kingston penitentiary. Presented 17th May, 1897, by Sir Richard Cartwright *Printed for distribution.*
50. Statement in pursuance of section 17 of the Civil Service Insurance Act, for the year ending 30th June, 1896. Presented 20th May, 1897, by Hon. W. S. Fielding *Not printed.*
51. Extract from a report of the committee of the honourable the privy council, approved by his excellency on the 23rd January, 1897, referring to the delimitation of the Alaskan boundary. Presented 26th May, 1897, by Hon. C. Sifton *See No. 77.*
52. Contract with Messrs. Petersen, Tate and Company, of Newcastle-on-Tyne, England, for a fast weekly steanship service between Canada and the United Kingdom. Presented 28th May, 1897, by Sir Richard Cartwright *See "Votes and Proceedings," page 393.*
53. Return to an address of the Senate to his excellency the Governor General, dated 13th May, 1897, for copies of all telegrams sent between the 15th and 27th of April last, by the minister of marine and fisheries, to Bernard D. McLellan, or any other person in West Prince, Prince Edward Island, promising grants for harbours, piers or breakwaters in that constituency, different from or in addition to, amounts stated in the Estimates now before Parliament. Presented 1st June, 1897.—*Hon. Mr. Ferguson* *Not printed.*
54. Return to an address of the Senate to his excellency the Governor General, dated 19th May, 1897, for a tabulated statement showing the effects which the commercial treaty between Canada and France has had upon the trade and revenue of the Dominion, as compared with the three years preceding the date upon which the treaty came into force, in so far as relates to the various articles covered by said treaty. Presented 1st June, 1897.—*Hon. Sir Mackenzie Bowell* *Printed for sessional papers.*
- 54a. Return to an address of the Senate to his excellency the Governor General, dated 9th June, 1897, for a detailed statement showing the character, quantity and value of the different articles exported from Canada to France, for the years ending 30th June, 1893, 1894, 1895 and 1896. Presented 17th June, 1897.—*Hon. Sir Mackenzie Bowell* *Printed for sessional papers.*
55. Return to an address of the Senate to his excellency the Governor General, dated 5th May, 1897, for a copy of the contract or charter by which the steamer "Petrel" has been employed for winter navigation between Prince Edward Island and the mainland during the present year, and all correspondence between the department of marine and fisheries, or any officer thereof, and the owners of the said steamer "Petrel" relative to the said contract or charter. Also a statement of all expenses incurred by the government of Canada, in the outfit, repair and maintenance of the said steamer, and in the payment of wages to her officers and men, giving the name of each employee, and the amount paid or to be paid each. Also a statement showing the number of round trips made by the said steamer, between Cape Tormentine and Cape Traverse, or any other port in Prince Edward Island, from the 1st of December, 1896, to the 1st of May of the present year, with the date of such trips. Also a statement of the number of passengers, and the quantity

• CONTENTS OF VOLUME 13—*Continued.*

- of freight carried by the said steamer between the ports aforesaid, and the amount received for carrying such freight and passengers, for the above-mentioned period. And also a statement of number of mails carried by the said steamer, during the same period. Presented 1st June, 1897.—*Hon. Mr. Ferguson*..... *Not printed.*
- 56.** Return to an address of the Senate to his excellency the Governor General, dated 5th May, 1897, for all correspondence which has taken place since the 13th July last between the government of the Dominion and the provincial government of Prince Edward Island regarding certain financial claims of that province upon the federal government.—Presented 1st June, 1897.—*Hon. Mr. Ferguson*..... *Printed for sessional papers.*
- 57.** Return to an order of the House of Commons, dated 3rd May, 1897, for copies of all letters, papers, correspondence, petitions, etc., relating to the dismissal of J. Albert Verge, fishery officer for the river Restigouche and its tributaries and the waters of the Baie des Chaleurs, and the appointment of Charles Brown in his place. Presented 3rd June, 1897.—*Mr. McAlister*..... *Not printed.*
- 57a.** Return to an order of the House of Commons, dated 5th April, 1897, for copies of all correspondence, papers, petitions, &c., in connection with the dismissal of Angus McPhee as postmaster at Hopefield, in the province of Prince Edward Island. Presented 3rd June, 1897.—*Mr. Martin*..... *Not printed.*
- 57b.** Return to an order of the House of Commons, dated 3rd May, 1897, for copies of all papers, letters, documents, petitions, etc., relating to the dismissal of A. J. McNeill as postmaster at Stanley Bridge, in Prince Edward Island. Presented 3rd June, 1897.—*Mr. Martin*..... *Not printed.*
- 57c.** Return to an order of the House of Commons, dated 3rd May, 1897, for copies of all letters, telegrams and papers that have passed between the government and any person or persons in connection with the dismissal of Dr. George Duncan, late quarantine superintendent at Williams Head Station, B.C.—Presented 4th June, 1897.—*Hon. E. G. Prior*..... *Not printed.*
- 57d.** Return to an order of the House of Commons, dated 17th May, 1897, for copies of all documents, reports, affidavits, declarations, papers and correspondence in relation to dismissal of F. X. Smith, late lighthouse keeper at Cape Gaspé. Presented 8th June, 1897.—*Mr. Casgrain*..... *Not printed.*
- 57e.** Return to an address of the House of Commons, to his excellency the Governor General, dated 14th September, 1896, for copies of all orders in council, reports and correspondence respecting the appointment and dismissal of the sub-agents of the department of marine and fisheries at the port of Pictou.—Presented 8th June, 1897.—*Sir C. Hibbert Tupper*..... *Not printed.*
- 57f.** Return to an order of the House of Commons, dated 3rd May, 1897, for a return showing the names of all persons dismissed from the service of the inland revenue department since the first day of July, 1896; also the names of all persons appointed to the service of said department since the first day of July, 1896. Presented 14th June, 1897.—*Mr. Wood (Brockville)*..... *Not printed.*
- 57g.** Return to an order of the House of Commons, dated 17th May, 1897, showing the names and offices or employment of all persons superannuated, dismissed or superceded in the service of the Canadian government under the present administration, giving the reason for superannuation, dismissal or supercession in each case, and the name and age of the officer or employee appointed to the vacancy in each case, and showing whether any inquiry or formal investigation took place in each case and the nature of it, and whether the party affected was given an opportunity of being heard before dismissal or supercession. Presented 15th June, 1897.—*Sir Charles Tupper*..... *See No. 57t.*
- 57h.** Return to an order of the House of Commons, dated 21st April, 1897, showing the names of all persons appointed to the department of customs since the first day of July, 1896, also the names of the offices respectively to which they were appointed and the salaries thereto attached; also the names of all persons in the service of the department of customs whose services have been dispensed with since the first day of July, 1896, with the names of the offices and the salaries attached thereto respectively. Presented 15th June, 1897.—*Mr. Wood (Brockville)*..... *Not printed.*
- 57i.** Supplementary return to 57g. Presented 16th June, 1897.—*Sir Charles Tupper*..... *See No. 57t.*
- 57j.** Return to an order of the House of Commons, dated 6th May, 1897, for copies of all letters and correspondence between the government or any members thereof referring in any way to the dismissal of Mr. W. D. Fairbrother as postmaster at Beamsville, with a copy of the charges and by whom such were made. Presented 18th June, 1897.—*Mr. McCleary*..... *Not printed.*

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- 57k.** Return to an order of the House of Commons, dated 3rd May, 1897, for copies of all letters, telegrams, petitions, reports and other communications with respect to the appointment and dismissal of David H. Price, postmaster of Aylmer West, and the appointment of his successor, Frederick Ashbaugh. Presented 18th June, 1897.—*Mr. Ingram*.....*Not printed.*
- 57l.** Return to an order of the House of Commons, dated 3rd May, 1897, for copies of all correspondence, petitions and reports relative to the dismissal of T. P. Shields, postmaster of Upper Maugerville, and the appointment of Emery Sewel in his place, and in reference to any changes proposed in the location of said post office since 1891. Presented 18th June, 1897.—*Mr. Foster*.....*Not printed.*
- 57m.** Return to an order of the House of Commons, dated 12th April, 1897, for copies of all papers, correspondence, petitions, etc., connected with the dismissal of Alexis Doutre as postmaster at Beauharnois. Presented 18th June, 1897.—*Mr. Bergeron*.....*Not printed.*
- 57n.** Return to an order of the House of Commons, dated 5th April, 1897, for a return giving the names of all postmasters and other persons in the employ of the government in the counties of Kings and York, New Brunswick, who have been dismissed since July, 1896, and all correspondence in connection therewith. Presented 18th June, 1897.—*Mr. Foster*.....*Not printed.*
- 57o.** Return to an order of the House of Commons, dated 17th May, 1897, for a copy of the investigation held in connection with the postmaster's office in Valleyfield, by Mr. Wilfrid Mercier. Presented 18th June, 1897.—*Mr. Bergeron*.....*Not printed.*
- 57p.** Return to an order of the House of Commons, dated 17th May, 1897, for any reports or correspondence, not already brought down, and the reasons for the dismissal of Roderick McLeod and Robert McKay, bridge tenders on the Intercolonial Railway bridge, Pictou, Nova Scotia, and the appointment of Thomas Fraser and A. Thomas in their place and stead. Presented 24th June, 1897.—*Sir C. Hibbert Tupper*.....*Not printed.*
- 57q.** Return to an order of the House of Commons, dated 17th May, 1897, for copies of all papers and documents connected with the dismissal of Mr. John L. Smith as fishery overseer for the district of New Carlisle, extending from Grand Cascadia river to Paspebiac East; also any recommendations made to any member of the government by letter or otherwise for his dismissal and the recommendation in favour of his successor. Presented 25th June, 1897.—*Sir A. P. Caron*.
Not printed.
- 57r.** Return to an order of the House of Commons, dated 3rd May, 1897, giving all correspondence, evidence, reports and papers respecting the dismissal of the car inspector and car oiler at Stellarton, Nova Scotia, under instructions of the mechanical superintendent, Intercolonial Railway at Moncton, 5th February, 1897. Presented 25th June, 1897.—*Sir C. H. Tupper*.....*Not printed.*
- 57s.** Return to an order of the House of Commons, dated 21st April, 1897, for copies of all papers, petitions, evidence, reports and documents of every nature connected with the dismissal of Andrew Carmichael, postmaster, Spencerville, Ont. Presented 28th June, 1897.—*Mr. Reid*...*Not printed.*
- 57t.** A partial return to an address of the Senate to his excellency the Governor General, dated 9th April, 1897, for a statement showing for each department of the civil service, the names, ages, offices and salaries of such persons employed either in the inside or outside divisions thereof; and of such persons not in the civil service employed by the government in any department, who, since the 13th July, 1896, and in cases where no commission of investigation was appointed, have been removed from office by dismissal, superannuation or otherwise, specifying in each case the manner of, and grounds for such removal, and the length of notice given to the persons removed, and the amount of superannuation or gratuity granted, if any; also showing the name, age, office and salary or remuneration of any and every person appointed to the civil service in the place of, or as a consequence of any such removal. Presented 26th June, 1897.—*Hon. Mr. Kirchhoffer*.
Printed for sessional papers.
- 58.** Return to an order of House of Commons, dated 28th September, 1896, for copies of the contract awarded to Mr. Gédéon Beaulieu, contractor for the building of the post office at Rimouski, of all correspondence between the said contractor and the government, and all other documents in relation thereto. Presented 4th June, 1897.—*Mr. Fiset*.....*Not printed.*

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59. Return to an order of the House of Commons, dated 17th May, 1897, for copies of the report made by Mr. Gourdeau, deputy minister of marine and fisheries, on the conference held last November between the steamship companies and shippers of cattle and horses. Presented 4th June, 1897. *Mr. Maclean*. *Printed for sessional papers.*
60. Return to an order of the House of Commons, dated 17th May, 1897, for copies of all correspondence since the 20th July last between the department of marine and fisheries at Ottawa and the officers thereof or others, respecting supplies and repairs of vessels and steamers under the control of that department which are in the habit of visiting the ports of Charlottetown, Georgetown and Pictou, or which are employed either in the protection of the coast fisheries or in the supervision and maintenance of lights, or in the winter steam service between Prince Edward Island and the mainland. Presented 4th June, 1897.—*Sir C. Hibbert Tupper*. *Not printed.*
61. Return to an order of the House of Commons, dated 21st April, 1897, for copies of all letters, petitions, memorials and suggestions received by the government, or any member thereof, since the 23rd June, 1896, to amend the North-west Territories Act with a view of enlarging the powers of the executive of the North-west Territories, and to increase the subsidy of the North-west Territories. Presented 4th June, 1897.—*Mr. Davin*. *Not printed.*
62. Return to an order of the House of Commons, dated 3rd May, 1897, for a copy of returns for Weller Bay while an outpost, *i.e.*, about eleven years: 1. The value of dutiable goods and duty collected. 2. Value of free goods. 3. Total number of vessels entered and cleared. 4. Total salary paid. Presented 8th June, 1897.—*Mr. Corby*. *Not printed.*
63. Return to an order of the House of Commons, dated 10th May, 1897, for a return of all correspondence between officers of the militia and others with the minister of militia and the major-general commanding relating to brevet promotion and General Order 73, 1896. Presented 8th June, 1897.—*Mr. Bain*. *Not printed.*
64. Return to an order of the House of Commons, dated 17th May, 1897, for copies of all correspondence, plans and reports of engineers having reference to making North Harbour, Aspy Bay, Victoria county, N.S., a harbour of refuge. Presented 9th June, 1897.—*Mr. Bethune*. *Not printed.*
65. Return to an address of the House of Commons to his excellency the Governor General, dated 3rd May, 1897, for copies of all papers relating to the release of Daniel Brien Sullivan, committed to jail at Toronto on the 18th November, 1896, including the reports of the police magistrate of the 21st and 27th November, 1896. Presented 9th June, 1897.—*Sir C. Hibbert Tupper*. *Not printed.*
66. Return to an order of the House of Commons, dated 28th September, 1896, for a statement showing the amount of money expended by the Dominion government since the 1st day of July, 1873, for constructing, equipping and subsidizing railways in Canada, with the number of acres of land granted as subsidies, and their estimate value. Also a statement showing separately the part of such expenditure made on railways in each province of the Dominion and the North-west Territory, deducting any sums that may have been charged against any of the provinces of the North-west Territory in their debt account with the Dominion. Presented 10th June, 1897.—*Mr. Martin*. *Printed for sessional papers.*
67. Return to an order of the House of Commons, dated 28th September, 1896, for copies of all letters, correspondence and tenders, the names of the parties tendering, the amounts of their tender, and the names of the parties awarded the contracts for the historical monuments at Lundy's Lane, Chrysler's Farm and Chateauguay. Presented 10th June, 1897.—*Mr. Gibson*. *Not printed.*
68. Return to an order of the House of Commons, dated 17th May, 1897, showing a comparative schedule of prices paid in connection with the military camp at Aldershot, King's county, Nova Scotia, for the seasons of 1895 and 1896 respectively; also all papers, correspondence and instructions respecting the securing of supplies for the said camp in 1897. Presented 10th June, 1897.—*Sir C. Hibbert Tupper*. *Not printed.*
69. Return to an order of the House of Commons, dated 17th May, 1897, for a return showing (under the announced change of organization at the Royal Military College of Canada): 1. A detail of the intended superior and subordinate staffs, their respective emoluments and the conditions of their engagements, inclusive of periods of service and duties to be performed by them respectively. 2. The intended number of classes of cadets in attendance at one time. 3. The allotment and distri-

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- bution of time to class instruction, drills, military and athletic exercises, meals, recreation, etc., specifying subjects and the professors and instructors respectively employed in the several subjects in each class. 4. The amount of deposit to be made by cadets to meet personal charges for a period of three years respectively under the reorganized system and the system hitherto in force. 5. The surplus revenue derived from fees from each cadet, after deduction of messing charges respectively under the reorganized system and the system hitherto in force. 6. A detail of items in the reorganized system and in that hitherto in force in the cases involving either increase or reduction, and the amounts of these differences. 7. The number of eligible applications made prior to the announcement of the reorganization to compete for entrance into the Royal Military College next September. Presented 10th June, 1897.—*Mr. Tyrwhitt* *Not printed.*
- 69a.** Supplementary return to No. 69. Presented 23rd June, 1897.—*Mr. Tyrwhitt* *Not printed.*
- 70.** Return to an address of the House of Commons to his excellency the Governor General, dated 28th September, 1896, for copies of despatches, minutes of council and correspondence relating to the London International Railway Congress, 1895. Presented 14th June, 1897.—*Sir C. Hibbert Tupper* *Not printed.*
- 70a.** Return to an address of the House of Commons to his excellency the Governor General, dated 28th September, 1896, for copies of despatches, minutes of council and other documents relating to the meeting of the International Railway Congress, St. Petersburg, with a copy of papers submitted by the high commissioner for Canada to that congress. Presented 14th June, 1897.—*Sir C. Hibbert Tupper* *Not printed.*
- 71.** Return to an order of the House of Commons, dated 17th May, 1897, for copies of tenders opened the 16th day of March, 1897, for works on section 12 of the Soulanges canal, showing the prices of different tenderers for each item and the approximate quantities upon which the tenders were extended, also the lump sum of each tender. Presented 14th June, 1897.—*M. Clancy*.
Printed for sessional papers.
- 71a.** Return to an order of the House of Commons, dated 17th May, 1897, for copies of tenders opened the 16th day of March, 1897, for works on sections 4, 5, 6 and 7 of the Soulanges canal, showing the prices of different tenderers for each item and the approximate quantities upon which the tenders were extended, also the lump sum of each tender. Presented 14th June, 1897.—*Mr. Clancy* *Printed for sessional papers.*
- 71b.** Return to an order of the House of Commons, dated 17th May, 1897, for copies of tenders opened the 20th day of March for works on the Grenville canal enlargement, showing the prices of different tenderers for each item and the approximate quantities upon which the tenders were extended, also the lump sum of each tender. Presented 14th June, 1897.—*Mr. Clancy*.
Printed for sessional papers.
- 71c.** Return to an order of the House of Commons, dated 7th June, 1897, for a statement of all tenders opened the 7th day of May, 1897, for works on the north channel of St. Lawrence river, showing the prices of different tenderers for each item and the approximate quantities upon which the tenders were extended, also the lump sum of each tender. Presented 25th June, 1897.—*Mr. Clancy* *Printed for sessional papers.*
- 71d.** Return to an order of the House of Commons, dated 7th June, 1897, for a statement of all tenders opened the 30th day of April, 1897, for works on the Iroquois section, Galops canal, showing the prices of different tenderers for each item and the approximate quantities upon which the tenders were extended, also the lump sum of each tender. Presented 25th June, 1897.—*Mr. Clancy*.
Printed for sessional papers.
- 71e.** Return to an order of the House of Commons, dated 7th June, 1897, for a statement of all tenders opened the 24th day of April, 1897, for works on the Cardinal section, Galops canal, showing the prices of different tenderers for each item and the approximate quantities upon which the tenders were extended, also the lump sum of each tender. Presented 25th June, 1897.—*Mr. Clancy*.
Printed for sessional papers.
- 72.** Return to an order of the House of Commons, dated 9th September, 1896, for: 1. A copy of all reports of the engineers of the department of public works as to the conditions and requirements of the Port Albert harbour made within the last ten years. 2. A statement in detail, with dates, showing all amounts voted by parliament for the improvement of said harbour. 3. A statement showing how much of said sums were expended under contract, and how much otherwise and how; when expended and to whom paid.—Presented 15th June, 1897.—*Mr. Cameron* *Not printed.*

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- 72a.** Return to an order of the House of Commons, dated 28th September, 1896, for: 1. Copy of all reports made by the engineers of the public works department since the 1st day of January, 1890, as to the condition and requirements of the Goderich harbour and of the North breakwater. 2. Statement in detail of all amounts voted for the construction and improvement of said harbour. 3. Statement showing how much has been expended on said harbour since the government of Canada undertook the work as a harbour of refuge. Presented 15th June, 1897.—*Mr. Cameron.*
Not printed.
- 72b.** Return to an order of the House of Commons, dated 17th May, 1897, for copies of all correspondence, telegrams, engineers' reports, etc., relating to the extension of the breakwater at Belle river, in Prince Edward Island. Presented 15th June, 1897.—*Mr. Martin.*..... *Not printed.*
- 73.** Return, in part (departments of the interior and Indian affairs), to an order of the House of Commons, dated 5th April, 1897, giving the names of all commissioners appointed by the government or any of the ministers to hear charges and make investigations into the conduct of civil servants and employees of the government or any of the departments since July, 1896, together with the rate of pay and allowances of each and the length of time each has been employed, and the full amount paid; also copies of all reports made by them to the government, or any member thereof, and copies of the authorization and instructions under which they acted. Presented 16th June, 1897.—*Mr. Foster.*..... *Not printed.*
- 73a.** Supplementary return to No. 73 (department of marine and fisheries). Presented 17th June, 1897.
Mr. Foster...... *Not printed.*
- 74.** Copies of contracts for cold storage accommodation on steamships from Montreal to Great Britain, between the minister of agriculture and various steamship companies. Presented 17th June, 1897, by Hon. S. A. Fisher..... *Not printed.*
- 75.** Return to an order of the House of Commons, dated 3rd May, 1897, for copies of all letters, papers and correspondence relating to the closing in March last of the post office at Oak Bay Mills, Quebec. Presented 18th June, 1897.—*Mr. McAlister.*..... *Not printed.*
- 76.** Return to an order of the House of Commons, dated 3rd May, 1897, for: 1. Copies of all correspondence and other documents relating to the creation of post office inspectorships at Stratford, Barrie and Kingston and the appointment of inspectors and other officials connected with such inspectorships. 2. The number of employees connected with each such office and the salaries paid, and all other expenses of each office. Presented 18th June, 1897.—*Mr. Cameron.*
Printed for sessional papers.
- 77.** Report of Major General Cameron on the proposed convention in reference to a portion of the Alaskan boundary, and memorandum thereon. Presented 19th June, 1897, by Hon. L. H. Davies.
Printed for sessional papers.
- 78.** Return to an address of the House of Commons to his excellency the Governor General, dated 7th June, 1897, showing the correspondence, if any, between this government and the government of the United States in reference to an equalization or readjustment of the coasting laws, rules and regulations in force in the two countries; and in reference to any arrangement or proposal for any arrangement under which Canadian vessels shall be granted by the American government and officials the same privileges as those accorded to American vessels by the Canadian authorities under the laws, rules and regulations now in force. Presented 25th June, 1897.—*Mr. Britton.*
Printed for sessional papers.
- 79.** Return to an order of the House of Commons, dated 7th June, 1897, for copies of all telegrams and letters between the Hon. Clifford Sifton, minister of the interior, and Mr. Charles B. Heyd, M.P., for South Brant, and Mr. Davis, of the county of Haldimand, relating to the appointment or otherwise of Mr. Daniel Lynch, of the village of Hagersville, or Dr. Stuart of the same place, as Indian agent in the room and stead of Dr. Jones of Hagersville. Presented 25th June, 1897.—*Mr. Clancy.*..... *Not printed.*
- 80.** Return to an order of the House of Commons, dated 10th May, 1897, for copies of all papers, correspondence and telegrams relating to charges made affecting the quality of British Columbia salmon sold in the British market. Presented 25th June, 1897.—*Mr. Maxwell.*..... *Not printed.*

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81. Return to an order of the House of Commons, dated 7th June, 1897, for a copy of the advertisement recently published calling for tenders for the carrying of the mail between Danville, in the county of Richmond and St. Camille, in the county of Wolfe, province of Quebec, and of all tenders sent in, giving the names of the tenderers and amount of the tender in each case, the name of the successful tenderer, and the amount at which the contract was let. Presented 28th June, 1897.—*Mr. Ives* *Not printed.*
- 81a. Return to an order of the House of Commons, dated 7th June, 1897, for copies of correspondence and papers cancelling the contract with S. E. Turner, for carrying the mail between Tottenham and Athlone, in the county of Simcoe, province of Ontario. Presented 28th June, 1897.—*Mr. Tyrwhitt* *Not printed.*
- 81b. Return to an order of the House of Commons, dated 17th May, 1897, showing the different mail routes and mail contracts now existing between the town of Annapolis Royal and the town of Liverpool, in the counties of Annapolis and Queen's respectively. The name of each contractor and his bondsmen. The length of each route. The contract price, and whether daily, semi-weekly or tri-weekly. Presented 28th June, 1897.—*Mr. Mills* *Not printed.*
82. Return to an address of the Senate to his excellency the Governor General, dated 21st May, 1897, for a copy of the resignation of S. I. Jones, Esquire, late judge of the county court of the county of Brant, together with all correspondence with any department of the government, in reference to, or in connection therewith; also a copy of all petitions sent to the government praying for the appointment of A. D. Hardy to the position made vacant by the resignation and superannuation of the said Judge Jones. Presented 2nd June, 1897.—*Hon. Sir Mackenzie Bowell* . . . *Not printed.*
83. Return to an address of the Senate to his excellency the Governor General, dated 20th May, 1897, showing the names of all persons who filed claims for fishery bounty, before Stanislaus F. Perry, acting inspector of fisheries for Prince Edward Island, up to the 20th day of April last; also the names of all persons who filed similar claims before James F. White, bounty officer, up to the same date, And also showing the names of all persons who received fishery bounty in the west riding of Prince county, in the months of March and April last. Presented 25th June, 1897.—*Hon. Mr. Ferguson* *Not printed.*

60 Victoria.

Sessional Papers (No. 9.)

A. 1897

C A N A D A

REPORT

OF THE

MINISTER OF PUBLIC WORKS

ON THE

WORKS UNDER HIS CONTROL

FOR THE FISCAL YEAR ENDED 30TH JUNE, 1896

SUBMITTED IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 36, SECTION 37,
OF THE REVISED STATUTES OF CANADA

PRINTED BY ORDER OF PARLIAMENT



OTTAWA

PRINTED BY S. E. DAWSON, PRINTER TO THE QUEEN'S MOST
EXCELLENT MAJESTY

1897

[No. 9—1897.]

Department of Public Works.

To the Right Honourable Sir John Campbell Hamilton-Gordon, Earl of Aberdeen; Viscount Formartine, Baron Haddo, Methlic, Tarves and Kellie, in the Peerage of Scotland; Viscount Gordon of Aberdeen, in the Peerage of the United Kingdom; Baronet of Nova Scotia, &c., &c., Governor General of Canada.

MY LORD :

I have the honour to lay before Your Excellency the Report of the Department of Public Works of Canada, for the fiscal year ended 30th June, 1896.

I have the honour to be,

My Lord,

Your Excellency's most obedient servant,

J. ISRAEL TARTE,

Minister of Public Works.

OTTAWA, March 26th, 1897.

Department of Public Works.

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Department of Public Works.

REPORT

OF THE

DEPUTY MINISTER OF PUBLIC WORKS

FOR THE FISCAL YEAR 1895-96.

DEPARTMENT OF PUBLIC WORKS,

OTTAWA, 22nd March, 1897.

The Honourable J. ISRAEL TARTE,
Minister of Public Works.

SIR,—I have the honour to submit the report of the Department of Public Works for the fiscal year ended on the 30th June, 1896.

The total amount expended during the period covered by this report has been as follows:—

Harbours, rivers, bridges, etc.....	\$	656,009	70
Public buildings.....		735,757	83
Telegraphs		66,437	36
Miscellaneous, including salaries, etc.....		125,204	46
Total.....		\$1,583,409	35

The expenditure for 1895-96, compared with the preceding year, shows an appreciable reduction as can be seen by comparison with that for the five previous years, which was as follows:—

For the fiscal year 1890-91.....	\$2,762,020	98
do do 1891-92.....	2,084,644	38
do do 1892-93.....	2,274,448	47
do do 1893-94.....	2,315,021	67
do do 1894-95.....	2,033,219	53

The revenue of the department from the various sources has amounted to \$102,439.12—a slight reduction on the preceding years, as the following table will show:—

Revenue for the year 1890-91..	\$136,154	88
do do 1891-92.....	100,929	71
do do 1892-93.....	126,186	25
do do 1893-94.....	119,779	36
do do 1894-95.....	101,846	27

REVENUE.

The falling off in the revenue has been noticeable specially in two branches thereof, viz., the graving docks and the telegraphs, the docks in 1892-93 having given the high income of \$43,007.30, while from the same source the department only received in 1895-96 the sum of \$23,011.85. The income from the telegraphs has gradually decreased from \$10,229.11 in 1892, to \$7,430.47 in 1896.

It may, however, be remarked that the smaller the revenue from dock charges, the better sign it is of a season free from accidents and casualties to the shipping industry of the country.

The competition from small docks has also contributed to materially reduce the income usually derived from that source, the charges for small vessels being in those works of less dimensions such as to compare most favourably with our schedule of rates, and those vessels finding it to their advantage to use the smaller docks in preference. The revenue at the Lévis dock was \$8,835.39; at Esquimalt, \$10,221.68, and at Kingston, \$3,954.78. At the latter place, as was referred to in my report of last year, the rates were reduced for the season of 1895 as an experiment in order to ascertain whether, as was claimed, the high rates were prohibitive and prevented the use of the dock by a larger number of vessels. The reduction in question had not, however, the expected result, but only brought about a serious decrease in the returns, the income for 1895 having only been \$2,450.33. The old rates were restored for the season of 1896, and, as can be seen, the revenue is greater than during the preceding year by \$1,504.45.

Concerning the revenue from the telegraph service, the gradual construction and extension of railways, and the concurrent establishment of telegraph lines, have had a tendency to reduce the volume of business on our lines, and consequently, the revenue derived therefrom. That was noticeably the case when railway facilities were extended in the North-west Territories from the main trunk line of the Canadian Pacific Railway towards Prince Albert in one direction and to south Edmonton in the other. The construction of the telegraph line, which went hand in hand with that of the railway, removed immediately a large volume of business which had heretofore been handled exclusively by our lines. Such was again the case when the Lake St. John Railway was completed to Chicoutimi, the wire then laid by the Great North-western Telegraph Company taking away from our Baie St. Paul and Chicoutimi line, mostly all its through business.

In the two cases above mentioned the reduction of revenue was at least 60 per cent.

The slides and booms revenue has, in the case of the Ottawa River works, retained about its ordinary normal level since the reduction of the rates in 1893—the income for the fiscal year under review being only \$2,700 less than the preceding year and having amounted to \$49,400.15, which sum was all collected at the end of the year, together with some arrears which bring the total collection for the year to \$50,123.33.

The dues received during the same period from the use of the St. Maurice River works have amounted to the sum of \$21,358.74, or \$7,052.21 more than in 1894-95.

Since the re-organization of this system in 1892, the revenue, which was very small, has followed a regular upward tendency, and after having shown for years an

Department of Public Works.

annual deficit, the works on the St. Maurice River now bring forth a comfortable net income over all expenditure, the revenue during the last year being the largest received since the inception of the works.

As was foreshadowed in last year's report, an Order in Council was passed on the 5th February, 1896, for the abandonment of the works on the Saguenay River, the maintenance thereof being a somewhat important yearly charge, while for some years past the works had been unproductive.

A disagreement with the lumbermen operating in the Newcastle District as to the rates to be charged, has prevented the collection of revenue on those works for the past three years.

In 1892, Messrs. Mossom Boyd & Co., of Bobcaygeon, declined to pay dues upon a portion of the works, and the case having been carried to the Exchequer Court, it was decided that for the works on the Fenelon River the department was not entitled to collect any dues for any of the years from 1882 to 1892, and the amounts collected previous to the judgment of the court had to be refunded. The complaint of the lumbermen which has not yet been awarded upon, rests upon their plea that certain of the works for the use of which rates are being charged are either useless for the speedy passage of the lumber or render the operation more difficult and more expensive.

An examination has been made of the river and of the works in question, and a report will shortly be submitted which, it is hoped, will remove the difficulty complained of and will permit of the collection of revenue on these works without any danger of friction with the manufacturers of lumber.

Under ordinary normal conditions, it is confidently expected that the revenue of the next fiscal year on the works controlled by this department will exceed that of the past two years.

EXPENDITURE.

The expenditure of the department under the three heads of Harbours & Rivers Public Buildings and Telegraphs, has been controlled in the usual efficient manner by the officers in charge of these various branches, and has, as hereinbefore stated, amounted in the whole to the sum of \$1,583,409.25.

The important works on

HARBOURS AND RIVERS.

referred to in my last report as being in course of execution have been carried on as fast as the appropriations would permit, including the work at the eastern entrance to the harbour of Toronto, the contract with Messrs. Murray & Cleveland having been completed and closed. Provision has been made in the estimates laid before Parliament for works during the next fiscal year at Goderich, Owen Sound, Collingwood, Kincardine and other important points in Ontario, with a view of enhancing the accommodation required by the shipping and ever increasing commerce of the great western lakes. In the province of Quebec and in the Maritime Provinces, the various wharfs, landing places and breakwaters requiring attention have been repaired and extended.

Noticeable among the works, the benefit of which will far exceed the expenditure incurred, have been those executed in order to provide safe landing places for the fishermen engaged in their calling on the Lower St. Lawrence. Loose and solid rock, obstructing the entrances at several points on the Gaspé coast, have been removed with very gratifying results. Provision has been made for the continuation of this useful work during the next fiscal year. A landing place has also been provided at Pointe-aux-Esquimaux, in the Gulf of St. Lawrence, and wharfs constructed at various points on Lake St. John and tributary rivers.

The problem of the direction of the current of the Fraser River in British Columbia and the protection of its banks, has, again engaged the attention of the department. This river, which is one of the largest and the most important of the province, and has its head waters at an elevation of about 3,000 feet above the sea, in the vicinity of the Yellow Head Pass, flows with a sinuous and, at points, very contracted course, for a distance of 900 miles to the Gulf of Georgia, wherein it empties about 8 miles north of the boundary. It has numerous tributaries, eight of the principal ones entering it from the right bank, viz. :—The North Fork, Salmou, Nechaco, Blackwater, Chilcotin, Harison, Pitt and Coquitlam Rivers, and three from the left bank, viz. :—the Willow, Quesnelle and Thompson Rivers. The water-shed of the Fraser and its tributaries embraces an area of not less than 70,000 square miles. Its main channel is spanned by four bridges, a road bridge at Lillooet, a cantilever railway bridge below Lytton, the Alexandria suspension bridge and the C.P.R. bridge at the Mission. It is affected by the inflowing tides to Chilliwack, 48 miles above New Westminster, or 65 miles from the mouth. The extreme high level reached by the waters of the river in May, and again in June or July, the friable nature of the banks in some portions of its course, affect in a serious manner the direction of the stream and creates new channels which demand immediate and urgent measures. The erosion of the shores is constant but least during low water. As the river rises, the erosive energy of the current increases rapidly until the maximum is reached at the highest stage of water.

Various dyking and reclamation schemes have been proposed, but the special features connected with the floods, the current and the constant erosion of the shores, require more intimate knowledge of the conditions of the river, and a very careful study of its peculiarities before a scheme fertile in good results can be adopted. A careful survey has been decided upon, to be carried on during the next fiscal year.

The other rivers of British Columbia have also received attention; work has been done on the Columbia, Okanagan, Kootenay and Skeena rivers, and it is the intention of the department to send a dredge to Nanaimo to give a further depth of water for vessels frequenting that harbour.

The works of construction and repair, under the heading of Harbours and Rivers, have extended over one hundred points in the Dominion, operations having been carried on at twenty-four places in Nova Scotia, seven in New Brunswick, sixteen in Prince Edward Island, thirty-one in Quebec, fifteen in Ontario, one in Manitoba and six in British Columbia. One hundred and twenty surveys have been made throughout the year.

In the Maritime Provinces, the damage caused to the wharfs and piers by those terribly destructive worms, the teredo and limnoria, continues to claim the attention of the department.

Department of Public Works.

As much as possible, creosoted timber is being used in the construction or repair of said works, but the cost of the material which has to be procured from the United States, and the fact that its use prevents that of our own lumber, call for the earnest consideration of the necessity of the establishment of creosoting works in this country, either as a public or a private enterprise.

DREDGING.

Foremost among the dredging operations performed under the direction of the department, stands the work done for the purpose of deepening and maintaining the ship channel from Montreal to Quebec to the standard depth of $27\frac{1}{2}$ feet. The work was done this year by four dredges, the "Laval" and Dredges No. 8, 11 and 12, the quantity of material removed having been 437,642 yards, and the cost of dredging depending on the nature of the material to be removed. Thus the average cost of the "Laval's" operation during the season was $46\frac{1}{2}$ cents per yard, while dredge "No 11" worked at an average cost of 17 cents per cubic yard.

In the Maritime Provinces, dredging was done at 17 points by 5 dredges, the "St. Lawrence," "Canada," "New Dominion," "George McKenzie" and "Prince Edward."

The average cost per cubic yard of material removed, ranged from $16\frac{2}{3}$ cents for the "St. Lawrence" to 57 cents for the "George McKenzie."

In Quebec, the dredges "St. Louis," "Nithsdale" and "St. Pierre" worked at eight different points, the average cost of the "Nithsdale" being $33\frac{1}{2}$ cents per cubic yard and that of the "St. Louis," $19\frac{5}{8}$ cents per yard.

In Ontario dredging was performed at 19 points by five departmental dredges and two hired dredges. The five vessels owned by the department were the "Challenge," "Ontario," "Nipissing," "Queen" and "No. 9." The latter working on the Kaministiquia River at Fort William, performed its work at the cheapest rate known for some years in the department, the average cost per cubic yard having only amounted to $3\frac{1}{3}$ cents. The averages of the others were, "Challenge," $14\frac{1}{8}$ cents; "Ontario," $28\frac{1}{8}$ cents; "Nipissing," 17 cents, and "Queen," 14 cents.

The total number of yards removed by the whole fleet during the year was 1,079,754 yards.

PUBLIC BUILDINGS.

Of the public buildings mentioned in last year's report as being in course of construction, the Lazaretto at Tracadie, was finally completed during the last fiscal year. The erection of the drill hall at Halifax, the post office at Victoria and the post office at Pictou, was carried on vigorously and it is hoped will be finally completed during the next fiscal year. Owing to the difficulties experienced by the contractor for the Rimouski post office, the works were suspended during the latter part of the fiscal year, but steps were being taken at the same time to carry the building to a completion, and it is expected the same will be finished during the next year. Contracts were entered into during the year covered by this report for seven new buildings; one in Nova Scotia, the new immigration building at Halifax, to replace that destroyed by fire on the 27th January, 1895; two in Ontario, a post

office building, etc., at Arnprior, and the Dominion Reformatory at Alexandria; one in Manitoba, a post office, etc., at Portage la Prairie, and one in British Columbia—the drill hall at New Westminster.

All the contracts for the above were awarded to the lowest tenderer after a public call for tenders had been made.

MAINTENANCE OF BUILDINGS, HEATING, ETC.

The work of maintenance of the several public buildings under the charge of this department, which number about 175, has been well carried on during the past fiscal year. Several important repairs have been executed to those structures, as mentioned in the appendices attached to this report and the various water, gas and heating services have been kept in good repair. The usual quantity of coal was purchased for the heating of the buildings outside of Ottawa, while 5,000 tons were purchased for the Ottawa buildings. The price of coal is being gradually reduced, the rates for 1895-96 being the same as for 1894-95 and somewhat below those of 1893-94. This will explain how the appropriation for heating public buildings has remained at the same amount for the years 1894-95 and 1895-96, although the number of buildings has gradually increased.

An increase in the cost of lighting the public buildings may, however, be noticed, this being due to the general demand for electric light and its consequent introduction in buildings where coal oil was hitherto used, as well as the substitution in a large number of places of electric light for gas, although in many instances this latter mode of illumination is cheaper but presents more difficulties as regards the proper ventilation of offices, where a large number of clerks are working together, such as the post offices in large cities.

The total expenditure on buildings for construction, repairs and maintenance, was \$735,757.83.

TELEGRAPHS.

There are two thousand six hundred and fifty-eight miles of telegraph lines under the control of the department, subdivided into two thousand four hundred and eighty-seven miles of land lines and two hundred and six miles of cables, as follows:—

	Land Lines.	Cables.
	Miles.	Miles.
In Newfoundland.....	14	
In Nova Scotia.....	238	21
In New Brunswick.....	76	12
In Quebec.....	932	164
In Ontario.....	24	9
In British Columbia.....	505	
In North-west Territories.....	698	
	2,487	206

Department of Public Works.

The British Columbia lines are the Ashcroft-Barkerville, the Victoria to Cape Beale, the Nanaimo to Comox and the Alberni-Nanaimo connections. The line in Ontario gives connection between Leamington, Pelee Point and points on Pelee Island. The Quebec system of telegraph is divided into five sections, that from Baie St. Paul to Chicoutimi, the River and Gulf line from Murray Bay to Pointe aux Esquimaux, the Quarantine line from Quebec to Grosse Ile, and the Anticosti and Magdalen Islands systems. In New Brunswick, the Government lines give communication between Chatham and Escuminac, and also between Eastport and Campbell, Grand Manan, Cheney's and Whitehead Islands.

The Nova Scotia lines extend from North Sydney to Meat Cove, whence connection is made with the Magdalen Islands and St. Paul's Islands by cables. There is also telegraphic communication under Government control between Mabou and Cheticamp, as well as between Barrington and Cape Sable. Lastly, may be mentioned the lines in the North-west Territories extending from Qu'Appelle to Edmonton and St. Albert, a distance of 607½ miles, and that between Moosejaw and Wood Mountain, 90½ miles.

The several lines of telegraph have been maintained to the required standard of efficiency throughout the year, the repair and maintenance work having been executed under the direct superintendence of the officers of this department.

Preparations have been made for the extension eastward of the line constructed on the north shore of the St. Lawrence, and it is the intention during the next fiscal year to carry it as far as Natashquan, an estimated distance of 84 miles.

GENERALLY.

The total volume of correspondence handled by the department during the fiscal year under review, amounts in round figures to about 25,000 letters received, 20,000 sent and nearly 11,000 cheques issued.

The appended reports submitted by the officers at the head of the several branches of the department, may be condensed as follows:—

The works specially under the control of the department and dealt with in this report are—

- Building (public) their construction and maintenance.
- Dredging and dredge vessels.
- Graving docks.
- Harbours and piers, their improvement and construction.
- Roads and bridges.
- Slides and booms.
- Telegraphs.
- Works on navigable rivers.

In addition to a general index, the principal appendices, and this report, are alphabetically arranged.

ACTS OF PARLIAMENT.

TITLES:—A list of such Acts as were passed by the Parliament of Canada, at the session which closed on the 23rd day of April, 1896, having reference to the department will be found in Appendix No. 5, page 191.

ART GALLERY—NATIONAL.

The additions to the National Art Gallery, during the last fiscal year consisted of two oil paintings, viz.:—"Death of Nelson," by George Philip Reinagle, R.A., and "The Photographer," by F. Brownell, R.C.A. The former was purchased by the Government. The latter was a diploma picture and the gift of the Royal Canadian Academy.

The Gallery received much attention from citizens, strangers and visitors to the city, last year, as is evidenced by the increased number of names entered on the register book.

The following table gives the number of persons who wrote their names in the visitor's list, each year, since the gallery was inaugurated :

1882-83	8,261
1883-84	9,928
1884-85.....	11,893
1885-86.....	8,792
1886-87.....	11,943
1887-88.....	16,593
1888-89.....	14,241
1889-90.....	18,048
1890-91.....	21,289
1891-92.....	20,026
1892-93.....	16,717
1893-94.....	13,366
1894-95.....	19,146
1895-96.....	22,961

This showing must be very gratifying and encouraging to all who take an interest in the development of a taste for art in Canada.

The report of the Curator will be found at page 257 of Appendix No. 13.

BRITISH COLUMBIA.

BUILDINGS:—The building operations in this province during the fiscal year were, in brief as follows:—

Nanaimo, public building.—Additional gas fittings and steps were provided.

New Westminster, drill hall.—Contract for erection of building entered into, work in progress.

do post office.—Roof repaired, etc.

Vancouver public building.—Minor repairs to roof, glazing, furniture, etc.

do gun shed.—Commenced and completed during the fiscal year.

Victoria, custom-house.—Repairs to fixtures and furniture.

do new public building.—Fair progress in work of construction was made during the year.

do post office, etc.—General repairs were done and some fittings and furniture supplied.

do military storehouse.—Building was completed and occupied.

Department of Public Works.

Williams' Head, quarantine station.—Water supply improved, wagon road constructed, and some necessaries provided.

See Appendix No. 2, page 46.

DREDGING:—The dredge "Mud Lark" was engaged in deepening and improving the harbour of Victoria, 25,600 cubic yards of clay and gravel having been removed. More work would have been done and better results obtained, had not some unavoidable delays occurred, the most serious of which was caused by a fire which started on board of the tender "Princess" and was communicated to the dredge.

The snagboat "Samson" rendered very useful and effective service on the Fraser River, during the year, not only in the removal of snags, but in surveys, soundings, bank protection work, buoy service, etc.

The "Muskrat" was engaged on the Columbia River, during the year and performed much useful work towards facilitating navigation.

For a full and extended report of the operations of the dredge "Mud Lark" and snagboat "Sampson" *see* App. No. 3, page 153, and of the "Muskrat" at page 90.

HARBOURS AND RIVERS.—The operations, which the appropriations at the disposal of the department, enabled it to carry out in the Pacific province were as follows, viz. :—

Columbia River.—Improvement to navigation.

Fraser River do do

Kootenay River do do

Okanagan River do do

Skeena River :—Removal of snags.

Victoria Harbour :—Removal of dredger rock.

Many surveys and explorations were made whereby much information has been gathered as will better appear by perusal of the Chief Engineer's report at page 89 of App. No. 3.

COLLECTOR OF REVENUE.

The report of this officer will be found at page 175 of Appendix No. 4. All the dues that accrued during the year together with a small portion of old arrears, were collected. The total sum obtained this year as stated above, was \$95,008.65, exclusive of the telegraph revenue which was \$7,430.47:

CONTRACTS.

In Appendix No. 6, page 195, a list of all the contracts entered into by the department will be found. It specifies the service, the dates of the contracts, the amounts involved and the names of the contractors.

The same appendix also contains particulars of all the property purchased or sold during the fiscal year, with the names of the sellers and purchasers in each case, a description of the property and the price, together with a schedule of all leases entered into by the department.

CORRESPONDENCE.

Reference to Appendix No. 14, at page 261, will give an idea of the volume of correspondence dealt with by the respective branches of the department. In the Chief Engineer's branch alone, about 10,000 letters were received, and no less than 840 official documents were referred by the secretary to that officer for action and advice.

The statement referred to displays the steady and rapid increase in the business of the department.

DREDGING PLANT.

The following is an inventory of the dredging plant, the property of the department, which was operated during the fiscal year, under the management and directions of the Engineer's branch:—

In the Maritime Provinces.

The propeller hopper dredge "St. Lawrence."
do do "Canada."
The dipper dredge "New Dominion" and 4 scows.
do do "Prince Edward," 3 scows and water boat.
do do "Geo. McKenzie" 4 do do
One stone lifter, boiler, engine and large grips.

In Quebec and Ontario.

The elevator dredge "No. 9," 3 scows and tug "Delisle."
The dipper do "Queen," 2 " " "Ottawa."
do do "Nipissing," 2 " " "St. Paul."
do do "Ontario," 3 " " "St. John."
do do "St. Louis," 2 " " "Sensation."
do do "Challenge," 2 " " "Trudeau."
Stone lifter No. 1.

In Manitoba.

The dipper dredge "Winnipeg," tug "Sir Hector," 2 scows and coal barge.

In British Columbia.

The snag boat "Samson."
The dipper dredge "Mud Lark," 3 scows, and tug "Princess."

Ship Channel, River St. Lawrence.

Four elevator dredges, tugs "John Pratt," "St. James," "St. Francis," "C. J. Brydges," "M. F. Parsons," "Cartier," 2 stone lifters, 2 coal barges, 12 dump scows of 80 yards capacity, 2 scows of 150 yards capacity, 1 sounding scow, 2 coal scows and 2 winch scows.

Department of Public Works.

New Dredging Plant.

- One elevator dredge for the ship channel. Sister dredge to the "Laval."
- One steel tug as tender to new dredge.
- One steel dipper dredge for the maritime provinces.
- Two steel hopper barges for salt water service.
- The above vessels were in course of construction at the end of the fiscal year.

EXPENDITURE.

ACCOUNTANT'S STATEMENT:—The annual statement of expenditure by this officer appears in Appendix No. 1, commencing at page 3. It is full and comprehensive and gives, detailed in alphabetical order, the various sums expended under the authority of Parliament in each of the provinces, on the various services under the control of the department.

A summary of the amounts expended by each branch of the department, has already been referred to in the opening part of this report.

Appendix No. 15, at page 266, is another statement by the chief accountant showing in detail the various sums expended in necessary repairs, in order to preserve the public buildings "against the tooth of time."

GRAVING DOCKS.

The increase in the dimensions of ocean-going ships, has been so marked of recent years, that graving docks, which a decade ago were considered sufficient to accommodate the requirements of the country for all time, may soon be found quite insufficient to receive the class of vessels that the past few years have been placed on the ocean, or are in course of being built. One of these monster carriers, at present under construction at Belfast, Ireland, is said to be 704 feet long. As before referred to in this report, Canada owns three docks, the Lorne, on the St. Lawrence at Lévis, opposite the city of Quebec, the Esquimalt, at a place of the same name, near the City of Victoria, on the Pacific Ocean, and a smaller dock at the city of Kingston on Lake Ontario.

The Atlantic dock at Halifax is owned and controlled by the Halifax Graving Dock Co., Limited. Its construction was secured by subsidies from the Governments of the United Kingdom, Canada, and the city of Halifax.

The dimensions of the docks are as follows:—

THE LORNE—Commenced by the Harbour Commission of Quebec in 1878, was assumed and completed by this department in 1889:—

	Feet.
Length.....	445
Width at coping level.....	100
do bottom.....	73
do entrance.....	62
Depth of water on sill at high water ordinary spring tides.	26½
do do do neap tides.....	20½

THE KINGSTON—was built by this department, having been completed in 1892:—

	Feet.
Length on the floor.....	*280
Width do	47
Width at coping level.....	79
Depth.....	20½
Depth of water on sill at low water.....	16
Width of entrance.....	55

(The level of Lake Ontario has a range of 3½ feet.)

*This length can be increased 13 feet, by placing the caisson on the apron line.

THE ESQUIMALT—Completed by this department in 1887 :—

	Feet.
Length over keel blocks.....	430
Total length of dock	480.10 in.
Width at bottom.....	41
do coping level.....	90
do entrance.....	65
Depth of water on sill at high water, ordinary springs.....	26½

(Spring tides rise 7 to 10 feet, neaps 3 to 8 feet.)

THE HALIFAX—was built under agreement with and subject to the approval of this department; completed 1889 :—

	Feet.
Length.....	585
Width at coping level.....	102
do bottom.....	72
do entrance.....	89¼
Depth of water on sill at ordinary spring tides.....	30

(Spring tides rise 6 feet, neaps 3 feet.)

A more extended description of the graving docks operated by the department, will be found in Appendix No. 3, page 160, and the revenue or income from each, in Appendix No. 4, page 177.

OFFICIALS:—A complete list of all the officials employed in the operation and management of the graving docks, with age, date of appointment, salary, etc., is contained in Appendix No. 10, page 219.

MANITOBA.

BUILDINGS.—The following is a summary of the work carried out during the fiscal year in connection with some of the public buildings in the province of Manitoba, viz.:—

Portage La Prairie new public building :—The contract for the construction of this building was entered into in July, 1895, the work is in progress.

Winnipeg, post office building :—A condemned boiler was replaced and some fittings, etc., supplied.

Department of Public Works.

Winnipeg examining warehouse:—The skylights were closed up and the heating furnace repaired.

do custom house:—Slight repairs were made to fixtures and some furniture supplied.

do immigration hall:—Repairs were made to cistern and general minor repairs to the building.

See Appendix No. 2, page 44.

HNAUSA WHARF:—The wharf mentioned in my report of last year as being in course of construction at this place, has been completed by the department.

The contractor having failed to complete his contract within the time specified it was taken off his hands and the work finished by day labour.

See Appendix No. 3, page 89.

DREDGING.—The dredging operation at the mouth of the Red River, Lake Winnipeg, commenced in 1884 has been continued since that date. The operations of this year consisted in the removal of 48,120 cubic yards of material at a cost of \$10,596.46.

Some dredging was also done at the western slough, an arm of the Red River near West Selkirk.

See Appendix No. 3, page 151.

MAJOR'S HILL PARK.

The reputation of this popular resort for neatness and attractiveness, was fully maintained during the past year. General improvements in the walks and grounds were made. Some levelling and grading around the artificial pond were attended to and necessary repairs to fences, etc., were executed.

NAVIGATION—OPENING AND CLOSING OF

DATES.—The various customs officials, who so promptly responded to my circular, asking for the dates of the opening and closing of the navigation at their respective ports, will please accept the thanks of the department.

As we shall continue to seek the same information in future, I would be pleased if the customs officials will kindly give us in every instance, not the date of the last or first arrival of vessels, but the date of the forming of ice in the fall or winter and the date of its breaking up in the spring.

(See Appendix No. 11, page 224.)

NEW BRUNSWICK.

BREAKWATERS, WHARFS, &c.—The marine operations of the department in this province during the year covered by this report were as follows, viz.:

Anderson's Hollow, Albert Co.—Repairs to breakwater.

Cape Tormentine, Westmoreland Co.—Repairs to wharf.

Dalhousie, Restigouche Co.—Repairs to wharf.
 Gardner's Creek, St. John Co.—Construction of wharf.
 Negro Point, St. John Co.—Repairs to breakwater.
 River St. John.—Improvements to navigation.
 Shediac (Pt. du Chene), Westmoreland Co.—Repairs to ballast wharf.

See Appendix No. 3, page 63.

BUILDINGS:—Works necessary for the preservation and usefulness of the public buildings in this province, were executed as follows, viz.:—

Bathurst, post office.—Minor repairs to furnace, etc.

Chatham, post office.—Some plumbing was done and necessary furniture provided.

Dalhousie, post office.—The heating apparatus was repaired.

Fredericton, public building.—The asphalt walk was repaired and the post office accommodation improved.

Moncton, public building.—The furnace was renovated and ceilings repaired.

Newcastle, public building.—Extensive repairs, renewals and improvements were made to this building.

Partridge Island, quarantine station.—The large hospital was repaired and some other buildings whitewashed.

Portland (St. John), post office.—Some sanitary improvements were effected.

St. John, custom-house.—Considerable repairs and improvements were carried out.

St. John, post office.—Many and varied repairs, replacements and improvements were required and attended to.

St. John, savings bank.—Repairs were done to water service, fixtures, windows, locks, etc.

St. Stephen, public building.—Defective masonry was removed and replaced, ceilings and walls repaired and kalsomined, wood works, painted, oiled and varnished and surroundings improved.

Sussex, public building.—Hot air furnace was repaired and some ladders provided.

Tracadie, Lazaretto.—This structure was completed and occupied.

See Appendix No. 2, page 28.

DREDGING.—Extensive dredging operations were carried on, chiefly on the St. John and Miramichi rivers, 98,905 cubic yards of material having been removed at a cost of \$21,352.63. The dredges worked during the season at the following places, viz.:—

Canada Eastern Railway wharf, Fredericton; Dominion Atlantic Railway Company's wharf, St. John; Fredericton, Miramichi River, Oromocto, Point du Chêne, Restigouche River, Richibucto.

See Appendix No. 3, page 104.

Department of Public Works.

NORTH-WEST TERRITORIES.

The principal works which engaged the attention of the Architect's branch of the department, in the Territories, during the year were as follows, viz. :—

Moosejaw, Assa., court-house.—A fire proof brick vault was constructed, the grounds surrounding the structure graded and other improvements effected.

Moosomin, court-house.—An addition to the structure commenced last year was completed and is now occupied.

do police barracks.—Minor repairs were effected.

Regina, Assa., court-house.—Some necessary requirements were placed in position.

Regina, Assa., Dominion lands office.—This office was fitted up with requisities necessary for occupation and the transaction of business.

Regina, Assa., Government House.—The water pipes were overhauled and repaired.

Regina, Assa., North-west Police Barracks.—Excavations were made and a stone basement constructed under Barrack block B., etc.

Wolseley, Assa., court house.—This building was completed and occupied.

See Appendix No. 2, page 45.

NOVA SCOTIA.

BREAKWATERS, PIERS, WHARFS, ETC.—The following is an epitome of the harbour and river works which engaged the attention of the department and on which the sums available for improvement, construction or extension were expended, viz. :—

Arisaig, Antigonish Co.—Repairs to pier.

Bass River, Colchester Co.—Construction of wharf.

Bayfield, Antigonish Co.—Repairs to wharf.

do do Repairs to breakwater.

Belliveau's Cove, Digby Co.—Reconstruction of breakwater.

Big Pond, Cape Breton.—Repairs to wharf.

Boularderie, Ross Ferry, Victoria Co.—Construction of wharf.

Broad Cove, Inverness Co.—Reconstruction of wharf.

Cow Bay, Cape Breton Co.—Repairs to breakwater.

D'Escouse, Richmond Co.—Construction of slip, &c.

Digby, Digby Co.—Reconstruction of pier.

Eatonville, Cumberland Co.—Repairs to breakwater.

Economy, Colchester Co.—Repairs to wharf.

Georgeville, Antigonish Co.—Extension of wharf.

Grand Etang, Inverness Co.—Formation of boat harbour.

Hall's Harbour, King's Co.—Reconstruction of breakwater.

Harbourville, King's Co.—Repairs to breakwater.

Margaree, Inverness Co.—Beach protection.

Monk's Head, Antigonish Co.—Opening boat channel.

Parrsboro', Cumberland Co.—Improvements to pier.

Port Lorne, Annapolis Co.—Repairs to breakwater.

Port Maitland, Yarmouth Co. do

Sea Side, Inverness Co.—Construction of wharf.

West Chezzetcook, Halifax Co.—Reconstruction of breakwater.

See Appendix No. 1, page 3 and Appendix No. 3, page 53.

BUILDINGS.—The works carried on, during the fiscal year, in connection with the construction of new and the repairing of existing buildings in Nova Scotia, have been as follows:—

Amherst, public building.—Boilers repaired, plastering kalsomined, &c.

Annapolis, public building.—Burglar proof doors placed in brick vault.

Antigonish, public building.—General repairs to building, furnace and fence.

Dartmouth, public building.—The space surrounding the building was graded and a coal bin constructed.

Halifax, drill hall.—The work of construction under the contract has been vigorously carried on.

do Dominion building.—Steam heating boiler was replaced, miscellaneous repairs effected, and some necessary furniture supplied.

do examining warehouse.—Several minor repairs were done.

do immigration building.—This structure to replace the one destroyed by fire is under construction.

Lawlor's Island, quarantine station.—Some painting and other work requisite for the preservation of the building were executed.

Pictou, post office.—The building has been completed, fitted and furnished.

Truro, post office.—The area in front of the building was asphalted and some minor defects restored.

Windsor, post office.—The money order office was enlarged and a sidewalk constructed.

See Appendix No. 2, page 26.

DREDGING.—The services of the plant available for dredging in Nova Scotia were utilized for necessary and urgent requirements, at the following places, viz.:—

Cheticamp,	Inverness Co.
Fourchu,	Richmond Co.
Ketch Harbour,	Halifax Co.
Pictou,	Pictou Co.
Wallace,	Cumberland Co.

See Appendix No. 3, page 102.

OFFICIALS.

A list, including the names and term of services, of the officials who filled the principal positions in the department, or are now filling them, from the time of its inauguration in 1841, to 1897, is given in Appendix No. 7, page 205.

Department of Public Works.

ONTARIO.

BREAKWATERS, PIERS, WHARFS, ETC.—The works upon which the department was engaged in connection with harbour improvements and the construction and repairs of breakwaters, piers, and wharfs in the province of Ontario during the year may be classified as follows, viz.:—

Big Bay, Grey Co.—Repairs to pier.
Burlington Channel, Wentworth Co.—Repairs and improvements.
Cobourg, Northumberland Co.—Repairs to pier.
Collingwood, Simcoe Co.—Repairs to breakwater.
Kincardine, Bruce Co.—Repairs to north pier.
Kingston, Frontenac Co.—Removal of shoal.
Lion's Head, Bruce Co.—Repairs to pier.
Morpeth, Kent Co. do
Oakville, Halton Co. do
Owen Sound, Grey Co.—Harbour improvements.
Port Dover, Norfolk Co. do
Port Elgin, Bruce Co.—Repairs to breakwater, &c.
Port Hope, Durham Co.—Repairs to piers.
Toronto, York Co.—Harbour works.
Thessalon, Algoma Co.—Construction of wharf.

See Appendix No. 3 page 85.

BUILDINGS.—The doings of the department in connection with building operations, and with works for the repair, preservation and improvement of existing structures may be stated shortly as follows:—

Alexandria reformatory.—The portions of this building, for the construction of which provision was made, was placed under contract.
Almonte, public building.—A winter porch was placed at rear entrance.
Amherstburg, post office, etc. - Closets were repaired and hose supplied.
Barrie, post office, etc.—Roof was repaired and other requirements supplied.
Belleville, post office.—Usual, ordinary and necessary repairs were effected.
Berlin, post office, etc.—Ordinary and usual repairs were attended to.
Brampton, post office, etc.—Minor works of repair of the ordinary nature were executed.
Brantford, post office, etc.—Repairs were made to the boiler, plastering etc.
Brockville, public building.—Some renewals were required to plumbing and repairs to plastering, etc.
Cayuga, post office.—Necessary shelving was supplied.
Chatham, public building.—The grounds were boulevarded and inclosed with a fence.
Cobourg, post office, etc.—A stone kerb and cement sidewalk was laid on street fronts and some general repairs done.

- Cornwall, post office, etc.—The old furnace which collapsed was replaced and the tower clock was repaired.
- Galt, post office, etc.—The drain was repaired, a heating coil put in and some minor requirements supplied.
- Guelph, post office, etc.—The furnace smoke stack was repaired.
- Hamilton, public building.—General repairs to building, surroundings and water connections were effected.
- Kingston, custom-house.—A granolithic sidewalk was laid along the street fronts.
- do post office. A granolithic sidewalk was laid along the street fronts, the building was repaired and some furniture was supplied.
- Lindsay, post office.—Roof was repaired and furniture, etc., supplied.
- London, custom house.—The old steam boiler was replaced etc.
- do post office.—General repairs and renewals were effected.
- Napanee, public building.—Storm sashes were supplied and minor repairs done.
- Orangeville, post office.—Repairs were made to gas fixtures, etc., and lobby floor was replaced.
- Orillia, public building.—The furnace was repaired and the electric light installed.
- Ottawa, central experimental farm.—A sheep house is in course of construction and necessary repairs, renewals, improvements, replacements, painting, etc., attended to by the departmental staff.
- do dynamo house.—Setting of boiler renewed and grounds improved, etc.
- do eastern block, departmental buildings.—The structure was generally cared for and such conveniences and requirements as were necessary supplied and provided. Usual and ordinary repairs for the preservation of the building were effected.
- do geological museum.—The system of heating was improved and, some electric bells placed in position.
- do government house.—Many additions, alterations, renovations, improvements, and repairs were made to the structure, out-houses, and general surroundings.
- do government printing bureau.—Some changes were made in the heating apparatus, in the water supply and other minor improvements were done and requisites supplied.
- do Langevin block.—Considering the extent of this structure the requirements during the year were not excessive.
- do Major's Hill park.—Fences were repaired, benches painted, etc.
- do observatory, Cliff street.—A sidewalk was laid and the grounds were levelled.
- do parliament buildings.—A number of new fittings and fixtures that gave out were replaced and the usual general cleaning, burnishing, etc., attended to.

Department of Public Works.

- Ottawa parliament grounds.—Snow was removed, ice was stored and delivered, general repairs were made to Lover's walk, etc.
- do public buildings and generally.—The work of removing snow and ashes, the keeping up of streets, roadways, sidewalks, boulevards, etc., in connection with government property in the city, was well performed by the departmental staff during the year.
- do Supreme and Exchequer Court building.—Some additions were made to the gas fittings and minor requisites supplied.
- do Western block, departmental building.—Considerable work in the way of renovations, repairs and general improvement, together with the usual and ordinary annual repairs required by such a structure were carried out.
- Pembroke, post office, etc.—Necessary repairs were done.
- Peterborough, custom-house.—Office doors were repaired and drains cleaned.
- do post office.—The sewer was flushed out, some repairing was done and electric light was installed in clock tower.
- Petrolia, public building.—Minor repairs of the usual and ordinary nature were attended to.
- Port Arthur, public building.—The heating furnace, plastering, etc., were repaired.
- Port Hope, public building.—The old furnace was replaced by a new one.
- Prescott, public building.—Plumbing arrangements were so fixed as to obtain a water supply from an adjoining hotel.
- Sarnia, Point Edward cattle quarantine station.—Repairs to office flooring were made.
- St. Catharines, public building.—Plumbing, etc., were repaired.
- St. Thomas, public building.—The outside stone work was repointed, and other outside improvements provided.
- Stratford, public building.—The works of enlarging commenced last year were completed and the heating appliances renewed and extended.
- Strathroy, public building.—Minor repairs to wood work, locks, etc., were made.
- Toronto, custom-house.—Considerable repairing of a general nature was required and executed.
- do Drill hall.—Some necessary requirements were supplied and minor repairs done.
- do Examining warehouse.—Considerable repairs were required by some of the various appliances in use throughout the building and were attended to.
- do Inland revenue building.—Many repairs were required by the appliances and fixtures all of which were placed in good order.
- do Post office.—Minor repairs were made to fixtures, fittings, etc.
- Trenton, post office.—Portions of the plumbing and soil pipes were renewed.
- Walkerton, post office.—Roof was repaired and a new drain excavated.

See Appendix No. 2, page 34.

DREDGING.—The plant available for dredging in the province of Ontario was engaged during the season as follows:—

Amherstburg,	Bell River,
Belleville,	Bowmanville,
Fort Erie,	Frenchman's Bay,
Kincardine,	Meaford,
Midland,	Newcastle,
Penetanguishene,	Port Elgin,
Port Hope,	Prescott,
River Kaministiquia,	River Saugeen,
River Thames,	Thornbury.
Trenton.	

See Appendix No. 3, page 135.

PARLIAMENT HILL GROUNDS.

The contractor who had charge of the keeping and dressing of the walks and grounds surrounding the Parliament buildings, performed the services according to the specification and in a manner entirely satisfactory to the department.

PRINCE EDWARD ISLAND.

BREAKWATERS, PIERS, WHARFS, ETC.:—The following is a synopsis of the works carried out during the fiscal year with the object of improving and facilitating navigation in the harbours and rivers of Prince Edward Island, viz.:—

- Belfast, Queen's County.—Repairs to pier.
- Brae, Prince Co.—Repairs to pier.
- Clifton, Queen's Co.—Repairs to pier.
- Kier's Shore, Prince Co.—Repairs to pier.
- Lambert's, King's Co.—Repairs to pier.
- McGee's, Prince Co.—Repairs to pier.
- Murray Harbour, King's Co.—Repairs to pier.
- New London, Queen's Co.—Reconstruction of breakwater.
- North Cardigan, King's Co.—Repairs to pier.
- Pinette, Queen's Co.—Repairs to pier.
- Port Selkirk, Queen's Co.—Repairs to pier.
- Rustico North, Queen's Co.—Repairs to old work and construction of new.
- Souris, King's Co.—Repairs to breakwater.
- Stephen's, King's Co.—Repairs to pier.
- Victoria (Crapaud), Queen's Co.—Repairs to pier.
- Wood Islands, Queen's Co.—Construction of pile work.

See Appendix No. 3, page 70.

PUBLIC BUILDINGS.—Charlottetown, public building. A portion of tile drain, leading to the harbour was renewed, and other general repairs inside and outside the building effected.

See Appendix No. 2, page 25.

Department of Public Works

DREDGING.—The dredge "Prince Edward" operated at the following places, viz.:
Cardigan Bridge, Charlottetown, Newport, Souris.

The quantity of material removed was 36,360 cubic yards at a cost of \$10,299.93 or 28.328 cts. per cubic yard. See Appendix No. 3, page 107.

QUEBEC.

BREAKWATERS, PIERS, WHARFS, ETC.—The works executed in the province of Quebec in connection with harbour and river improvements and the construction and repair of wharfs, piers and breakwaters, during the fiscal year under consideration may be summarized as follows, viz.:—

- Baie St. Paul, Charlevoix Co.—Construction of wharf.
- Berthier (*en bas*) Montmagny Co.—Repairs to wharf.
- Chateauguay, Chateauguay Co.—Extension of wharf.
- Chicoutimi, Chicoutimi Co.—Repairs to wharf.
- Etang du Nord, Gaspé Co.—Repairs to breakwater.
- Grande Rivière, Gaspé Co.—Extension to wharf.
- Ile aux Coudres, Charlevoix Co.—Repairs to wharf.
- Lacolle, St. John's Co.—Repairs to wharf.
- Landing Places (Lower St. Lawrence)—Improvement of boat landing.
- Lapraire, Laprairie Co.—Protection work.
- Les Eboulements, Charlevoix Co.—Repairs to wharf.
- Longueuil, Chambly Co.—Repairs to pier.
- Matane, Rimouski Co.—Repairs to breakwater.
- Murray Bay, Charlevoix Co.—Repairs to wharf.
- Petite Rivière St. François, Charlevoix Co.—Removal of rocks.
- Philipsburg, Missisquoi Co.—Construction of wharf.
- Pointe aux Esquimaux, Saguenay Co.—Extension of wharf, etc.
- Rivière du Lièvre, Ottawa Co.—Repairs to lock, dam, etc.
- Rivière du Loup (*en bas*) Témiscouata Co.—Repairs to wharf.
- Rivière Noire, Charlevoix Co.—Construction of breakwater.
- River St. Maurice.—Improvements to navigation.
- River Touladie, Témiscouata Co.—Improvements to navigation.
- River Yamaska, Yamaska Co.—Repairs to lock and dam.
- Ste. Anne de la Pérade, Champlain Co.—Protection work.
- Ste. Anne du Saguenay, Chicoutimi Co.—Repairs to block.
- Ste. Cécile du Bic, Rimouski Co.—Repairs to wharf.
- Ste. Felicien, Chicoutimi Co.—Construction of wharf.
- St. Irénée, Charlevoix Co.—Extension of wharf.
- St. Jean, Ile d'Orleans, Montmorency Co.—Repairs to pier.
- St. Laurent, Ile d'Orleans, Montmorency Co.—Repairs to pier.
- Trois Pistoles, Témiscouata Co.—Removal of rocks.

See Appendix No. 3, page 77.

BUILDINGS:—The following is a synopsis of the operations of the department during the fiscal year in connection with the erection, repair, preservation, improvement and maintenance of public buildings in the province of Quebec:—

- Aylmer, post office.—This building was connected with the town water service and the electric light was installed.

- Fraserville, post office.—Repairs to roof.
- Grosse Isle, quarantine station.—The SS. "Challenger" was painted and several buildings repaired.
- Joliette, public building.—Repairs were made to roof and chimney.
- Lachine, post office.—A tile drain was laid to the River St. Lawrence and some repairs done to building.
- Montreal, custom-house.—A considerable amount of repairs were required and executed.
- do examining warehouse.—Many alterations and improvements were required and carried out.
- do inland revenue office.—Repairs were made to roof, etc.
- do post office.—Extensive repairs, renewals, improvements and alterations were required and effected.
- Quebec, citadel, Governor General's quarters.—The usual annual fitting up for His Excellency's visit was attended to and necessary repairs done.
- do custom-house.—General repairs were effected.
- do examining warehouse.—A sidewalk was laid around the building and considerable repairing done.
- do immigration building, Louise embankment.—Several repairs for the preservation of the building were required and effected.
- do marine and immigration agency, Queen's wharf.—Improved sanitary arrangements were provided and the interior of the building cleaned and painted, etc.
- do observatory.—Furnace was repaired, coils placed and grounds fenced in.
- do post office.—Electric light was installed in new wing and many other improvements effected.
- Richmond, public building.—A contract for the erection of this building was entered into in 1895, and the work is in progress.
- Rimouski, post office.—The contractor having abandoned this work, steps are being taken to complete it.
- St. Henri, post office.—Necessary repairs were done and urgent requirements supplied.
- St. Hyacinthe, post office.—Ordinary repairs were executed and ladders supplied.
- St. Jérôme, public building.—Floor, chimneys and roof were repaired.
- St. Lin, post office.—A building was leased, fitted up and occupied.
- St. Vincent de Paul, penitentiary.—Extensive lines of stone walls were built and many other improvements and repairs effected.
- Sherbrooke, post office.—A furnace smoke-pipe was supplied and lock boxes repaired.
- Sorel, post office.—Usual and ordinary repairs were done.
- Three Rivers, custom-house.—General repairs were made to inside work and a sidewalk laid along the street.
- do post office.—A sidewalk was laid and some general repairs executed.
- Valleyfield, post office.—Extensive repairs were required and effected.

Department of Public Works.

West Farnham, post office.—The interior was painted and blinds, etc., supplied.

(See Appendix No. 2, page 30.)

DREDGING.—In addition to the operations carried on at nine separate points in the River St. Lawrence Ship Channel, between Montreal and Quebec, as described in Appendix No. 3, page 128, dredging was also done at Chateauguay, Dorval, Ile de Gros Bois, Laprairie, Longueuil, Louiseville, Nicolet, St. Placide.

(Appendix No. 3, page 134.)

REVENUE.

As stated in a previous part of this report, a diminished revenue was derived from some of the works under the control of the department when compared with the preceding years.

The income during the past fiscal year was as follows, viz. :—

SLIDES AND BOOMS.

Ottawa district.....	\$50,123	33
St. Maurice district.....	21,358	74
Total	\$71,482	07

GRAVING DOCKS.

Lévis.....	\$ 8,835	39
Kingston.....	3,954	78
Esquimalt.....	10,221	68
Total.	23,011	85

RIVER WORKS—LOCKS.

River du Lièvre lock.....	\$ 230	33
River Yamaska lock.. . . .	284	40
Total.	514	73

TELEGRAPH LINES.

Lower St. Lawrence and Maritime Provinces.....	\$ 4,409	15
Ontario and Pelee Island line.....	121	80
North-west telegraph lines.....	1,381	24
British Columbia (Comox line, &c.).....	1,518	28
Total.	7,403	47
	*102,439	12

* Of this sum, \$427.90 was refunded in compliance with Order in Council, 15th June, 1895.

ROADS AND BRIDGES.

Works in connection with certain bridges under the control of the department were carried out during the fiscal year as follows, viz. :—

Battle River bridge, Battleford.—Repaired and painted.

Burlington bridge, Burlington Channel.—Under construction, nearly completed.

Cartier bridge, Beauharnois Co.—Completed.

Langevin bridge, Calgary.—Repaired.

Ottawa bridges, Ottawa.—Repaired.

Portage du Fort bridge, Pontiac Co.—Repaired.

Further particulars may be obtained by referring to the report of the Chief Engineer of the department, at page 168 of Appendix No. 3.

SLIDES AND BOOMS.

The reports of the officers in charge of the slides and booms, will be found in Appendix No. 3, commencing at page 161. In addition to the reference made to these works in a preceding page, an extended report touching their financial standing may be seen by reference to Appendix No. 4, page 181.

Appendix No. 8, page 209, contains a list of the names of persons employed on the slides and booms, with dates of birth, appointment and amount of salary.

SURVEYS AND EXAMINATIONS.

During the fiscal year as before referred to, competent officers acting under instructions from the department, made many surveys, examinations and reports, either on the present condition of existing works, the practicability of complying with demands for extending or enlarging some of them, or on the necessity and utility of further improvements for the safety and convenience of shipping, by the construction of breakwaters, dredging or other means; such surveys and examinations were made at the following places in the counties mentioned :—

NOVA SCOTIA.

Arisaig.....	Antigonish.
Aspey Bay....	Victoria.
Bayfield.....	Antigonish.
Bear Cove.....	Digby.
Carey's Passage.....	Richmond.
Cerberus Rock.....	do
Cow Bay.....	Cape Breton.
Cribbin's Point.....	Antigonish.
East Chezzetcook.....	Halifax.
Fourehu.....	Richmond.
Grand Etang.....	Inverness.
Grand Grève.....	Richmond.
Great Tancook Island....	Lunenburg.
Hampton.....	Annapolis.
Kennington Cove.....	Cape Breton.

Department of Public Works.

NOVA SCOTIA—*Concluded.*

Lismore	Pictou.
Mabou.....	Inverness.
Main à Dieu.....	Cape Breton.
Margaree.....	Inverness.
Merigomish	Pictou
Morden	King's.
Moydart.....	Antigonish.
McNair's Cove	do
North Sydney.....	Cape Breton.
Oyster Pond.....	Guysborough.
Petit de Grat.....	Richmond.
Pictou Island	Pictou.
Pleasant Bay	Inverness.
Port Maitland	Yarmouth.
River Hebert.....	Cumberland.
Saulnierville.....	Digby.
St. François Harbour.....	Guysborough.
Somerville.....	Queen's.
Stony Island	Shelburne.
Toney River.....	Pic ou.
Trenton.....	do
Trout Cove.....	Digby.

NEW BRUNSWICK.

Anderson's Hollow.....	Albert.
Black Brook.....	Northumberland.
Black River.....	St. John.
Burnt Church	Northumberland.
Campbellton.....	Restigouche.
Cape Tormentine.....	Westmoreland.
Dalhousie.....	Restigouche.
Edgett's Landing.....	Albert.
Fort Dufferin.....	St. John.
Gardner's Creek	do
Gray's Island	Albert.
Herring Cove.....	do
Hillsborough.....	do
Lower Newcastle.....	Northumberland.
Miramichi	do
Moncton.....	Westmoreland.
Negro Point.....	St. John.
Neguac.....	Northumberland.
Patridge Island.....	St. John.
Petit Rocher.....	Gloucester.
Pokemouche	do
Quaco.....	St. John.

NEW BRUNSWICK—*Concluded.*

Richibucto.....	Kent.
Rocher Bay.....	Albert.
Salmon River.....	do
Shediac.....	Westmoreland.
Shippegan.....	Gloucester.
Stonehaven.....	do
Tracadie.....	do
River St. John.....	.....

PRINCE EDWARD ISLAND.

Bay Fortune.....	King's.
Bræ Harbour.....	Prince.
Canoe Cove.....	Queen's.
Egmont Bay.....	do
Hurd's Point.....	Prince.
Lambert's Pier.....	King's.
Murray Harbour.....	do
New London.....	Queen's.
Port Selkirk.....	do
Rustico.....	do
Souris.....	King's.
Tignish.....	Prince.
Vernon River.....	Queen's.

QUEBEC.

Bic.....	Rimouski.
Coteau du Lac.....	Soulanges.
Coteau Landing.....	do
Gentilly.....	Nicolet.
Ile aux Coudres.....	Charlevoix.
Ile Perrot.....	Vaudreuil.
Les Eboulements.....	Charlevoix.
Little River St. François.....	do
Longueul.....	Chambly.
Murray Bay.....	Charlevoix.
Oak Point.....	Bonaventure.
Percé.....	Gaspé.
Pointe Citrouille.....	Chambly.
Pointe St. Charles.....	Hochelega.
Rivière Blondelle.....	Montmorency.
Rivière du Loup.....	Temiscouata.
Rivière Noire.....	Charlevoix.
St. Lambert.....	Chambly.
St. Alphonse.....	Chicoutimi.

Department of Public Works.

ONTARIO.

Amherstburgh.....	Essex.
Bronté	Halton.
Burlington Beach.....	Wentworth.
Coburg.....	Northumberland.
Goderich.....	Huron.
Kingston.....	Frontenac.
Kingsville.....	Essex.
L'Orignal.....	Prescott.
Owen Sound.....	Grey.
Port Burwell.....	Elgin.
Port Dover.....	Norfolk.
Port Hope.....	Durham.
Prescott.....	Grenville.
Rainy River.....	Algoma.
River Castor.....	Stormont.
River Saugeen.....	Bruce.
River Thames.....	.....
Toronto.....	York.

MANITOBA.

Gimli.....	Selkirk.
Red River.....	do

BRITISH COLUMBIA.

Victoria.....	Harbour.
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I have the honour to be, sir,

Your obedient servant,

A. GOBEIL,

Deputy Minister.

Department of Public Works.

APPENDIX No. I

STATEMENT OF EXPENDITURE

DURING

FISCAL YEAR ENDED 30TH JUNE, 1896

BY

O. DIONNE, Accountant

Department of Public Works.

(Reference No. 179,199.)

APPENDIX No. I.

STATEMENT showing the amount expended by the Department of Public Works,
Dominion of Canada, during the fiscal year ended 30th June, 1896.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS.				
<i>Nova Scotia.</i>				
Amherst post office, &c.		727 03		727 03
Annapolis do		254 31		254 31
Antigonish do		110 12		110 12
Arichat do		1 75		1 75
Baddeck do		121 49		121 49
Dartmouth do		140 54		140 54
Halifax Assistant Receiver General's Office—rent.		15 85	1,200 00	1,215 85
do Dominion building.	19,993 63	990 89		990 89
do drill hall			320 00	320 00
do engineer's office—rent.		85 30	1,207 00	1,292 30
do examining warehouse—rent				23,449 68
do immigrant building (new).	23,449 68			23,449 68
do do (temporary)		102 00		102 00
do Lawlor's Island quarantine station.		94 35		94 35
do penitentiary—rent.			0 24	0 24
Lunenburg post office, &c	4,524 70	25 45		4,550 15
Nappan experimental farm.		384 78		384 78
New Glasgow post office, &c		1 89		1 89
North Sydney do		8 97		8 97
Farrsboro' savings bank.		16 00		16 00
Pictou custom-house		14 00		14 00
do post office.	8,437 98			8,437 98
do quarantine station.		32 20		32 20
Point Edward quarantine station.		236 03		236 03
Sydney post office.		62 92		62 92
Springhill custom-house		91 22		91 22
Truro post office, &c		132 61		132 61
Windsor post office, &c.		343 80		343 80
Yarmouth do		29 83		29 83
<i>Prince Edward Island.</i>				
Charlottetown Dominion building		790 73		790 73
Montague post office		10 93		10 93
Summerside do		23 71		23 71
<i>New Brunswick.</i>				
Bathurst post office, &c.		10 76		10 76
Carleton, St. John, post office, &c		2 50		2 50
Chatham do		264 74		264 74
Dalhousie do		51 40		51 40
Fredericton do		442 90		442 90
Marysville do	53 85			53 85
Milltown custom-house.		2 50		2 50
Moncton post office, &c		80 20		80 20
Newcastle do		1,965 87		1,965 87
Partridge Island quarantine station.		150 50		150 50
Portland post office—rent		273 63	130 90	404 53
St. Andrews post office.		10 17		10 17
Carried forward.....	56,459 84	8,103 87	2,868 14	67,421 85

APPENDIX NO. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—Continued.				
Brought forward.....	56,459 84	8,103 87	2,858 14	67,421 85
<i>New Brunswick—Concluded.</i>				
St. John custom-house.....	381 36	2,255 29	22 00	2,658 65
do inland revenue office.....		85 00		85 00
do post office.....		1,000 11		1,000 11
do savings bank.....		9 65		9 65
do steamboat inspector's office.....		0 75		0 75
St. Stephen's post office, &c.....		812 97		812 97
Sussex do.....		44 33		44 33
Tracadie lazaretto.....	19,999 50			19,999 50
Woodstock post office, &c.....		18 20		18 20
<i>Maritime Provinces.</i>				
Generally.....			1,301 72	1,301 72
<i>Quebec.</i>				
Aylmer post office.....		117 04		117 04
Coaticook do.....		58 28		58 28
Grosse Ile quarantine station.....	900 49	437 06		1,337 55
Hull post office, &c.....		8 80		8 80
Joliette do.....		22 87		22 87
Lachine do.....		213 25		313 25
Laprairie do.....		164 50		164 50
Montreal civil service examination office (rent).....			25 00	25 00
do custom-house.....		3,450 76		3,450 76
do drill hall.....		7 50		7 50
do examining warehouse.....		2,322 68		2,322 68
do immigration office (rent).....		65 00	466 60	531 60
do inland revenue office.....		500 34		500 34
do post office.....	8,122 91	3,189 43		11,312 34
do public buildings generally.....		270 00		270 00
Quebec citadel buildings.....		1,315 39		1,315 39
do clerk of works office.....		231 41		231 41
do custom-house.....		232 63		232 63
do engineer's office (rent).....			144 00	144 00
do examining warehouse.....		390 74		390 74
do gas inspection office.....		426 63		426 63
do immigrant buildings, Louise embankment and breakwater.....		981 70		981 70
do observatory.....		203 84		203 84
do post office, new wing, &c.....	2,498 77	328 91		2,827 68
do Queen's wharf building.....		179 75		179 75
Richmond post office, &c.....	1,629 50			1,629 50
Rimouski do.....	5,297 40	95 37		5,392 77
Rivière du Loup (Fraserville) post office, &c.....		14 10		14 10
Sherbrooke post office, &c.....		198 90		198 90
Sorel do.....		2 00		2 00
St. Henri do.....		926 64		926 64
St. Hyacinthe do.....		236 72		236 72
St. Jérôme do.....		61 90		61 90
St. John's do.....		37 70		37 70
St. Lin (Laurentides) post office, &c.—rent.....		647 96	350 00	997 96
St. Vincent de Paul penitentiary.....	12,992 35			12,992 35
Three Rivers custom-house.....		306 43		306 43
do exhibition building.....	3 60			3 60
do post office.....		272 28		272 28
Valleyfield do.....		278 88	329 70	608 58
West Farnham do.....		265 40		265 40
Dominion buildings generally.....		1,389 71		1,389 71
Carried forward.....	108,285 72	32,182 07	5,497 16	145,964 95

Department of Public Works.

APPENDIX No. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—Continued.				
Brought forward.	108,285 72	32,182 07	5,497 16	145,964 95
<i>Ontario.</i>				
Alexandria reformatory.....	6,125 42			6,125 42
Almonte post office, &c.....		2 00		2 00
Amherstburg post office, &c.....		37 62		37 62
Arnprior do.....	4,707 35			4,707 35
Barrie do.....		117 80		117 80
Belleville do.....		99 32		99 32
Berlin do.....		18 60		18 60
Brampton do.....		12 10		12 10
Brantford do.....		19 25		19 25
Brockville do.....	1,457 82	239 10		1,696 92
Carleton Place do.....		18 85		18 85
Cayuga do.....		24 32		24 32
Chatham do.....		134 75		134 75
Clifton do.....		1 50		1 50
Cobourg do.....		694 90		694 90
Cornwall do.....		323 15		323 15
Dundas post office—rent.....			375 00	375 00
Galt do &c.....		47 18		47 18
Goderich do.....		5 70		5 70
Guelpb do.....		220 65		220 65
Hamilton custom-house.....		17 00		17 00
do drill hall.....		11 75		11 75
do post office.....		120 57		120 57
Kingston custom-house.....		546 31		546 31
do examining warehouse.....		17 03		17 03
do post office.....		974 10		974 10
Lindsay do.....		131 00		131 00
London custom-house.....		992 80		992 80
do infantry barracks.....		41 45		41 45
do post office.....		660 26		660 26
Napanee do &c.....		5 30		5 30
Norwick inland revenue office (furniture).....		20 00		20 00
Orangeville post office &c.....		139 04		139 04
Orillia do.....		66 76		66 76
Ottawa, Bank of Ottawa building—rent.....			2,080 00	2,080 00
do do lighting.....			35 64	35 64
do Boundary Commission office do.....			19 15	19 15
do canal basin coal shed—rent.....			600 00	600 00
do Central Chambers do.....			200 00	200 00
do Civil Service examination office—rent.....			171 90	171 90
do examining warehouse—rent.....			850 00	850 00
do do lighting.....			5 40	5 40
do experimental farm—sheep building.....	3,755 62	499 68		4,255 30
do geological museum—rent.....		329 50	150 00	479 50
do do lighting.....			268 80	268 80
do national art gallery.....			4,289 03	4,289 03
do post office.....		810 83		810 83
do do lighting.....			1,944 80	1,944 80
do printing bureau.....		2,954 33		2,954 33
do do lighting.....			1,037 85	1,037 85
do engineer and firemen.....			4,289 03	4,289 03
do public buildings.....		90,964 42		90,964 42
do do electric light and gas.....			21,227 23	21,227 23
Ottawa public buildings, grounds.....			5,994 88	5,994 88
do do do lighting.....			651 95	651 95
do do do heating.....			55,715 74	55,715 74
do do Langevin block.....		4,838 50		4,838 50
do do do engineer and firemen.....			8,899 02	8,899 02
do do do lighting.....			1,299 45	1,299 45
Carried forward.....	124,331 93	138,339 49	112,312 90	374,984 32

APPENDIX NO. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—Continued.				
Brought forward.....	124,331 93	138,339 49	112,312 90	374,984 32
<i>Ontario—Concluded.</i>				
Ottawa public buildings, removal of snow.....			2,165 59	2,165 59
do do Major's Hill park.....			3,999 25	3,999 25
do do telephonic service.....			3,915 86	3,915 86
do do translator's rooms, Sussex street—rent.....			240 00	240 00
do do translators' rooms, Sussex street—lighting.....			109 35	109 35
do do water.....			14,996 54	14,996 54
do do work shops—rent.....			1,442 84	1,442 84
do do do lighting.....			427 50	427 50
do do street and bridges—lighting.....			2,869 75	2,869 75
do Supreme Court—lighting.....		175 00	82 50	257 50
do do firemen, &c.....			495 00	495 00
Owen Sound post office.....		5 00		5 00
Pembroke do.....		13 34		13 34
Peterborough custom-house.....		44 50		44 50
do post office.....		87 15		87 15
Petrolia do &c.....		7 78		7 78
Pictou do &c.....	4,135 75			4,135 75
Point Edward cattle quarantine station.....		20 00		20 00
Port Arthur immigrant building.....		17 10		17 10
do post office.....		82 50		82 50
Port Colborne do.....		4 48		4 48
Port Hope do.....		319 50		319 50
Prescott do.....		22 25		22 25
Public buildings generally.....			595 10	595 10
Rideau Hall— heating apparatus, electric lighting, new dairy, &c.....	1,277 55	13,861 82		15,139 37
do fuel and light (allowance).....			8,000 00	8,000 00
do removal of snow.....			320 34	320 34
do caretakers.....			594 00	594 00
Smith's Falls post office, &c.....	1,742 65	154 75		1,897 40
Stratford do damage by fire.....	4,751 89	30 10		4,781 99
do do temporary—rent.....			100 00	100 00
Strathroy do.....		34 44		34 44
St. Catharines do.....		9 88		9 88
St. Thomas do.....		200 59		200 59
Trenton do.....		47 75		47 75
Toronto—civil service examination office—rent.....			77 20	77 20
do custom-house.....		1,473 56		1,473 56
do drill hall.....	421 28	751 29		1,172 57
do engineer's office—rent.....		41 75	289 60	331 35
do examining warehouse.....		3,249 58		3,249 58
do inland revenue office.....		15 41		15 41
do post office.....		393 62		393 62
Walkerton do &c.....		31 62		31 62
Windsor do &c.....		192 25		192 25
<i>Manitoba.</i>				
Brandon experimental farm.....		777 87		777 87
do immigration building.....		14 50		14 50
do industrial school.....	524 00			524 00
do post office.....		114 26		114 26
Portage la Prairie post office, &c.....	9,979 40			9,979 40
Public buildings generally.....		1,978 40		1,978 40
Winnipeg architect's office.....		205 72		205 72
do crown timber office.....		203 12		203 12
Carried forward.....	147,164 45	162,920 37	153,033 32	463,118 14

Department of Public Works.

APPENDIX No. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—Continued.				
Brought forward.....	147,164 45	162,920 37	153,033 32	463,118 14
<i>Manitoba—Concluded.</i>				
Winnipeg custom-house.....		133 78		133 78
do Dominion lands office.....		86 74		86 74
do engineer's office (rent).....		8 00	451 50	459 50
do examining warehouse.....		62 36		62 36
do Fort Osborn barracks.....	3,200 00			3,200 00
do immigration building.....		49 65		49 65
do inland revenue office.....		184 35		184 35
do post office.....		489 94		489 94
<i>North-west Territories.</i>				
Battleford Indian agent's house.....	647 62	2 38		650 00
Calgary court-house.....		78 90		78 90
do immigration office.....		102 35		102 35
do post office.....		645 24		645 24
Edmonton Dominion lands office.....		2 50		2 50
do immigration building.....		474 85		474 85
do land and registry offices.....	286 00	227 80		513 80
Indian Head experimental farm.....		200 83		200 83
Lethbridge court-house.....		25 50		25 50
do post office.....	460 00	387 91		847 91
MacLeod court-house (rent).....		7 90	250 00	257 90
Maple Creek, Dominion lands office.....		30 50		30 50
Moose Jaw court-house.....		923 30		923 30
Moosomin court-house, addition, &c.....	1,186 76	111 80		1,298 56
do mounted police barracks.....		15 70		15 70
Prince Albert court-house.....	347 20	104 30		451 50
do immigration building.....		28 50		28 50
do registry office.....	349 50	19 10		368 60
Public buildings generally.....		1,275 76		1,275 76
Qu'Appelle fishery inspection office.....		16 00		16 00
do immigration building.....		5 95		5 95
Regina clerk of works' office.....		84 95	120 00	204 95
do court-house.....		690 24		690 24
do do (old).....		10 72		10 72
do Dominion lands office.....		58 28		58 28
do lieutenant-governor's residence.....		474 22		474 22
do mounted police barracks—raising building, &c.....	4,567 25			4,567 25
do post office.....		37 80		37 80
Wolsley court-house.....		580 08		580 08
Yorkton Dominion lands office.....		33 34		33 34
<i>British Columbia.</i>				
Agassiz experimental farm.....		306 00		306 00
Nanaimo post office, &c.....		73 00		73 00
New Westminster drill hall.....	4,992 65			4,992 65
do post office.....		86 00		86 00
Public buildings, generally.....		70 21		70 21
Vancouver gun shed.....		25 00		25 00
do post office.....		324 15		324 15
Victoria custom-house.....		197 55		197 55
do drill hall and accessory buildings.....	2,392 71			2,392 71
do engineer's office—rent.....		57 29	804 00	861 29
do immigrant building.....		40 47		40 47
do marine hospital.....		19 56		19 56
do post office (new).....	59,998 93			59,998 93
do do (old).....		332 70		332 70
William's Head quarantine station.....		1,639 03		1,639 03
Carried forward.....	225,593 07	173,762 85	154,658 82	554,014 74

APPENDIX No. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.		Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.	
PUBLIC BUILDINGS—Continued.		\$ cts.	\$ cts.	\$ cts.	\$ cts.	
Brought forward.....		225,593 07	173,762 85	154,658 82	554,014 74	
EXPENDITURE ON ACCOUNT SERVICES MENTIONED.	Salaries of Engineers &c.	Supplies for En- gineers, &c.	Heating.	Lighting.	Water.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Nova Scotia.</i>						
Amherst post office.....	400 00	6 09	201 50	325 86	20 00	953 45
Annapolis do	400 00	10 38	142 88	146 96	40 00	740 22
Antigonish do	400 00	1 88	82 42	3 87	10 00	498 17
Arichat custom-house.....			24 00			24 00
do post office.....			84 00			84 00
do savings bank.....			20 00			20 00
Baddeck post office.....	200 00	16 55	97 50	22 00		336 05
Dartmouth do	250 00		78 46	90 00	15 00	433 46
Halifax Assist. Receiver General's Office.....			62 18	70 60		132 78
do Dominion building	2,008 24	31 67	750 10	1,826 19	572 37	5,188 57
do examining ware- house.....	500 00	6 35	186 59	67 80	83 99	844 73
do Lawlor's Island quarantine stat'n						
Lunenburg post office.....	355 00	69 48	244 84	183 75		853 07
New Glasgow post office..	400 00	2 90	153 05	265 63	100 00	921 58
North Sydney do	400 00	1 65	137 50	318 82		857 97
Parrsboro savings bank.....						
Pictou custom-house.....	400 00		104 40			504 40
do post office.....		4 40	60 48			64 88
do quarantine station.						
Point Edward quarantine station.....						
Sydney post office.....	400 00	34 57	219 20	338 56	10 00	1,002 33
Springhill custom-house.....						
Truro post office.....	400 00	3 09	171 29	274 76	30 00	879 14
Windsor do	400 00	9 25	153 08	135 60	50 00	747 93
Yarmouth do	400 00	3 18	162 50	424 20	72 00	1,061 88
<i>Prince Edward Island.</i>						
Charlottetown Dominion building.....	1,700 47	144 87	373 65	944 55	225 00	3,388 54
Montague post office.....	160 00	6 06	47 76	26 50		240 32
Summerside do	400 00	21 50	40 84	130 05		592 39
<i>New Brunswick.</i>						
Bathurst post office.....	450 00	7 30	281 60	25 65		764 55
Carleton, St. John, post office.....	100 00		36 17	75 00	13 00	224 17
Chatham post office.....	335 87	16 30	313 76	166 05		831 98
Dalhousie do	400 00	8 23	202 69	21 22		632 14
Fredericton do	400 00		230 97	518 70	50 00	1,199 67
Moncton do	400 00	12 26	207 21	429 88	134 00	1,183 35
Newcastle do	400 00	14 86	365 13	369 00		1,148 99
Portland do			37 17	58 84	12 00	109 01
St. John custom-house....	1,891 50	44 26	1,142 43	412 08	510 88	4,001 15
do post office.....	1,340 00	37 45	498 40	3,102 70	590 37	5,568 92
do savings bank.....		1 35	180 09	102 68	13 87	297 99
Carried forward....	15,291 08	515 88	7,093 84	10,878 50	2,552 48	36,331 78
						554,014 74

Department of Public Works.

APPENDIX No. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.		Construction and Improvement.	Repairs.	Staff and Maintenance.	Total.		
PUBLIC BUILDINGS—Continued.							
		\$ cts.	\$ cts.	\$ cts.	\$ cts.		
Brought forward.....		225,593 07	173,762 85	154,658 82	554,014 74		
EXPENDITURE ON ACCOUNT SERVICES MENTIONED—Continued.	Salaries of Engineers &c.	Supplies for Engineers, &c.	Heating.	Lighting.	Water.	Total.	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
<i>New Brunswick—Con.</i>							
Brought forward.....		15,291 08	515 88	7,093 84	10,878 50	2,552 48	36,331 78
St. Stephen's post office ..	400 00	6 25	118 50	369 30	64 00	958 05	
Sussex do ..	400 00	2 27	148 50	9 66	.....	560 43
Tracadie Lazaretto.....	.....	.....	279 60	.....	.....	279 60
Woodstock post office ..	448 00	20 00	173 08	160 00	34 00	835 08	
<i>Quebec.</i>							
Aylmer post office.....	65 00	11 98	136 00	41 78	20 83	275 59	
Coaticook do ..	400 00	18 25	201 81	200 00	20 00	840 06	
Hull do ..	150 00	8 70	232 51	313 96	118 00	823 17	
Joliette do ..	400 00	17 35	205 47	79 90	108 00	810 72	
Lachine do ..	100 00	39 83	117 33	45 90	29 52	332 58	
Laprairie do ..	27 43	24 39	78 00	32 95	40 00	202 77	
Lévis immigrant building.....	.....	.....	72 34	.....	.....	72 34
Montreal custom-house ..	1,613 00	271 77	605 94	288 48	332 71	3,111 90	
do Dominion public buildings.....	1,200 00	.....	.....	.....	.....	1,200 00
do drill hall.....	630 00	.....	.....	.....	.....	630 00
do examining warehouse.....	1,140 00	523 87	1,602 20	431 16	584 59	4,281 82	
do Inland Revenue office.....	600 00	2 25	202 13	156 66	193 79	1,064 83	
do post office.....	4,999 16	132 46	729 86	6,311 49	2,263 29	14,436 26	
Quebec citadel buildings ..	46 50	0 75	166 60	197 05	.....	410 90
do clerk of works office ..	48 00	.....	.....	.....	.....	48 00
do culler's office.....	540 00	2 00	154 49	.....	.....	696 49
do custom-house.....	540 00	12 48	607 48	38 00	1,100 00	2,297 96	
do examining warehouse.....	1,445 00	96 60	1,115 69	40 43	750 00	3,447 72	
do gas inspection office ..	.....	.....	.....	8 00	.....	8 00
do immigrant building ..	.....	30 00	554 82	624 00	.....	1,208 82
do observatory.....	.....	0 42	.....	.....	.....	0 42
do post office.....	535 60	56 70	413 71	646 65	2,268 00	3,920 66	
do Princess Louise basin, quarantine building ..	.....	.....	156 54	.....	.....	156 54
do Queen's wharf building ..	.....	.....	235 80	.....	950 00	1,185 80
Rivière-du-Loup (Fraser-ville) post office.....	250 00	14 48	348 00	28 20	.....	640 68
Sherbrooke post office ..	430 00	21 80	312 05	499 38	50 00	1,313 23	
Sorel do ..	450 00	20 97	233 35	247 50	250 00	1,201 82	
St. Henri do ..	.....	8 00	50 09	74 27	29 28	161 64
St. Hyacinthe do ..	391 63	65 00	220 17	258 87	175 00	1,110 67	
St. Jérôme do ..	400 00	19 37	321 27	192 00	57 00	989 64	
St. John's ..	350 00	7 00	132 00	187 50	40 00	716 50	
St. Lin (Laurentides) post office.....	.....	26 82	.....	.....	.....	26 82
St. Roch de Québec post office.....	.....	.....	9 40	.....	.....	9 40
Carried forward.....	33,290 40	1,977 64	17,028 57	22,361 59	11,940 49	86,598 69	554,014 74

APPENDIX No. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.	Con- struction and Im- provements.		Repairs.	Staff and Main- tenance.	Total.	
PUBLIC BUILDINGS—Continued.						
	\$	cts.	\$	cts.	\$	
Brought forward.....	225,593	07	173,762	85	154,658 82	
					554,014 74	
EXPENDITURE ON ACCOUNT SERVICES MEN- TIONED—Continued.	Salaries of Engineers &c.	Supplies for En- gineers, &c.	Heating.	Lighting.	Water.	Total.
	\$	cts.	\$	cts.	\$	cts.
<i>Quebec.—Con.</i>						
Brought forward.....	33,290	40	1,977	64	17,028	57
Three Rivers custom-house	600	00	24	75	408	25
do post office.....	400	00	23	75	185	45
Valleyfield do.....			46	25	20	70
West Farnham do.....			17	00	131	76
Quebec generally.....			264	00		
<i>Ontario.</i>						
Almonte post office.....	400	00	16	25	128	25
Amherstburgh post office..	400	00	12	46	154	31
Barrie do.....	366	63	8	60	237	50
Belleville do.....	600	00	35	03	273	90
Berlin do.....	400	00	4	90	158	80
Brampton do.....	400	00	14	23	128	25
Brantford do.....	600	00	15	36	268	97
Brockville do.....	400	00	38	96	303	15
Carleton Place do.....	300	00	13	50	117	00
Cayuga do.....	50	00	20	00	75	00
Chatham do.....	850	00	9	75	151	45
Clifton do.....	400	00	17	40	201	20
Cobourg do.....	400	00	8	00	193	32
Cornwall do.....	475	00	11	75	239	70
Dundas do.....					33	00
Galt do.....	400	00	33	85	149	10
Gananoque custom-house...			8	00	124	60
do post office.....			14	40	71	20
Goderich do.....	400	00	13	35	178	68
Guelph do.....	400	00	11	74	191	69
Hamilton custom-house...	600	00			38	50
do drill shed.....	360	00				
do post office.....	1,075	64	23	26	712	33
Kingston custom-house...	94	80	50		247	41
do examining ware- house.....					18	65
Kingston inland revenue office.....						
					56	80
Kingston military college.	1,440	00				
do post office.....	157	85	2	10	174	30
Lindsay do.....	400	00	14	35	125	33
London custom-house.....	916	67	16	17	584	55
do post office.....	550	00	8	80	504	67
Napanee do.....	450	00	4	50	150	28
Orangeville do.....	400	00	9	80	113	11
Orillia do.....	350	00	8	85	134	75
Ottawa experimental farm.					1,113	10
Pembroke post office.....	366	67	16	02	169	59
Peterboro' custom-house...					26	55
do post office.....	458	34	11	70	308	78
Petrolia do.....	366	67	31	30	186	99
Port Arthur do.....	275	00	27	85	134	00
Carried forward.....	49,793	67	2,789	87	25,895	69
					32,003	73
					14,536	44
					125,019	40
					554,014	74

Department of Public Works.

APPENDIX No. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.			Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
PUBLIC BUILDINGS—Continued.			\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward.....			225,593 07	173,762 85	154,658 82	554,014 74
EXPENDITURE ON ACCOUNT SERVICES MEN- TIONED—Continued.	Salaries of Engineers, &c.	Supplies for En- gineers, &c.	Heating.	Lighting.	Water.	Total.
<i>Ontario—Concluded.</i>	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward...	49,793 67	2,789 87	25,895 69	32,003 73	14,536 44	125,019 40
Port Colborne post office..	220 00	16 60	.....	131 60	.....	368 20
do Hope do ..	366 67	20 85	228 75	250 50	.....	866 77
Prescott custom-house.....	.....	.....	66 00	.....	.....	66 00
do post office.....	458 34	24 45	208 95	149 24	.....	840 98
Smith's Falls post office..	94 72	47 75	147 50	106 33	85 00	481 30
Stratford do ..	550 00	18 60	258 74	396 00	63 00	1,286 34
Strathroy do ..	366 67	11 19	161 58	13 75	3 00	556 19
St. Catharines do ..	366 67	21 55	185 52	263 10	42 75	879 59
St. Thomas do ..	366 67	40 90	261 00	593 25	25 28	1,287 10
Toronto custom-house.....	600 00	118 22	231 88	147 32	68 57	1,165 99
do Dominion public buildings.....	1,200 00	.....	.....	.....	.....	1,200 00
do drill hall.....	799 45	0 25	200 00	352 70	.....	1,352 40
do examining ware- house.....	3,789 00	5 75	572 53	101 85	136 42	4,605 55
do inland revenue office.....	700 00	3 35	176 93	315 32	29 71	1,225 31
do post office.....	942 74	.....	654 80	2,393 36	391 98	4,382 88
Trenton do ..	416 67	3 00	165 00	256 00	73 55	914 22
Walkerton do ..	369 67	23 60	152 60	202 90	20 00	768 77
Windsor do ..	916 67	66 75	391 25	669 48	72 00	2,116 15
<i>Manitoba.</i>						
Brandon experimental farm.....	.....	.....	131 61	.....	.....	131 61
do immigrant build- ing.....	.....	.....	66 80	.....	.....	66 80
do post office.....	440 00	48 45	610 75	586 45	76 00	1,761 65
Minnedosa Dominion lands office.....	.....	.....	73 62	.....	.....	73 62
Winnipeg crown timber office.....	.....	3 75	297 05	.....	.....	300 80
do custom-house.....	.....	5 79	495 03	319 14	96 00	915 96
do Dominion lands office.....	.....	.....	.....	54 00	30 00	84 00
do examining ware- house.....	.....	.....	452 75	10 26	.....	463 01
do immigrant shed..	.....	7 50	879 50	274 23	125 00	1,286 23
do post office.....	2,180 97	95 58	2,591 25	1,474 47	412 50	6,754 77
<i>North-west Territories.</i>						
Battleford Dominion lands office.....	.....	.....	39 00	.....	.....	39 00
do registry office..	.....	.....	32 00	.....	.....	32 00
Calgary clerk of works office.....	.....	.....	40 46	.....	.....	40 46
do court-house.....	.....	63 45	363 41	.....	235 95	662 81
Carried forward....	64,938 58	3,437 20	36,031 95	41,064 98	16,523 15	161,995 86
						554,014 74

Department of Public Works.

APPENDIX No. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.		
PUBLIC BUILDINGS—Concluded.						
Brought forward	\$ cts. 225,593 07	\$ cts. 173,762 85	\$ cts. 154,658 82	\$ cts. 554,014 74		
EXPENDITURE ON ACCOUNT SERVICES MEN- TIONED—Concluded.	Salaries of Engineers, &c.	Supplies for En- gineers, &c.	Heating.	Lighting.	Water.	Total.
<i>British Columbia—Con.</i>	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward	68,796 68	3,693 49	39,937 97	41,907 71	16,928 15	171,264 00
Kamloops Dominion lands office			18 50			18 50
Metlakatla Indian office			198 05			198 05
do industrial school			33 75			33 75
Nanaimo post office	600 00	13 10		221 00	36 00	870 10
New Westminster post office	600 00		129 70	177 75	74 78	982 23
Quamichonan Indian office			22 50			22 50
River's Inlet industrial school			33 75			33 75
Vancouver post office	400 00	61 66	679 69	1,113 05	375 83	2,630 23
Victoria Adjutant Gener- al's office			41 61			41 61
do appraiser's office			6 45	10 05	24 00	40 50
do custom-house			164 04	47 85	19 75	231 64
do drill shed			130 01	562 74		692 75
do engineer's office		75		9 05		9 80
do Indian do			55 67			55 67
do military store house			63 09			63 09
do post office	600 00	37 20	184 22	949 20	27 23	1,797 85
do Weights & Mea- sures office			28 35		12 00	40 35
William's Head Quarant- ine station			599 05			599 05
<i>Miscellaneous.</i>						
Dominion Buildings gener- ally		828 02	1,289 65			2,117 67
Totals	70,996 68	4,634 22	43,616 05	44,998 40	17,497 74	181,743 09
Carried forward				225,593 07	173,762 85	336,401 91
						735,757 83

APPENDIX NO. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND BREAKWATERS.				
Brought forward.	225,593 07	173,762 85	336,401 91	735,757 83
<i>Nova Scotia.</i>				
Arisaig wharf—repairs.		999 10		999 10
Bass River wharf.	490 00			490 00
Bayfield breakwater—repairs.		1,021 18		1,021 18
do (new wharf)—repairs.		348 37		348 37
Belliveau Cove—repairs.		500 02		500 02
Big Pond do.		150 00		150 00
Boularderie, Ross Ferry.	412 67			412 67
Broad Cove Marsh wharf.		500 00		500 00
Cow Bay breakwater.	3,999 87			3,999 87
D'Escousse pier, construction of slip, &c.	236 54			236 54
Digby pier.		3,988 07		3,988 07
Eatonville pier.		250 61		250 61
Economy breakwater.		159 45		159 45
Georgeville wharf—extension.	1,955 87			1,955 87
Grand Etang breakwater.	5,002 88			5,002 88
Halifax Graving dock—subsidiy.	10,000 00			10,000 00
Hall's Harbour.		450 83		450 83
Harbours generally.			1,152 49	1,152 49
Harbourville wharf.		49 92		49 92
Ingonish South, breakwater.		47 07		47 07
L'Ardoise wharf.		10 00		10 00
Margaree, beach protection.	2,196 57			2,196 57
Monk's Head, channel from Dunn's Lake to Anti- gonish Harbour.	204 72			204 72
McNair's Cove wharf.		39 00		39 00
Parrsboro' wharf.		1,447 28		1,447 28
Port Lorne breakwater.		20 00		20 00
Port Maitland breakwater.		271 71		271 71
Seaside wharf.	1,997 61			1,997 61
West Chezzetcook breakwater.		500 75		500 75
<i>Prince Edward Island.</i>				
Belfast pier.		50 03		50 03
Brae breakwater.		843 80		843 80
Cascumpec breakwater.		24 88		24 88
Harbours generally.			289 23	289 23
Kier's Shore pier—repairs.		723 89		723 89
Lambert's pier.		829 61		829 61
McGee's pier.		1,395 19		1,395 19
Murray harbour.		1,011 34		1,011 34
New London breakwater.		886 26		886 26
Nine Mile Creek pier.		83 50		83 50
North Cardigan pier.		50 42		50 42
North Rustico breakwater—repairs.	3,000 00	441 35		3,441 35
Pinette pier.		13 25		13 25
Port Selkirk.		100 00		100 00
Souris breakwater—reconstruction.		4,790 28		4,790 28
Stephen's pier.		56 50		56 50
Victoria pier.		40 00		40 00
Woods Islands breakwaters—repairs.		686 63		686 63
<i>New Brunswick.</i>				
Anderson's Hollow pier.		33 67		33 67
Buctouche.		90 13		90 13
Burnt Church wharf.	5 76			5 76
Cape Tormentine breakwater.		499 29		499 29
Carried forward.	255,095 56	197,166 23	337,843 63	790,105 42

Department of Public Works.

APPENDIX No. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.	Con. struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND BREAKWATERS—Continued				
Brought forward	255,095 56	197,166 23	337,843 63	790,105 42
<i>New Brunswick—Concluded.</i>				
Dalhousie ballast wharf		262 07		262 07
Gardner's breakwater—new wharf	2,484 35			2,484 35
Harbours generally			1,152 49	1,152 49
Quaco Harbour		30 31		30 31
River St. John :—				
Upper river	\$775 18			
Green river	200 00			
Oromocto shear dam—repairs	96 79			
Bear Island to Eel river—tow path improvement	180 25			
Milkish wharf—legal services	37 84			
Milledgeville Ferry pier—Government grant, &c	406 88			
Shamper's Landing—Govt. grant, &c.	358 08			
Williams do do	258 33			
	2,216 56	96 79		2,313 35
Shediac harbour—new breakwater at Pointe du Chêne		2,462 03		2,462 03
St. John do —Negro Point breakwater		7,261 87		7,261 87
<i>Quebec.</i>				
Asshouampouchouan river—placing buoys			136 44	136 44
Baie des Pères pier		25 65		25 65
Baie St. Paul wharf—Cap aux Corbeaux	4,835 42			4,835 42
Belceil boom			120 00	120 00
do guide piers	60 00			60 00
Berthier (en bas) pier		255 27		255 27
Bic pier		587 22		587 22
Cap de la Madeleine pier		83 00		83 00
Chateauguay wharf	1,296 47			1,296 47
Chicoutimi do		1,998 61		1,998 61
Étang du Nord breakwater		838 61		838 61
Gatineau Point wharf		18 00		18 00
Grande Rivière wharf—extension	6,633 42	14 80		6,648 22
Harbours generally			1,250 78	1,250 78
Ile aux Coudres pier		359 02		359 02
Lacolle wharf		726 36		726 36
Lake St. John—pier at St. Félicien	1,999 68			1,999 68
Laprairie ice piers	2,015 51			2,015 51
Les Eboulements pier		388 90		388 90
Lévis graving dock			9,205 80	9,205 80
Longueuil pier		284 11		284 11
Lower St. Lawrence :—Landing places for fishing boats :—				
Anse à Louise	\$519 45			
Echourie	137 72			
Jersey Cove	395 09			
Petit Cap	128 15			
Pointe Jaune	204 97			
Rivière au Renard	322 91			
Trois Ruisseaux	279 92			
	1,987 91			1,987 91
Malbaie pier		307 68		307 68
Matane "		572 81		572 81
Mistassini river—placing buoys			284 00	284 00
Montreal harbour			2 40	2 40
Percé pier		26 60		26 60
Peribonka river—placing buoys			56 85	56 85
Petite Rivière St. François	398 98			398 98
Carried forward	279,023 86	213,765 94	350,052 39	842,842 19

APPENDIX No. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND BREAKWATERS—Con.				
Brought forward.....	279,023 86	213,765 94	350,052 39	842,842 19
<i>Quebec—Concluded.</i>				
Philipsburg pier.....	10,496 34			10,496 34
Piers Lelow Quebec.....			2,745 62	2,745 62
Pointe aux Esquimaux wharf—extension, &c.....	4,028 42			4,028 42
Rimouski harbour—tidal basin.....	156 08			156 08
Rivière du Lièvre lock—damages.....	738 05			738 05
do do.....		115 00	851 60	966 60
do du Loup (en bas) pier.....		476 36		476 36
do du Sud, at St. Thomas de Montmagny.....	106 46			106 46
do L'Assomption—protection wall, Chute Monte- à-peine.....		51 20		51 20
do Noire.....	300 35			300 35
do Saguenay—Grande Décharge—placing buoys.....			11 35	11 35
do Ste. Anne de la Pérade.....	4,373 90			4,373 90
do St. Lawrence—deepening channel between Quebec and Montreal.....	106,994 73			106,994 73
do St. Louis—head gates.....			121 00	121 00
do St. Maurice—channel between Grandes Piles and La Tuque.....	955 77			955 77
do Touladie.....	461 55			461 55
do Yamaska lock.....		86 38	835 30	921 68
Roberval harbour—Lake St. John—placing buoys.....			11 36	11 36
Ste. Anne du Saguenay pier.....		998 86		998 86
St. Irénée pier—addition.....	2,128 68	781 20		2,909 88
St. Jean do Ile d'Orléans—repairs.....		671 48		671 48
St. Laurent pier do do.....		204 37		204 37
Trois Pistoles harbour—removal of rock.....	493 90			493 90
Yamachiche pier.....		7 50		7 50
<i>Ontario.</i>				
Big Bay, North Keppel.....		51 39		51 39
Burlington Bay channel.....		3,816 25	820 96	4,637 21
Cobourg harbour.....		1,078 95		1,078 95
Collingwood harbour—repairs to breakwater.....		2,700 34		2,700 34
Goderich harbour.....		36 50		36 50
Harbours generally.....			1,921 37	1,921 37
Kaministiquia river.....	7,830 85			7,830 85
Kincardine harbour.....		30 00		30 00
Kingston graving dock.....			6,282 16	6,282 16
do harbour.....	3,829 31			3,829 31
Lakes Simcoe and Couchiching—regulation of waters.....	2,416 48			2,416 48
Lion's Head.....		83 00		83 00
Morpeth harbour.....		337 64		337 64
Oakville harbour.....		499 93		499 93
Owen Sound harbour.....	11,866 77			11,866 77
Port Dover do —dredging.....	15,000 00			15,000 00
Port Elgin do.....		150 00		150 00
Port Hope do.....		800 00		800 00
Rainy river.....		177 61		177 61
Rondeau harbour.....		339 82		339 82
Thessalon—new wharf.....	8,730 80			8,730 80
Thornbury harbour.....		26 05		26 05
Toronto harbour—eastern entrance, &c.....	39,448 18			39,448 18
Trenton harbour—dredging.....	777 71			777 71
<i>Manitoba.</i>				
Harbours generally.....			870 09	870 09
Hnausa wharf—Lake Winnipeg.....	5,240 07			5,240 07
Carried forward.....	505,398 26	227,285 77	364,523 20	1,097,207 23

Department of Public Works.

APPENDIX No. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
HARBOURS AND BREAKWATERS—Con.				
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward.....	505,398 26	227,285 77	364,523 20	1,097,207 23
<i>North-west Territories.</i>				
Harbours generally.....			776 75	776 75
<i>British Columbia.</i>				
Columbia river—improvements above do Golden improvements below do Kootenay.....	\$ 2,489 83 3,144 28			
	5,634 11			5,634 11
Esquimalt graving dock.....			12,355 09	12,355 09
Fraser river—improvement of channel..... do protection work at Garry Bush.....	\$ 9,425 55 997 97			
	10,423 52			10,423 52
Harbours generally.....			2,670 40	2,670 40
Kootenay river (east), between canal flat and Fort Steele.....	1,270 65			1,270 65
Okanagan river—improvements.....	324 85			324 85
Skeena river.....	1,996 81			1,996 81
Victoria harbour—dredging inner harbour.....	5,047 23			5,047 23
HARBOURS GENERALLY.....			2,654 51	2,654 51
Dredges repairs.....		22,995 87		22,995 87
New dredging plant, Maritime Provinces..... do generally.....	\$19,726 89 16,315 88			
	36,042 77			36,042 77
DREDGING.				
<i>Nova Scotia.</i>				
Cheticamp (Inverness).....	\$ 3,490 08			
East river (Pictou).....	406 37			
Fourchu Harbour (Richmond).....	6,341 55			
Ketch do (Halifax).....	591 40			
Pictou do (Pictou):—				
C. Dwyer's wharf.....	\$1,453 92			
Dwyer's & Co's.....	95 61			
Steam Ferry Co's				
Slip.....	191 23			
	1,740 76			
Wallace Harbour (Cumberland).....	150 48			
	\$12,720 64			
<i>Prince Edward Island.</i>				
Cardigan bridge (King's).....	\$ 3,145 71			
Charlottetown harbour (Queen's).....	3,911 88			
Newport (King's).....	826 62			
Souris do.....	975 87			
	8,860 08			
Carried forward.....	\$21,580 72	566,138 20	382,979 95	1,199,399 79

APPENDIX No. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
DREDGING—Continued.				
Brought forward.	\$21,580 72	566,138 20	250,281 64	382,979 95
<i>New Brunswick.</i>				
Fredericton harbour (York).....	\$2,571 26			
Fredericton Canada Eastern Ry. wharf.	559 91			
	<u>\$3,131 17</u>			
Miramichi river (Northumberland):— Horse Shoe shoal... Outer bar.....	\$1,590 39 399 02			
	1,989 41			
Oromocto shoals, St. John river.	568 53			
Pointe du Chêne harbour (West- moreland)	1,794 16			
Richiboucto (Kent).....	478 08			
St. John harbour (St. John):— Dominion Atlantic Ry. wharf.	2,820 64			
Traverse—Restigouche river (Restigouche).....	4,751 29			
	<u>15,542 28</u>			
Total, Maritimes Provinces.....	\$37,123 00			
<i>Quebec.</i>				
Berthier (<i>en haut</i>) harbour.....	\$ 1 50			
Chateauguay river	757 10			
Dorval harbour.....	204 83			
Ile Gros Bois	533 30			
Laprairie harbour.....	3,219 78			
Longueuil do	2,423 08			
Louiseville do	810 00			
Rivière du Loup (<i>en haut</i>).....	1,999 00			
do Nicolet.....	10,091 50			
St. Placide harbour.....	2,830 50			
	<u>22,870 59</u>			
Generally.....	1,086 06			
	<u>23,956 65</u>			
<i>Ontario.</i>				
Amherstburg harbour.....	\$1,786 99			
Belle River.....	1,058 76			
Belleville harbour.....	1,994 01			
Bowmanville harbour.....	508 70			
Burlington channel.....	1,500 00			
Collingwood harbour.....	361 84			
Fort Erie do	254 10			
Frenchman's Bay harbour	353 11			
Meaford harbour.....	827 24			
Midland do	591 33			
Newcastle harbour.....	685 04			
Owen Sound harbour	800 00			
Penetanguishene harbour.....	131 67			
Port Elgin harbour.....	2,654 48			
Port Hope do	475 60			
Prescott do	1,005 89			
River Saugeen.....	255 50			
Carried forward....	\$15,244 26	\$61,079 65	566,138 20	250,281 64
			382,979 95	1,199,399 79

Department of Public Works.

APPENDIX No. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
DREDGING—Concluded.				
Brought forward.....	\$61,079 65	566,138 20	250,281 64	382,979 95
<i>Ontario—Concluded.</i>				
Brought forward.....	\$15,244 26			
River South Nation.....	1,546 13			
do Thames.....	999 45			
Thornbury harbour.....	1,289 05			
	\$19,078 89			
GENERALLY.....	2,192 49			
	21,271 38			
<i>Manitoba.</i>				
Red river.....	7,676 85			
<i>British Columbia.</i>				
Fraser river.....	\$5,235 90			
Victoria harbour.....	5,541 01			
	10,776 91			
GENERAL SERVICE.....	4,668 20			
Total dredging.....	97,526 24		7,946 75	105,472 99
SLIDES AND BOOMS.				
Saguenay District.....			575 08	575 08
St. Maurice District.....	1,601 81	4,889 01	8,255 60	14,746 42
Ottawa do.....			25,930 89	25,930 89
do river slides.....	\$3,015 27			
Gatineau river slides.....	420 42			
Madawaska river slides.....	1,464 87			
Coulonge do.....	2,167 37			
Black do.....	75 52			
Dumoine do.....	14 00			
Petewawa do.....	98 03			
	2,304 62	7,255 48		9,560 10
Newcastle District.....		1,001 90	1,970 00	2,971 90
ROADS AND BRIDGES.				
<i>Quebec.</i>				
Cartier bridge.....	821 90			821 90
Pond Creek bridge, Hull.....	775 40			775 40
Portage du Fort bridge.....		49 67		49 67
<i>Ontario.</i>				
Burlington swing bridge.....	19,937 13			19,937 13
Ottawa City bridges and approaches:—				
Chaudière bridges.....	\$1,868 49			
Hull slide bridge.....	50 88			
Maria street do.....	8 56			
Sappers' do.....	278 88			
Union do.....	729 23			
St. Patrick Street.....	4 00			
Sussex do.....	4 00			
O'Connor do.....	2 40			
Wellington do.....	2,053 56			
	5,000 00			5,000 00
Carried forward.....	689,105 30	268,477 70	427,658 27	1,385,241 27

APPENDIX No. 1—STATEMENT OF EXPENDITURE—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
ROADS AND BRIDGES—Concluded.				
Brought forward	689,105 30	268,477 70	427,658 27	1,385,241 27
<i>North-west Territories.</i>				
Battle river bridge.....		1,278 96		1,278 96
Belley do		100 35		100 35
Calgary do (Langevin).....		1,336 96		1,336 96
Edmonton—bridges across the Saskatchewan.....	30 30			30 30
Old Man's river bridge.....		28 00		28 00
South Fork bridge, Old Man's River—locating site and plan of.....	75 00			75 00
TELEGRAPH LINES.				
<i>Nova Scotia.</i>				
Cape Sable.....	\$ 812 60			
Cheticamp.....	841 10			
Low Point	50 00			
Meat Cove.....	2,292 15			
	\$3,995 85			
<i>Prince Edward Island.</i>				
Prince Edward Island and Mainland—(subsidy).....			1,946 66	1,946 66
<i>New Brunswick.</i>				
Bay of Fundy	\$3,854 82			
Escuminac.....	705 01			
	\$4,559 83			
<i>Quebec.</i>				
Anticosti Island.....	\$2,305 45			
Grosse Ile quarantine station.....	1,430 07			
Magdalen Islands.....	4,095 56			
North Shore :—				
East Bersimis..	\$5,496 95	734 78		734 78
West do ..	3,385 98			
	8,882 93			
	16,714 01			
<i>Newfoundland.</i>				
Cape Ray—(subsidy 1895-96).....	250 00			
<i>Miscellaneous.</i>				
Str. <i>Newfield</i> —working expenses.....	530 57			
Generally.....	3,449 38			
Total, Lower St. Lawrence, &c.....			29,499 64	29,499 64
Str. <i>Newfield</i> —renewal of appliances on board of.....		1,169 63		1,169 63
<i>Ontario.</i>				
Peléé Island—cable removed.....		260 92	1,360 90	1,621 82
<i>North-west Territories.</i>				
Generally.....			14,062 22	14,062 22
Carried forward.....	689,945 38	272,652 22	474,527 69	1,437,125 59

Department of Public Works.

APPENDIX NO. 1—STATEMENT OF EXPENDITURE—*Concluded.*

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
TELEGRAPH LINES—<i>Concluded.</i>				
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward.....	689,945 38	272,652 52	474,527 69	1,437,125 59
<i>British Columbia.</i>				
Ashcroft-Barkerville line.....		966 77		966 77
Lillooet—connection with Ashcroft-Barkerville line..	2,327 93			2,327 93
Maintenance:—				
Ashcroft to Barkerville (Cariboo district) \$3,957 62				
Cape Beale..... 5,424 58				
Nanaimo and Comox..... \$3,980 07				
Barkerville to Alberni canal.. 10 66				
	3,990 73			
GENERALLY..... 38 59			13,411 52	13,411 52
TELEGRAPH SERVICE GENERALLY.....			696 39	696 39
MISCELLANEOUS.				
Agent and contingencies, B.C.....			2,278 74	2,278 74
Surveys and inspections.....			11,864 20	11,864 20
Monument to the late Sir John A. Macdonald.....	240 50			240 50
Extra clerks—Secretary's branch..... \$29,864 90				
Chief Engineer's branch.... 50,989 48				
Chief Architect's do 27,066 64				
Telegraph service staff..... 2,900 00				
			110,821 02	110,821 02
COLLECTION OF SLIDE AND BOOM DUES.				
Saguenay District..... \$ 26 15				
St. Maurice do 759 63				
Ottawa do 1,097 98				
Newcastle..... 88 70				
Rivière du Lièvre lock 9 03				
do Yamaska do 25 92				
GENERALLY..... 138 75			2,146 16	2,146 16
Ottawa District:—Upper Ottawa Improvement Co.—				
Allowance re logs thro' Chenaux boom, 1895-96..			1,530 53	1,530 53
Totals.....	692,513 81	273,619 29	617,276 25	1,583,409 35

O. DIONNE,
Chief Accountant.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 9th February, 1897.

Department of Public Works.

APPENDIX No. 2

REPORT ON PUBLIC BUILDINGS

THROUGHOUT THE DOMINION

FOR THE FISCAL YEAR ENDED 30TH JUNE, 1896

BY THE

CHIEF ARCHITECT

Department of Public Works.

REPORT OF THE CHIEF ARCHITECT

DEPARTMENT OF PUBLIC WORKS,
CHIEF ARCHITECT'S OFFICE,
OTTAWA, 27th January, 1897.

SIR,—I have the honour herewith to transmit report of the various works performed under my charge during the fiscal year ended the 30th June, 1896.

I have the honour to be, sir,

Your obedient servant,

THOMAS FULLER,
Chief Architect.

E. F. E. ROY, Esq.,
Secretary of Public Works Department.

PROVINCE OF PRINCE EDWARD ISLAND.

CHARLOTTETOWN.

PUBLIC BUILDING.

The distal 300 feet of the drain into harbour was renewed in tile: the heating boilers, plumbing and gasfitting were repaired, the water-closet was sheeted with wood inside and some general minor repairs effected.

Work done under the supervision of the caretaker.

PROVINCE OF NOVA SCOTIA.

AMHERST.

PUBLIC BUILDING.

Repairs were made to shell and tubes of heating boilers, plastering of walls and ceilings repaired and kalsomined, and inside and outside wood work painted, oiled and varnished.

Work superintended by S. Adams, clerk of works.

ANNAPOLIS.

PUBLIC BUILDING.

The brick vault on first floor was provided with burglar proof doors.

Work inspected by C. E. W. Dodwell, resident engineer and inspector of public buildings, N.S., Halifax, N.S.

ANTIGONISH.

PUBLIC BUILDING.

Three new sections were put in hot water furnace, and general repairs were made to the building and inclosure fence.

Work done under the supervision of the caretaker.

DARTMOUTH.

PUBLIC BUILDING.

A coal bin was constructed in basement and some grading was done around building.

Work inspected by C. E. W. Dodwell, resident engineer and inspector of public buildings, N.S., Halifax, N.S.

HALIFAX.

DRILL HALL.

On 8th July, 1895, a contract was entered into for the construction of this building, of which a description was given in my report of last year, and the work has since been vigorously carried on. Plans, etc., prepared and work superintended by this department.

Resident engineer and inspector of public buildings, N. S., C. E. W. Dodwell, C.E.

Contractor, J. F. Askwith, Ottawa. Clerk of works, Wm. Bishop.

DOMINION BUILDING.

One of the steam-heating boilers having given out was removed and replaced by a new one, miscellaneous repairs were made throughout the building, and some new furniture supplied.

Work inspected by C. E. W. Dodwell, resident engineer and inspector of public buildings, N.S., Halifax, N.S.

EXAMINING WAREHOUSE.

Miscellaneous minor repairs were effected.

Work inspected by C. E. W. Dodwell, resident engineer and inspector of public buildings, N.S., Halifax, N.S.

IMMIGRATION BUILDING.

During December, 1895, and January and February, 1896, the Department of Railways and Canals constructed the foundation of creosoted piles for this building to the south of the new wharf and freight shed at the Deep Water Terminus, and on

Department of Public Works.

January 24th, 1896, a contract was entered into for the erection of the building thereon. It is to consist of a two story portion, 130 feet in length by 50 feet in breadth, with a one story portion forming a right angle with it, 160 feet in its greatest length by 75 feet in breadth. It is being constructed of wood, and will contain in the one story portion, baggage room, waiting room, disinfecting room, bath and water-closet, with a furnace chamber under the floor, and in the two story portion, waiting room, dining room, kitchen stores, and office on the ground floor, with dormitories over. Plans, etc., prepared and work superintended by this department.

Resident engineer and inspector of public buildings, N.S., C. E. W. Dodwell, C.E., Halifax.

Contractors, Messrs. Rhodes, Curry & Co., Amherst, N.S.

Clerk of works, W. J. Wiswell.

LAWLOR'S ISLAND.

QUARANTINE STATION.

The bichloride tower was painted, rain water eaves troughs to 3rd class passengers building and some signboards were supplied.

PICTOU.

POST OFFICE.

This building is completed, fitted up and furnished and heated by hot water heating apparatus.

Plans, etc., prepared by this department.

Works inspected by C. E. W. Dodwell, resident engineer, and inspector of public buildings, N.S., Halifax, N.S.; clerk of works, Jos. Hudson, Pictou, N.S.

Contractors for building and fittings, Rhodes, Curry & Co., Amherst, N.S.

Contractors for heating apparatus, F. Powers, Lunenburg, N.S.

TRURO.

POST OFFICE.

The entire area between the front of the building and the sidewalk was asphalted, a spring was put on front door and some minor repairs effected.

Work inspected by C. E. W. Dodwell, resident engineer and inspector of public buildings, N.S., Halifax, N. S.

WINDSOR.

POST OFFICE.

The money order office was enlarged and a new sidewalk constructed.

Work supervised by the caretaker of the building.

PROVINCE OF NEW BRUNSWICK.

BATHURST.

POST OFFICE.

A grate for furnace was supplied and minor repairs done.

CHATHAM.

POST OFFICE.

A new closet and some additional plumbing were put in and furniture supplied Customs and Inland Revenue. Work done under the supervision of Samuel Adams, clerk of works.

DALHOUSIE.

POST OFFICE.

Repairs were made to the heating apparatus.

FREDERICTON.

PUBLIC BUILDING.

The asphalt walk was repaired and in part relaid. New lock box fronts were put in post office screen.

Work done under the supervision of the caretaker.

MONCTON.

PUBLIC BUILDING.

Repairs were made to ceiling and a new section and fire pot supplied to furnace.

Work done under the supervision of the caretaker.

NEWCASTLE.

PUBLIC BUILDING.

A number of defective arches, lintels and stones were removed and replaced, the masonry was repointed throughout, the plastering was repaired and kalsomined and the woodwork and ironwork repaired and painted, new gates for yard, new hardwood floor for vestibule, new tubes in boiler, and new wire screen between P.O. screen and ceiling were furnished, and some minor repairs executed. Work superintended by S. Adams, clerk of works.

Department of Public Works.

PARTRIDGE ISLAND.

QUARANTINE STATION.

Two of the buildings were whitewashed and some repairs were made to the large hospital.

Work carried on under the supervision of W. J. McCordock, of this department, St. John, N. B.

PORTLAND (ST. JOHN).

POST OFFICE.

A new lock was furnished front door and repairs made to eaves troughs, down pipes, closet and cesspool.

Work carried out under the supervision of W. J. McCordock, of this department, St. John, N. B.

ST. JOHN.

CUSTOM-HOUSE.

Asphalt sidewalks were laid and curb reset, the main corridor floor tiles were taken up and reset, improvements were made in meteorological rooms and a new transit column furnished, 6 sets of outside doors were varnished, furnace grates were altered, door springs, hose, firing tools and furniture were supplied and repairs were made to plumbing, water service, lighting, bells, locks, &c.

Work carried out under the supervision of W. J. McCordock, of this department, St. John, N. B.

POST OFFICE.

The masonry was repointed, the down pipes were renewed in corrugated copper, a new office for the accountant was fitted up, the elevator well was cased and covered over with iron, the stamping tables were covered with zinc, a new storeroom for inspector was fitted up on the third floor, the mail bag-rack was extended, repairs were made to clocks, roof, vault, box and door locks, elevator, plumbing, gas-fitting, bells, lighting wires and water pipes, lock boxes were numbered, speaking tubes put in and furniture and carpets supplied.

Work carried out under the supervision of W. J. McCordock, of this department, St. John, N. B.

SAVINGS BANK.

Minor repairs were made to locks, gas fitting, water service and glazing.

Work carried out under the supervision of W. J. McCordock, of this department, St. John, N. B.

ST. STEPHEN.

PUBLIC BUILDING.

Brick gable was taken down and rebuilt, additional height was given to chimney, and the defective masonry and brickwork throughout restored and pointed. The plastered internal walls and ceilings were repaired and kalsomined, the interior and exterior woodwork were oiled, varnished or painted, repairs were made to roof, a granolithic footpath was laid on the street front, and the block-paved roadways at the sides renewed.

Work carried out under supervision of S. Adams, clerk of works.

SUSSEX.

PUBLIC BUILDING.

Repairs were made to the hot air apparatus and some ladders supplied.

TRACADIE.

NEW LAZARETTO.

Building completed and occupied, plans, etc., prepared by this department. Contractor for building, Wm. Stuart, Ottawa, Ont. Contractor for heating apparatus, David Ouimet, Montreal.

PROVINCE OF QUEBEC.

AYLMER.

POST OFFICE.

The building was connected with the water service of the town and the electric light installed; a coal-ash screen was furnished.

FRASERVILLE.

PUBLIC BUILDING.

Minor repairs were made to roof.

GROSSE ISLE.

QUARANTINE STATION.

The ss. "Challenger" was cleaned and repainted; the presbytery was repaired throughout, as well as the residence and outbuildings of the superintendent; wooden and iron ladders were supplied to the buildings.

Work inspected by A. P. Lepine, clerk of works, Quebec, P.Q.

JOLIETTE.

PUBLIC BUILDING.

The roof and chimney were repaired and a coal ash screen supplied.

LACHINE.

POST OFFICE.

A 6 inch tile drain was laid from building to St. Lawrence River and some minor repairs made to painting.

Work supervised by S. Adams, clerk of works.

Department of Public Works.

MONTREAL.

CUSTOM-HOUSE.

Repairs were made to roof, water-closet, plumbing, copper and eaves troughs; hot water pipes were covered, furniture supplied, etc.

Work carried out under supervision of C. Desjardins, clerk of works, Montreal.

EXAMINING WAREHOUSE.

The soil pipes and connections and the water service pipes were renewed; a new floor covering was laid in second flat, a new counter, some seats and step ladders were supplied the superintendent's office, a new partition was put in the hardware branch, and a new door in the boiler room. Repairs were made to hoists, furniture and hose.

Work done under the supervision of C. Desjardins, clerk of works, Montreal, P.Q.

INLAND REVENUE BUILDING.

Repairs were made to roof, water-closet and soil pipes.

Work done under the supervision of C. Desjardins, clerk of works, Montreal, P.Q.

POST OFFICE.

A double partition was built in customs parcels office, the boiler house partitions were altered, some of the water service pipes and fittings and also some of the letter boxes were renewed, and repairs were made to elevators, furniture, latrines, windows, pumps, cement flooring and flagstones of entrance.

Work superintended by C. Desjardins, clerk of works, Montreal, P.Q.

QUEBEC.

CITADEL, GOVERNOR GENERAL'S QUARTERS.

Repairs were made to plumbing and woodwork. The usual annual cleaning, painting and preparations for His Excellency's annual visit were done. Work done under the supervision of an officer of this department.

CUSTOM-HOUSE.

Repairs were made to water service and minor usual and ordinary general repairs.

Work inspected by A. P. Lepine, clerk of works, Quebec, P.Q.

EXAMINING WAREHOUSE.

New wooden sidewalks were laid around the building, and repairs were effected to skylights, hoisting machinery, boilers, plumbing, washbasins, etc., work inspected by A. P. Lepine, clerk of works, Quebec, P.Q.

IMMIGRATION BUILDING, LOUISE EMBANKMENT.

Stone pillars were put in to support verandah, the foundation of chimney was renewed, a portion of the verandah was refloored, and repairs were made to plastering and window sashes.

Work inspected by A. P. Lepine, clerk of works, Quebec, P.Q.

MARINE AND IMMIGRATION AGENCY, QUEEN'S WHARF.

The old pan water closets and the soil and drain pipes which had given out, were taken out and replaced by new sanitary plumbing. The interior of this building was white-washed and painted.

Work inspected by A. P. Lepine, clerk of works, Quebec, P.Q.

OBSERVATORY.

A new fence inclosing the Government land was put up, some new heating coils were put in and the furnace repaired.

Work inspected by A. P. Lepine, clerk of works, Quebec, P.Q.

POST OFFICE.

Electric lighting was installed in the new wing, the lavatories and water-closets were papered and painted, the pavement of yard was reset and the earth levelled. Furniture for apartments of inspector and clerk of works was provided and some repairs made to letter boxes and newspaper drawers.

Work superintended by A. P. Lepine, clerk of works, Quebec, P.Q.

RICHMOND.

PUBLIC BUILDING.

A contract for the construction of this building which was described in my report of last year was entered into on 6th November, 1895, and the work is in progress.

Plans, etc., prepared by this department.

Clerk of works, Wm. Ross, Richmond, P.Q.

Contractors, Paquet & Godbout, St. Hyacinthe, P.Q.

RIMOUSKI.

POST OFFICE.

The walls of this building which was described in my report of last year, were carried up to the level of the eaves, when the work was abandoned by the contractor.

Steps are being taken with a view to the completion of the works at an early date.

Plans, etc., prepared by this department.

Clerk of works, Pierre Raymond, Rimouski, P.Q.

Contractor, C. B. Beaulieu.

ST. HENRI.

POST OFFICE BUILDING.

New eaves troughs and down pipes were provided, and also a new entrance porch. Repairs were made to windows, letter boxes and locks, and a coal ash screen supplied.

Work inspected by C. Desjardins, clerk of works, Montreal, P.Q.

Department of Public Works.

ST. HYACINTHE.

POST OFFICE.

Some minor usual and ordinary repairs were effected and some ladders and a coal-ash screen supplied.

The site was inclosed by a stone retaining wall and a wooden fence and the electric light was installed in the building.

Work supervised by S. Adams, clerk of works.

ST. JÉROME.

PUBLIC BUILDING.

Repairs were made to chimneys, roof, and basement floor and a coal-ash screen supplied.

ST. LIN.

POST OFFICE.

A building situated on lot 1,278 Main St. of the Parish of St. Lin, was leased in April, 1895, and has since been renovated and furnished with post office fittings, furniture and safe.

Work inspected by S. Adams, clerk of work.

ST. VINCENT DE PAUL.

PENITENTIARY.

At the prison 140 feet of cut stone boundary wall, 27 feet high, and 91 feet of wall 37 feet high, as well as a cut stone angle tower 52 feet high to eaves line by 16 feet in diameter were built; the work on the main entrance gate were carried on, 8,000 cubic feet of stone being used therein, and twenty new window frames and sashes were provided. Three acres of the garden were inclosed by a stone wall. At the wardens residence a cut stone fountain was provided, the roof of the building was reshingled, and a new bath and closet room with complete plumbing therefor was put in.

Work done under the supervision of this department, Elzear Dagneault St. Vincent de Paul, clerk of works.

SHERBROOKE.

POST OFFICE.

A new smoke pipe for furnace was supplied and repairs to some lock boxes made.

SOREL.

POST OFFICE, ETC.

Some minor usual and ordinary repairs were effected and a coal-ash screen supplied.

THREE RIVERS.

CUSTOM-HOUSE.

A new wooden sidewalk was laid along the street line and repairs were made to plumbing and heating as well as general repairs in collector's room; and a coal-ash screen was supplied.

POST OFFICE.

A new wooden sidewalk was laid along the street line and repairs were made to plumbing, heating and door locks.

VALLEYFIELD.

POST OFFICE.

A new floor was put in post office, general repairs were made to woodwork and plastering and the inside and outside woodwork and plastering painted.

Works supervised by S. Adams, clerk of works.

WEST FARNHAM.

POST OFFICE.

The interior woodwork was painted and some window blinds, and a coal ash screen supplied.

PROVINCE OF ONTARIO.

ALEXANDRIA.

REFORMATORY.

The portions of this building now under contract will consist of a pentagonal hub or central portion, known as a rotunda (from which eventually the administration block and 4 cell wings will radiate) and one of the cell wings. The "rotunda" will be pentagonal on plan with a frontage of 100 feet, a depth of 115 feet and a height of 80 feet from the ground line to the top of the battlements. It is to be covered by a flat roof and surmounted by an octagonal lantern 50 feet in diameter and 30 feet in height surmounted by a ventilator 10 feet high with a finial 10 feet in length, making 50 feet from the top of roof. The "rotunda" is eventually to consist of a basement for heating and lighting plant and a ground floor, hall for dining and drilling convicts, but at present and until the administration wing is built the ground floor of the rotunda is to be partitioned off and a temporary ceiling put in 13 feet from the floor to provide office for the warden, deputy, storekeeper, surgeon, accountant, guards, etc., and the basement is to be temporarily divided to provide dining room, kitchen, bakery, laundry and stores, as well as the heating, fuel and dynamo rooms, which are to remain there permanently. To the west of the rotunda is to be a cell wing 141 feet long by 77 feet 6 inches, having a basement 14 feet from floor to ceiling, containing 40 cells 8 feet 6 inches, by 5 feet, and an upper portion 38 feet 9 inches from floor to ceiling containing three tiers of similar cells 40 on each tier. The outside walls of the building are to be stone, lined with brick,

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the facings of the cells, stone, the walling and vaulting of the cells brick. The flooring of the ground floor of iron joints with brick arching and concrete covering, the basement flooring is to be concrete, and the ground floor and basement partition, brick, the framing of rotunda roof is to be of iron, the remainder of the roof to be of wood, all covered with galvanized iron.

Plans, etc., prepared by this department, clerk of works, Mr. James Adams.
Contractor, Jos. Bourque, Hull, P.Q.

ALMONTE.

PUBLIC BUILDING.

A winter porch for rear entrance was supplied.

AMHERSTBURG.

POST OFFICE, ETC.

The water-closet were repaired and some hose and a coal-ash screen supplied.

BARRIE.

POST OFFICE.

Repairs were made to the roof, gasfitting and lawnmower, and a coal ash screen supplied.

BELLEVILLE.

POST OFFICE.

The locks were repaired and some minor usual and ordinary repairs were effected.

BERLIN.

POST OFFICE, ETC.

Usual and ordinary minor repairs were made under the supervision of the caretaker.

BRAMPTON.

POST OFFICE, ETC.

Usual and ordinary minor repairs were made under the supervision of the caretaker.

BRANTFORD.

POST OFFICE, ETC.

Repairs were made to the heating boiler and to the plastering as well as minor general repairs under the supervision of the caretaker.

BROCKVILLE.

PUBLIC BUILDING.

A quantity of plumbing was renewed and repairs were made to plastering, etc., under the supervision of the caretaker.

CAYUGA.

POST OFFICE.

Some shelving was furnished.

CHATHAM.

PUBLIC BUILDING.

The area about the building was boulevarded and inclosed with wooden posts and iron pipe railings.

Work done under the supervision of the caretaker.

COBOURG.

POST OFFICE, ETC.

A cement sidewalk with stone kerb was laid along the street fronts and some general minor repairs done under the supervision of the caretaker.

CORNWALL.

POST OFFICE, ETC.

The hot water heating furnace gave out and a new one was supplied, erected and connected with the heating service.

Repairs were made to tower clock.

GALT.

POST OFFICE, ETC.

The drain was repaired, a new heating coil put in, and a coal ash screen supplied. Work done under the supervision of the caretaker.

GUELPH.

POST OFFICE, ETC.

Repairs were made to the furnace smoke stack under the supervision of the caretaker.

HAMILTON.

PUBLIC BUILDING.

A new connection was made with sewer and repairs were made to block paving, eaves troughs, roof, hoist, gasfitting, plumbing and woodwork of post office.

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KINGSTON.

CUSTOM-HOUSE.

A granolithic sidewalk was laid along the street fronts.
Work done under the supervision of Jos. Power, architect, Kingston.

POST OFFICE.

A granolithic sidewalk was laid along the street fronts, some general minor repairs were done to the building and some carpets and furniture supplied the office.
Work done under the supervision of Jos. Power, architect, Kingston.

LINDSAY.

PUBLIC BUILDING.

Repairs were made to roof and eaves troughs and some office furniture and a coal ash screen supplied.
Work done under the supervision of the caretaker.

LONDON.

CUSTOM-HOUSE.

A new steam heating boiler replacing that which had been in use since the construction of the original building was put in and connected, and repairs were made to painting, glazing, plumbing and woodwork.
Work superintended by Jno. M. Moore, C. E., London, Ont.

POST OFFICE.

The cedar block paving of court yard was renewed, the steam heating apparatus was overhauled and in large part renovated, patent revolving doors were hung in the front entrance, repairs were made to plumbing, carpentering, painting and glazing and additional electric bells and furniture were supplied.
Work superintended by Jno. M. Moore, C.E., London, Ont.

NAPANEE.

PUBLIC BUILDING.

New storm sashes were supplied and usual and ordinary minor repairs done under the supervision of the caretaker.

ORANGEVILLE.

POST OFFICE.

The public lobby was refloored in maple, repairs were made to gaspipe, gas-tank and pump and a coal ash screen supplied.
Work done under the supervision of the caretaker.

ORILLIA.

PUBLIC BUILDING.

Electric lighting was installed and repairs were made to the heating furnace under the supervision of the caretaker.

OTTAWA.

CENTRAL EXPERIMENTAL FARM.

A two story wooden building on a stone basement for use as a sheep house is in course of construction. It is 115 feet 4 inches long by 30 feet broad.

The woodwork of the superintendent's residence was repainted. The water-closet and bath room of the horticulturist's residence was sheeted inside and the plumbing remodelled, a new wash basin was put in each bath room at horticulturists and chemists residences and at the latter hot-water connections from kitchen range to bath room. The heating furnace at the chemist's residence was repaired; new grate bars, smoke pipe and fire box as well as a wash basin and a coil for grain sprouting were put in conservatory; new sink wastes, gasfittings, grate drawbars were supplied at museum, and minor repairs made to buildings generally.

Work done by departmental staff.

DYNAMO HOUSE.

The ground in rear of building was levelled and the brick setting of boilers renewed. A shed used for storage by the chief engineer's branch was removed from the canal basin and re-erected in proximity to the dynamo house.

EASTERN BLOCK—DEPARTMENTAL BUILDING.

Stationery fitments were supplied the Interior and Secretary of State Departments, gasfittings were done for rooms 81, 87, 53, 137, 149, 113, 120, the office of Inspector of Penitentiaries and Deputy Minister of Justice, and in the offices of the Secretary of State; electric bells were hung for Under Secretary of State, Privy Council, Minister of Justice's library and messengers room; telephone connections were made from the Secretary of State; wash basins were put up for Finance and Interior Deputies, and a new heating coil in room 66. Usual and ordinary repairs were made generally throughout, the blinds and storm sashes were taken off and put on, carpets were taken up, cleaned and put down, the steps were covered with boards for the winter, etc., etc.

Work done by the departmental staff.

Mechanical engineer, Wm. King, Ottawa.

Clerk of works, F. Breton, Ottawa.

GEOLOGICAL MUSEUM.

The four rooms in the annex formerly heated by stoves were furnished with hot water heating coils, connected with the heating system of the building, and the coil in room 2b was remodelled. Electric bells were hung in rooms 2b and 3b and the wiring generally overhauled.

GOVERNMENT HOUSE.

At the hall one of the four hot water furnaces was disconnected and removed to the farther end of the basement to heat adjacent basement rooms and a branch over the furnace, and further coils were put in basement and connected therewith. A

Department of Public Works.

chamber was built under the chapel for the organ motor which was fitted up there and connected with city water pressure. Skylights were built in roof of verandahs. Stillroom hearths were taken up and relaid; the brickwork of tennis court, ballroom and stove house, as well as that at cottage lodge and carpenter shop was repaired, and the outside of ballroom and tennis court walls was recolored. A large part of the masonry foundation of the conservatory was rebuilt, a portion of the plant shelves was rebuilt, shelves were repaired, glass renewed and a new basement window put in for ventilation. A plate closet with gas plate heater and shelves were provided together with two cupboards and a bookcase, a large number of new wire netting, mosquito screens were provided and the existing screens painted. Repairs were made to ranges, plumbing, gasfitting, culinary apparatus, painting, glazing, and furniture, the coppers were retinned, extensive additions were made to the napery, packing cases were provided for the periodical removal and alterations and fitting for halls, suppers, etc., done from time to time.

The dairy was fitted up with tables shelves, stands, blinds, wire screens, hot water boiler, coal stoves, etc., etc.

The shelter room at skating rink was sheeted inside with wood.

A new water-closet with drain was constructed for stablemen.

The cowhouse was partially reshingled; the toboggan slides were repaired and part of the framing renewed and some of the flooring of stables was renewed. A driving track was graded, levelled and inclosed.

A part of the culvert of back road was rebuilt.

A large quantity of new sidewalk and crossings was laid, fences were repaired and some new fence built, the back road was macadamized and a large number of cedars cut down.

The usual periodical cleaning was done, arrangements for and attendance on entertainments were furnished and the grounds, rinks, slides, etc., kept in order.

Work carried out and maintained under the supervision of this department by the departmental staff.

Clerk of works, Wm. Hutchison.

Contractors for maintenance of grounds and conservatories, Messrs. Sorley and Sims, Ottawa.

Contractor for removal of snow, A. Hunter, Ottawa.

GOVERNMENT PRINTING BUREAU.

Light iron umbrella stands with galvanized iron trays were supplied, and also a quantity of rubber hose for watering the lawns; a slate sink was put up in the bindery, new water supply pipes were put in both east and west wings; changes were made in the heating pipes of the Queen's Printer's office, some of the steam mains were covered, and two gas brackets put in.

Usual and ordinary repairs done throughout.

Work done by departmental staff.

Mechanical engineer, Wm King, Ottawa.

Clerk of works, F. Breton, Ottawa.

LANGEVIN BLOCK.

A copper rain conductor was laid along the cornice of 3rd floor of south-east pavilion.

Gasfitting was done in rooms 18, 13 and in the Agriculture Department, a wash basin was placed in room 9, extra electric bells were hung in post office and Indian Department.

Iron ladders were put up, the full length of ventilation shafts to facilitate examination and repairs, the closet basin supply pipes being choked up with sediment were renewed; repairs were made to furnaces and boiler, grates new cables were supplied three of the elevators, a new gas governor and 30 new gas jets were put in

some minor alterations were made to hot water heating apparatus and the basement painted and whitewashed.

Work done by the departmental staff.

Mechanical engineer, Wm. King, Ottawa.

Clerk of works, F. Breton, Ottawa.

MAJOR'S HILL PARK.

The fences generally were repaired, the roof of shed was reshingled and the lawn benches repaired and repainted.

OBSERVATORY CLIFF STREET.

The grounds about the building was levelled and a new sidewalk laid.

PARLIAMENT BUILDING.

Alterations to the Senate restaurant and kitchen were effected; the speaker's rooms and those of the caretakers were cleaned tinted and painted, a new speaker's chair was supplied and the carpets taken up beaten and relaid.

Electric lights were fitted up in speaker's office, Senate reporter's room, and rooms 18 and 19; an electric bell was hung between messenger's room and room 51; speaking tubes were carried from messenger's room to upper corridor; a wash basin was placed in the basement bath room and a portion of the steam pipes covered.

At the House of Commons a new block pavement to gangway was put in, a number of the offices were cleaned, tinted and painted, some furniture repaired, and the carpets taken up, cleaned and relaid. Electric lights were placed in the speaker's dining room, barber's shop, deputy speakers office, and in room 3.

Gas lights were fitted up in the stationery vaults and gas logs in the speaker's parlor grates, and the speaker's plate warmer connected with the steam main. A new hood was provided for the chief messenger's gas stove, and a new slate sink for the kitchen. Repairs were effected to gas, water, and steam pipes, the kitchen range, the gas stoves, etc., etc.

Work done by the departmental staff.

Mechanical engineer, Wm. King, Ottawa.

Clerk of works, F. Breton, Ottawa.

PARLIAMENT GROUNDS.

The glazing painting, and woodwork of the greenhouse were repaired. The bridges, platform railings and cribwork of lovers' walk were maintained and repaired. A shed to store coal oil was erected at the canal basin.

The snow was removed and the ice stored and delivered.

The grounds, etc., were maintained to the satisfaction of the department.

Contractor for maintenance of grounds, etc., N. Robinson, Ottawa.

Contractor for removal of snow, W. H. Cuddie, Ottawa.

PUBLIC BUILDINGS, REPAIRING STREETS, ETC.

Scraping, cleaning, repairs were made to the roadway of east and west Canal streets, and on both sides of locks, Nepean Point roadway, Wellington, Bank, Metcalf, Elgin and St. Patrick streets, Major's Hill roadway, Little Sussex Street, also the yards of the Printing Bureau, Museums, Post Office and old Pump House. The sidewalks and crossings of Wellington Street, Cartier Square, St. Patrick Street and at the Museum were repaired, the boulevard on Wellington Street was also repaired, the grass of the Geological Museum and Cartier Square was kept clipped, and the

Department of Public Works.

ashes removed from the Langevin Block, Museums and Printing Bureau, the various roadways, sidewalks, foot paths, roofs and yards were kept clean of snow during the winter.

Work done by the departmental staff.

Contractor for the removal of snow, G. F. Guy, Ottawa.

SUPREME AND EXCHEQUER COURT BUILDING.

Gas fitting was done in the office of the registrar of the Exchequer Court and in library and a wash basin supplied registrars office.

WESTERN BLOCK.—DEPARTMENTAL BUILDING.

Gas fitting was done and fixtures supplied to office of Deputy Minister of Marine, marine records room and rooms 82, 92, 50, 148, 64, 60, 70, 74, 237, 100; chief architect's draughting office and the chief engineer's office; electric bells hanging was done from room 46 to 54 and 50 to 54, and in rooms 127, 134, 137, 6, 11 and 12; steam fitting was done in rooms 60 and 106 in the basement at east end in the Inland Revenue accountant's office. Sinks or wash basins were put in room No. 8, in laboratory room and in ladies closet room in basement; changes in water service of room 70 were made. A ventilating pipe to chimney was put in 74 and a lightning conductor was taken from the roof of the west block tower through drain to river and connected to water main in yard as well.

Usual and ordinary repairs were done to woodwork, plastering, painting, roofing, heating, water, gas, and other services, furniture, footpaths, drainage, etc., etc., carpets were taken up, cleaned and replaced, blinds and sashes were taken down, cleaned and put up, the roofs were cleared of snow, the outside steps boarded, etc.

Work done by the departmental staff.

Mechanical engineer, Wm. King, Ottawa.

Clerk of works, F. Breton, Ottawa.

PEMBROKE.

POST OFFICE, ETC.

Usual and ordinary repairs were effected under the supervision of the caretaker.

PETERBOROUGH.

CUSTOM-HOUSE.

The drain was cleaned and office doors repaired under the supervision of the caretaker.

POST OFFICE.

The sewer was opened, cleaned and flushed; repairs were made to eaves and water-closets and the electric light was installed in the clock tower.

Work done under the supervision of the caretaker.

PETROLIA.

PUBLIC BUILDING.

Usual and ordinary minor repairs were made under the supervision of the caretaker.

PORT ARTHUR.

PUBLIC BUILDING.

Repairs were made to heating furnace, plastering, oiling and varnishing and a new door spring was supplied.

Work done under the supervision of the caretaker.

PORT HOPE.

PUBLIC BUILDING.

The hot water heating furnace having given out was removed and a new one supplied and connected with heating apparatus and new smoke pipe put in.

Work done under the supervision of the caretaker.

PRESCOTT.

PUBLIC BUILDINGS.

The plumbing of these buildings was connected with the private service of the adjoining hotel, the proprietors of which have contracted to furnish a water supply.

Work supervised by S. Adams, clerk of works.

SARNIA.

PT. EDWARD CATTLE QUARANTINE STATION.

Repairs were made to office flooring.

ST. CATHARINES.

PUBLIC BUILDING.

Repairs were made to plumbing, some usual and ordinary minor repairs done and coal-ash screen supplied.

Work done under the supervision of the caretaker.

ST. THOMAS.

PUBLIC BUILDING.

The exterior of stonework was repointed, an inclosure iron railing and gate erected, a stamp vendor's office put up in the lobby, and a coal-ash screen supplied.

Work carried out under the supervision of the caretaker.

STRATFORD.

PUBLIC BUILDING.

The additions referred to in my report of last year are completed, and the heating apparatus has been repaired and extended inclusive of a new heating furnace.

Plans, etc., prepared and work supervised by this department.

Clerk of works, D. Scrimger, contractors for heating etc., Purdy, Mansell & Mashinter, Toronto, Ont.

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STRATHROY.

PUBLIC BUILDING.

Some minor repairs to woodwork, locks, etc., were done under the supervision of the caretaker.

TORONTO.

CUSTOM-HOUSE.

Usual and ordinary repairs were effected to heating apparatus, plumbing, inclosure railings, gas-fittings, door locks, clocks, etc. The plastering throughout was cleaned and re-tinted or painted, and the interior woodwork painted.

Cleaning and tinting done under supervision of Denison & King, architects, Toronto. Repairs mainly by mechanical staff in charge of Wm. Bell, engineer.

DRILL HALL.

A rotary ventilation was placed on the north chimney, a gas heater was supplied and fitted up in the caretaker's office, and some minor repairs done to hot water pipe.

EXAMINING WAREHOUSE.

Usual and ordinary repairs were effected to plumbing, steam heating, water service, hose, machinery, boiler, safe, hoists and engine room clock and a few articles of furniture were furnished.

Works done principally by the mechanical staff, Wm. Bell, engineer, in charge.

INLAND REVENUE BUILDING.

Usual and ordinary repairs were effected, principally by the mechanical staff to plumbing, heating, paper cutter, door locks, boilers, gas pipes and furniture. Wm. Bell, engineer, in charge.

POST OFFICE.

Some minor repairs were made to gas fitting, plumbing and general repairs to sockets of electric light. Work mainly done by the mechanical staff in charge of Wm. Bell, engineer.

TRENTON.

POST OFFICE

Portion of the plumbing and soil pipes were renewed under the supervision of the caretaker.

WALKERTON.

POST OFFICE.

A new drain was put in, repairs were made to roof and a coal-ash screen supplied.

Work done under the supervision of the caretaker.

PROVINCE OF MANITOBA.

PORTAGE LA PRAIRIE.

NEW PUBLIC BUILDING.

A contract for the construction of this building on town lots 25 and 26, corner of Anne Street and Saskatchewan Avenue, was entered into July 29th, 1895. The building is to have walls of stone, floors, partitions and roof of wood and the roof covering of galvanized iron, and is to consist of a main building of two stories, basement, and a one story annex. On the ground floor are to be the post office and examining warehouse, on the first floor the Customs and Inland Revenue, on the attic floor the caretakers, and in the basement the heating furnaces and fuel. Brick vaults are provided on ground and first floors.

Plans and specification prepared by this department.

Clerk of works, John Toye.

Contractors, Viau & Lachance, Hull, P.Q.

WINNIPEG.

POST OFFICE BUILDING.

A room was constructed and fitted up in basement for use as a customs parcel examining room. One of the steam boilers used for elevator power was condemned and replaced by a new one, some new fittings were supplied the Dominion Land Office.

Work superintended by D. Smith, clerk of works, Winnipeg, Man.

EXAMINING WAREHOUSE.

Repairs were made to the hot air furnace and the skylights were closed up.
Work superintended by D. Smith, clerk of works, Winnipeg, Man.

CUSTOM-HOUSE.

Some furniture was supplied, the bell hanging repaired, etc.
Work superintended by D. Smith, clerk of works, Winnipeg, Man.

IMMIGRATION HALL.

Repairs were made to the cistern and the fall pipes as well as minor general repairs to the building.

Work superintended by D. Smith, clerk of works, Winnipeg, Man.

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NORTH-WEST TERRITORIES.

MOOSEJAW, ASSA.

COURT HOUSE.

A fireproof brick vault with burglar proof doors was constructed in the building and some minor alterations made to the partitions, galvanized iron eaves troughs and down pipes. Stove pipes were supplied as well as some furniture for the office of the sheriff and clerk of the court, the earth was graded about the building and wood gullies fixed to carry off water from the down pipes.

Work superintended by D. Smith, clerk of works, Winnipeg, Man.

MOOSOMIN.

COURT-HOUSE.

The addition to this building described in my report of last year has been completed and the building is occupied.

Plans, etc., prepared by this department.
Clerk of works, D. Smith, Winnipeg, Man.
Contractor, J. W. Smith.

POLICE BARRACKS.

Minor general repairs were effected under the supervision of D. Smith, clerk of works, Winnipeg.

REGINA, ASSA.

COURT-HOUSE.

An inclosure was built in attic about the water cisterns, provided with a hot water heating coil.

Work superintended by D. Smith, clerk of works, Winnipeg, Man.

DOMINION LANDS OFFICE.

The office was fitted up with counters, cases, shelving, screens, etc.
Clerk of works, D. Smith, Winnipeg, Man.

GOVERNMENT HOUSE.

The kitchen waste and water service pipes were overhauled and repaired.
Work superintended by D. Smith, clerk of works, Winnipeg, Man.

NORTH-WEST POLICE BARRACKS.

Barrack Block "B" together with mess rooms, kitchen, etc., in rear of same were lifted 3 feet, the defective sills and joints replaced, ground excavated and a stone basement built under the whole extent.

Plans, &c., prepared by this department.
Clerk of works, D. Smith, Winnipeg, Man.
Contractor, Wm. Henderson, Regina.

WOLSELEY, ASSA.

COURT-HOUSE.

Building completed and occupied.
 Plans, etc., prepared by this department.
 Clerk of works, Charles Taylor, Wolseley, Assa.
 Contractors for construction, Banbury & Magee.
 Contractors for heating, McKinley & Northwood, Ottawa.

PROVINCE OF BRITISH COLUMBIA.

NANAIMO.

PUBLIC BUILDING.

New outside steps were provided and some additional gasfitting done under the superintendence of F. C. Gamble, resident engineer, Victoria, B.C.

NEW WESTMINSTER.

DRILL HALL.

The roof principal and slating injured by the earthquake were repaired, ventilators were put in to protect floor from dry rot, and minor repairs were made to locks, windows and grates.

Work superintended by F. C. Gamble, resident engineer, Victoria, B.C.

NEW DRILL HALL.

On August 13, 1895, a contract was entered into for the erection of this building on the north-eastern corner of Queen's Avenue and Sixth Street, a portion of the Government reserve donated by the Provincial Government. The building is of wood, 150 feet long by 80 feet broad, including armories and gun room.

Plans prepared and work superintended by F. C. Gamble, resident engineer, Victoria, B.C.

Contractor, David Bain.

POST OFFICE.

Minor repairs were made to roof and a new door-lock and counter were supplied.

Work superintended by F. C. Gamble, resident engineer, Victoria, B.C.

VANCOUVER.

PUBLIC BUILDINGS.

Minor repairs were made to roof, glazing, furniture, etc.

Work superintended by F. C. Gamble, resident engineer, Victoria, B.C.

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GUN SHED.

A wooden gun shed 24 feet by 40 feet was constructed on a plot of land opposite that occupied by the 5th Regt., C.A.

Work superintended by F. C. Gamble resident engineer, Victoria, B.C.
Contractor, J. M. Luckie.

VICTORIA.

CUSTOM-HOUSE.

Minor repairs were made to bell hanging, gasfittings, door hardware and furniture.

Work superintended by F. C. Gamble, resident engineer, Victoria, B.C.

NEW PUBLIC BUILDING.

Fair progress has been made during the year on this building, which was described in my report of last year. The resident engineer in charge reports on the advantage gained by having the stone inspected in the quarry, a few pieces that had been exposed to salt water were dressed and showed discoloration by exudation and deterioration by efflorescence, the tool marks gradually disappearing.

Plans and specifications were prepared and tenders asked for the construction of a hot water heating apparatus.

Plans, &c., prepared and work supervised by this department.

F. C. Gamble, C.E., resident engineer.

Contractors, Messrs. Elford & Smith, Victoria, B.C.

POST OFFICE, ETC., BUILDING.

Some new fittings and furniture were supplied, new doors were provided for vestibules and public lobby, and repairs were made to gasfitting, plumbing, roofing, down pipes and sewer connections.

Work supervised by F. C. Gamble, resident engineer, Victoria, B.C.

MILITARY STOREHOUSE.

Building completed and occupied.

Plans, &c., prepared and work superintended by F. C. Gamble, C.E., resident engineer, Victoria, B.C.

Contractors Messrs. Bragg & Pike, Victoria.

WILLIAM'S HEAD, B.C.

QUARANTINE STATION.

Repairs were made to the water supply, and the machinery, a wagon road connecting the station and the main road was constructed and some hospital beds and a few other articles of equipment supplied.

Work superintended by F. G. Camble, resident engineer, Victoria, B.C.

DOMINION BUILDINGS.

FUEL.

Tenders were invited by public advertisement for the supply of coal at 137 of the public buildings, and coal and wood supplied to over 200 buildings in all.

LIGHTING.

The lighting of the various Dominion buildings is under the control of this branch of the department. Of these buildings 84 are lighted by gas, 59 by incandescent electric light, 2 by gasoline, 2 by natural gas, and the remainder by coal oil. At several of the last mentioned, the entrance is illuminated by an arc light outside.

WATER.

The water supply for the various public buildings, excepting the penitentiary and military buildings, is controlled by this branch of the department; 122 buildings at 68 localities have water service connected with water supply of the local water-works companies, the remainder being in general supplied with wells, pumps and tanks.

ENGINEERS, FIREMEN, &c.

The various engineers, firemen and caretakers, 247 in number, including employees at parliament and departmental buildings at Ottawa, and the heating apparatus of Dominion public buildings, with the exception of those of the various penitentiaries and military buildings, are under the control of this branch of this department.

GENERALLY.

Repairs and alterations have been executed and sundry articles of furniture, etc., provided, cleaning, painting and other improvements carried out in connection with a number of buildings, not herein reported upon.

Department of Public Works.

APPENDIX No. 3

REPORT

ON

HARBOURS AND RIVERS, DREDGES, DREDGING AND SURVEYS

THROUGHOUT THE DOMINION

FOR THE FISCAL YEAR ENDED 30TH JUNE, 1896

BY THE

CHIEF ENGINEER

Department of Public Works.

REPORT OF THE CHIEF ENGINEER

DEPARTMENT OF PUBLIC WORKS OF CANADA,

CHIEF ENGINEER'S OFFICE,

OTTAWA, 2nd December, 1896.

E. F. E. ROY, Esq., Secretary,
Department of Public Works.

SIR,—I have the honour to submit my report on the various works under my charge during the fiscal year ended 30th June, 1896.

The works consist in the construction of and repairs to wharfs, piers and breakwaters; dredging and the maintenance of the dredging plant belonging to the department; the construction and maintenance of graving docks; the maintenance and working of slides and booms; the construction and maintenance (in conjunction with the provinces interested) of interprovincial bridges, and of bridges in the North-west Territories; hydrographic surveys and examinations required for the preparation of plans and reports.

WHARFS, PIERS AND BREAKWATERS.

During the year 1895-96, works were carried on at the following places:

Nova Scotia.

Arisaig.....	Antigonish County.....	Repairs to pier.
Bass River.....	Colchester Co.....	Construction of wharf,
Bayfield.....	Antigonish Co.....	Repairs to wharf
do.....	do.....	Repairs to breakwater.
Belliveau's Cove.....	Digby Co.....	Reconstruction of breakwater.
Big Pond.....	Cape Breton Co.....	Repairs to wharf.
Boularderie Ross Ferry.....	Victoria Co.....	Construction of wharf.
Broad Cove.....	Inverness Co.....	Reconstruction of wharf.
Cow Bay.....	Cape Breton Co.....	Repairs to breakwater.
D'Escousse.....	Richmond Co.....	Construction of slip, etc.
Digby.....	Digby Co.....	Reconstruction of pier.
Eatonville.....	Cumberland Co.....	Repairs to breakwater.
Economy.....	Colchester Co.....	Repairs to wharf.
Georgeville.....	Antigonish Co.....	Extension of wharf.
Grand Etang.....	Inverness Co.....	Formation of boat harbour.
Hall's Harbour.....	King's Co.....	Reconstruction of breakwater.
Harbourville.....	do.....	Repairs to breakwater.
Margaree.....	Inverness Co.....	Beach protection.
Monk's Head.....	Antigonish Co.....	Opening boat channel.
Parrsboro'.....	Cumberland Co.....	Improvements to pier.
Port Lorne.....	Annapolis Co.....	Repairs to breakwater.
Port Maitland.....	Yarmouth Co.....	do do
Sea Side.....	Inverness Co.....	Construction of wharf.
West Chezzetcook.....	Halifax Co.....	Reconstruction of breakwater.

New Brunswick.

Anderson's Hollow	Albert Co.	Repairs to breakwater.
Cape Tormentine	Westmoreland Co.	Repairs to wharf.
Dalhousie	Restigouche Co.	do do
Gardner's Creek	St. John Co.	Construction of wharf.
Negro Point	do	Repairs to breakwater.
River St. John		Improvements to navigation.
Shediac (Pt. du Chêne)	Westmoreland Co.	Repairs to ballast wharf.

Prince Edward Island.

Belfast	Queen's County	Repairs to pier.
Brae	Prince Co.	do
Clifton	Queen's Co.	do
Kier's Shore	Prince Co.	do
Lambert's	King's Co.	do
McGee's	Prince Co.	do
Murray Harbour	King's Co.	do
New London	Queen's Co.	Reconstruction of breakwater.
North Cardigan	King's Co.	Repairs to pier.
Pinette	Queen's Co.	do
Port Selkirk	do	do
Rustico North	do	Repairs to old work and construction of new.
Souris	King's Co.	Repairs to breakwater.
Stephen's	do	Repairs to pier.
Victoria-Crapaud	Queen's Co.	do
Wood Islands	do	Construction of pile work.

Quebec.

Baie St. Paul	Charlevoix Co.	Construction of wharf.
Berthier (<i>en bas</i>)	Montmagny Co.	Repairs to wharf.
Chateauguay	Chateauguay Co.	Extension of wharf.
Chicoutimi	Chicoutimi Co.	Repairs to wharf.
Etang du Nord	Gaspé Co.	Repairs to breakwater.
Grande Rivière	do	Extension to wharf.
Ile aux Coudres	Charlevoix Co.	Repairs to wharf.
Lacolle	St. John's Co.	do
Landing Places (Lower St. Lawrence)		Improvement of boat landings.
Laprairie	Laprairie Co.	Protection work.
Les Eboulements	Charlevoix Co.	Repairs to wharf.
Longueuil	Chambly Co.	Repairs to pier.
Matane	Rimouski Co.	Repairs to breakwater.
Murray Bay	Charlevoix Co.	Repairs to wharf.
Petite Rivière St. François	do	Removal of rocks.
Philipsburg	Missisquoi Co.	Construction of wharf.
Pointe aux Esquimaux	Saguenay Co.	Extension of wharf, &c.
Rivière du Lièvre	Ottawa Co.	Repairs to lock, dam, &c.
Rivière du Loup (<i>en bas</i>)	Témiscouata Co.	Repairs to wharf.
Rivière Noire	Charlevoix Co.	Construction of breakwater.
River St. Maurice		Improvements to navigation.
River Touladie	Témiscouata Co.	do do
River Yamaska	Yamaska Co.	Repairs to lock and dam.
Ste. Anne de la Pérade	Champlain Co.	Protection work.
Ste. Anne du Saguenay	Chicoutimi Co.	Repairs to block.
Ste. Cécile du Bic	Rimouski Co.	Repairs to wharf.
St. Felician	Chicoutimi Co.	Construction of wharf.
St. Irénée	Charlevoix Co.	Extension of wharf.
St. Jean, Ile d'Orléans	Montmorency Co.	Repairs to pier.
St. Laurent, do	do	do
Trois Pistoles	Témiscouata Co.	Removal of rocks.

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Ontario.

Big Bay.....	Grey Co.....	Repairs to pier.
Burlington Channel.....	Wentworth Co.....	Repairs and improvements.
Cohourg.....	Northumberland Co.....	Repairs to pier.
Collingwood.....	Simcoe Co.....	Repairs to breakwater.
Kircardine.....	Bruce Co.....	Repairs to north pier.
Kingston.....	Frontenac Co.....	Removal of shoal.
Louis Head.....	Bruce Co.....	Repairs to pier.
Morpeth.....	Kent Co.....	do
Oakville.....	Halton Co.....	do
Owen Sound.....	Grey Co.....	Harbour improvements.
Port Dover.....	Norfolk Co.....	do
Port Elgin.....	Bruce Co.....	Repairs to breakwater, &c.
Port Hope.....	Durham Co.....	Repairs to piers.
Toronto.....	York Co.....	Harbour works.
Thessalon.....	Algoma Co.....	Construction of wharf.

Manitoba,

Hnausa.....	Lake Winnipeg.....	Construction of wharf.
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British Columbia.

Columbia River.....	Improvement to navigation.	
Fraser River.....	do	do
Kootenay River.....	do	do
Okanagan River.....	do	do
Skeena River.....	Removal of snags.	
Victoria Harbour.....	Removal of Dredged rock.	

PROVINCE OF NOVA SCOTIA.

ARISAIG.

Arisaig, Antigonish County, is situated on the southern shore of St. George's Bay, 15 miles to the eastward of Merigomish, the nearest harbour.

A pier commenced by the Government of Nova Scotia some years prior to confederation, came under the charge of the Federal Government in 1870, being at that time an old and somewhat dilapidated structure. During 1873 it was thoroughly repaired, and small amounts were expended in 1880 and 1881, in repairing damages caused by the ice during previous winters.

Extensive repairs to the pier having been found necessary, a contract was made in 1886 for their execution, and also for the construction of a breakwater on the western side of the harbour. The whole of these works were completed in 1888, and at that date the pier was 440 feet in length, consisting of an approach and an outer portion of 195 feet in length and varying from 40 to 44 feet in width. There was, at extreme low water, a depth of only one foot at the outer end, and over the area sheltered by it the depth of water did not exceed 3 feet.

The breakwater is 300 feet in length and 20 feet in width on top, with an L at the outer end 40 feet in length, the depth at the outer end, at extreme low water, being 6 feet.

During 1889-91 the pier was extended a distance of 100 feet, and a portion of the northern or seaward face was protected by a deposit of heavy stone. This extension was founded on a bottom dredged to a depth of 8 to 10 feet at extreme low water, and a channel or basin was dredged for a length of 130 feet along the pier, and for a width of 70 feet to a depth at extreme low water varying from 10 feet at the outer end, to 3 feet at the inner end.

In December, 1889, the pier was damaged, and during the great gale of December, 1890, further damage was done to the superstructure; a portion of the seaward face was carried away, and the sidewalls and top of the approach were also much damaged. During 1891-92 extensive repairs, including the reconstruction of 50 feet of the outer end of the pier, and an extension of the stone talus or slope on the seaward side were made.

During 1893-94, the sum of \$1,830.25 was expended on refastening the covering of the head of the breakwater on the western side of the harbour, and in completing the repairs to the pier proper, commenced in 1891-92, which consisted in renewing the covering, cap timbers, upper face-timbers, floor-stringers and upper cross-ties over one-half of the width of the pier for a length of 75 feet, and filling the same with ballast to a depth of 2 feet. The approach for a length of 140 feet was repaired, and an embankment of stone was made extending along 250 feet of the inner face. About 100 cubic yards of large stone were placed against the outer face, at the junction between the old pier and the extension built in 1889.

During the fiscal year 1895-96, the sum of \$999.10 was expended in repairing and strengthening the outer end of the pier. Over 63 feet of facework the close fendering was renewed and protected by a talus of concrete, sloping 2 to 1 from 5 feet above the bottom; about 100 cubic yards of large stone was placed along the seaward face, and 30 cubic yards of ballast in empty face-chambers, and the cap-timbers, over a length of 110 feet, were extra bolted to face-timbers and fenders.

Soundings taken in 1895 show that the dredged channel, or basin has filled, except near the outer end of the pier. A barge loaded with iron ore, which foundered in September, 1893, and for some time obstructed the approach to the inner side of the pier, has been removed by the owner.

Spring tides rise 5 feet.

BASS RIVER.

Bass River, Colchester County, is a thriving farming and manufacturing village of some 500 people, situated on the north side of Cobequid Bay, the eastern arm of the Bay of Fundy. It is halfway between Truro and Parrsboro', or about 28 miles from each place.

In December, 1894, a contract was awarded to Mr. John McMillan, of Port Hood, C.B., for the construction of a pile wharf, for the purpose of shipping lumber and landing general merchandise, at a cost of \$2,840. It was finished in August, 1895. The work is 210 feet long and 40 feet wide, with an L at the outer end 55 feet long and 40 feet wide. At the outer end of the L it was found necessary to build a small block of cribwork containing 8,000 cubic feet, on account of the hard nature of the bottom preventing the piles from being driven to a proper depth. This was built at a cost of \$400.00.

BAYFIELD.

Bayfield, Antigonish County, is on the south coast of St. George's Bay, 8 miles east from Antigonish Harbour, and 15 miles west from the entrance to the Strait of Canso, the harbour being formed by Pomquet Island and outlying reefs.

Pomquet Island is about three-quarters of a mile long, and is separated from Pomquet Point, on the mainland, by a strait 1,850 feet wide, with a depth of 4 feet at low water in a channel 400 feet wide.

Wharf.

In 1857, the construction of a wharf was commenced by a joint stock company on the west side of the harbour, a quarter of a mile south from Pomquet Point. It was handed over to the provincial government and completed in 1873. When it came under the charge of the Federal Government in 1887, it was a block and span

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structure 402 feet in length, extending to 9 feet at extreme low water. In 1887-88 the two outer and adjoining blocks were raised, repaired and close piled; the central block and the shore block were cut down to low water; and a continuous work was constructed between the outer blocks and the shore.

By the great gale of the 1st December, 1890, the work was carried away down to from 6 feet below low water at the outer end, to 3 feet above low water 112 feet from the inner end.

In 1892-93 a contract was entered into for the construction of a new wharf. The work under contract was completed, and the approach to it was improved by one of the departmental dredges, in 1893-94.

The new wharf is 442 feet in length, including 33 feet of rubble masonry, 319 feet of block and span open-faced cribwork 25 feet wide, and 90 feet of close-faced cribwork in two blocks each 60 by 30 feet, placed at right angles. The substructure of the open-faced cribwork and of the outer close-faced cribwork is of creosoted North Carolina yellow pine, and the superstructure of native timber. The depth at extreme low water at the outer end is 11 feet. Spring tides rise 4 feet.

Since its completion the blocks of both open and close-faced work have settled considerably, principally on the northern side.

In May and June, 1896, the sum of \$348.37 was expended in levelling up 127 feet of the block and span work and in slight repairs to the covering between the two outer close-faced blocks.

Breakwater.

A breakwater 400 feet in length, was constructed in 1879, and extended 310 feet in 1888. The work consisted of a crib-core, 18 feet in average width, covered with stone, sloping on the seaward side 3 to 1 and on the inner side one and a half to one. It continued undisturbed until the occurrence of the gale of the 1st December, 1890, when the stone covering was stripped off, nearly to high water level, to within 160 feet of the inner end.

During the years 1892-93 and 1893-94, the breakwater was repaired and extended. The work done included an extension 70 feet in length with an L or return at the outer end 40 feet in length and the reconstruction of the top work and covering over a length of 475 feet, or to within 220 feet of the inner end.

In 1895-96 the sum of \$1,021.18 was expended in completing the reconstruction of the top work and covering, and in repairing and strengthening the outer end. The top work was reconstructed over a length of 170 feet (50 to 220 feet from the inner end); over the outer end, or head, the talus was reconstructed in places, and about one-half of the covering stones were renewed and the space between the covering stones above 1 foot below high water, over 200 feet from the outer end, were filled in with cement concrete.

BELLIVEAU'S COVE.

Belliveau's Cove, Digby County, is situated on the eastern shore of St. Mary's Bay, about four miles south-west of Weymouth. It has a population of 200 to 300 and is one of the most important shipping and fishing ports on the east coast of Digby County.

The harbour, which is dry at low water, is formed by two piers or breakwaters, the northern now 500 feet long built in 1825, and the southern 350 feet long in 1853, both at the joint expense of the inhabitants and the provincial government. Both works are built of round log stone-filled cribwork of the usual type, and they inclose an area of about three acres, over the greater part of which is a depth of 12 feet of water at high water ordinary spring tides.

During the year, the sum of \$500 was expended in taking down and rebuilding a portion of the shoreward end of the south side of the northern breakwater, which was in an advanced state of decay. The new work is 150 feet long, of an average height of

12 feet and from 10 to 14 feet wide; it has been well and strongly built, and full ballasted and bolted. The remaining portion of this breakwater will require similar rebuilding within the next two or three years.

BIG POND.

Big Pond, Cape Breton County, is on the south side of East Bay, an arm of the Great Bras d'Or Lake, and 13 miles from the head of the bay.

The wharf, commenced in 1887-88 was completed the following year. It is 269 feet in length and 20 feet in width, and consists of an approach of brush and stone with 12 feet of cribwork at its outer end and 5 blocks with openings of about 17 feet 6 inches. The depth at the outer end is 8 feet at low or, 9 feet 3 inches at high lake level.

During the year 1895-96 the sum of \$150.00 was expended in repairing the approach and outer blocks, and in placing about 115 cubic yards of ballast in the outer block and in the west face chambers of the other blocks. The ballast is now about three feet below the top of the covering in each block.

BOULARDERIE (ROSS' FERRY.)

Ross' Ferry landing, Victoria County, is on the northern side of Boularderie Island, 13 miles to the westward of the principal entrance to the Great Bras d'Or Lake.

The public wharf, built in 1884-85, a mile and a quarter to the eastward of Ross' Ferry Landing, having fallen out of repair, a contract was entered into in August, 1895, for the construction of a new wharf at a point about midway between the old wharf and the ferry landing.

The work under contract, includes a road cutting 106 feet in length; an approach 33 feet in length and 20 feet wide, consisting of a brush and stone embankment and a stone abutment; creosoted pile work 61 feet in length and 20 feet wide; and a cribwork head 20 by 50 feet with creosoted substructure.

During the year 1895-96 the road cutting and approach were completed, the expenditure, including the cost of inspection, amounting to \$412.67; and nearly all the native timber required was delivered.

BROAD COVE.

Broad Cove Marsh, Inverness County, is on the Gulf of St. Lawrence, 12 miles south from Margaree Harbour.

The wharf at this place was completed in 1888. It was 400 feet in length and 26 feet in width on top, and was constructed in separate blocks up to a little above low water, with continuous superstructure. The outer block and the block next it were respectively 56 and 68 feet in length. The depth at the outer end at extreme low water was 12 feet 10 inches.

In 1890 slight repairs were made to the covering and cap-timbers near the outer end, and several of the outer pockets on the east side were reballasted.

In December, 1890, the work was badly damaged, the superstructure was destroyed over a distance of 100 feet from the outer end, and the top broken up for a further distance of 60 feet. The outer block went down four or five feet below low water, and the second block to low water over 44 feet of its length; ballast went out of the face chambers on the east side to within 160 feet of the inner end, and during the years, 1891-94 the work was reconstructed, reballasted, and strengthened by close fendering.

While repairs were in progress in the autumn of 1893, and again in January, 1894, the work sustained serious damage through loss of ballast, which was washed out through openings on the northern side. Subsequently it was carried away down to below low water, to within 207 feet of the inner end.

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In 1894-95 the work was partially reconstructed inwards from 207 feet from the inner end. During the year 1895-96 the sum of \$500.00 was expended in completing the reconstruction of the work inwards from 207 feet from the inner end. The work done includes placing two courses of face timbers over 39 feet on the southern side, 25 feet at the outer end, and 52 feet on the northern side; placing stringers and covering over 52 feet from the outer end; placing about 25 cubic yards of ballast; close fendering 39 feet on the southern side, 25 feet at the outer end, and 95 feet on the northern side; and placing a few large stones along the northern or seaward face.

The reconstructed work is in good condition, but its inner face is obstructed by a deposit of ballast, and is available for boats only at high water.

COW BAY.

Cow Bay, Cape Breton County, is on the eastern coast of Cape Breton Island about 18 miles eastward of Sydney Harbour. Owing to extensive coal mines in its vicinity it is a place of considerable importance.

The bay is two and a half miles wide at its mouth, and being open to the Atlantic from the east, affords no safe anchorage during gales from that quarter.

A breakwater was built on the north side of the bay, prior to 1867, by Messrs. Archibald & Co., proprietors of the Gowrie mines, with some aid from the Government of Nova Scotia.

It is 1,386 feet in length, and was originally about 44 feet in width, and had a depth, at the outer end, at low water, of 17 feet. The area of the basin inclosed between it and the loading pier of the Gowrie mines is about 17 acres, 10 acres of which had originally a depth of from 9 to 17 feet at low water. Spring tides rise 5 feet.

In 1873, while repairs were in progress by the department, the breakwater was seriously damaged by the great gale of the 24th August. After the gale, operations were resumed, the balance of the amount appropriated being largely supplemented by Messrs. Archibald & Co.

In 1874, Messrs. Archibald & Co.'s, interest in the breakwater was acquired by the Dominion Government, and a contract entered into in May, 1876, for repairing and strengthening the structure, was completed in July, 1877. Extensive repairs have been made nearly every year since 1877, and the work has been strengthened by the addition of counterforts or outer face works, and by close piling.

The breakwater, prior to the gales of the 3rd and 8th February, 1895, consisted of an inner work extending from within 220 feet of the shore end to the outer end, and of counterforts with connecting outer face works, from within 580 feet of the shore end to within 56 feet of the outer end. The outer and inner works were about 22 feet apart, and were connected by tie walls. The spaces between them were filled with earth and stone ballast.

During the gales referred to, a breach was made through the breakwater near the outer end, 140 feet of the outer face work (including 70 feet recently reconstructed) being destroyed, and the work opposite to it, carried away down to below low water; about 25 feet of the outer work between the two outer counterforts was destroyed; ballast was washed out in several places; and some close-piling was carried away.

During the year 1895-96 the sum of \$3,999.87, was expended in urgent repairs, including reconstructing, close piling, and reballasting portions of the outer face-works, placing concrete in face timbers, reballasting, and renewing the covering of the two outer counterforts; slight-repairs to the inner counterfort; renewing the covering of three tie walls between outer and inner face-works; and in cutting away loose timbers at the ends of the outer and inner face work next the breach.

Owing to the exposed position of the breakwater, and to the fact that the outer works are insecurely founded on the remains of the original structure or on ballast, and that they have been weakened by the ravages of the teredo, it is always liable to damage during easterly gales.

D'ESCOUSSE.

D'Escousse, Richmond County, is a thickly settled district of Isle Madame, on the southern side of Lennox Passage, a strait separating the island from the mainland, and connecting St. Peter's Bay with the Strait of Canso.

A contract entered into in 1893-94 for the construction of a wharf at Poulement; about half a mile to the westward of the village of D'Escousse, was completed the following year. The work consists of an approach 315 feet in length, a stone embankment 107 feet in length, and a creosoted pile extension 120 feet in length. The depth at extreme low water at the outer end of the work, obtained by dredging in 1894-95, is 10 feet. Spring tides rise 6 feet, neaps 4 feet.

During the year 1895-96 the sum of \$236.54 was expended in constructing a slip on the west side of the pile extension, and in widening the approach at its intersections with the highway and with the stone embankment.

DIGBY.

The town of Digby, county of Digby, population 1,500, is situated at the south western end of the Annapolis Basin. It is an important station on the Dominion Atlantic Railway, 150 miles from Halifax, 20 from Annapolis and 67 from Yarmouth, the terminus, and a daily steamer runs to St. John, N.B., in connection with the railway service.

The pier, which was first built by the provincial government some years before confederation, is an important and substantial composite structure partly of cribwork and partly of pile work, 870 feet long and 40 feet wide. Its outer end is 40 feet high and at high water ordinary spring tides, carries about 33 feet of water. Spring tides rise 24 feet, neaps 18 feet.

During the year the sum of \$4,341.99 was expended in filling with substantial close piled trestle work a recess in the northern side of the pier, 210 feet long and 17 feet wide, and in renewing and raising from 1½ to 3 feet the floor of the outer 225 feet in length of the pier. The object in filling the recess was to enable the steamer to come to a berth alongside the north face during high water, and to afford more floor space for the hauling of freight. The work done is a valuable and important improvement to the pier which is now in excellent condition.

EATONVILLE.

Eatonville, Cumberland County, formerly known as the "Three Sisters" is situated on the south-east side of Chignecto Channel, about 10 miles north-east of Cape Chignecto, and 35 south-west from the Joggins.

In 1887-8, a breakwater 123 feet long, 20 feet wide, and of an average height of 15 feet, was built by the department at a cost of \$2,000 for the purpose of protecting the gravel beach that forms the harbour, and to serve also as a loading wharf for the shipment of timber.

During 1888-9, under an appropriation of \$3,000, an extension 80 feet in length was begun, but when the work was about half finished, it was seriously damaged by a heavy gale, which also cut away the gravel beach at its inner end, and undermined the inner face. The new work was at once suspended and the balance of the appropriation devoted to the construction of some beach protection work, and to the securing for the winter of the new work so far as it had been built.

In 1889-90, at a cost of \$2,000, the extension begun the previous year was satisfactorily completed, it, as well as the first portion of the work, being strongly built of round log cribwork, well fendered and ballasted, and close sheathed on the outer side with 6 inch flatted spars.

In 1892, a further extension, shorewards this time, was built 205 feet long to fill the gap between the shoreward end of the previous work and the outer end of

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Messrs. Eaton's wharf. This new piece of work is 20 feet wide, and from 10 to 19 feet high. Its outer face is close piled its whole length, with large piles driven through the gravel to the solid rock. Its cost was \$2,700.

Early in the spring of 1895, the stream that enters the bay alongside the breakwater, having an unusually heavy freshet, caused the work to settle from two to three feet. During the year the sum of \$250.61 was expended in raising and levelling the floor of the breakwater.

ECONOMY.

Economy, Colchester County, is situated on the north side of the Basin of Minas, 17 miles west of Great Village and 21 east of Parrsboro'.

A wharf was built by the department in 1887-88, 208 feet long and 25 feet wide, at a cost of \$2,500.

In the summer of 1890, an extension was built 100 feet long and 25 feet wide with an L 25 feet long on the outer end, at a cost of \$2,500. In the summer of 1891, a second extension was built 100 feet long of the same width as the rest of the structure, at a cost of \$2,200. In the autumn of 1891, a third extension was built 55 feet in length, at a cost of \$1,000.

The whole structure was substantially built of round log cribwork, well ballasted and double fendered.

Its average height is about 18 feet and at the outer end at high water ordinary spring tides, there is about 16 feet of water.

Spring tides, rise 46 feet, neaps 39 feet.

During the fiscal year the sum of \$159.45 was spent in laying new plank flooring for 190 feet in length of the shoreward portion, and in putting some new fenders on the outer block.

GEORGEVILLE.

Georgeville, Antigonish County, is on the Northumberland Strait, six and a half miles south-west from Cape George, and distant, by land, from Arisaig on the Northumberland Strait, and McNair's Cove on St. George's Bay, eight miles.

The wharf at this place, commenced in 1890-91, and completed the following year, is 207 feet in length and 20 feet in width on top, with an L 20 by 20 feet. The approach, which is 87 feet in length, is of stone, and the remainder of the work of squared timber, fully ballasted, and protected by sheathing and fenders.

The depth at the outer end, at extreme low water, is 5 feet. Spring tides rise 4 feet.

During the year 1895-96, the sum of \$1,955.87 was expended in procuring all the materials required for the construction of a proposed extension of 44 feet to reach 6 feet 6 inches at extreme low water, with the exception of a small quantity of ballast. The cost of completing the extension is estimated at \$1,200.00.

GRAND ETANG.

Grand Etang, Inverness County, is situated on the Gulf of St. Lawrence, about midway between the harbours of Margaree and Cheticamp.

In December, 1893, a contract was entered into for the construction of works designed to improve the entrance to a large pond, and thus make it available for the use and shelter of fishing boats and small vessels.

The work under contract was completed in 1894-95, with the exception of the excavation to low water between the piers, and the removal of a bridge and abutments.

The works consist of two piers, placed 87 feet apart, except at the entrance where the distance between them is narrowed to 44 feet. Each pier consists of brush and stone work 135 feet in length; brush and stone work, with outer slope of 3 to 1, 130 feet in length; open-faced cribwork 100 feet in length; and a close-faced cribwork head 30 by 50 feet, the substructure of which is of creosoted timber. About 200 feet of the brush and stone work, on each side, is founded on a bottom excavated to 1 foot above extreme low water, and the remainder of the pier work, on the natural bottom. The depth at the entrance is 4 feet 6 inches at extreme low water. Spring tides rise 4 feet.

During the months of May and June, 1896, the sum of \$4,289.55 was expended. Of this \$3,690.20 was for the construction of a pile bridge and approaches; and \$599.35 in removing the superstructure and east abutment of the old bridge, in constructing a temporary bridge, and in excavating between the piers of the new channel over a width of 50 feet to 1 foot below extreme low water 200 feet from the old bridge and to extreme low water at the old bridge.

The new bridge crosses the pond 550 feet above the former crossing. It is 563 feet in length, including the east and west approaches of brush and stone with cribwork abutments, respectively 74 and 51 feet in length, and 438 feet of pile work. It has been provided with a good hand rail on each side, and has an opening for boats, and a temporary draw.

The present (summer) level of the pond is about 1 foot above assumed low water, or 3 feet above actual low water outside. The maximum depth of water at the bridge, at assumed low water is 8 feet, and of soft mud or silt, 18 feet.

HALL'S HARBOUR.

Hall's harbour, King's County, is situated on the south side of the Bay of Fundy, about 65 miles north-east from Digby Gut, and 12 miles south-west of Scott's Bay. It is about 12 miles north-west from Kentville, the county town of King's, and the chief station of the Dominion Atlantic Railway.

The village has a population of some 20 families, and some years ago it had a considerable shipping trade, which, however, has of late years fallen off.

About the year 1839, the inhabitants, aided by the provincial government, built timber retaining walls on both sides of the harbour, which consists of a land-locked basin, dry at low water, of about an acre in extent, to permit vessels to lie alongside the public road.

About 1844, an addition, seawards, to the wall on the west side was built in order to check the accumulation of gravel at the mouth of the basin and to serve also as a breakwater; it was extended 100 feet some ten years later. In November, 1884, the outer block was destroyed by a violent gale, and the outer end was bulk-headed.

During the year the east side of the shore end of the breakwater, which was very old, much decayed, and threatening to fall into the dock, was rebuilt and raised from two to five logs in height. The whole outer end of the work, so far as it was planked, 102 feet in length, was refloored with 6 inch flatted spars, and new floor-stringers. Twenty-six new fenders were secured to the face of the work, a new piece of "break" 30 feet long 5 feet high and 5 feet wide was built on the western side of the shore end, and the shore end was also filled up with gravel and levelled off so as to be accessible to teams. The cost of this work was \$450.00.

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HARBOURVILLE.

Harbourville, King's County, is situated on the south shore of the Bay of Fundy, 53 miles north-east from Digby Gut. The population of the settlement is about 200, engaged in fishing and farming, the former being the staple industry.

The harbour, which is only 400 feet long by 200 feet wide, and dry at low water, is formed by the mouth of Givan's brook, and affords at high water complete shelter from every wind to vessels drawing up to about 14 feet of water.

The works consist of two breakwaters or piers of open faced, round log crib-work, one on either side of the entrance to the harbour. They were built many years ago by the provincial government when the shipping business of the place was considerably greater than it has been since the opening of the Dominion Atlantic Railway.

The western breakwater was extended by the department in 1876 at a cost of \$2,000, and since that date numerous small expenditures, aggregating about \$3,400, have been made in repairs and renewals to one or other piece of work.

During the year the sum of \$50.00 was expended in refastening and covering a portion of the "break" on the western side of the west breakwater, and in renewing some few floor planks that had become so much decayed as to be dangerous to teams.

MARGAREE.

Margaree Harbour, Inverness County, is at the mouth of Margaree River, on the Gulf of St. Lawrence, about 30 miles north-east of Port Hood.

The entrance is by a narrow channel obstructed by a bar of shifting sand, over which there is, at times, only 5 feet at extreme low water. Spring tides rise 4 feet.

The western side of the entrance is protected by works, commenced by the provincial government, which have been extended and repaired by the department.

During an unusually high freshet on the 29th December, 1894, the sand beach on the eastern side of the entrance was cut through in two places. The larger opening, near the western extremity of the beach, was 200 feet in width at high water level, 80 feet in width at the bottom, and six and a half feet in average depth at extreme low water. The smaller opening was 60 feet in width at high water level, 24 feet in width at the bottom, and 5 feet deep at extreme low water.

In April and May, 1895, the larger opening was closed by a work of brush and stone 24 feet in width on top, and 3 feet above extreme high water; and a work 10 feet in width, built across the smaller opening by the fishermen, was widened to 20 feet and raised to a height of two and a half feet above extreme high water.

During the year 1895-96 the sum of \$2,196.57 was expended in raising and extending the beach protection work. Three hundred feet near the western extremity of the beach was raised to 7 feet above extreme high water, the width of work on top being 20 feet, with an average height of 3 feet 6 inches; one hundred and seventy-five feet was raised to 8 feet above extreme high water, having a width of work on top of 16 feet, average height 1 foot 6 inches; and thirteen hundred and fifty-three feet was raised to 7 feet above extreme high water, width of work on top 16 feet, average height 2 feet 10 inches.

The beach is now 7 feet or more above extreme high water, except over 230 feet at the eastern extremity, which portion is 2 feet lower.

MONK'S HEAD.

Monk's Head, Antigonish County, is situated on the southern side of St. George's Bay, between the Harbours of Antigonish and Pomquet,

A large sheet of water to the westward of Monk's Head, known locally as Dunn's Lake, is separated from St. George's Bay by a beach of sand, and from Antigonish harbour by a neck of low land 692 feet in width at low water level.

In 1894-95, the work of opening a channel for boats between Dunn's Lake and Antigonish Harbour was undertaken. A through cutting, including side slopes, was made to within one and a half feet of extreme low water; a highway bridge was constructed and a right of way acquired.

During the year 1895-96, the sum of \$204.72 was expended in completing the undertaking.

The channel, on completion, was 6 feet wide at the bottom, at the level of extreme low water, with sides sloping about one and a half to one. Since its completion the current has cut into the slopes in places, and has undermined the bridge abutments, which have settled considerably.

PARRSBORO' PIER.

Parrsboro' Pier, Cumberland County, is situated on the north side of the Basin of Minas, about a mile to the south-west of the lighthouse at the entrance to Parrsboro' Harbour.

It is two miles south of the village of Parrsboro', and is the calling place for the steamers of the St. John and Basin of Minas route, which call regularly during the season.

The pier, which is 431 feet long, 27 to 29 feet wide and 32 feet high at the outer end, was built by the provincial government in 1864-65, and has subsequently received frequent and extensive repairs by the Department of Public Works of Canada.

During the year the sum of \$1,447.28 was expended in cutting an opening 12 feet wide and 10 feet deep through the pier near its shoreward end for the purpose of allowing the gravel to wash through and relieve the great pressure against the west side of the work, in reflooring 80 feet in length of the shore end, reflooring the inclined slip, and in renewing a few of the fenders on the outer end.

PORT LORNE.

Port Lorne, formerly Port Williams or Marshall's Cove, is situated on the Bay of Fundy coast of Annapolis County, 32 miles north-east from Digby Gut, and 6 miles north-west from Paradise Station on the Dominion Atlantic Railway. The settlement comprises a thrifty population of about 300, chiefly engaged in fishing and farming, but to a small extent also in lumbering.

A breakwater was begun at the joint expense of the inhabitants and the provincial government in 1835, and between that date and 1867, about \$16,000 were spent upon it in renewals and repairs.

Between the years 1872 and 1884 the work was further extended a distance of about 167 feet by the Department of Public Works, and since the latter date it has been frequently and extensively repaired. It is built throughout of round log stone filled cribwork, and is from 25 to 36 feet wide on top and 25 feet high at the outer end. Spring tides rise 32 feet, neaps 28 feet.

During the year some few knee braces to the "break" and a few planks that had been knocked away by heavy seas were renewed and fastened at a cost of \$20.00.

PORT MAITLAND.

Port Maitland, Yarmouth County, formerly known as Green Cove, is a prosperous and important fishing and farming village, situated on the south-east side of the mouth of the Bay of Fundy, 12 miles north of the county town of Yarmouth. The village itself has a population of about 400, but fully as many more in outlying settlements are tributary to it as regards fishing, shipping and general trade. Outside of the town of Yarmouth it is the most important, in fact the only important port in the county, and the headquarters of a large and growing fishing industry.

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The works, which were begun about the year 1859 by the provincial government, consist of an eastern and western breakwater, both of cribwork, the former 400 feet and the latter 500 feet long, inclosing between them a snug high water harbour of about $2\frac{1}{4}$ acres in extent.

Spring tides rise 18 feet and the harbour at low water is dry to the outer end of the western breakwater.

During the year the sum of \$271.71 was expended in the purchase of materials for the repair of a serious breach in the river or harbour side of the shore end of the western breakwater. The work done consists in the rebuilding of a piece of work 90 feet long, 10 to 12 feet high and 15 feet wide. The whole of the labour was furnished gratis by the inhabitants.

SEA-SIDE.

Sea-Side is on the east side of St. George's Bay near the southern entrance to Port Hood Harbour, and about 2 miles west from Port Hood, the shire town of Inverness County.

A contract was entered into in March, 1896, for the construction of a wharf 300 feet in length and 20 feet in width on top of open-faced cribwork, fully ballasted, and close fendered at the outer end; the substructure to be of creosoted North Carolina yellow pine and the superstructure of native timber. The depth at the outer end at extreme low water will be 7 feet. Spring tides rise 4 feet.

Work was commenced in May, and up to the close of the fiscal year good progress had been made, the expenditure, including the cost of inspection, amounting to \$2,847.50.

WEST CHEZZETCOOK.

Chezzetcook Inlet, Halifax County, is about 15 miles east of Halifax harbour. It is half a mile wide at its mouth, extends 5 miles inland, and receives at its head the waters of the Chezzetcook and other lakes. In it are several islands, which owing to their relative positions, divide the inlet into two channels, called respectively east and west Chezzetcook.

In order to create a scour in the west channel, and thus deepen it, a breakwater or mole was built by the department in 1892, projecting in a westerly direction from the southern end of Conrod's Island, 900 feet long with an L at the outer end 200 feet long. The work was built by contract at a total cost of \$11,160.97.

During the fiscal year the top of the breakwater for a height of two to four feet, on a length of 363 feet of the shoreward or main portion that was displaced and much injured by severe gales early in the spring of 1895 was taken to pieces and thoroughly rebuilt at a cost of \$500.00.

PROVINCE OF NEW BRUNSWICK.

ANDERSON'S HOLLOW.

At Anderson's Hollow in a cove of Salisbury Bay on the coast of Albert, a combined wharf and breakwater 550 feet long, 25 feet wide on top, and originally 27 feet high at the outer end, was begun in 1879 and finished five years later.

This work was damaged by a storm on the 21st November, 1895, when the lighthouse and part of the breakwater were carried away, while some of the topwork of head was also started. During the year, a sum of \$33.67 was applied to bolting loosened timbers, and in securing the work as far as possible from further injury.

CAPE TORMENTINE.

The works at Cape Tormentine in Westmoreland, constructed between 1886 and 1892, for purposes of interprovincial communication, form an artificial harbour at the extremity of a peninsula which is the nearest point on the continent to Prince Edward Island. They comprise a straight pier 2,500 feet long, with head and return, each 400 feet in length, inclosing a basin about 4 acres in area with a ruling depth of 15 feet at low water or 22 feet 8 inches at high water spring tides. For a distance of 1,300 feet from the shore, the pier is a rubble mound, 20 feet wide on top, with pitched slopes of 2 to 1; while the remaining 1,200 are built of close-faced cribwork 30 feet in width. The head and return are of similar cribwork, but are 40 feet in breadth from the base to low water, decreasing to 30 feet at the finished top (4 feet above high water) and presenting a sloping face sheathed with hardwood to the north and east. A branch railway 36 miles long connects the pier with the Intercolonial Railway at Sackville.

There being a wave at least 6 feet in height at Cape Tormentine, it was found that although the rails were secure where spiked to the covering of the cribwork, they were liable, at the elevation of 4 feet above high water, to be washed off the stone embankment which afforded no facilities for bolting. To prevent interruption of the traffic, the rails were therefore, in 1893-1894, raised 2 feet on the rubble mound. At the same time a freight-shed was built and protected by a break. The tops of the cribs receiving the foot of the hardwood sheathing composing the sloping face having been destroyed by the teredo, the planks thus left overhanging were exposed below to the action of the sea. These planks were secured in 1893-94 as far as the worm-eaten condition of the timber permitted. In the following fiscal year, 321 lineal feet of worm-eaten longitudinals supporting the sloping hardwood were replaced by new timbers, a space of 90 lineal feet of new planking was laid, and the remainder of that face secured wherever bolt-hold could be found in the honey-combed wood.

In 1895-96, similar temporary repairs were made, 414 lineal feet of worm-eaten longitudinals being renewed with fresh timber, and 117 lineal feet of sloping-face being re-laid at an expenditure of \$499.29.

The harbour is used during the season of navigation by vessels engaged in the deal trade with the United Kingdom, since it offers facilities for transferring deals in clean condition from train to ship without the loss of class and so of price occasioned by rafting. For this purpose it has to some extent superseded the open roadstead of Baie Verte, formerly a centre of the deal trade.

On account of the prevalence of the teredo, any future works built in the waters of Northumberland Strait should be constructed of creosoted timber, stone, or concrete. The worm-eaten condition of Cape Tormentine requires that the usual course adopted in similar cases *i.e.*, external protection with stone, should be now taken. For the quay face of the winter berth, concrete is best used.

DALHOUSIE.

The seaport of Dalhousie, the shire town of the county of Restigouche, at the head of Baie des Chaleurs and the mouth of the estuary of the Restigouche, possesses a secure harbour 6 or 7 fathoms deep with good holding ground, and is during the season of navigation the best in New Brunswick. For the use of vessels engaged in the deal trade, the department added in 1887 to the Intercolonial Railway pier, a ballast wharf 300 feet long and 22 feet wide, placed nearly parallel to the shore in 15 feet at low water, a depth now reduced in places to 7 feet by shoaling. Ice action on the Restigouche appears to be exerted from the land outward in more remarkable degree than at other places lower down the coast, for shearing of the piers at Dalhousie is found to take place.

The top of the ballast wharf having been thrust over a distance of about 2 feet, a quantity of stone was placed at the back and end in order to relieve pressure by

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grounding the ice. A few broken piles were also replaced, the whole expenditure for the fiscal year being \$262.07.

The trans-atlantic deal shipments for the past year amounted to 17 millions superficial feet.

GARDNER'S CREEK.

On the 1st of July, 1895, a contract was let for the construction of a wharf at Gardner's Creek, intended to facilitate shipment of the lumber and piling sent coast-wise from this locality. The work, placed in a cove (about 20 miles east of St. John, and in the same county) sheltered from direct south-west winds by McCoy's Head, consists of substantial open-faced square cribwork 204 feet long, sheathed on the north and east. The head stands in 21 feet at high water spring tide, and affords one berth for coasters, but as in the case of all other wharfs on this coast, is dry at low water.

At the end of the fiscal year, about one-third of the work had been accomplished. The payment made on account of progress amounted to \$2,340.00.

NEGRO POINT BREAKWATER.

In addition to convenience of position for distribution of cargoes landed at that place, St. John Harbour, or the estuary of the river of that name, is remarkable principally for great tidal range (26 feet at springs) and for consequent freedom from ice in the winter months. The harbour is open broadly speaking from south-east to south-west, but southerly waves are broken by Partridge Island, and south-west waves are mitigated by Negro Point breakwater, while the foul ground, a shoal tailing down from the peninsula on which the town is built, must have some slight effect in moderating the force of south-easterly seas rolling round Mispic Point. By Partridge Island, a rocky eminence devoted to quarantine and light-house purposes, the entrance is divided into east and west channels. In the former or main channel, 21 feet is found on the bar at low water ordinary spring tides according to the chart, but 18 feet is held by some to be the ruling depth at low water. From information obtained at the time when the steamer "Lake Ontario" touched bottom on the 7th of April last, the depth on the bar at the point struck must be 17 feet below the plane of low water ordinary spring tides as established by the engineer of tidal surveys. It is possible that the discrepancy between 21 feet by the chart and 17 feet as found by the steamer, may be accounted for by the presence of shifting shoals, for patches of shallow water noted in the charts of one year, are not shown in others of subsequent date, but the actual depth can be established by examination alone.

Half a mile inside the crest of the bar, a depth of five fathoms is found in the narrow fairway, while higher up, between the principal wharfs on either side of the harbour (500 yards broad at that point) 12 fathoms are given in mid-channel.

The west channel, 10 to 14 feet deep at low water and originally 1,200 yards wide, has been contracted by Negro Point breakwater, a structure extending 2,200 feet from the headland so styled. The official reasons for undertaking this work are thus stated in the reports of the Minister of Public Works for 1875 and 1882 :

" 1875.—" This breakwater extends south-eastwardly from Negro Point at the western entrance of the harbour of St. John. When completed, it will extend a distance of 2,250 feet, closing up the west channel to that extent, leaving, however, a width of 1,000 feet between the outer end and Partridge Island. The object is to break the force of the seas which roll into the harbour of St. John during the south-west gales in the Bay of Fundy, and which render it dangerous and almost impossible at such times for vessels to make the harbour."

" 1882.—" South-westerly winds threw in a heavy sea through the western channel which rendered it difficult for vessels to enter the harbour as they were in danger of being driven on the foul ground on the eastern side of the channel. In the spring of 1875, a breakwater 2,250 feet long to partially close the western channel was begun, and in September, 1877, completed."

Reference to the chart will show that as long as any opening remains between Negro Point breakwater and Partridge Island, south-west waves must be still free to drive vessels entering by the east or main channel on the foul ground.

The breakwater consisted at first of a cribwork core 30 feet wide at the base and 15 feet wide at the top, protected on both sides by stones sloping on the seaward side at the rate of 2 to 1 and on the harbour side at the rate of 1 to 1. By the month of February, 1879, 1,300 lineal feet of the cribwork had been swept away to a depth varying between 13 and 19 feet from the top, the stones having been raked down by wave-action to a slope more nearly approaching the angle of repose of the material under the exposure to which the work is subjected. In 1880, temporary repairs were made, and in the following year, a contract completed six years afterwards, was entered into, whereby the cribwork carried away in 1879 was replaced by heavy stones, and the seaward slope made 3 to 1. Even this flatter inclination proved steeper than the angle of repose, consequently, notwithstanding their size, the stones, though smoothly laid, were soon displaced by the sea. A length of 50 feet of the breakwater, extending at full height (5 feet above high water) beyond a masonry pier built under the same contract to support a beacon, was also swept away. From 1891 to 1894, desultory repairs were made by addition of large stones, chiefly deposited about the end to prevent the lighthouse from being undermined. In May and June, 1895, four large blocks of concrete were placed for the same purpose in front foot of the pier.

During the last fiscal year, seven concrete blocks founded at about the level of low water neaps, were built *in situ* round a quadrant of the end to receive the foot of a slope proposed to be laid of heavy granite stones inclined at 4 to 1. The blocks were from 59 to 91 tons each, all but the heaviest being made in one tide. The granite pier was also reinforced by a semi-circular skin of concrete 7 feet in average thickness and strongly battered, placed round the front and brought to the level of high water springs. The footing blocks were 15 feet long, 12 feet wide, and unless varied for the sake of foundation, 3 feet high in the face, sloping upward at the rate of 4 to 1 on top. Each block was free to settle independently, but all were keyed together by splayed concrete joggles. Inside a part of the space within the quadrant, stones of the original work, added to some small granite, were assembled and grouted as far as funds permitted, in default of the heavy granite (which will require special plant) necessary for the slopes of this breakwater; but weight is the desideratum, and part of the grouted slope was broken up in the winter.

In order to carry along the seaward face of the work, for natural protection, the littoral drift now being swept over the top into the harbour, a break of piles, brush, stone and timber 270 feet long 8 feet wide and 4 feet high, was begun at the shore end, but not completed. The expenditure for the year has been \$7,261.87.

RIVER ST. JOHN.

The River St. John proper, 450 miles long, takes its rise from sources in the province of Quebec and state of Maine, at a reputed maximum altitude of 2,158 feet above sea level. Entering New Brunswick at the confluence of the St. Francis, a little below the borders of Quebec, it continues to be the international boundary almost to Grand Falls, and after flowing through the province for nearly 300 miles (by way of the counties of Madawaska, Victoria, Carleton, York, Sunbury, King's and Queen's,) discharges into the Bay of Fundy at St. John. Many tributaries, some being of considerable magnitude, are received by the main stream. Among them are the St. Francis, Madawaska, Green River, Grand River, Salmon River, Aroostook, Tobique, Presqu'île, Meduxnickag, Eel River, Nackawick, Keswick, Nashwaak, Oromocto, Jemseg (Grand Lake,) Washedemoak, Belle Isle, and Kennebecasis. Except the last five, which are slightly tidal for some distance, they are fresh water streams.

The total basin from source to mouth is computed to be 26,000 square miles, an area almost equal to the whole of New Brunswick, but part of the watershed lying outside, only a little more than one half the province is drained by the river. The

Department of Public Works.

St. John is considered navigable for vessels 15 feet in draught for a distance of more than 50 miles from the mouth, but no positive information on this point has yet been obtained. About 8 feet at low water can be carried to Fredericton, 84 miles from the sea, and 6 miles below the head of tide at Springhill. Three natural features of the river are remarkable, viz.: the tidal falls, Grand Falls, and the annual floods. Although in summer the fresh water stream between Woodstock and Fredericton is in places 400 to 1,000 feet wide, expanding at the latter place after reaching tide level to half a mile in breadth, yet the actual mouth of the river, a rocky gorge 400 yards long, immediately at the head of St. John harbour, measures but as many feet across at high water. Here at low water the level of the river water is from 11 to 15 feet above the sea, and as the ordinary tides flow from 23 to 27 feet, the sea level at high water is from 8 to 12 feet higher than the waters of the river. Thus there are two falls during every tide, viz.: one outward and one inward, and vessels can only pass when the waters of the ocean and the river are on a level, and this occurs only for the space of about 10 minutes during each ebb and flow of the tide; at all other times it is either impassable or extremely dangerous.

At Grand Falls, 223 miles from the sea, the whole volume of the river plunges over an almost perpendicular face of limestone 60 feet high, into a deep ravine 250 feet across, somewhat similar to the narrow pass at St. John. Flanked for nearly a mile by lofty rugged cliffs, the confined current dashes from the foot of the falls with excessive strength, mining deep pot-holes in the rocky bottom of the channel in the course of a further descent estimated to be slightly less than the first. In the harbour of St. John ordinary spring tides are considered to rise 26 feet. At the wharfs of the river steamers, a mile above the falls, while summer range is but 3 feet, the highest flood mark is given as 17 feet above extreme low water. At Oromocto, 73 miles from the sea, where the tidal range is 10 or 12 inches, the flood of 1887, reached a bridge 20 feet above low water. At Andover, 200 miles from the sea, floods attain an elevation of more than 27 feet above summer level. By contrast, the Tobique and St. Francis swell 9 and 6 feet respectively. After the first spate due to the melting of the snow in the catchment basins of the Kennebecasis, Belle Isle Bay, and Washedemoak, a secondary flood occurs, caused by the backwater of the main river, which is fed from sources farther north, and consequently later in thawing.

The harbour of St. John is open all the year round, but the river is ice bound from November to April, an average period of 144 days. The water usually begins to rise in April, reaching flood pitch early in May, and maintaining a high level for two or three weeks. The ice run takes place before the time of highest water. By the middle or end of July the water has fallen to summer level, a stage lasting with some variations dependent upon the rainfall, for about 60 or 70 days.

In addition to a little coal, a considerable quantity of cordwood, and the ordinary food supplies yielded by the farms of a lengthy fertile valley, the trade of the river comprehends an abundance of valuable timber, fluctuating each season in amount, but generally at least equal to 135 million superficial feet annually. Most of the logs are floated loose down the tributaries and upper river to Fredericton, some being manufactured there and shipped coastwise or to the United States. The remainder, and major part, is towed from the provincial capital to St. John in rafts, giving employment to a fleet of tugs.

For the purposes of works, three divisions may be made of the river:—

1. Tidal navigation for steamers and sailing vessels, between St. John and Fredericton, 84 miles, requiring 11 feet at low water. Principal obstructions: The Oromocto Shoals, about $1\frac{1}{2}$ miles, the middle ground above Oromocto Island about 1 mile, and the shoals abreast Fredericton, rather more than half a mile in length.

2. Inland navigation from Fredericton to Woodstock, a distance of about 65 miles, requiring $3\frac{1}{2}$ feet at low water. The obstacles to inland navigation, besides boulders in some places, and perhaps bed rock at Meductic, are shoals of material more or less coarse according to the strength of the current, varying in composition from sandy gravel to stones. The chief bars are at Springhill, and Bear Island,

while Knapp's, Perley's Cove, Nackawick, Belvisor, Moore's, Bett's, Dibblee's and Bedell's Bars, with Meductic Rapids, constitute, according to present information, less considerable obstructions. Dividing above Springhill into two main channels, and from a general width of 350 yards, opening to a stretch of $1\frac{1}{2}$ miles between bars with a waterway increased by at least one third, the river becomes dotted with eddies and shallows. Two gravel shoals known as the Russell and Chapel bars, together about half a mile in length, compose the obstacle at Springhill. At Bear Island, 25 miles above Fredericton, in consequence of another division of the river into three channels aggregating 600 yards in breadth, a shoal of gravel and stones 4,400 feet long giving only 21 inches at low water has been formed. Besides dredging, a long training dyke will be necessary for the maintenance of this channel. After re-uniting below the island, the width of waterway in the single channel is only 250 yards.

3. The upper river, including with the tributaries, all that part above Woodstock. This division is used now for the passage of timber only. On some of the tributaries beyond the reach of railways, supplies for the lumber camps are transported in tow boats, for which channels are required to be made and tow paths provided.

Division 1.

Ten miles below Fredericton, and 74 above St. John, the river spreads from a normal width of less than 500 yards to a total breadth of $1\frac{1}{2}$ miles. This expansion, and distribution of the waterway among three channels collectively 1,100 yards wide, formed by the interposition of Oromocto and Thatch Islands, sufficiently accounts for the presence of the shoals. The eastern, and broadest channel, 650 yards wide, with a ruling depth of 3 feet at low water, is only used during floods. The middle and navigable channel, 300 yards wide, has for many years been obstructed by the sandy deposit called the Oromocto shoals, giving about 8 feet at low water, and extending for a mile and a half. Above the Oromocto shoals proper, another bar, apparently a continuation beneath the water of the axis of Oromocto Island, gives less than the required depth of 11 feet for rather more than a mile, while below Thatch Island, is found a small shoal patch.

In order to improve the navigable channel, a dam 2,200 feet long was built by the department, between 1877 and 1881, from the west bank of the river to the upper end of Thatch Island. This work completely closes the narrowest of the three channels by the time the water has fallen to $5\frac{1}{2}$ feet above summer level, contracting the total waterway by 150 yards. The first hundred feet adjoining the shore is made of brush and stone, but the remainder of the dam is built of cribwork, close piled on the upper side and sheathed with plank. From the lower end of the dam, a cross-dyke of piling makes connection with the head of Thatch Island.

In 1894-95, a training dyke of stone founded on brush mattresses, consisting of a filling of evergreen brush between two net works of fascines, was added to the dam as the first step towards future extension. At the same time a brush and stone apron was applied at the back of the original structure, with the view of promoting accumulation of silt. Two hundred and eighty feet of brush protection was also placed on Oromocto Island, to prevent the alluvial bank from scouring under action of the current, when increased by the system of works now begun. It is important that these works should be backed by silt, and the silt planted with willows as soon as possible, in order that they may be rendered self sustaining. To accomplish the purpose, light cross dykes and groynes of brush may be used.

During the past fiscal year, a sum of \$96.79 was applied to renewal of sheathing and covering. Another and larger expenditure will be required in the coming year to replace other material of the same kind, stripped off by ice in the spring. Removal of a shoal at the tail of Thatch Island, interfering with the passage of the daily steamers touching at Oromocto wharf was completed in 1895-96, while in continuation of the general scheme of improvement of the tidal navigation, undertaken by request of the Fredericton Board of Trade, and now in progress, a channel 950 feet long, 125 feet wide, and 11 to 14 feet deep at low water, was dredged at the provincial capital.

Department of Public Works.

Division 2.

A commencement of the improvements contemplated for the purpose of opening and maintaining during the season, steam navigation between Fredericton and Woodstock, was made in 1894-95, when a dredge hired for the occasion, began excavation of the Springhill shoals to a depth of 3 feet 6 inches at low water. For want of suitable plant, the work was not continued in the past year. In the reach of tidal navigation between St. John and Fredericton, steamers carrying passengers and freight run daily up and down, while the Washedemoak, Grand Lake, Bellisle Bay, and the Kennebecasis, also enjoy steam communication throughout the season of navigation. Above Fredericton, a steamer runs daily up or down from the opening of the river in the spring, until, by fall of the water, Bear Island, Springhill, and other bars prevent further passage. This usually occurs about the end of the first week in June, and from that period until ice forms at the beginning of winter (unless a late rise of water permits a short resumption of steam navigation) the traffic of the river is conducted in barges towed by horses. The towpaths require annual attention, and will continue to demand repairs, until, by removal of the bars, the inland navigation of the river is thrown open for steamers throughout the summer. A sum of \$180.25 was expended in the past year between Eel River and Bear Island on the towpaths chiefly in grading and blasting rocks.

Division 3.

On the upper river, rocks said to constitute obstacles to the passage of logs were reported blasted as follows; Rapide de Femme Rock, below Grand Falls, 40 cubic yards; Little River above the Tobique, 80 cubic yards; Honson's Cove below the Tobique, an area of 3,600 square feet of rock irregular in height, the maximum being 7 feet above low water, cut down to 18 inches above that level. The expenditure amounted to \$382.46. For work done in making tow-paths and channels for boats on Green River in the previous October, a sum of \$200 was paid, the total cost with expenses of inspection amounting to \$231.90. On the St. Francis, out of a sum of \$300 directed to be applied between Cross Lake Rapids and du Chene Rapids to clearing channels and improving tow-paths an amount of \$223.25 was expended.

SHEDIAC,—POINTE DU CHENE.

Sixth on the list of deal ports of New Brunswick, stands Shediac, in the county of Westmoreland, one of the only three natural harbours on the gulf coast of the province (Dalhousie and Caraquet being the others) unobstructed by a bar. The harbour is 109 miles by rail from St. John, and by water 40 miles from Cape Tormentine, in the same county. Being directly opposite Summerside, 36 miles distant, it is a convenient point for summer traffic with Prince Edward Island.

To protect the railway pier at Pointe du Chêne near the harbour mouth, a work weakened by the teredo, the department built in 1875 a detached breakwater 600 feet long, and four years later connected it with the pier by a ballast wharf. In 1881-82, further protection was given by the construction of a second independent breakwater, also 600 feet in length, placed near the shore.

The work built in 1875 having become worm eaten was destroyed, notwithstanding repairs, by storm in 1891. In 1893 a contract was made for re-construction, and by the end of the following year the work was completed. The new breakwater proper is 600 feet long and 27 feet wide below low water, sloping from a little below that level at the rate of 1 to 1 until six feet above high water. At the northern end, connection was made with the damaged ballast wharf by an additional length of 40 feet of similar work. The outside faces and cross-ties of the sub-structure are creosoted timber, protected partly by close piles and partly by fender piles also creosoted. The remaining timbers and also the superstructure are untreated wood.

In the past fiscal year, the close piling of the ballast wharf having been cut off by the teredo, repairs to the face, 183 feet long, were undertaken. This work,

founded in $14\frac{1}{2}$ feet at low water, was not in sufficient depth to satisfy the present demands of commerce, *i. e.*, to permit vessels in the deal trade to lie alongside to be laden. For this end, at Shediac, which is limited by the ruling depth of the approach to a small class of vessel, 19 feet at low water are necessary. In order to enable this depth ($4\frac{1}{2}$ feet below the foundation of the cribwork) to be reached, the new superstructure has been supported at the face on creosoted piles driven below the bottom to be dredged, and in the body of the work by untreated hardwood piles driven through it. The adjoining face of the railway wharf is now being prepared in a similar manner by the Department of Railways and Canals, in order that dredging to 19 feet at low water may be carried to a sufficient length for one deep water steamer berth. The new superstructure 20 feet wide on top and 8 feet high, is faced with square timber, ballasted, well braced, and tied to short piles driven into the ship's ballast deposited behind the cribwork. The expenditure has been \$2,462.03.

PROVINCE OF PRINCE EDWARD ISLAND.

BELFAST.

Belfast Pier, Queen's County, is situated on the south side of Orwell Bay about one mile distant from the village of Eldon. The pier which was constructed by the local government of Prince Edward Island many years previous to confederation is one of those the control of which was assumed by the department in 1883. It has a length of 600 feet with a pier head 130 feet long fronting on the channel, on the face of which a depth of 5 feet is carried at low water, or 14 feet at high water springs, which rise 9 feet.

Being an old structure and greatly out of repair when assumed by the department, an expenditure nearly every year is required to keep it in passable condition. During the past season the sum of \$50.03 was expended on general repairs to covering of pier head, replacing fenders on north corner and making up roadway of pier approach with broken stone and clay.

BRAE.

Brae Harbour (so called), in Prince County, is situated on the northern side of Egmont Bay, 8 miles east of West Point, and about 6 miles south of Coleman Station on the line of the Prince Edward Island Railway. It is at the mouth of the Brae River where, by "Brae Island," an area carrying a depth of 6 feet at low water is well sheltered, and would prove a good fishing station, harbour of refuge for small vessels, and a most convenient place of shipment for the surplus produce raised in the district, were it not that approach to it is obstructed by a sand bar almost dry at low water that extends completely across the entrance parallel with the shore and at a distance of about 400 feet outside of the eastern end of the island.

Towards obviating this difficulty the inhabitants of the district some years ago began the construction of a breakwater for the purpose of narrowing the entrance (which has a width of about 800 feet) so that by the increased current that would thus be caused a channel would be scoured through the bar. They built a length of 350 feet, 18 feet wide, composed of poles, brush and some ballast with clay filling on top. To this the department added a length of 200 feet in 1891-92, but as this in all only made about one-half of the length of work required for the training of the current on to the bar so as to effect its removal, no improvement has been made in the entrance. Much benefit, however, has been derived from the shipping facilities it has afforded small vessels by their being able to load at its outer end getting their cargoes taken directly to them by teams instead of boats.

Since the expenditure made by the department, the residents have neglected keeping up the inner part, and this became, during the past two years, impassable

Department of Public Works.

for teams, and, last season, as each high tide passed completely over it endangering its being carried away, reconstruction and repairs have been effected by the department during the past spring at a cost of \$844.80. The inner length of 350 feet was entirely rebuilt and the outer portion, 200 feet long, raised from 1 to 1½ feet and thoroughly repaired, thus placing the whole of the breakwater in good and serviceable condition, by which some shelter for fishing boats will be given and better facilities for shipping.

CLIFTON.

Clifton Pier, Queen's County, is on the south side of the "South-west River" about 2½ miles above its entrance into New London harbour, and immediately below the public road bridge crossing the river. The pier which was constructed many years ago by the local government for the accommodation of the district is one of those assumed by the department in 1883. It is in all 260 feet long, extending out from the bank of the river to the channel where at the end of the pier a depth of 14 feet of water is carried at low water spring tides, or 18 feet at high water, affording good shipping facilities for the largest class of vessels entering New London harbour.

The pier which has a width of 25 feet over the outer length of 58 feet (its remainder being from 17½ to 20 feet wide) having become unfit for traffic owing to age and decay of the floor stringers and flooring of the outer block and adjoining "spar," the sum of \$201.01 has been expended upon it during the past season in effecting required repairs. New floor stringers, guard timbers and flooring were put on the outer block which was also levelled up and rebuilt for three feet on top, and the "span" solidly filled in with close laid pole work, in addition to which 4 new mooring posts and 9 fender piles were put in on the end and sides of the outer block and the roadway of the shore abutment or approach was made up with broken stone and gravel, placing the pier in good condition.

KIER'S SHORE.

Kier's Shore Pier, Prince County, is situated on the east side of Richmond Bay, about 7 miles from the village of Kensington, a station on the Prince Edward Island Railway. The pier, originally constructed jointly by the local government and residents of the district, was assumed by the department in 1883. During 1894-95, extensive repairs were effected, and a block 50 feet by 18 feet added to the northern side of its outer end, making a pier head of 40 feet by 50 feet.

During the fiscal year 1895-96, the sides and outer end of the pier head were closely piled with spruce and hemlock timber at a cost of \$375.78 as a preventive to the action of the "teredo" and that settlement and scour might not occur should dredging be done to give a greater depth. The roadway of the pier inward of the outer block formed of broken stone and gravel was also levelled up where any settlement had occurred.

LAMBERT'S.

Lambert's Pier, King's County, is situated on the southern side of the Montague River, immediately below the highway bridge at the village of Montague, and is six miles from the entrance of the river into Cardigan Bay. It has in all a frontage of 310 feet on the river channel, and consists of two sections, the upper or western one 140 feet long and 24 feet wide constructed of cribwork on the inner side and pile work outside, and the eastern section 170 feet long, 25 feet wide formed entirely of pile bents capped, floor stringered, and planked over, the inner side of the western section as well as a part of the eastern being made up of ballast discharged from vessels, and connects with the bank of the river forming a good approach to the pier.

Owing to injury done to the piling by the action of the sea worms that are most destructive to unprotected timber in all the island waters, and to the natural decay of the covering and floor stringers, the pier having become unsafe for traffic, its repair has been effected during the past season at a cost of \$829.61. 36 bearing and fender piles were replaced, eight new cap timbers were put in, and the floor stringers, flooring, guard timbers, and mooring posts renewed throughout, placing the work in good and serviceable condition.

To prevent sediment and water being carried into the covering, which no doubt had been the cause of the earlier decay of it and the floor stringers, a box culvert 113 feet long by 18 inches wide and 12 inches high, clear inside, has been put in across the roadway approach. The culvert is made of 6 inch x 12 inch timber on sides with 3 inch planking bottom and top, the latter carried by 3 inch x 6 inch supports placed at 5 feet centres.

MCGEE'S.

McGee's Pier, Prince County, is situated on the east side of Egmont Bay about 5 miles north from Cape Egmont and 6 miles from "Wellington Station" on the line of the Prince Edward Island Railway. Originally constructed by the local government to afford shipping facilities for the district, its control was assumed in 1883 by the department, and in 1884 small repairs were made to make it available for traffic.

At the beginning of the fiscal year 1895-96, the pier had become quite unserviceable, some 50 feet of its outer end having been carried away by the ice in 1892, besides which all of the roadway was impassable owing to wash-out and settlement, the floor stringers and covering of the 30 feet span (at about centre of pier) were decayed and broken, while on a length of the pier inward to shore 290 feet, two to four feet in height of the top face timbers required renewal.

During the past fiscal year the damaged portion has been reconstructed and repaired, and the pier put in good condition at a cost of \$1,395.19. The work done consisted in the entire rebuilding of the outer 50 feet, and the repair and reconstruction of all of the remaining length (in all 700 feet long and 20 feet wide) the former span or opening 30 x 20 x 12 being solidly filled in, and the outer end of the pier where exposed to the action of the ice protected with fender piling of hardwood.

MURRAY HARBOUR.

Murray Harbour South Pier, King's County, is situated at the head of navigation immediately below the public road bridge on the South River and about nine miles inward from the entrance of Murray Harbour. It extends out from the north bank of the river which is about 300 feet wide at this point, to the edge of the channel where a depth of 10 feet of water is carried at low spring tides, giving with the rise of $5\frac{1}{2}$ at high water springs a good approach for the largest sized vessels usually visiting the harbour. The pier consists of an approach 89 feet long and an L or pier head having a length of 107 feet 6 inches on the channel face. Both approach and pier head are formed of timber "blocks" with intervening "spans" all of which, except at the shore end are floor stringered and planked over. The "blocks" above low water are of square timber close faced, but below low water are of round timber open cribwork, while the shore end of the approach is constructed of poles, brush and stone, covered on top with gravel.

Owing to the natural decay of the top portion of the pier and injury done by the teredo and ice to its bottom portion, it had latterly become unserviceable and quite unsafe for traffic, there being great danger of the outer blocks forming the pier head, falling into the channel. This has been remedied during the past season by the entire reconstruction of its top portion, the different blocks being rebuilt or levelled up as required from 3 to 6 feet, new floor stringers, covering, guard timbers and mooring posts put in, and the channel face of the blocks forming the pier head close piled, while fender piles were driven on their inner sides and ends, thus placing the work in good and safe condition at a cost of \$1,011.34.

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NEW LONDON.

New London Harbour, Queen's County, or Grenville Bay, is situated on the northern coast of the island about 10 miles south-west from the entrance into Richmond Bay. Within the entrance, which is about 1,200 feet wide, the bay is three miles wide and receives the waters of the South-west, the French, the Stanley and the Hope Rivers, all of which are navigable and have on them wharfs or shipping places by which export is made of about all of the surplus produce raised in the surrounding country, and at which the coal, limestone, and general merchandise required is landed. It is extensively used as a fishing station, being near some of the best fishing grounds on the Gulf of St. Lawrence.

For the improvement of the entrance, works were commenced by the department in 1874, and now consist of breakwaters extending on either side from the sand beaches. That on the eastern side has a length of 1,120 feet and the western 460 feet, their purpose being to confine the current and direct it upon an outer obstructing bar composed of sand, and to prevent the sand from being washed into the channel inside. The results obtained have proved most satisfactory proportionally to the expenditure. The depth of water on the bar has increased from 6 to 12 feet at low water, making the harbour one of the best on the coast. The breakwaters are built partly of piling, brush and stone and partly of cribwork, the outer blocks of each being built of close faced squared timber-work. Since their construction the western work has received no damage or required repair; the eastern, however, being exposed to a heavy sea, and its outer end to constant action of the ice in winter, has, from time to time, suffered severely and required extensive repair. During the fall and winter of 1893 injury was done to the covering and fenders of the outer block which was completely destroyed during the fall and winter of 1894, and four breaches respectively 30, 63, 56, and 44 feet long, were made through the beach protection works.

During 1894-95 these breaches were so far repaired as to prevent further injury and the reconstruction of the outer block was commenced, the amount expended amounting to \$624.08.

The work was fully completed during 1895-96, with a further expenditure of \$640.95 making in two years an expenditure of \$1,265.13. The work done consisted in the entire rebuilding of the outer block, 40 feet by 18 feet by 11 feet, and the repair and reconstruction of 350 feet of beach protection averaging 12 feet in width and 4 feet in height.

NORTH CARDIGAN.

North Cardigan Pier, King's County, situated on the north side of Cardigan River, about 5 miles below Cardigan Bridge, a station on the line of the Prince Edward Island Railway, has a length of 381 feet, consisting of a shore abutment and seven "blocks" with intervening "spans." It is from 23 to 25 feet wide to the outer "block" or pier head which has a width of 32 feet. The shore abutment is 100 feet long built of "blocks" from 19 to 26 feet and "spans" from 14 to 26 feet. All of the approach and blocks are constructed of squared timber close-faced work filled with brush, stone and gravel, the latter forming the roadway, excepting on the two outer blocks which like all of the "spans" are floor stringered and planked over. Being an old structure and much out of repair when its control was assumed by the department in 1884, it has almost yearly since that time required some slight repairs to keep it in passable condition.

During the past season, the sum of \$50.42 has been expended in replacing 5 span beams, 3 floor stringers, and replanking the outer "span" and second block and making up settlement that had occurred in the roadway approach with broken stone and gravel.

PINETTE.

Pinette Pier, Queen's County, is situated on the south side of the Pinette River immediately below and at right angles to the public road bridge crossing the river, with which it is connected by a "span" 28 feet in length. The pier is 120 feet long by 23 feet wide constructed of close faced squared timber, floor stringered and planked over, and having along its channel face a depth of 8 feet at low water.

During the fiscal year the sum of \$13.25 has been expended in effecting temporary repairs to the plank covering of the approach from the bridge, which, owing to its broken and decayed condition, had become unsafe.

PORT SELKIRK.

Port Selkirk Pier is situated on the south side of the mouth of the Orwell River near its entrance into Orwell Bay, and is distant, by water, about 20 miles from Charlottetown. It is in the form of a **T** having a pier head 250 feet long and 35 feet wide on the channel face, connected with the shore by an abutment or approach 252 feet long and 23 feet wide. The pier head is composed of a series of "blocks" and "spans" the above low water portion of which have all been reconstructed since 1890, and except that the upper or eastern block has settled very much (3 feet 6 inches on the upper outer corner) is generally in good condition.

A slight settlement, however, that had occurred to the lower or western "block" (56 feet long) the berth used by the ss. "Jacques Cartier" plying tri-weekly between the pier and Charlottetown, made it dangerous for the approach of the steamer at or near low water as the face of the block, built originally plumb, overhung so much that her top works coming in contact with the fenders were liable to injury. This has been remedied by putting on walings just above low water on the original fenders and driving outside of these six additional fender piles the top of which rest against and are secured to the original guard timber. A new plank walk 4 feet wide placed on cedar sleepers laid at 5 feet centres has also been put in on the western side of the approach, which with general repair of planking has been effected at a cost of \$100.

RUSTICO.

Rustico Harbour, Queen's County, the most important fishing station on the northern coast of the island, is situated about midway between "East Point" and "North Cape." During 1881-82-83-84, breakwaters were built on each side of its entrance for the purpose of concentrating the current at ebb-tide and directing it upon an outer obstructing bar, to improve by scouring the depth of water. This to some extent has been obtained, some two to three feet better water being now carried over the bar, giving at low water 8 to 9 feet, or at high water springs (that rise 3 feet) a depth of from 11 to 12 feet, which no doubt would be further improved by the extension and maintenance of the work. The breakwater on the northern side is in a way the most important, as it protects an inner low beach on which most of the fishing stages and fish houses are situated. It was originally 1,240 feet long, but by different storms occurring from time to time up to 1893, a length in all of 120 feet was carried away and a further portion 150 feet long seriously damaged, the direct cause of which may be laid to the action of the teredo, by which the destruction and weakening of the timbers below low water left the work unfit to withstand the movement of the ice and severe storms to which the site is exposed. During 1893-94, temporary repairs were made to the damaged work, the outer end being bulkheaded to prevent further damage.

On the 12th March, 1895, a contract was entered into for building an outer block 30 feet by 60 feet, and widening, raising, &c., the adjoining 140 feet. The construction of this work which is close faced of solid timber, close piled on exposed faces, was commenced about the middle of May, and was satisfactorily completed by the 31st August, 1895.

Department of Public Works.

During March and April, 1896, the sum of \$247.35 was expended by days labour in putting in "brush mats" 15 feet wide and from 4 to 6 feet deep, thoroughly wired together and ballasted, along the north side of the L and inner side of the return to prevent scour that was beginning to take place.

SOURIS HARBOUR.

Souris Harbour, King's County, situated on the southern side of the island, about 16 miles westward from East Point, is most important both as a harbour of refuge and port of shipment, being easy of access and a perfectly safe harbour in all winds. It is the eastern terminus of the Prince Edward Island Railway, which has a deep water wharf from which shipments can be made later in the fall and earlier in the spring than from any other of the island harbours. During the season of navigation it is largely used by coasters and fishermen as a port of call, the breakwater constructed by the department affording good accommodation within a perfectly sheltered area (carrying from 12 to 20 feet of water) for a large fleet of vessels. The work has in all a length of 1,200 feet (270 feet of which was constructed by the local government prior to confederation), but as it stands in deep water (18 to 20 feet) and is exposed to the full force of the sea during southerly gales as well as the action of ice in the winter, it has, since construction, required from time to time extensive repairs, these being due greatly to the destructive action of the teredo and to the fact that the quality of stone procurable for ballast on the island has not proved of a durable nature.

During the fiscal year 1895-96 the sum of \$1,169.98 has been expended in urgent repairs, consisting in replacing the covering, fender piles and ballast, and in closing in a breach on the seaward face near the inner end of the work. The sum of \$3,329.30 has also been expended towards the reconstruction of the seaward face on the inner section of the work, two cribs respectively 50 and 60 feet long, averaging 16 feet wide and 18 feet high, forming its bottom portion being put in. This new facing, for about one half its length, was built up to 5 feet above high water or within one foot of intended height, its remainder stepping down to about 2 feet above low water or 7 feet lower at its inner end.

For the repair and protection of the outer section of the work, which is narrow and greatly weakened by the ravages of the sea worms, a contract was entered into 17th February, 1896, for the construction of a solid close faced block of creosoted timber, 80 feet in length by 40 feet in width at the present outer end, and the placing of a stone slope for a length of 395 feet inward of this, the stone protection to extend to 2 feet 6 inches above high water spring tides.

At the close of the fiscal year the timber to be used in the construction of the block had been delivered, as also two cargoes of granite stone, of a most satisfactory description, which was procured at "Canso" on the Nova Scotia coast, where the contractors have opened a quarry.

STEPHEN'S.

Stephen's Pier is situated on the southern side of the Montague River about 6 miles above its entrance into Cardigan Bay and immediately below "Lambert's Pier" and Montague Bridge. It consists of two wings or approaches about 50 feet apart and extending out from the bank of the river to the edge of the channel where the pier head has a frontage of 100 feet. The wings or approaches are respectively 90 and 115 feet long and are formed of close faced timber work, the space between them being filled with brush and ballast discharged from vessels, gravel and clay being placed on top, connected with the pier head by "spans" or openings, floor stringered and planked over. The pier head is formed of pile bents capped, floor stringered, etc. During 1894-95 the span at the eastern approach that had broken down, owing to decay of its covering and floor stringers, was solidly filled in with stone.

During 1895-96, the span of the western approach that had also broken down was similarly treated, and some repairs to the planking of the pier head to make it safe and passable for the fall traffic were made, at a cost of \$56.50.

VICTORIA PIER, CRAPAUD.

Victoria Pier is situated at the head of navigation from "Crapaud Basin" at the village of Victoria, Queen's County, and as a place of shipment of produce is next in importance to Summerside on the south-western coast of Prince Edward Island. Victoria is about midway between Charlottetown and Summerside harbours and 10 miles south from Emerald Junction on the line of the Prince Edward Island Railway, and its port is the outlet of probably the best tilled and most fertile district on the island. The channel between "Crapaud Basin" and the wharfs at Victoria village is an artificial one formed entirely by dredging, the original channel which was the natural bed of the "Brockelsby River" being both shallow and crooked and of no use for shipping, as at times it had in it only a few inches of water. It lay to the eastward of the present channel and is now entirely obliterated being filled with sand and sediment even with the flats.

To keep open the new channel, the department has at different times expended large sums in dredging which was rendered necessary every 4th to 5th year, owing to the sediment carried into the channel becoming deposited on meeting the slack water at the channel's mouth, where and at the vicinity of the wharfs the shoaling up first occurs.

The government pier, so called, to distinguish it from the other wharfs owned by private parties, has a total length of 486 feet, the approach being 268 feet long and 20 feet wide, middle section 143 feet long, averaging 37 feet wide, and the outer end or pier head 75 feet long and 58 feet wide, giving a most convenient area available for wharfage. Its height is 19 feet with a depth of 15 feet of water at high tide. With the exception of the approach, which is built solid, the whole is composed of "blocks" and "spans" floor stringered and planked over, the roadway of the approach being formed of broken stone and gravel placed on top of the poles and brush with which its interior is filled. In 1884, when the control of this pier was assumed by the department, it was put in a thorough state of repair, the planking, floor stringers, fenders, etc., of its outer portions being renewed. It has also from time to time had small amounts expended upon the roadway of the inner portion or approach.

During the year the sum of \$40.00 was expended in filling in parts of it with broken stone and gravel, otherwise it should have been impassable for traffic.

WOOD ISLANDS.

Wood Islands, lot 62, Queen's County, are situated on the Strait of Northumberland, about 15 miles to the westward of Cape Bear, and are the most southerly point of Prince Edward Island. They are two in number, lie parallel with the shore, from which they are distant about half a mile, and are connected by a small sand beach, and also by another beach extending from the western end of the western island to the mainland, forming a total length of nearly a mile. A pond is thus inclosed having an area of about 300 acres, with its outlet at the south-eastern corner. This pond is too shallow to serve even as a boat harbour, and an attempt was made to form a shelter for boats and small vessels by the construction of works extending eastwardly, from the sand pit and parallel with the shore, with the expectation that scour would be produced by the tidal outflow from the pond and a deepening of the channel so formed would take place, but the attempt resulted in failure. The work, which was constructed by the local government, was 2,530 feet in length, of varying heights and widths, and built of brush and stone for a foundation with a superstructure of timber cribwork.

Department of Public Works.

During 1878-79 a breakwater 350 feet in length was constructed by the department, on the western side of the entrance, and during the same year an attempt was made to deepen the channel along the eastern breakwater, but the work had to be abandoned.

Between 1880 and 1885 the sum of \$8,871.16 was expended in extending the western breakwater, and during 1886 the sum of \$1,000 was spent in effecting necessary repairs to the eastern breakwater.

In December, 1893, a contract was entered into for the reconstruction and repair of the eastern breakwater, and at the close of the fiscal year about one-third of the work contracted for had been completed.

On the 30th November, 1894, the work under contract was satisfactorily completed, and has already given promise of great benefit to the district as a shipping point, the depth of water having increased two feet, which it is hoped will continue without the aid of a dredge.

During the fiscal year 1895-96 the sum of \$686.63 has been expended in close-piling the channel on inward side of the work at what is known as the "Loading Berth" so as to prevent undermining and injury to the bottom portion of the breakwater. The piling consists of spruce and hardwood spars 9 inches in diameter at the small ends and driven from 8 to 10 feet into the original bottom, their tops being secured to the face timbers by three and four one inch round iron bolts.

PROVINCE OF QUEBEC.

BAIE ST. PAUL.

Baie St. Paul, Charlevoix County, is on the north shore of the St. Lawrence, 60 miles east of Quebec.

The extension of this wharf for a further length of 100 feet, 30 feet wide, which was commenced in the month of May, 1895, was completed at the end of October last; the work was done by contract at a cost, including superintendence, of \$5,945.00.

The approach to the wharf has also been raised $2\frac{1}{2}$ feet on the total length of 260 feet, 18 toises of stone ballast were put in it and it was covered with 3 inch plank, and 30 fenders were placed on the seaward face to strengthen the work.

Part of the planking of the wharf proper was renewed, 300 planks 3 inch thick being employed.

These repairs were done by day labour in the month of November at a cost of \$900.42.

Spring tides rise 20 feet, neap tides 13 feet.

BERTHIER (EN BAS).

Berthier, Montmagny County, is on the south shore of the St. Lawrence, 30 miles east of Quebec.

During the months of October and November, 1895, the top planking of this wharf has been partly renewed, 600 planks 3 inches thick being used. The landing slip was repaired, two mooring posts were renewed, one of the winches used in raising the slip was also repaired.

The work was done by day labour at a cost of \$255.27.

Spring tides rise 19 feet, neap tides 13 feet.

CHATEAUGUAY.

Chateauguay, in the county of the same name, is situated on the Chateauguay River, which empties into Lake St. Louis, and is 24 miles to the south-west of Montreal.

A row of close faced pile work 145 feet in length, including 128 piles of 12 inch flatted hemlock timber, was driven to an average depth of 8 feet into the bottom of the Chateauguay River, along the front of the old wharf, and at an average distance of 4 feet from its face. The space between the wharf and the piling, and the depressions and holes in the former were filled with stone, over which a layer of gravel 2 feet in thickness was laid for a roadway. The work was completed on the 28th of October, 1895 at a cost of \$1,296.47.

The wharf is now in a thorough state of repair. It is 145 feet long, stands 8½ feet above extreme low water level, and has a depth of 9 feet of water at its lower, and of 4 feet of water at its upper end.

CHICOUTIMI.

Chicoutimi, in the county of the same name, is situated at the head of navigation on the River Saguenay, and is 71½ miles above Tadousac at the mouth of the river.

During 1895-96, 250 feet in length of the north-easterly part of the wharf was sheathed with 5 inch red spruce and the sheathing of the northern end of the structure was renewed on a length of 45 feet. The flooring was completed and the sheds on the wharf painted. Expenditure \$1,998.61.

ETANG DU NORD.

Etang du Nord is at the western end of Grindstone Island, one of the Magdalen Islands, in the Gulf of St. Lawrence. Grindstone Island is irregular in shape, and is about 7½ miles long by 4½ wide. The coast is indented by small bays and coves and there are good fishing stations, the principal being at Etang du Nord. The bay at this place is small, but offers a safe shelter for boats in 3 to 5 feet of water at low tide.

During the fiscal year ended 30th June, 1896, the sum of \$838.61 was expended in procuring and placing 60 toises (or 480 cubic yards of stone) in the breakwater, strengthening the work, renewing face timbers, sheathing and flooring at different points where required.

GRANDE RIVIÈRE.

Grande Rivière, in the county of Gaspé, is situated on the Baie des Chaleurs, 21 miles south west from Percé and about 30 miles to the north-east of Port Daniel.

During 1892, a wharf 457 feet in length, was constructed at Robin's Point, the width varying from 25 feet 4 inches on top to 37 feet 9 inches at the outer end.

To provide additional shelter and further accommodation for boats, a contract was entered into on the 8th May, 1894, with Mr. F. B. Atkinson, for the construction of an extension to the existing structure.

The work was commenced and completed in 1895-96, and comprised the construction of an additional block 104 feet in length on the seaward face, 102 feet 6 inches in length on the inside face, with a width of 40 feet 4 inches at the outer end. Spring tides rise 6 feet 6 inches.

ILE AUX COUDRES.

This wharf is on the north shore of Ile aux Coudres, county of Charlevoix, 62 miles east of Quebec.

During the month of October, the face timbers broken by the ice at the outer end of the wharf, were repaired and sheathed over, six new fenders were put on, the

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corner iron straps were replaced, 100 feet of floor stringers were renewed as well as a few planks in the top flooring, and about 10 toises of stone ballast were put in to replace that fallen out through the broken part of the face timbers.

The work was done by day labour at a cost of \$359.02.

Spring tides rise 20 feet, neap tides 13 feet.

LACOLLE.

The village of Lacolle is situated in St. John's County. The wharf generally known as the Lacolle wharf is, however, situated on the east shore of the Richelieu River in the county of Missisquoi, 2 miles from Lacolle.

The western half of the wharf, 100 feet by 40 feet dimensions, was completely repaired. All the floor beams were renewed and a flooring of 3 inch hemlock laid. The piles along the western face were all found to be decayed; they were cut two feet above low water level, and new heads substituted.

The Government storehouse situated on the wharf was also repaired and repainted.

The work was substantially done, at a cost of \$726.36 and the whole wharf is now in a perfect state of repair.

LANDING PLACES, LOWER ST. LAWRENCE.

To provide safe landing places for the fishermen engaged in their calling on the Lower St. Lawrence, the department has, during the past two years, undertaken work at various places with gratifying results.

During the past year the sum of \$1,987.91, was expended in the removal of loose and solid rock at the following points, viz.: Anse à Grisford, Trois Ruisseaux, Anse à Louise, Jersey Cove, Cape Rosier Cove, Rivière au Renard, Petit Cap, Echourie, and Pointe Jaune.

LAPRAIRIE.

Laprairie, the chef-lieu of the county of the same name, is situated on the southern shore of the St. Lawrence, 7 miles above Montreal.

A sum of \$2,000 was appropriated for works in connection with the ice piers. Part of this amount was expended in the construction of a stone protection work to the south of the main ice pier, and part in raising 9 feet, the portion 103 feet in length of the cribwork retaining wall immediately adjoining the same pier. The work was completed in December, 1895.

LES EBOULEMENTS.

The village of Les Eboulements is on the north shore of the St. Lawrence, in the county of Charlevoix, 70 miles east of Quebec.

During the month of October last, the top flooring of the wharf, was partly renewed as well as part of the floor stringers, 500 planks 3 inches thick and 450 feet of stringers 10 x 10 being used; the railing on the eastern side was also repaired.

The work was done by day labour at a cost of \$388.90. Spring tides rise 20 feet, neap tides 12 feet 6 inches.

LONGUEUIL.

Longueuil, in the county of Chambly, is on the south shore of the St. Lawrence opposite Hochelaga.

In the spring of 1895, a portion of the sheathing 150 feet in length along the upper or western face of the pier, and at about 100 feet from its head, was torn off or

broken by the ice, and a few of the face timbers crushed in. All necessary repairs were performed at a total cost of \$134.54 for labour alone. No materials were purchased as sufficient quantities were on hand.

In June last, a further amount of \$149.57 was expended on minor repairs and for the laying of a gravel roadway 12 feet wide from end to end of the pier.

The total amount expended during the fiscal year 1895-96 was \$284.11.

MATANE.

On either side of the River Matane, which empties into the St. Lawrence on the south shore, is built the village of Matane, in the county of Rimouski.

This village is 30 miles distant from Little Metis station, the nearest point on the Intercolonial Railway, its distance from Quebec being about 240 miles.

The work done at Matane during the fiscal year ended 30th June, 1896, consisted in the continuation and completion of the repairs undertaken during 1894-95, to the breakwater at the mouth of the River Matane on its left shore. This was done by replacing the piles and repairing the corner angles of the piers over a length of 160 feet. The piles were pieces of timber 10 inches square, and extended over the full height of the breakwater, each piece being driven one foot into the bottom and well fastened with 20 inch iron bolts. A row of big stones was put at the front to prevent the sand from being washed by the sea. Five iron straps 4 inches by $\frac{3}{8}$ inch were fixed on the seaward corner. The expenditure amounted to \$572.81.

Spring tides rise 12 feet.

MURRAY BAY.

Murray Bay is on the north shore of the St. Lawrence in the county of Charlevoix, 85 miles east of Quebec.

During the month of October last about 13 toises of stone ballast were put in the new extension built in 1893 to complete the filling, 370 planks were renewed in the top flooring of the wharf, 80 feet of railing were built on the western side of the wharf and that on the eastern side was repaired and painted and other trifling repairs were executed.

The work was done by day labour at a cost of \$307.68.

Spring tides rise 20 feet, neap tides 12 feet 6 inches.

PETITE RIVIÈRE ST. FRANÇOIS.

Petite Rivière St. François is a small village in the county of Charlevoix, on the north shore of the St. Lawrence, 45 miles east of Quebec.

The work consisted in the removal of boulders from a part of the beach to facilitate the approach by schooners at high tide and allow them to ground safely at low tide.

130 boulders varying in size from $1\frac{1}{2}$ to 2 cubic yards were broken and removed, as well as smaller boulders not requiring to be broken.

The work was done by day labour at a cost of \$398.98.

Spring tides rise 20 feet neap tides 13 feet.

PHILIPSBURG.

The village of Philipsburg is situated on the east shore of Missisquoi Bay, Lake Champlain, in the county of Missisquoi.

On the 29th of July, 1895, Mr. Olivier Lefebvre, entered into a contract with this department for the construction of a landing pier at this place for a bulk sum of \$9,942.00.

The work was commenced during the latter part of August, 1895, but was not quite completed at the close of the fiscal year.

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On the 26th of December, 1895, during a heavy north-west gale, which caused a tremendous ice shove, the breakwater or head of the pier which had been, but a few days before, placed in its specified position, but was not yet sufficiently ballasted, was moved 115 feet shorewards and 20 feet to the south. On the 8th of January it was, with difficulty moved to the position it now occupies, where permission was granted to leave it, subject, however, to a decrease in the contract price proportionate to the decrease in the length of the work. This decrease was estimated at \$488.94. The depth of water at the head of the pier was not affected by the change.

The pier consists of a breakwater or head 120 feet long and 25 feet wide, of a trestle work approach 302 feet long and 30 feet wide, and of a stone and earth embankment 285 feet long and 30 feet wide at the top, with side slopes of $1\frac{1}{2}$ to 1. Its head stands in $7\frac{1}{2}$ feet of water at extreme low water level, and the top of its flooring is 10 feet above the same level.

After its completion it was found imperative to rip-rap the slopes of the earthen or upper portion of the embankment from low water level to its top, and to provide and place in position suitable mooring posts. This the contractor agreed to perform at a reasonable schedule of rates, and he was called upon to carry out the work, which he satisfactorily completed.

The amount available for the work was \$10,500.00 composed of \$6,500.00 appropriated by parliament, and of \$4,000.00 subscribed by the municipality of Philipsburg. The total amount expended was \$11,114.48.

POINTE AUX ESQUIMAUX.

Pointe aux Esquimaux, in the united counties of Chicoutimi and Saguenay, is on the northern shore of the River St. Lawrence, 525 miles below Quebec.

The wharf purchased by the Government in 1895, had a length of 125 feet and a width of 30 feet. During 1895-96, it was lengthened 60 feet by the construction of a block 30 feet square and 42 feet in height, connected with the old work by a platform, 30 feet in length, and the whole of the work was sheathed.

The wharf is now 185 feet in length and has a depth of water at its outer end of 25 feet at low water.

The amount expended was \$4,028.42.

RIVER DU LIÈVRE—LITTLE RAPIDS.

The lock and dam built by the department are situated at the Little Rapids, 12 miles above the village of Buckingham. The lock is 150 feet long between the gates and is 31 feet wide, while the lift is 13 feet 9 inches at low water.

There have been 572 lockages of all kinds through the lock during the year including cribs of railway ties and a few cribs of saw logs, the tolls collected amounting to \$230.35. The phosphate mines having suspended work for the present, and also the Messrs. Grondin & Racicot Company's saw-mill, accounts for the reduced receipts.

Some repairs were made in filling holes and depressions in the west embankment which was sinking in some places and required levelling, at a cost of \$115.00.

The roof of the lockmaster's residence was leaking badly and was roofed with Canada plate at a cost of \$57.65.

The ice went out very strong last spring and the water being high caused some damage to the new unfinished pier above the west abutment.

There have been say 300,000 saw-logs passed through the slide during the year, besides a large number of pieces of cedar and other dimension timber.

RIVIÈRE DU LOUP (EN BAS).

Rivière du Loup, or Fraserville, Temiscouata County, is on the south shore of the St. Lawrence, 115 miles east of Quebec.

During the months of August and September, the sheathing of the wharf which had been carried away by ice was replaced, the broken face timbers under the slip were repaired and 700 three inch planks were renewed in the top flooring, and trifling repairs were made to the buildings and railing.

The work was done by day labour at a cost of \$451.36.

Spring tides rise 18 feet, neap tides 12 feet.

RIVIÈRE NOIRE.

Rivière Noire is a small village on the north shore of the St. Lawrence in the county of Charlevoix, 108 miles east of Quebec.

During the month of October the small breakwater commenced in 1893 was completed by raising it an additional height of $2\frac{1}{2}$ feet with round cedar timber and stone ballast; it was also covered with 3 inch planks on its total length of 135 feet and a small approach of stone was built.

The work was done by day labour at a cost of \$300.35.

Spring tides rise 20 feet, neap tides 12 feet 5 inches.

RIVER ST. MAURICE—GRANDES PILES TO LA TUQUE.

The River St. Maurice flows southward and empties into the St. Lawrence at Three Rivers.

From its outlet to Grandes Piles, a distance of 37 miles, this river is not navigable, owing to the numerous falls and rapids which follow each other without much intermission, but above Grandes Piles up to La Tuque, a distance of 66 miles, there is a good channel for vessels drawing less than two feet six inches of water.

The greatest impediments to navigation for a boat drawing more than $2\frac{1}{2}$ feet of water, during the low stage of water, which generally lasts about a month each year during the navigable season, are at the shoals at l'île aux Morpions, Pointe à Tom, and at the Meckinac shoal.

The work done consisted in the placing of land marks and buoys to indicate the best channel at the shallowest places between Grandes Piles and La Tuque and in deepening the channel at l'île aux Morpions shoal.

Fifty-two land marks have been fixed on the river bank to indicate the channel, and 72 buoys have been kept during the navigable season to indicate the best channel at the shallowest places on the river. Some land marks were repaired and whitewashed, the position of some of these having to be altered owing to a change in the direction of the channel.

The deepening of the channel at l'île aux Morpions was commenced, but very little could be done owing to the sudden rise of the water.

The amount expended on this work was \$1,568.21 out of the appropriation granted for 1895-96.

RIVER YAMASKA.

The River Yamaska flows through the county of Yamaska, emptying into the St. Lawrence, eight miles below the town of Sorel on the southern shore of Lake St. Peter.

The lock which is situated about $4\frac{1}{2}$ miles from the outlet of the river, has been kept in good working order all summer.

It was opened on the 24th April, 1895, and closed on the 21st November, 1895, during which period there were 375 lockages.

The total amount of expenditure for staff was \$665.00, and for maintenance and ordinary repairs, \$239.03; a total of \$904.03 out of the appropriation granted for 1895-96.

Department of Public Works.

STE. ANNE DE LA PERADE.

St. Anne de la Pérade, in the county of Champlain, is situated on the north shore of the River St. Lawrence, fifty-three miles above Quebec. The Rivière Ste. Anne, one of the tributaries of the St. Lawrence divides the village.

At the session of 1894, a sum of \$10,000.00 was voted for the protection of the village, the municipality having subscribed the sum of \$5,000.

The proposed works were done during the winter of 1895, and consisted of five dykes.

The dykes are No. 1, 140; No. 2, 170; No. 3, 340 and No. 4, 435 feet in length respectively, the fifth, near the C. P. R bridge is 340 feet in length, and that of the little channel on the west side of the river is 550 feet in length.

These dykes consist of two rows of piles driven 10 feet apart and filled with brush loaded down with stone.

It is to be remarked that the soil, where piles have been driven, is a fine sand taken down by the river from the land slide at St. Albans, the bed of the river having been raised 6 feet at Ste. Anne.

A sum of \$14,906.05 was expended during the winter of 1895.

During the fall of 1895, works have been executed for the removal of a certain portion of trees, stumps, etc., accumulated in the Little Channel owing to the land slide at St. Albans.

During the winter of 1896, Dyke No. 1 has been reconstructed for a length of 220 feet and No. 5 has been repaired. These dykes experienced considerable damage by the breaking of the ice in December, 1895.

The amount expended during the fall of 1895 and winter of 1896, has been \$4,373.90.

STE. ANNE DU SAGUENAY.

Ste. Anne du Saguenay is situated on the northern bank of the River Saguenay opposite Chicoutimi.

During the past year, the block which has been built at a distance of 250 feet from the wharf was raised 8 feet, and will, in consequence, afford sufficient protection to the wharf during the breaking up of the ice in the spring.

STE. CECILE DU BIC.

Bic, in the county of Rimouski, is a station of the Intercolonial Railway about 8 miles west of Rimouski.

A wharf, 1,140 feet in length, has been built at this place, and during the month of June last, nearly 1,200 planks were used in renewing the planking over a length of about 400 feet. The remaining of the flooring was repaired and the top course on both sides was renewed over a length of 300 feet. The wharf is now in such a state as will allow the shipping of timber for some time.

The expenditure amounted to \$587.24.

ST. FELICIEN.

St. Félicien, on Lake St. John, is situated about 18 miles to the west of Roberval which is the lake terminus of the Quebec and Lake St. John Railway.

During the fiscal year 1895-96, there was built, at an expense of \$1,999.68, a wharf 70 feet in length, 26 feet in width, and 22 feet high at the outer end at which vessels drawing 8 feet can lie at low water.

A shed 20 feet square was erected on the wharf at its inner end.

ST. IRÉNÉE.

On the north shore of the St. Lawrence, nine miles west of Murray Bay, lies the village of St. Irénée, in the county of Charlevoix.

Some years ago an isolated block was constructed by the department at this place, the dimensions of which were 78 and 30 feet respectively, its length being nearly parallel to the shore. During last summer, an extension shoreward has been built. The work is close faced square timber, 60 feet in length, and 22 feet in width by a mean height of 30 feet, the greater side of the extension being placed in a straight line with the north-east side of the existing block.

The block was left unsheathed, and during the rough weather of the first part of the winter, the north-east corner was badly damaged by ice. During the month of December, this corner was sheathed with pieces of spruce 10 inch square and fenders were placed on the whole length of the north-east side.

The greatest tide, observed in September last, was $19\frac{1}{2}$ feet; the depth of water at low tide near the extension is 9 feet.

The expenditure during the fiscal year amounted to \$2,909.88.

ST. JEAN ILE D'ORLÉANS.

St. Jean, in the county of Montmorency, is on the southern shore of the Island of Orleans, is 3 miles from Québec, and 7 miles below St. Laurent.

During the first half of last fiscal year, the repairs to this pier were brought to a close, and consisted in putting on 460 running feet of 8 inch by 9 inch cap timbers, the sheathing of 347 feet in length on the east side from extreme low water up to top with 3 inch black birch, and pine and black spruce deals and two coats of paint were applied to mooring posts and cap timbers. The lower part of the west slip was renewed on a length of 30 feet by $9\frac{1}{2}$ feet wide with new side cap timbers. Twelve new fenders were placed on the west side of the pier, and other repairs and improvements made at a cost of \$671.48.

ST. LAURENT.

St. Laurent, Montmorency County, is on the south shore of the Island of Orleans, 10 miles east of Quebec.

During the month of August last the top planking was renewed almost entirely on a length of 400 feet and the pulleys used in raising the slip were repaired.

The work was done by day labour at a cost of \$179.17.

Spring tides rise 19 feet, neap tides 13 feet.

TOULADIE RIVER.

The Madawaska River has its source in Lake Temiscouata and empties into the St. John River at Edmundston, New Brunswick.

Lake Temiscouata is connected with Lake Touladie by the Touladie River, which is considered a branch of the Madawaska.

The work done during the fiscal year 1895-96, was the continuation of what was began in 1893-94, and carried out during 1894-95. It consisted in removing boulders and other obstructions from the river and constructing a tow-path along the shore. This path is constructed by cutting the wood and bushes and levelling the ground, and building small bridges over the streams met with.

A considerable amount of blasting was done. The expenditure amounted to \$461.55.

Department of Public Works.

TROIS PISTOLES.

Trois Pistoles, in the county of Temisconata, is a village on the Intercolonial Railway, 25 miles below Rivière-du-Loup.

The work done during the year consisted in improving the harbour by blasting boulders and projecting rocks, and dragging ashore the broken stones. The expenditure amounted to \$435.89.

Spring tides rise $16\frac{1}{2}$ feet.

PROVINCE OF ONTARIO.

BIG BAY.

Big Bay, Grey County, is situated on the Georgian Bay, near the entrance to Colpoys Bay in the township of Keppel, about 15 miles north of Owen Sound Harbour.

In October last, authority was given to make certain repairs to the landing pier at this place. The work consisted in protecting the shore end crib with stone rip-rap in order to avoid further undermining by the action of a small stream.

The amount expended was \$51.39.

BURLINGTON CHANNEL.

Burlington Channel is a channel through Burlington Beach, connecting the waters of Lake Ontario with Burlington Bay or Hamilton Harbour.

Owing to the low water level in the lakes it was found impossible, without a heavy expenditure of money, to operate the large ferry-scow, during the fall, and as traffic in the winter is very small, and as the highway bridge, to do away with the ferry at this place, was in course of construction, it was not considered necessary to make the outlay. Foot passengers were taken over in the ferry punt.

The amount expended in working the ferry from 1st July, 1895, to 30th June, 1896, was—

Wages of ferrymen	\$759 96
Repairs, etc.	57 65
Total	<u>\$817.61</u>

A road approach 400 feet in length with rip-rap stone wall, on the bay, or west side, has been constructed with material from the beach on the north side of the channel to connect the swing-bridge now being erected with the public road. The amount expended on the work was \$1,546.00.

On the south side of the channel a crib 70 feet by 20 feet was built, and placed in position, with superstructure to fill in the approaches of the ferry landing. The amount expended on the work was \$2,570.60.

COLLINGWOOD.

Collingwood is situated on the south-east portion of the Georgian Bay, township of Nottawasaga, county of Simcoe, 94 miles by railway from Toronto, and has a population about 6,000.

On the 22nd July last, authority was given to expend a sum not to exceed \$2,500.00 in making certain repairs to the breakwater, at the entrance to the harbour, and, in August active operations were commenced under a foreman of works, by day's labour,

and carried on until the 12th November, when the weather became too unfavourable for carrying on work to advantage. In May last work was resumed, and the whole of the repairs completed and the whole of the appropriation expended by the 30th June.

In December last, authority was given to repair the foundation under the lighthouse on the breakwater, the sum to be expended being \$200.00. This work could not be done in the winter months, owing to the large amount of ice which accumulated on this structure and it was not until April that the necessary operations could be commenced and they were completed in May last.

COBOURG.

Cobourg is situated in the county of Northumberland, on Lake Ontario, 69 miles by rail north-east of Toronto, on the main line of the Grand Trunk Railway.

On the 25th October, 1895, authority was given to make certain repairs to the east pier and Langevin pier at Cobourg Harbour by day's labour. Active operations were at once commenced and the work completed in January, 1896.

KINCARDINE.

Kincardine is situated at the mouth of the Penetangore River, which empties into Lake Huron, 31 miles north of Goderich and 30 south of Southampton. It is the terminus of the Grand Trunk Railway (Wellington, Grey and Bruce Division).

During August, 1895, \$30.00 were expended in effecting some necessary repairs to the north pier.

KINGSTON.

Kingston, Frontenac County, is at the lower end of Lake Ontario, and 172 miles above Montreal, and 161 miles below Toronto.

The work of removing Point Frederick shoal was continued from 1st July, to 5th October, 1895, and during that time 1,533 cubic yards of rock, measured on the scow was removed and delivered to various parties, who unloaded the scows without charge to the department.

Hitherto it has been possible to remove the rock without blasting, but this can be no longer done to advantage. The rock which has yet to be removed in order to obtain the required depth of water is so compact in its bed, that the use of an explosive will be required to loosen it. Owing to the exposed position of the shoal, drilling for this purpose could be done best from the ice in winter, and the holes fired as required during the working season.

The expenditure for the year has been \$3,829.31.

LAKES SIMCOE AND COUCHICHING.

In April, 1896, work was commenced at the outlet of Lake Couchiching, the upper end of the Severn River, between the counties of Simcoe and Ontario.

The object of the work was the regulation of the waters of Lake Simcoe and Couchiching. The clearing of the land and water courses has in this locality as elsewhere, resulted in extreme high water in the spring and extreme low water in the autumn.

The outlets of Lake Couchiching being narrow gorges through granite ledges, the escape of this flood water was not sufficiently rapid to allow the land bordering Lake Simcoe being cultivated.

The department, therefore, undertook the work of widening two of the three outlets, above low water level so as to facilitate the escape of the flood without interfering with low water.

Department of Public Works.

The work was carried on by day's labour and with plant belonging to and purchased by the department.

Before the close of the fiscal year, the widening at "Little Falls" was completed and half the work at "Big Falls" done.

It having been represented that the more rapid escape of flood water would endanger navigation during low water, it was decided to limit the escape at low water by stop-logs at each outlet. On the completion of the excavation stop-logs were therefore constructed at "Little Falls."

The expenditure during the fiscal year, including the construction of stop-logs, was \$2,416.48.

LION'S HEAD.

Lion's Head is situated on the west side of the Georgian Bay, Bruce County, and is distant from Wiarton in a north-easterly direction about 35 miles.

On the 25th May last, authority was given to expend the sum \$83.00 in effecting repairs to the landing pier at this place, and consisted chiefly in renewing a portion of the deck planking and stringers; 300 lineal feet of 6 inch x 8 inch cedar timber and 4,600 feet b.m. 3 inch pine planking with 125 lbs. iron spike being used, and the work was completed in June last.

MORPETH.

Morpeth is situated in the electoral division of Kent on the north shore of Lake Erie, about 10 miles east of Rondeau.

During the year the sum of \$337.64 was expended in making some necessary repairs to the landing pier at this place, the work being done by day's labour. Operations were commenced on the 7th August and completed on the 9th September; 11,935 feet b.m. timber was used in placing the pier in good repair.

OAKVILLE.

Oakville is situated in the county of Halton, on Lake Ontario, 22 miles by rail to the south-west of Toronto.

During the year 1895-96, the sum of \$499.93 was expended in repairing and levelling up the east pier, at the outer end, a distance of about 200 feet in length. Work was commenced in May and carried on by day's labour and the whole completed in June.

In making the repairs, 15,570 feet b.m. timber, 320 feet of scantling, 1,904 lbs. iron for bolts and 100 cubic yards of stone were used. The labour and superintendence cost \$120.69.

OWEN SOUND.

Owen Sound is situated in the township of Sydenham, county of Grey, and at the mouth of the Sydenham River. It is the terminus of the Canadian Pacific Railway (Toronto, Grey and Bruce Division) and of that company's line of steamers, on the Upper Lakes, also of the branch of the Grand Trunk Railway. (Georgian Bay and Lake Erie Division).

On the 19th October, 1894, a contract was entered into with Messrs. Porter and Canan, of Wiarton, for the bulk sum of \$10,630.00 for the construction of sheet-pile revetment work, in front of the Esplanade, on the west side of the harbour, a distance of 1,550 feet. Active operations were commenced in May and the whole of the work was completed in August last.

In November, 1895, instructions were given to place two inner bands or straps, 4 inches by $\frac{3}{4}$, on the fender pieces, in front of the revetment work, in order to prevent the fenders from being torn off by vessels. This work was done by day's

labour and completed in December last at a cost of \$650.62, 16,240 lbs. iron for bands and 3,450 lbs. iron spikes were used, and the labour and superintendence amounted to \$224.00.

On the 8th May last, authority was given to expend the sum of \$1,600.00 in dredging the harbour and filling in with the dredged material behind the revetment work. Messrs. Porter & Canan's plant was engaged to perform the work, at the rate of \$8.00 per working hour. Work was commenced on the 27th June and completed on the 17th July. The dredge worked 192½ hours at a cost of \$1,540.00 and removed a large quantity of material from the harbour. The inspector's wages amounted to \$57.73. Total expenditure for dredging \$1,597.73.

PORT DOVER.

Port Dover is situated in the county of Norfolk, on the north shore of Lake Erie, about 26 miles by rail from Brantford, and is a station on the Grand Trunk Railway.

On the 5th November, 1894, an agreement was entered into between the United States and Ontario Steam Navigation Company and the Department of Public Works for the performance of certain works at the entrance to the harbour of Port Dover, the company to receive a subsidy of \$15,000 when the works were completed to the satisfaction of the department.

The company having expended some \$45,200 in dredging and constructing the works necessary to operate the lake ferry boats, a certificate was given, on the 5th November last, stating that the company were entitled to the subsidy of \$15,000.

The company have, during the last spring and summer, made further improvements, in deepening the approach to the piers and also the area used for the ferry boats.

PORT ELGIN.

Port Elgin is situated in the electoral division of the southern portion of the county of Bruce, on the eastern shore of Lake Huron, about 24 miles north of Kincardine and 4 miles south of Southampton. It is a station on the Grand Trunk Railway, but there is no track from the railway to the harbour.

On the 10th May, 1895, authority was given to place 3 ring bolts on the groyne at Port Elgin which was done in July last, and cost \$29.50.

Repairs were executed to the breakwater and consisted in filling in a breach made through this structure. The amount expended on the work for materials and labour was \$150.

PORT HOPE.

Port Hope is situated in the county of Durham, on the north shore of Lake Ontario, 63 miles by rail east of Toronto.

On the 22nd July last, authority was given to make certain repairs to the east pier at Port Hope, and to expend a sum not to exceed \$800, the work to be done by day's labour.

Active operations were commenced at once and 19,000 feet b.m. timber and 900 lbs. iron were used in the work. The labour and superintendence cost \$432.75; the balance being for materials.

THESSALON.

Thessalon is situated on the north side of the north channel (Lake Huron) in the district of Algoma.

On the 3rd April, 1895, a contract was entered into with Messrs. Read & Green, of Owen Sound, for the construction of a landing pier at this place of crib-

Department of Public Works.

work with superstructure 325 feet in length and an approach of stone work 80 feet in length; making a total length of 405 feet. Active operations were commenced in July, 1895, and the whole of the work was completed in October of the same year, and accepted by the department, the total expenditure being \$8,658.00 for work and inspection.

TORONTO HARBOUR—WORKS AT EASTERN ENTRANCE.

During the fiscal year 1895-96, two cribs were sunk on the west side of the channel completing the present contemplated length of the west pier—33,600 lineal feet of timber in face works, ties and longitudinals were framed in the piers, and 159,932 feet board measure of planking laid.

5,680 cubic yards of stone were placed in the cribs and superstructure, and 2,640 cubic yards of large stone deposited around the ends of the piers.

From the channel and sites of the cribs, 18,140 cubic yards of sand were dredged.

A survey of the harbour is being made, from which much valuable information will be obtained.

PROVINCE OF MANITOBA.

HNAUSA WHARF—LAKE WINNIPEG.

Hnausa is an Icelandic settlement situated on the west shore of Lake Winnipeg, Manitoba, about 52 miles north of West Selkirk and 70 miles north of Winnipeg.

In view of the increasing settlement and trade along the west shore of Lake Winnipeg, a wharf was constructed at Hnausa.

The work was under contract with Mr. Peter McVeigh, of Ottawa, contract price \$5,870.00; work began in June, 1895.

The wharf consists of 300 feet of open faced cribwork, 20 feet wide, filled with stone, and 60 feet of earth and stone approach.

The contractor failed to complete the work within the specified time (October 15th, 1895), and it was taken out of his hands and completed by day's labour in February, 1896.

BRITISH COLUMBIA.

COLUMBIA RIVER.

The headwaters of the Columbia River are a series of small lakes lying between the Rocky Mountains and the Selkirk Range, a little south of the 50th parallel of north latitude. The upper lake is separated from the Kootenay River—which takes its rise in the heart of the Rocky Mountains, but a few miles north of the 51st parallel—by a low sand and gravel divide, 2,700 feet above sea level, a mile and a half wide. The Kootenay at this point, at an ordinary stage of water, is about nine feet or so above the level of the Upper Columbia Lake. While the Kootenay flows in a south easterly course to the boundary line, the water of the Columbia takes an entirely opposite direction towards the Canadian Pacific Railway at Golden, about one hundred and thirty miles north-west of Canal Flat.

This portion has been known as the "Columbia River above Golden," and is navigable now for steamers of light draught as long as the river is free of ice.

From Golden, the Columbia follows—about the same course—the line of the railway on the south side, to Donald, where it crosses to the north side and follows thence to Beaver. Steamers can, it is believed, run down from Golden to Donald, but not to Beaver. Leaving the railway at the latter place, the river continues the same course to the Big Bend, where it doubles and takes a southerly course to Revelstoke, where it again meets the Canadian Pacific Railway. The distance from Beaver round the Big Bend is about one hundred and seventy-four and a quarter miles.

About thirty miles below Revelstoke, the river debouches into Upper Arrow Lake, over a fan-like bar of wandering sand. Passing through the lake—which is about forty-three miles long—the river is entered again, and continues for about eighteen miles, to the Lower Arrow Lake, extending further southwards forty-eight miles more or less. The river between the lakes is called “The Narrows.” Both of these lakes hardly exceed four miles in the widest part. From the Lower Arrow Lake to the Kootenay Rapids—twenty-one miles—the river is deep and wide, with no very acute bends, but a strong current. This portion is known as the “Columbia River, below Revelstoke.”

Continuing through the rapids, passing the mouth of the Kootenay River on the left, the Columbia continues a wide and swift river, with many sharp bends, divided in one or two places by rock islands, to the international boundary below Fort Sheppard, a distance of thirty-two miles from the head of the rapids. The general direction is due south. This part of the river is known as the “Columbia River, below Kootenay.”

The valley of the river, from the Big Bend, south, lies between two ranges of mountains—the Selkirks to the left and the Gold Range to the right. The mountains lose to a great extent their rugged appearance as the lakes are reached.

The banks and bed of the river are generally gravel and sand, thickly timbered, with an occasional rock bluff intervening.

Kootenay Rapids.

The improvements carried out over this section of the Columbia River have been of great benefit to navigation. The steamers of the C. & K. S. Nav. Co., were enabled, after the work was executed as far as it was possible before the water rose, to make the rapids without lining, a most marked advantage whereby much labour is saved, and loss of time and risk avoided.

The work embraced (1) extending, completing and renewing where necessary the cribwork on the left side at the main rapids, and removing several large boulders abreast of the crib in and about the low water channel, (2) building a wing dam and protecting the bank on the opposite side at the lower rapids from erosion, and (3) in marking the channel at the upper narrows or rapids with beacons and buoys.

The expenditure was \$3,152.73, of which the details are:—

Wages.....	\$2,340 00
Tug and pile driver.....	320 00
Material.....	173 77
Inspection.....	193 85
Sundries.....	125 11
Total.....	<u>\$3,152 73</u>

Above Golden.

The dredge “Muskrat” operated on the Columbia River above Golden during the past fiscal year from the 1st July to the 31st October, 1895, and from the middle of April to the end of June following.

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The running expenses and repairs and renewals during the above mentioned periods entailed an expenditure of \$2,489.83, of which the general particulars are given hereunder.

Wages.....	\$1,594 79
Provisions.....	469 98
Stores	20 20
Equipment.....	107 05
Wood.....	4 00
Sundries including freight, fares, etc.....	293 81
Total..	\$2,489 83

The crew consists of five all told, viz.: captain and engineer, one fireman, two deckhands and a cook.

During the period first above mentioned the dredge operated 45 days and removed 9,405 cubic yards of sand and gravel, and for the remainder of the working time, 155 days, the crew were all engaged in cutting brush, building and filling in wing dams for confining the channel, and in other works in connection therewith. Only five days during the season were devoted to repairs. The operations extended from Port Adela in Mud Lake down the river to Lake Windemere and from the lower end of this latter lake through the Salmon Beds to 3½ miles below.

By the 31st October, the "Muskrat" was laid up for the winter.

About the middle of April last, the crew were engaged, but owing to the extreme low water, notwithstanding the early opening of spring the water did not rise rapidly, the dredge was not floated out of winter quarters until the 16th May. This left but six weeks to work before the end of the year. The weather still continued cold, and consequently the water did not rise to a favourable stage for dredging until well into June, about a month later than the previous year.

The work performed during the latter period consisted in completing dams commenced in the autumn, dredging deep holes to act as resting places for silt at the foot of inclines, and in sinking mattresses across the outlet of the lake to prevent scouring.

The following table accounts for the working time of the crew.

Total working time.....	days.....	168
Dredging, 10,820 cubic yards.....	"	56 65
Cutting brush.....	"	9 20
Removing snags and overhanging trees.....	"	3 35
Building dams.....	"	37 00
Making mattresses.....	"	8 50
Repairing.....	"	24 30
Cleaning up and washing down.....	"	2 75
Wooding up.....	"	5 10
Moving and travelling.....	"	18 75
Shifting cable.....	"	1 20
Pumping out.....	"	1 80
		168

The work performed has been of benefit to navigation, but, owing to the smallness of the appropriation, its scope had of necessity to be curtailed.

Below Revelstoke.

During the past fiscal year the sum of \$218.96 was expended in the removal of snags on this section of the Columbia River.

FRASER RIVER.

The Fraser is one of the largest besides being the most important of the many rivers of this province. It traverses, or rather penetrates, a country most diversified in its productions and undeveloped resources, both as regards the precious and other metals as well as the products of the forest and soil. It has been well known since the early fifties, if not before, and, therefore, there is no need, for the purposes of this report, to give a very extended description; except in the direction of those natural features which bear directly upon the works undertaken, or upon those contemplated, for the training of the channel with the view to prevent erosion and overflow; and for the conservation, in a permanent and stable manner, of the ship channel from the city of New Westminster to deep sea water in the Gulf of Georgia.

The topographical characteristics of the Fraser, throughout its entire course, are in many respects similar to those of the Columbia River lying to the south. Like it the Fraser takes its rise in small lakes at the western base of the Rocky Mountains and, keeping close thereto for some distance, flows in a north-westerly direction before it bends to the west, and eventually turns south. The headwaters, at an elevation of about 3,000 feet above the sea, are in the vicinity of the Yellow Head Pass, through which it was at first the intention to build the Canadian Pacific Railway, situated a little to the south of the 53rd parallel of north latitude, between the 118th and 119th meridians of west longitude; and but a short distance from Canoe River, flowing southward to join the Columbia at the Big Bend. The most northerly point is about sixteen miles north of the 54th parallel on or about the 122nd meridian, whence its course is west for about ten miles. Thence, leaving the summit waters of the Peace River, which flow to the north, five miles or so to the right, the Fraser takes a general direction, a little east of south, as far as a place called Hope, situated on the left bank about fifteen miles below Yale, the highest point of practical steamboat navigation, and about 25 miles north of the 49th parallel, the international boundary line. From this point the direction gradually changes, eventually taking a general course, through the arable lands of the Fraser Valley, almost due west to the Gulf of Georgia, into which it empties about eight miles north of the boundary and six miles west of the 123rd meridian. Allowing for the many bends and the frequent traverses of the valley, it is a very close approximation to say that the length of the Fraser from its source to the gulf is not less than 900 miles.

Throughout this distance the river passes between, and pierces, many ranges of lofty mountains, on whose sides and summits glaciers and snow fields abound, and among which, at the higher elevations, the snow measured as it fell, has been known to attain, in one winter, the great depth of fifty feet.

These mountains are again pierced by the lateral valleys of the many tributaries of the Fraser River, which range from the short lived mountain torrent to the large rivers whose sources are generally mountain lakes, the receptacles of the water from the melting glaciers and snow fields which surround them.

Commencing at the upper reaches and proceeding down stream, the principal tributaries entering the Fraser River from the right bank may be briefly described as follow:—

(1.) North Fork, penetrating by two branches the western slope of the Rocky Mountains, enters at the point where the Fraser turns westward from the base of the mountains.

(2.) Salmon River, flowing from the north-west, near by and in a direction parallel though opposite to the Peace River, joins the parent stream where it bends to the southward.

(3.) Nechaco River, whose numerous branches spread out fan-like northward to the 56th parallel, almost mingling with the headwaters of the Skeena, and westward and southward, penetrating deeply into the heart of the Coast Range, connects with the Fraser at Fort George.

(4.) Blackwater River, flows from the west also, but is not so far reaching as the Nechaco. Its mouth is 50 miles south of the former.

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(5.) Chilcotin River, flowing from the same direction as the two former, rises in a large lake, of the same name, lying at the eastern base of the Coast Range.

(6.) Harrison River, flows southward from a chain of large lakes and enters the Fraser about 45 miles below Yale.

(7.) Pitt River, rises in a lake, situated a few miles north of the railway, fed by mountain streams, and flowing in a south-westerly direction, joins the Fraser about eight miles above New Westminster.

(8.) Coquitlam River, has its origin also in a lake, of the same name, from which is drawn the water supply of New Westminster. It flows south and joins the Fraser two miles below the mouth of the Pitt.

The chief tributaries entering from the left bank are:—

(1.) Willow River, which rises in the heart of the notable placer gold mining country of Cariboo, and flows northward, joining the Fraser opposite the mouth of Salmon River already referred to.

(2.) Quesnelle River, which also flows from the Cariboo country, but in a westerly direction, empties into the Fraser at Quesnelle Mouth, some eighty miles south of Fort George.

(3.) Thompson River, which joins the Fraser at the town of Lytton. This is a large river with many subsidiary streams draining a large area, extending as far east as the summit of the gold range; south almost as far as the summit lake of the Fraser, from which it is divided by a narrow neck in the midst of which the Canoe River flows to join the Columbia at the Big Bend; and south about fifty miles. The Thompson is navigable from Savona's Ferry, lying at the west end of Kamloops Lake about seventy miles above Lytton, to the town of Kamloops opposite the confluence of the North Thompson, which latter stream is also navigable for about 100 miles north, and thence continuing eastward into Shushwap Lake and Salmon Arm lying at the western base of the gold range. At a high stage of water navigation may be continued south of the railway through Mara Lake up the Spellumacheen River to Enderby, a distance of twenty-three miles.

The Canadian Pacific Railway follows closely the Thompson waters from the summit lake in Eagle Pass to the confluence of the Thompson with the Fraser. In only one instance does it depart therefrom, and that is, where, to avoid a long detour, if the shores of Salmon Arm and Kamloops Lake were followed, a narrow neck of land separating them is crossed at an elevation of six hundred feet above the lake level.

Below Lytton to salt water, though many other streams enter from the left, none of them are of sufficient size or importance to require special mention at this time.

Viewing the river above Lytton, and keeping in mind its immense watershed and innumerable feeders, it is all but impossible to understand by what means such a body of water passes through the narrow Canon above Yale.

Thus the watershed of the Fraser River and its tributaries extends from the 49th northward to the 56th parallel of north latitude, and from the summit of the coast range on the west to the summit of the Rockies and gold range on the east, embracing an area of not less than 70,000 square miles, equal to about one third of the area of the mainland of British Columbia.

Between Yellow Head Pass and the mouth of Salmon River, the Fraser flows through a heavily timbered country. The banks are either of rock where the channel narrows, or, in wider portions, of friable material, such as gravel, sand and clay. Navigation is said to be possible for steamers of light draught above Grand Rapids. Below Salmon River the river widens out to about one thousand feet or more, having the appearance of a lake. The banks are low and heavily timbered with cottonwood. Below Fort George the river narrows again and flows with a steadily increasing current through a country but sparsely timbered for some distance back from the banks, of occasional elevated benches of good arable land where water can be turned on, divided at intervals by the inevitable cañon. Through the bench lands the banks are steep and always of material easily disintegrated by the erosive energy

of the rapid current. These natural features continue through the Cottonwood Cañon, referred to hereafter, past Quesnelle, Soda Creek, and the mouth of the Thompson to the point where the dry belt ends and the timber returns to the river bank again. This gradually becomes evident below Lytton. Between Fort George and Soda Creek the river is navigable.

The white population above Yale is somewhat scattered and may be described as mainly agricultural and mining.

Though the Cañon of the Fraser, through the Cascade Range, practically ends at Yale, the valley does not widen out appreciably for some distance below Hope. From this latter point to the mouth—the most densely populated part of the province—the river passes between low banks—frequently split up into sloughs or subsidiary channels, with here and there a rocky point or bluff jutting out—of most soluble alluvial soil,—generally timbered with cottonwood along the banks—most fertile, but, with few exceptions, liable every year to overflow, the extent of which depends, in a great measure, upon the snow fall of the previous winter and the continuance of early and sudden extreme hot weather. At New Westminster the river is divided permanently by Lulu Island into two channels called respectively the North Arm and the Main Ship Channel. This section of the valley is what is known as the Delta of the Fraser. It is very rich agricultural land, but subject to tidal overflow.

Four bridges only have been as yet thrown across the main channel of the Fraser. The first, a road bridge at Lillooet, 340 feet span, built of wood and iron; the second, a steel cantilever railway bridge, below Lytton, with a centre span of 300 feet, which carries the Canadian Pacific Railway from the left to the right bank, which it follows thereafter closely to New Westminster; the third, the Alexandria suspension bridge, of 256 feet span, whereby the old Cariboo wagon road crosses the Fraser two miles above Spuzzum, and the fourth, the Canadian Pacific Railway Company's bridge at the Mission, consisting of 1 span of 100 feet, 8 spans of 150 feet each and a swing truss of 239 feet over all. In addition there are 1,400 feet of trestle approaches.

The lowest water occurs in the Fraser for a short period after the ice goes out. It then rises gradually by reason of the early spring rains; but it is not until the beginning of May, when the sun shines hotly melting the mountain snow, that the settlers below Hope begin to anxiously watch the river. The first rise usually takes place in May when the snow on the mountains along the lower reaches melts and seeks its natural outlet. This is generally followed by another and greater rise about June, or early in July, when the water of the melting snow and glaciers of the upper Fraser comes down. This is the time most dreaded, but strange to say that this year, contrary to past experience, the unprecedented high water, which has proved so disastrous to the lower Fraser Valley, was caused by the waters of the Thompson. Fortunately the first rise receded before the great bulk of the Rocky Mountain water arrived. Had both come simultaneously it is impossible to say to what greater extent the destruction of lands and changes of river bed would have been carried.

Previous to the commencement of railway construction the high water of 1876 was the highest known and was accepted as the extreme. In 1882, however, the river rose higher and this was similarly accepted as the extreme limit. This confidence has been rudely dispelled this year. In one direction at least the occurrence of this freshet may be considered as not altogether an unfortunate one, not unmixed with good. Had all the dyking and reclamation schemes proposed, based upon the high water of 1882, been completed the destruction and loss of property from Hope to the Gulf of Georgia would have been incalculable. The result will now be that all works undertaken likely to be affected by another high water will be designed to meet a still greater. It is not probable but still possible that a combination of all conditions necessary to ensure the coming together of all the waters from the melting snows and glaciers over the whole area of the watershed of the Fraser may happen. Such a contingency, even though it may be considered by some remote, must be guarded against.

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The erosion of the shores and bed of the channel where it passes through or over easily disintegrated material is constant, but of course is least during low water. As the river rises the erosive energy of the current increases rapidly until the maximum is reached at the highest stage of water. The result of this constant and increasing eating away of the shores and bed, is, that an immense amount of material is carried down stream in suspension, the quantity being augmented by every tributary large and small, until, in the lowest reaches, the water is in such a turbid state, so charged with sediment, that it more closely resembles a thick pea soup than anything else it can be compared to. The extent of the sedimentation that must have occurred this year, at the mouth of the river or elsewhere where the current is at all retarded, as for instance where the banks are overflowed or where the inflowing tide meets the river current, may easily be imagined.

Another source of sediment is the hydraulic mining operations now being carried on, with every prospect of being extended, along the Fraser and all its branches. Should the expectations of those interested, even only in part, be realized, it will be necessary to take steps to supervise operations, and insist upon reservoirs being constructed at the points where such precautions are or may be considered necessary, for the purpose of impounding the material and prevent it from being carried down stream in great quantities and deposited on any valuable land that may be overflowed, to its total destruction, or on bars in the river channel to the detriment of navigation. Such has happened in California, and it is stated by those familiar with both countries, that the available paying hydraulic properties on the Fraser River are much in excess of those in California.

Below the cañon at Yale the bars and bed are chiefly coarse gravel and sand, the former becoming finer and finally disappearing below Miller's Landing. From thence inwards to the extreme limit of the Sand Heads in the Gulf of Georgia, the material composing the bars and the sides of the channel, for the most part, is a very fine flaky silt, which when dry has a pearly or semi-metallic lustre. It is probably the result of the attribution of mica or talcose slate.

The destructive energy and capabilities of this surcharged freshet water are added to by the enormous quantities of drift timber borne along by the current. This drift comprises trees and timber of all sizes and descriptions, ranging from a cottonwood, cedar or fir, 150 feet to 200 feet long, with roots, from 15 feet to 20 feet in diameter, and branches intact, to the ordinary saw-log or tree top. It may be either green timber recently fallen in where the bank has been undermined or previously stranded timber and parts of log jams floated off by a higher water. The drift sometimes gathers together in large rafts—this was most noticeable this year—and it is not difficult to realize the inherent destructive power of such a mass carried along by a current of great velocity and the damage that it will inflict when driven against a friable bank, dyke, bank protection, mattress work, wharf or bridge piers.

The river flow is affected by the inflowing tide, that is backed up, to Chilliwack, about 48 miles above New Westminster, or 65 miles from the mouth. The diurnal fluctuation at Miller's Landing has been observed to vary between 12 and 30 inches in winter time.

At New Westminster the range is for ordinary spring tides about five feet, but during freshet time the water seldom falls more than a foot or eighteen inches. There is no surface movement up stream except during low fresh water stages.

At the rock wharf inside the mouth of the river the greatest range of one tide is eleven feet, through the extreme range, that is the difference between the highest and lowest observed tides is eleven feet. At the automatic tide gauge situated in the channel through the Sand Islands, two miles from shore, the greatest range of one tide is fourteen feet,—this occurred on 11th January, 1894, at the full moon,—though the difference of level between the lowest and highest tides known is only 14.7 feet.

For the purpose of ascertaining the surface slope of the river during the freshet at all stages of the tide between New Westminster and the tide gauge on the sand heads, a distance of eighteen and three-quarter miles, and between intermediate

points, simultaneous tide gauge observations were taken on the 21st June last, all the gauges being referred to one datum. The following table gives the condensed information thus obtained:—

Between.	Distance miles.	Diff. Level H. W. feet.	Surface slope feet per mile.	Diff. level L. W.	Surface slope feet per mile.
New West and Ewen's Cannery.....	5·8	2·08	0·39	3·70	0·65
Ewen's do Laidlaw's do	4·0	1·58	0·395	2·67	0·6675
Laidlaw's do Stone Wharf.....	5·0	0·92	0·185	3·37	0·674
Stone Wharf and Tide Gauge.....	3·9	0·75	0·192	3·71	0·95
Total.....	18·7	5·33		13·45	

From the above it will be seen that the greatest surface slope between New Westminster and the Gulf, and therefore the swiftest current, is between the latter points in above table, and it is in the vicinity of the wharf both up and down stream that the greatest cutting of the banks has taken place.

The motive for the foregoing, perhaps rather extended, description of the physical characteristics of the Fraser Valley is the desire to convey a clear impression of the magnitude of those elements or factors which enter so largely into the solution of all problems connected with the regulation of river channels in the direction either of preventing erosion of the banks or of improving navigation.

A suggestion has been thrown out that perhaps the main river might be permanently relieved of some of the surplus flood water by diverting the sources of some of its many feeders into the head waters of other rivers to which in many instances they are in very close proximity. It is an idea, but its practicability can only be determined by examination and correct levels. It may be added that such a proposition, however appears, to be, if anywhere, only possible with the branch streams above Lytton, and cannot seriously be considered with regard to the Thompson waters.

Garry Point.

In consequence of the intimate connection and similarity in the methods and objects for which the above appropriations were made, they will be considered for the purposes of this report as a whole.

The total expenditure was \$10,994.36, of which the details are:—

(1) Improvement of channel and protection of river bank:—

Wages.....	\$ 2,998 15
Provisions.....	916 06
Tug hire.....	1,188 00
Scow "	50 00
Materials for quarry... ..	355 05
" " mattresses	525 10
Piles.....	75 11
Repairs to plant.....	127 84
Repairs to Rock Wharf.. ..	25 90
General supplies.....	15 30
Superintendence.....	\$1,500 00
Travelling expenses.....	247 21
Attendant.....	308 33
Materials for gauges.....	149 95
	2,201 49
	\$ 8,478 00

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(2) Building, repairing ways.—		
Material only.....	\$ 488 21	488 21
<hr/>		
(3) Running expenses, Snag Boat "Samson,"		
charged to Fraser River.....	\$ 2,028 15	2,028 15
<hr/>		
Total.....	\$10,994 36	<u>10,994 36</u>

The appropriation being small, nothing was done during the first part of the fiscal year towards continuing the protection of Westham Island, or of continuing the work on the north side outside Garry Point until the effect of the freshet at these points had been ascertained.

In the meantime, work was resumed at the quarry, Pitt River, and the construction of ways, below the Rock Wharf at the mouth of the river, for hauling out the plant was commenced. When completed with proper hoisting appliances these ways will be of great economical value.

When favourable opportunities offered, the soundings over the Sand-heads and inwards from the mouth, as well as examinations of various points of importance between the straits and New Westminster, were proceeded with. These soundings and examinations on account of the uncertain weather, fishing nets, and other fortuitous circumstances are often hindered, and entail continuous, arduous and often tedious work in reducing them to the plane of reference.

The result of the soundings taken along the front of Westham Island showed plainly that at several points, where cutting appeared most severe and where protection by mattresses had been attempted, the effort had not been entirely successful owing to the non-continuity, or disconnected necessarily so, character of the operations.

Notwithstanding this discouragement, and as this seemed to be the only locality where it appeared of use to attempt anything with so small an appropriation, work was resumed in February, 1896, on Westham Island, and 29 mattresses were sunk as follows:—

Measured along the bank, the distance covered is about 800 feet.

The cost of making or sinking these mattresses, equal to a total of about 150, 800 cubic feet of closely packed brush, including an allowance for the use of the plant, was found to be \$224.77 each.

Besides the above work, several points in and about Garry Point were made good and strengthened.

The actual amount expended on the work described above out of the appropriation is in detail as follows:—

Quarrying and delivering rock:—

Wages.....	\$1,468 83	
Towing.....	161 58	
Material.....	355 05	
		<hr/> \$1,985 46

Making and sinking mattresses:—

Wages.....	\$2,678 47	
Towing.....	931 00	
Material.....	529 05	
Miscellaneous, including coal, office expenditure and repairs to scows, &c., &c.....	283 74	
		<hr/> 4,422 26

Total.....\$6,407 72

The board account shows a credit of \$118.20.

The present value of the plant on hand, including 6 scows of various sizes, pile driver complete with hoisting engine, &c., wharf, steam derrick, dump cars, &c., &c.,

the original cost of which was \$11,554.38, is, after deducting certain percentages for dilapidation and wear and tear, \$7,869.21. The whole is in a serviceable state.

The equipment of the boarding department originally cost \$394.89; its present value is \$283.60.

The following is a list and valuation of the materials on hand on 30th June last :—

Nuts and washers 800 lbs. at 8 cts.....	\$ 61 00
Galvanized wire 5,000 lbs. at 31.3 cts	183 15
Piles 3,500 feet at 5 cts.....	175 00
Steel 400 lbs. at 17 cts.....	68 00
Provisions.....	15 00
Powder.....	157 25
	\$662 40

It is incumbent to again draw attention to the futility of continuing this work without larger, and the assurance of continuous appropriations. The attempt to regulate such a river as the Fraser, and protect the banks from erosion in such a disconnected manner as has prevailed hitherto, cannot but result in disappointment and discredit to all concerned. The work done at Westham Island has arrested to some extent the encroachment of the river in places, but the past work is gradually becoming of no effect. There is no telling what change in the direction and depth of the channel may result from this. The only possible cure is uninterrupted protection, whereby the bank is rendered unassailable from the point where the current first impinges on the island at the lower end of Woodward's Slough to the Rock Wharf. If this is done, and the jetty beyond is carried seaward, the bar, which is gradually building down stream parallel with Westham Island and thrusting the current against its friable bank, will aid in obtaining a deeper and stable channel through the cross-over bar extending diagonally from the south side at the mouth to the north side at the Windsor Cannery.

This question of bank protection is a most important one and should, at least so it appears, take precedence of all works in the Fraser. Make the banks inside the mouth capable of resisting erosion and the stable deep channel will undoubtedly follow.

It appears possible to induce the owners of property contiguous to the river bank to agree to contribute something towards the protection of their property. Already Messrs. Findlay, Durham and Brodie, whose cannery on Dease's Island, situated 9 miles below New Westminster, was almost totally swept away during the 1894 freshet, are prepared to deposit \$5,000.00 to the credit of the Receiver General if the Government will do the work in conjunction with the government work proper. Opposite Dease's Island, the river bank is now cutting from Ewen's Cannery, 4 miles above, and a considerable quantity of valuable land has been destroyed.

Another question has arisen in connection with the regulation of this river. The flood channel along the south side of Lulu Island, is gradually shoaling at the upper end, owing to the rapid formation of the bar. The owners of canneries at this point are naturally anxious to avert the danger threatening the navigation to their wharfs, and propose that a certain quantity of the river water should be diverted in this direction to keep the channel clear. This can be done by building a dam in a proper direction and protecting the bank of Lulu Island at various points.

The freshet this year was late. The spring opened early, but the weather kept cool. The highest point reached was on the 6th July, four feet lower than that reached at the Mission Bridge, above New Westminster, in 1894. At New Westminster the highest point reached being 2 feet 3 inches below the 1894 mark. Notwithstanding this a good deal of damage was done in the vicinity of Chilliwack, Sumas, Nicomen Island and Matsqui. At the latter place, just below the Mission Bridge, the dyke gave way.

Uncertainty concerning time and extent of the freshets cannot be entirely mitigated, but undoubtedly much benefit would result if bench marks and gauges

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were established on the Upper Fraser and Thompson as near as possible to telegraph stations in connection with the meteorological stations. The state of the river and weather should be telegraphed daily to the coast, and it would doubtless be possible from these reports to form some idea as to the extent and time of the threatening danger, and warn the occupiers of land liable to overflow, so that they might have time, if they thought fit, to remove their goods and cattle to a place of safety. Doubtless after a few years of careful observation, the time at which to expect a certain rise of water could be predicted with tolerable accuracy. The benefit of this cannot be over estimated.

KOOTENAY RIVER.

The Kootenay River takes its rise in the heart of the Rocky Mountains a little north of the 51st parallel, 16½ miles south-east of Leancoil, a station on the line of the Canadian Pacific Railway. It flows for some distance in a south-easterly direction, and then, changing to the south-west, it passes within a mile and a half of the headwaters of the Columbia River. At Canal Flat it again changes direction, and pursues generally a direction a little east of south to the international boundary line, which it crosses at Tobacco Plains, about 6 miles west to the 115th meridian. The Kootenay enters Canada again at Bedlington about about 20 miles east of the 117th meridian. Thence flowing a northerly course it enlarges into the Kootenay Lake, 72 miles in length, 28 miles by river from the boundary line. The outlet of the lake is on the west side about 30 miles north of the inlet, whence it flows in a south-westerly direction, joining the Columbia River about 21 miles to the north of the boundary line.

It may be safely stated that throughout its entire course the Kootenay traverses a country rich in minerals of all kinds, but particularly so in gold and silver.

Kootenay River above Fort Steele.

The expenditure in connection with the improvement of this river amounted only to \$1,293.05, as per the following details :—

Wages.....	\$ 860 00
Materials.....	183 05
Inspection.....	250 00
Total	\$ 1,293 05

The work consisted in removing snags, cutting overhanging trees, cutting away timber jams and drift piles, and in blasting projecting points of rocks and boulders at bends which made navigation perilous between Mud Creek, 4 miles below Canal Flat, and a point 15 miles further down stream.

The steamer "Gwendoline" made frequent trips between Mud Creek and Fort Steele, about 50 miles, carrying large freights which otherwise would have had to have been hauled by wagon the whole distance.

OKANAGAN RIVER.

The portion of the Okanagan River now under reference is that which connects Okanagan Lake with Dog Lake, lying to the south of the former. On the former lake, which is upward of sixty miles long, a large stern-wheel steamer belonging to the Canadian Pacific Railway plies, connecting at Vernon, situated at the upper end of the lake, with the Shuswap and Okanagan branch of that line. At Penticton, situated at the lower end of Okanagan Lake, it is the proposition to connect with a small steamer plying by way of the Okanagan River and Dog Lake to Okanagan Falls, in the vicinity of which rich mineral deposits are said to exist.

The distance between the lakes, by way of the river is about five and a half miles, while in a straight line it is only about three miles. The upper portion of the river is very narrow, gradually widening out and becoming shallower, for about half its length, when it widens and deepens to Dog Lake. It is not possible to make the river navigable for steamers of from one hundred and thirty to one hundred and fifty feet long, except at considerable outlay.

During the fiscal year 1895-96, the sum of \$327.35 was expended in the removal of snags and other obstructions from the channel.

SKEENA RIVER.

The Skeena River lies in the north-western section of the western portion of British Columbia. It derives its source from lakes and glaciers situated between the 56th and 57th parallels of north latitude and between the 126th and 128th degrees of west longitude. It flows generally in a south-westerly direction and empties into the waters of the Pacific Ocean by way of North Skeena, Telegraph, and Mallaca Passages, Chatham Sound, &c., at a point a little north of the 54th parallel of north latitude, and a few miles west of the 130th degree of west longitude, and about 650 miles, by the inner passage, north-west of Victoria. The principal post office and port on the Skeena is Port Essington, lying on the south shore of the estuary, at the confluence of the Skeena and Oxtall Rivers, 13 miles east or inland of the entrance passages. It is navigable by light draught steamers, when the water is not too high, from May to the end of September, as far up as Hazelton, a Hudson's Bay Company post, established on the south bank at a distance of about 173 miles from the mouth of the river. This post is the distributing point for the mining and grazing country lying to the north and west towards the Rocky Mountains and Peace River country, and to some distance to the south.

The appropriation made for its improvement was expended chiefly in ameliorating the condition of the salmon fishing grounds in the tidal waters of the estuary which extend inland from the mouth about 25 miles, by removing from the bars and channels, sunken snags and drift, which, replenished yearly by the freshets, prove destructive to the drift nets.

The work was carried on before active fishing commenced in June, 1895, and earlier this year, April and May, in response to the urgent request of the cannery owners. In all 72 snags, representing the most destructive were removed. This was a creditable showing, considering the smallness of the amount available for the works, a large part of which was necessarily consumed in preparing the plant for work, and in laying it up.

The details of this expenditure are:—

(1) Wages.....	\$892 50
(2) Tug hire	775 31
(3) Materials.....	329 00
Total.....	<u>\$1,996 81</u>

Of the latter amount, \$329.81 for materials, \$250.00 was paid for lumber purchased the previous year for building a shelter house for the men working at Sepkew, removing rocks during the winter months.

There are at present in active operation on the Skeena River eight salmon canneries employing about 300 boats and nets. These boats are manned by two men each, making a total force of 600 men. The annual license fee is \$10 per boat, representing from this source alone a yearly revenue of \$3,000. In 1895, the total pack was 67,797 cases, which at \$5 a case, the average market price in London, England, aggregates \$338,785.00.

The removal of snags having consumed the whole of the appropriation, the work of improving navigation in the upper reaches of the river above tide water was not resumed. It may be mentioned, that here there are two or three points above the Kitsilas Cañon which have lately, owing to changes in the direction of the cur-

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rent, developed as dangers to navigation. These points, together with a little additional inexpensive work in the cañon, should receive attention.

The Skeena River appears at present to be the natural highway by which freight and passengers can be most conveniently transported to the rich mining district of the northern and north-eastern portion of the province, and to the Peace River country, and for this reason expenditure with the object of securing safe navigation is justifiable.

VICTORIA INNER HARBOUR.

The work of lowering by drilling, blasting and dredging, the obstruction known as Dredger Rock, situated in the Middle Basin inside of Shoal Point, Victoria Harbour, to a depth of 14 feet at mean low water springs was continued until the appropriation was expended.

The following is a tabulated statement in which each item of work, with the cost thereof is classified:

(1) Drilling:—			
Holes.....	No.	457	
"	Lin. ft.	1,444	
Coal consumed.....	Pounds	49,450	
Wages paid.....			\$1,260 50
Material used incl., cost of water, fuel, &c.,			268 08
			\$1,528 58
Cost per lin. ft.....		\$1.05	
(2) Blasting:—			
Blasts.....	No.	10	
Wages paid.....			\$561 92
Materials used, including cost water, fuel and 1,411 lbs 75 p. c. Giant powder....			666 85
			1,228 77
(3) Dredging:—			
Fuel consumed pounds.....		76,200	
Rock removed tons (2,000 lbs).....		1,038	
Clay " " "		428	
Total.....		1,466	
Wages paid, including time consumed in drilling and blasting high points.....			\$743 44
Material used, including cost of water, fuel, explosives, &c., &c.....			208 92
			952 36
Cost per ton 65 cents.			
(4) Laying up:—			
Wages.....			\$225 64
			225 64
(5) Superintendence			
Watchman.....			\$692 88
			356 00
			1,048 88
Total.....			\$4,984 23

The cost of removing this rock—not including the clay—is, according to the above figures, about \$4.80 per ton, or \$11.04 per cubic yard. The rock may be classed as diorite, with small stringers or dykes of quartz and other mineral dispersed through it. Its specific gravity is assumed to be about that of granite, that is 2.72, therefore a cubic yard will weigh about 2.3 tons of 2,000 lbs.

DREDGING OPERATIONS.

During the fiscal year, dredging was done at the following named places :—

Nova Scotia.

Cheticamp, Fourchu, Ketch Harbour, Picton, Wallace.

New Brunswick.

Canada Eastern Railway Wharf, Fredericton. Dominion Atlantic Railway Co's Wharf St. John.
 Fredericton, Miramichi River, Oromocto, Pointe du Chêne,
 Restigouche River, Richiboucto.

Prince Edward Island.

Cardigan Bridge, Charlottetown, Newport, Souris.

Quebec.

River St. Lawrence, Ship Channel between Montreal and Quebec.
 Chateauguay, Dorval, Ile de Gros Bois, Laprairie,
 Longueuil, Louiseville, Nicolet, St. Placide.

Ontario.

Amherstburgh, Belle River, Belleville, Bowmanville,
 Fort Erie, Frenchman's Bay, Kincardine, Meaford,
 Midland, Newcastle, Penetanguishene, Port Elgin,
 Port Hope, Prescott, River Kaministiquia, River Saugeen,
 River Thames, Thornbury, Trenton.

Manitoba.

Red River.

British Columbia.

Victoria Harbour.

PROVINCE OF NOVA SCOTIA.

DREDGING AT CHETICAMP.

Cheticamp is a settlement in Inverness County, 58 miles north of Mabou, with a population of about 1,900, several stores, telegraph and express offices, church and school buildings, &c. The harbour between Cheticamp island and the mainland, is entered from the north-east through a dredged channel eighty feet wide having fourteen feet at low water between the shingle spit at Cape Cross on the north-east extremity of the island and Caveau Point. There is good anchorage for the largest vessels inside. There are several wharfs and a government pier in the harbour. A steamer plies between Cheticamp and Picton, and a large trade is done at the former place.

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Further dredging was done in the channel during the fiscal year 1895-96, by the dredge "Canada" from the 13th August to 28th September, 1895, removing 13,140 cubic yards of sand, gravel and stone and leaving a depth of 14 feet at low water spring tides.

DREDGING AT FOURCHU HARBOUR.

Fourchu Harbour or inlet, Richmond County, is on the north side of Fourchu head and in the bay between that and Cape Gabarus, called Fourchu Bay. This bay affords no shelter and is dangerous of approach. To the westward are many rocks and shoals. The inlet has a bar at its entrance, nearly dry at low water, and only affords shelter to boats.

The village contains about 200 inhabitants, principally engaged in fishing; it is about 40 miles east north-east from St. Peters, contains 2 stores, a saw-mill, lobster factories and express office.

The dredge "Geo. McKenzie" was ordered here to cut through the bar and deepen the channel in the inlet to 7 feet at low water spring tides. It arrived on the 21st July and got to work with as little delay as possible. The material dredged was mud and sand, and 13,230 cubic yards were removed by 4th October, when the dredge was ordered into winter quarters, to be in readiness to resume and complete the work in the following season.

There was much delay in the spring in resuming work on account of bad weather, and absence of the tug ordered to attend, and but one scow load was dredged when the dredge was ordered to Wallace on the 19th June, 1896.

* Total removed at Fourchu, 13,275 cubic yards.

DREDGING AT KETCH HARBOUR.

Ketch Harbour, in Halifax County, is a narrow arm of the sea about one mile long; its entrance is 2 miles south-west of Chebucto Head and 16 miles from Halifax.

The shores of the harbour are occupied by the houses and stages of fishermen, and the population is about 100.

Over the bar at the entrance there were 9 feet of water. At the head of the harbour there is a fine stream, the outlet of several lakes.

From 1st to 6th July the dredge "Geo. McKenzie" was operating in deepening the channel and at the wharf. 1,238 cubic yards, sand and rock were removed and a depth of 11 feet at low water spring tides left.

DREDGING AT PICTOU.

The harbour of Pictou is one of the finest on the southern shore of the Gulf of St. Lawrence, eastward of Gaspé. The town of Pictou is of considerable importance and has a population of about 3,500.

During the fiscal year ended 30th June, 1896, dredging was done at various points in the harbour as follows:—

At C. Dwyer's Wharf, the "Canada" which commenced work in the previous fiscal year, worked until the 3rd August, 1895, and removed a further quantity of 5,850 cubic yards of mud, leaving a depth of 14 feet at low water spring tides. This work was undertaken to provide free access to the wharf and a berth for the steamer "Campania" plying between Pictou and Montreal. The same dredge worked for two days at Messrs. C. Dwyer & Co.'s Wharf and removed 360 cubic yards of mud, etc., leaving a depth of 14 feet at low water springs. This dredge worked also at Abercrombie Point, which is at the mouth of the East River of Pictou, in order to improve the approach to the landing place for small vessels and tugs, removing 1,800 cubic yards of mud, and leaving a depth of 6 feet at low water spring tides. At

McKenzie's Point, on the East River, about $2\frac{1}{2}$ miles from Pictou and nearly opposite Abercrombie Point, is a landing place for small vessels at high water. The "Canada" operated here from 28th May to 3rd June, and removed 450 cubic yards of mud and shells, leaving a depth of 9 feet at low water springs. The same dredge worked 3 days at the Steam Ferry Company's Wharf and removed 720 cubic yards of mud, leaving a depth of 10 feet of water. The ferry boat plies between the town of Pictou and Pictou Railway Landing, points $1\frac{1}{2}$ miles distant one from the other on opposite side of the basin.

DREDGING AT WALLACE.

Wallace, Cumberland County, is a seaport on Northumberland Strait. Wallace Harbour is the finest on this coast excepting Pictou. There are some 16 feet of water over its bar at low water. Spring tides rise 8 feet, thus enabling vessels of large draught to enter; neaps rise 5 feet.

Opposite the town of Wallace the harbour is over $\frac{1}{2}$ mile wide, but the channel between the flats is only some 60 or 70 yards wide with 5 to 6 fathoms of water. There are some 12 stores, mills, factories, ship building and extensive quarries of limestone, freestone and gypsum in the vicinity.

The population numbers about 400.

During the fiscal year 1895-96, the dredge "Geo. McKenzie" was sent here and was at work at the close of the year. There was considerable delay after her arrival and by the 30th June, but 315 cubic yards of mud had been removed, depth left 7 feet at low water spring tides.

PROVINCE OF NEW BRUNSWICK.

DREDGING AT CANADA EASTERN RAILWAY WHARF.

This wharf, on the St. John River, N.B., opposite Fredericton, is the terminus there of the Canada Eastern Railway, a line which runs thence to Chatham, N.B., a distance of about 116 miles. It is of great local importance and a feeder to the Intercolonial and Canadian Pacific Railway systems.

The wharf is situate in the village of Gibson, a prosperous and growing settlement of about 350 inhabitants, with stores, mills, an hotel, express and Telegraph offices. It is connected with Fredericton by a fine bridge over the St. John River. The dredge "New Dominion" operated here from 4th to 14th August improving and deepening at the wharf and approach thereto.

3,250 cubic yards, principally clay and saw-dust, were removed, leaving a depth of 11 feet, making a channel 200 feet long by 65 feet wide.

DREDGING AT DOMINION ATLANTIC RAILWAY COMPANY'S WHARF, ST. JOHN, N.B.

This wharf, formerly called the "long wharf," one of the best and most advantageously situated in the harbour of St. John, N.B., has lately been greatly improved, and its importance very largely increased, not alone by repairs and additions and further facilities for shipping and transferring, but by its becoming the pier of the Dominion Atlantic Railway Company's steamer and being rail tracked to connect with the Canadian Pacific Railway and Intercolonial Railway systems.

Dredging was undertaken to improve the depth of water and make greater berth and turning facilities alongside this wharf.

The work was commenced 7th October, and was vigorously prosecuted until 21st December, 1895, when 15,525 cubic yards of mud and clay were removed, leaving the depth 10 feet at low water spring tides for a distance of 270 feet along the eastern side.

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DREDGING AT FREDERICTON.

Fredericton, on the St. John River, in York County, is the capital of the province of New Brunswick. It is 67 miles from St. John, and the river is navigable to this point 84 miles for sea-going vessels.

The city is well laid out, has many fine buildings and is a notably pretty and pleasing one and of growing importance; the population is about 7,000. There are many flourishing industries and the city is a shipping and forwarding point of considerable extent. The river channel in front of the city has had the attention of the department at various times and dredging has been done to deepen and improve it.

During the fiscal year 1895-96, the "New Dominion" worked here from 19th July to 3rd August and 15th August to 28th September, 1895, during which time 14,925 cubic yards of sand were removed from the channel, leaving a depth of 11 feet at low water spring tides summer level.

DREDGING AT HORSE SHOE SHOAL AND OUTER BAR, MIRAMICHI RIVER.

The River Miramichi, one of the most important of Canadian rivers, is in the province of New Brunswick, and is in length about 220 miles. From Sheldrake Island, where the river proper commences, the country is generally undulating, increasing to steep banks and cliffs of sandstone, occasionally 50 feet in height, and the settlements increase in number and extent, becoming continuous on either side;

Steam saw-mills, factories, public buildings and handsome residences are numerous. The soil seems sufficiently fertile for almost every agricultural purpose, lumbering, fishing and farming are the principal industries and are extensively carried on; the river abounds with fish in great variety. The branches and tributaries of the river are important. The principal towns are Chatham, Newcastle, Nelson and Douglas. The river is navigable for large vessels three miles above Newcastle, about 35 miles from its mouth; and for schooners up to the splendid bridges of the Intercolonial Railway, which cross the south-west and north-west branch.

At Miramichi bar, spring tides rise 5 feet, neaps 3 feet. This bar extends across the main entrance of the river. It consists of sand and has not more than two feet over it in some parts at low spring tides. Its south-east end is the deepest part called the swash way where about 16 feet is found. Heavy gales alter the deposition of this bar, the ship channel also shifts and the depth varies.

The Horse-shoe shoal of sand and gravel is of great extent, it is farther within the estuary of the river above Portage and Fox Islands and its least water is 3 feet. The inner bay of Miramichi is extensive, extending from Fox Island to Sheldrake Island, at what may be called the true entrance of the river, a distance of 13 miles and 7 to 8 miles in width. The depth of water here is sufficient for the largest vessels that can enter over the inner bar, being $2\frac{1}{2}$ fathoms at low water.

The middle ground, an extensive sandy bank, stretches toward the centre of the estuary for 5 miles from Point Cheval. The ship channel is between this middle ground and the north shore of the bay, along which runs Grand Dune Shoal.

Further up the river on the north side opposite Black Brook is Gordon Flats, a triangular shaped obstruction.

The work of the department on the Miramichi in making and improving a navigable course over these bars has been extensive and it may be said continuous, and will be required regularly at intervals.

During the fiscal year 1895-96, the dredge "St. Lawrence" operated on the Horse-shoe and outer bar shoals from 3rd to 30th August, alternately as weather and circumstances best suited. From the Horse-shoe 11,200 cubic yards of sand and from the outer bar 2,810 cub. yards of sand were removed in that time, the depth left being 21 feet.

DREDGING AT OROMOCTO SHOALS.

The Oromocto River runs into the St. John River about 11 miles below Fredericton, at the village of Oromocto, in Sunbury County. The village has a population of about 400. It is a calling place for the river steamers and other craft, and considerable agricultural produce is shipped from it.

The Oromocto Shoals in the immediate vicinity lie between Thatch and Oromocto islands with, at times, but 8 feet of water on them, and are an obstruction to navigation.

During the fiscal year 1895-96 the dredge "New Dominion" was engaged in the continuation of the work of deepening these shoals, across the foot of Thatch Island, where 3,300 cubic yards of sand and clay were removed from 1st to 18th of July, and a depth of 9 feet left at low water summer level, which enables the river steamers to cross from the main channel to the Oromocto wharf to land passengers, freight, &c.

DREDGING AT POINT DU CHÊNE.

Point du Chêne, in Westmoreland County, on the Strait of Northumberland, is the north-east terminus of the Intercolonial Railway (Shediac Branch), and is about 109 miles from the city of St. John. There are at this place long piers for shipping with range lights, also range lights on Shediac Island.

The population of the place is about 200, with several stores, two or three hotels, telegraph and express offices, and it is becoming known as a summer resort. The steamers of the Prince Edward Island Steam Navigation Company ply between this port and Summerside, Prince Edward Island, while navigation is open, and connect with the trains of the Intercolonial and Prince Edward Island Railways. The harbour is the easiest of access or egress on this part of the coast, and the country surrounding is fertile and well settled.

At the beginning of the fiscal year the dredge "St. Lawrence" was further prosecuting the work of improving the channel of the harbour from Chêne Spit into and along the wharfs by dredging to 15 feet at low water spring tides. Operations were suspended 31st July, and the dredge left under orders for the Miramichi River, New Brunswick. A further quantity of 12,635 cubic yards, principally clay, shells, mud, old timber and boulders was removed.

DREDGING AT THE TRAVERSE, RESTIGOUCHE RIVER.

The Restigouche River forms a part of the northern boundary of New Brunswick, separating it from the province of Quebec. This important river is about 225 miles in length and the width at the mouth of its estuary is about 3 miles, varying for the first 17 miles inward from 3 to $1\frac{1}{2}$ miles. There are 9 fathoms of water in the estuary which is navigable for the largest ships, but at Indian Point a mile above Campbellton the navigation for shipping ends. At the towns of Dalhousie and Campbellton, where many vessels load annually with timber, there are fine wharfs and timber ponds for this purpose. A large trade is done also in preserved lobsters, salmon, etc.

Below Campbellton, towards Oak Point, there is a shallow part of the river channel over which there is not more than 13 or 14 feet at low water, but the tide which rises 6 to 9 feet enables vessels of moderate draught to ascend to Campbellton where they can moor in 3 to $3\frac{1}{2}$ fathoms at low water. This part of the river is called the Traverse and at this point the dredge "St. Lawrence" has at different times operated.

During the past year it was at work from the 4th to 28th September, 1895, deepening over the shoal channel and straightening it, and 11,060 cubic yards of sand, mud, trees and stumps were removed, leaving a depth at low water of 16 feet. The work was not completed when the dredge was ordered to Pictou for the winter.

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After wintering and repair the dredge returned to the Traverse, and work was resumed on the 14th May, and by the 30th June, a further quantity of 22,400 cubic yards of material was removed, making a total for the year of 33,460 cubic yards.

DREDGING AT RICHIBUCTO.

The Richibucto River, which flows through Kent County is one of the most important of the New Brunswick rivers either in its navigable distance or the depth of water over the bar, and is annually visited by a considerable number of vessels for cargoes of timber. The entrance of the river is about $3\frac{1}{2}$ cables wide between two sand bars called the north and south beaches, on which are sand hills 30 feet high. Within the entrance there is a large expanse which nearly dries at low water, excepting the channel of the river. This channel varies from 3 to 9 fathoms, and vessels that can pass the bar can go up the river 13 miles, while boats can ascend 22 miles. There are flourishing settlements on the banks of the Richibucto, the population being engaged in agriculture, lumbering and ship building. Richibucto, three miles within the entrance, is the capital of the county and a port of entry, it is about 146 miles from St. John, has a large trade in lumber, fish, etc., and a population of about 1,600, and is one of the finest summer resorts in the maritime provinces.

The bar of the Richibucto is dangerous and is subject to changes; the depth of water over it is 11 feet at low water, and 15 feet at high water, ordinary spring tides. The width of the channel is from 80 to 100 yards, and a large amount of dredging has been done in it.

During 1895-96 the dredge "Canada" operated in the Albion channel of the river from 6th to 30th June, and had by that time removed 1,800 cubic yards of sand, the work being still in progress at the end of the fiscal year.

PROVINCE OF PRINCE EDWARD ISLAND.

DREDGING AT CARDIGAN BRIDGE.

Cardigan Bridge is a post village in King's County, on the Cardigan River, which is navigable to that place for large vessels. It is also a station of the Prince Edward Island Railway, 40 miles east from Charlottetown, and 6 miles west from Georgetown, and is a shipping place for the produce of a large extent of the surrounding country. There are six stores, two hotels, saw and grist mills, etc., etc., and a population of about 700.

The dredge "Prince Edward" during the year completed the work undertaken at Cardigan, by removing a further quantity of 12,330 cubic yards of material, improving the channel of the river and approaches to the wharfs, leaving a depth of 12 feet at low water spring tides.

DREDGING AT CHARLOTTETOWN.

Charlottetown, the capital of Prince Edward Island, is in Queen's County, and is situated on a neck of land between the North and Hillsborough rivers.

During the fiscal year 1895-96, the dredge "Prince Edward" operated at the following places in the harbour of Charlottetown: At the Queen Street Slip, the property of the city, where 3,915 cubic yards of mud, etc., were removed, leaving a depth of from 15 feet at the entrance to 8 feet at the inner portion; at Messrs. Peake Bros. and Company's Wharf, the dredge removed 6,847 cubic yards of mud etc.; and depth of from 18 to 8 feet was left, while at the wharf owned by Mr. Geo. Peake, 5,805 cubic yards of material were removed and a depth of water of from 18 to 9 feet left.

DREDGING AT NEWPORT OR NORTH CARDIGAN,

A village on the Cardigan River adjacent to Cardigan Bridge, King's County, Prince Edward Island, and a shipping point for a considerable district. The dredge "Prince Edward" improved the channel and wharf approach by dredging from 2nd to 20th August, removing 3,240 cubic yards of clay and stone and deepening to 10 feet at low water spring tides.

DREDGING AT SOURIS.

Souris, a seaport town in King's County, is situated on the Souris River, and is 60 miles from Charlottetown by the Prince Edward Island Railway, of which it is the eastern deep water terminus.

It contains some 25 stores, custom-house, post office, 4 hotels, telegraph and telephone offices, etc. The harbour is commodious but artificial, being formed by a breakwater. The natural harbour formed by Souris River is at Souris West, but too small for refuge to the tonnage frequenting the place.

Souris is an important fishing station and the rendezvous of American and Canadian fishing fleets, at times 200 vessels being reported at once. The place is a first class resort for summer tourists, and for fishing, shooting and bathing. The population is about 850.

During the season of 1895 the dredge "Prince Edward" worked in this harbour from 26th August to 4th October deepening at the railway wharf, slip and approach to the same, to 18 feet, except towards the shore end of the wharf which graded to 14 feet.

The entire cut was 480 feet long, 99 feet wide for 299 feet and 55 feet wide for the balance. The material removed was sand, hard clay and boulders, and amounted to 3,825 cubic yards.

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CLASSIFICATION OF Disbursements of the Dredge "St. Lawrence" during the Year ending 30th June, 1896.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Totals.		
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
Wages.....	508	33	508	33	507	17	273	72	324	33	199	08	182	33	137	69	137	85	189	69	465	86	483	33	3,922	71	
Coal.....	60	00	609	68	192	85																	452	00	1,314	53	
Provisions.....	233	25	143	40	136	59			0	65													277	09	790	98	
Stores.....	510	35			4	85							42	75							5	78	96	70	619	37	
Equipment.....	104	18																					121	45	268	88	
Water.....	19	95	10	00	5	00																			34	95	
Repairs.....	15	67			8	55																			1,455	69	
Pilotage.....	78	50	138	78	20	75	79	09																	634	91	
Towage.....																										39	00
Wharfage.....	179	00																								179	00
Contingencies.....	8	20			2	00	10	04	10	00			11	78			2	76	11	00	15	15			70	93	
Totals.....	1,717	43	1,410	19	877	75	367	85	334	98	199	08	236	86	139	39	392	21	620	49	650	95	2,143	48	9,090	66	
Working expenses.....	1,701	76	1,410	19	869	20	367	85	334	98	199	08									525	79	1,508	57	6,917	42	
Repairs, ordinary.....	15	67			8	55							236	86	139	39	392	21	620	49	125	16	634	91	659	13	
do extraordinary.....																									1,514	11	
Totals.....	1,717	43	1,410	19	877	75	367	85	334	98	199	08	236	86	139	39	392	21	620	49	650	95	2,143	48	9,090	66	

CLASSIFICATION of Disbursements of the Dredge "Canada" during the Year ending 30th June, 1896.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Totals.		
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
Wages.....	420	33	381	87	419	99	194	07	172	33	212	72	172	33	196	26	254	40	351	17	396	91	3,344	71			
Coal.....	86	23	212	46	130	19	5	50	172	33	172	33	172	33	172	33	172	33	172	33	172	33	224	10	532	81	
Provisions.....	207	62	50	99	130	19	5	50	172	33	172	33	172	33	172	33	172	33	172	33	172	33	179	37	573	67	
Stores.....	14	70	14	70	14	70	1	98	172	33	172	33	172	33	172	33	172	33	172	33	172	33	163	38	180	06	
Equipment.....	154	88	154	88	154	88	154	88	154	88	154	88	154	88	154	88	154	88	154	88	154	88	154	88	154	88	
Water.....																											
Repairs.....			44	60																							
Photage.....	67	50	60	00	50	00																					
Towage.....																											
Wharfage.....	426	50																									
Contingencies.....	25	22					8	45																			
Totals.....	1,403	00	749	92	600	18	210	00	172	33	212	72	204	28	221	28	789	41	547	40	405	39	1,722	08	7,237	99	
Working expenses.....	1,403	00	705	32	600	18	210	00	172	33	212	72									376	17	1,181	77	4,861	49	
Repairs, ordinary.....			44	60																	5	77	540	31	590	68	
do extraordinary.....													204	28	221	28	789	41	547	40	23	45			1,785	82	
Totals.....	1,403	00	749	92	600	18	210	00	172	33	212	72	204	28	221	28	789	41	547	40	405	39	1,722	08	7,237	99	

Department of Public Works.

CLASSIFICATION of Disbursements of the Dredge "New Dominion" during the Year ending 30th June, 1896.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Totals.		
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
Wages.....	503	78	497	75	491	25	512	22	508	97	466	99	157	50	152	50	155	00	155	00	910	88	1,451	88	5,963	72	
Coal.....	5	00	112	50	30	12	41	25	72	00	41	06													301	93	
Provisions.....	79	82									37	40													117	22	
Stores.....	168	69																							196	92	
Equipment.....							28	23																	203	80	
Water.....																									203	80	
Repairs.....	11	52	20	00	16	00	186	94	83	65	22	02			100	99	122	72			41	50	948	09	1,553	43	
Pilotage.....																										1,275	00
Towage.....	390	00	405	00	360	00	120	00																	50	00	
Wharfage.....							50	00																		6	92
Contingencies.....																											
Totals.....	1,158	81	1,035	25	897	37	938	64	664	62	771	27	164	42	253	49	277	72	155	00	952	38	2,399	97	9,668	94	
Working expenses.....	1,147	29	1,015	25	881	37	751	70	580	97	752	25	6	92											5,135	75	
Repairs, ordinary.....	11	52	20	00	16	00	18	75																	153	06	
do extraordinary.....							168	19	83	65	19	02	157	50	253	49	277	72	155	00	952	38	2,246	91	4,313	86	
Totals.....	1,158	81	1,035	25	897	37	938	64	664	62	771	27	164	42	253	49	277	72	155	00	952	38	2,399	97	9,668	94	

CLASSIFICATION OF Disbursements of the Dredge "Prince Edward" during the Year ending 30th June, 1896.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Totals.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Wages.....	745 87	537 75	531 25	250 32	185 00	201 85	97 50	152 50	155 00	155 00	606 08	536 89	4,155 01
Coal.....		113 85	23 00										136 85
Provisions.....													
Stores.....	95 39	156 99	12 43	32 38		7 50							332 99
Equipment.....	239 71												405 75
Water.....	46 50	46 50	45 00	18 00	55 00							166 04	405 75
Repairs.....	46 50	218 26	10 09		90 49		20 00			15 25	37 50	53 05	301 55
Pilotage.....		15 00	8 00	102 00	23 00						2 00	324 49	702 78
Towage.....		2,070 00			1,010 00								148 00
Wharfage.....		5 00	5 00										3,080 00
Contingencies.....		26 00											10 00
Totals.....	1,127 47	3,189 35	634 68	462 70	1,363 49	231 64	117 50	152 50	155 00	170 25	645 58	1,127 53	9,317 69
Working expenses.....	1,127 47	2,971 09	624 68	402 70	1,273 00	54 49					499 64	803 04	7,756 11
Repairs, ordinary.....		218 26	10 00										539 82
do extraordinary.....					90 49	177 15	117 50	152 50	155 00	170 25	145 94	14 67	1,023 50
Totals.....	1,127 47	3,189 35	634 68	402 70	1,363 49	231 64	117 50	152 50	155 00	170 25	645 58	1,127 53	9,317 69

Department of Public Works.

CLASSIFICATION OF Disbursements of the Dredge "Geo. McKenzie" during the Year ended 30th June, 1896.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Wages.....	497 75	520 18	491 25	249 91	124 18	100 00	157 50	152 50	171 25	171 25	417 04	495 50	3,549 21
Coal.....	128 38		57 1	74 55								25 50	286 61
Provisions.....	124 36										5 20	11 02	140 58
Stores.....	34 38	14 40	128 79	3 75								121 29	362 61
Equipment.....	22 50	62 50	55 00	5 00							10 00	7 50	162 50
Water.....	124 74							88 53	365 99	52 03	100 89	3 35	736 53
Repairs.....		60 00									8 00		68 00
Pilotage.....	495 07	509 00		782 10	119 00							400 00	2,305 17
Towage.....													
Wharfage.....	26 55	30 04		2 26									
Contingencies.....												29 13	87 98
Totals.....	1,454 73	1,196 12	732 22	1,117 57	243 1	100 00	157 50	241 03	537 24	223 28	571 16	1,064 16	7,638 19
Working expenses.....	1,320 99	1,196 12	732 22	1,117 57	243 18						470 27	1,060 81	6,150 16
Repairs, ordinary.....	124 74					100 00	157 50	241 03	537 24	223 28		3 35	128 09
do extraordinary.....													1,359 94
Totals.....	1,454 73	1,196 12	732 22	1,117 57	243 18	100 00	157 50	241 03	537 24	223 2	571 16	1,064 16	7,638 19

CLASSIFICATION and Quantities of Material removed by Dredges during the Year ended 30th June, 1896.

"ST. LAWRENCE."

Description of Material dredged.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Totals.
	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.
Trees, stumps and old timber.....	35	10	545										545
Boulders.....			15										60
Sand, mud and rotten wood.....												15,050	22,400
Clay.....	1,400										7,850		1,400
Mud.....			4,950										4,950
Sand—ordinary.....	1,050		5,550										6,600
Sand—very fine.....		14,000											14,000
Mud, oyster bed, etc.....	10,150												10,150
Totals.....	12,635	14,010	11,060								7,850	15,050	60,105

"CANADA."

Hard-pan.....													
Boulders.....		1,890	1,980										3,870
Gravel.....												1,800	9,630
Clay.....		2,430	5,400										1,440
Clay and stone.....		1,440											1,440
Sand—ordinary.....		1,250											1,250
Sand and stone.....	5,670												5,670
Mud.....													1,350
Totals.....	5,670	7,020	7,380								1,350	1,980	23,400

Department of Public Works.

"NEW DOMINION."

Coal ashes.....			750								750
Boulders.....											50
Gravel.....	50										1,200
Clay.....		1,200									2,050
Clay and saw-dust.....		2,050									13,150
Sand—ordinary.....	2,275	4,550	6,325								4,275
Sand—very fine.....	4,275										15,525
Mud and clay.....				3,025	4,375						
				8,125	4,375						
Totals.....	6,500	7,800	7,075	3,025	4,375						37,000

"PRINCE EDWARD."

Hard-pan and rock.....												620
Boulders.....												85
Gravel.....	300											300
Clay.....	180	1,000										1,180
Clay and stone.....	510	1,980	1,935									4,425
Sand—ordinary.....	4,140	500	1,305							900		7,645
Sand—very fine.....												
Mud.....	6,840									6,300		22,105
												8,965
Totals.....	11,970	4,185	3,240							7,200		36,360

"GEO. MCKENZIE."

Hard-pan.....													
Boulders.....													
Gravel.....													
Clay.....													
Clay and stone.....													
Sand—ordinary.....	1,238												1,238
Sand and mud.....		4,455											4,455
Mud.....	720	2,520	5,220	315								360	9,135
Totals.....	1,958	6,975	5,220	315								360	14,828

DETAILS of Dredging in the Maritime Provinces

Dredge.	Locality.	County.	New Brunswick.		
			Quantity cub. Yards.	Cost of each Work.	Total Cost.
			c. yds.	\$ cts.	\$ cts.
"St. Lawrence"	Pointe du Chêne	Westmoreland	12,635	2,112 45	
	Horse-shoe shoal, Miramichi	Northumberland	11,200	1,872 53	
	Outer Bar	do	2,810	469 80	
	Traverse, Restigouche River	Restigouche	33,460	5,594 19	10,048 97
"Canada"	C. Dwyer's wharf "Campana's" berth, Pictou	Pictou			
	Dwyer & Co.'s wharf, Pictou	do			
	Steam Ferry Co.'s slip	do			
	Cheticamp	Inverness			
	East River	Pictou			
Richibucto	Kent	1,800	615 46	615 46	
"New Dominion"	Oromocto	Sunbury	3,300	953 27	
	Fredericton	York	14,925	4,311 39	
	Canada Eastern Railway wharf	do	3,250	938 82	
	Dom. Atlantic Railway wharf St. John	St. John	15,525	4,484 72	10,688 20
"Prince Edward"	Cardigan Bridge	King's			
	Newport	do			
	Souris	do			
	Chl'town, Geo. Peakes wharf	Queen's			
	do Peake Bros. & Co.	do			
do Queen St. City slip	do				
do Poole's wharf	do				
"Geo. McKenzie"	Ketch Harbour	Halifax			
	Fourchu Harbour	Richmond			
	Wallace	Cumberland			
			98,905	21,352 63	21,352 63

Dredge.	New Brunswick.		Nova Scotia.	
	Quantity.	Cost.	Quantity.	Cost.
	c. yds.	\$ cts.	c. yds.	\$ cts.
"St. Lawrence"	60,105	10,048 97		
"Canada"	1,800	615 46	21,600	7,385 52
"New Dominion"	37,000	10,688 20		
"Prince Edward"				
"Geo McKenzie"			14,828	8,443 37
	98,905	21,352 63	36,428	15,828 89

Department of Public Works.

for the Year ended 30th June, 1895.

Nova Scotia.			Prince Edward Island.			Quantity by each Dredge.	Total Expenditure.
Quantity cub. Yards.	Cost of each Work.	Total Cost.	Quantity cub. Yards.	Cost of each Work.	Total Cost.		
c yds.	\$ cts.	\$ cts.	c. yds.	\$ cts.	\$ cts.	c. yds.	\$ cts.
						60,105	10,048 97
5,850	2,000 22						
360	123 09						
720	246 18						
13,140	4,492 88						
1,530	523 15						
		7,385 52				23,400	8,000 98
						37,000	10,688 20
			12,330	3,492 80			
			3,240	917 82			
			3,825	1,083 53			
			5,805	1,644 42			
			6,840	1,937 61			
			3,915	1,109 03			
			405	114 72	10,299 93	36,360	10,299 93
1,238	704 94						
13,275	7,559 06						
315	179 37	8,443 37				14,828	8,443 37
36,428	15,828 89	15,828 89	36,360	10,299 93	10,299 93	171,693	47,481 45

Prince Edward Island.		Total Quantity.	Expenditure Dredging.	Superintend- ence.	Total Expenditure.	Cost per c. yard.
Quantity.	Cost.					
c. yds.	\$ cts.	c. yds.	\$ cts.	\$ cts.	\$ cts.	Cts.
		60,105	9,090 66	958 31	10,048 97	0 16 719
		23,400	7,237 99	762 99	8,000 93	0 34 192
		37,000	9,668 94	1,019 26	10,688 20	0 28 887
36,360	10,299 93	36,360	9,317 69	982 24	10,299 93	0 28 328
		14,828	7,638 19	805 18	8,443 37	0 56 940
36,360	10,299 93	171,693	42,953 47	4,527 98	47,481 45	0 27 65

EXPENDITURE for Dredging in Nova Scotia for the Twenty-four Years ended 30th June, 1896.

County.	Locality.	Total for the Twenty-three years ended 30th June, 1895.		For the Year 1895-96.		Total Quantity.	Total Cost.	Cost for each County.
		Quantity.	Cost.	Quantity.	Cost.			
		c. yds.	\$ cts.	c. yds.	\$ cts.	c. yds.	\$ cts.	\$ cts.
Antigonish	Antigonish	22,025	3,649 15			22,025	3,649 15	
	Harbour au Bouche	10,568	2,498 48			10,568	2,498 48	
	Tracadie	12,245	5,530 29			12,245	5,530 29	
	McNair's Cove	11,265	10,035 63			11,265	10,035 63	
	Bayfield	12,871	9,505 79			12,871	9,505 79	
	Arisaig	3,540	3,853 30		35,072 69	3,540	3,853 30	35,072 69
	Annapolis	2,825	1,635 68		1,635 68	2,825	1,635 68	1,635 68
	Cape Breton	22,267	9,275 56			22,267	9,275 56	
	Lingan	54,600	17,781 54			54,600	17,781 54	
	Sydney	46,450	16,936 02			46,450	16,936 02	
Cape Breton	Little Glaces Bay	17,413	8,242 21			17,413	8,242 21	
	Port Caledonia	20,860	5,993 90			20,860	5,993 90	
	Benacadie Pond	19,045	3,364 98			19,045	3,364 98	
	Christmas Island	3,255	1,892 32			3,255	1,892 32	
	Cow Bay	4,680	2,720 76			4,680	2,720 76	
	Main à Dieu	65,480	20,373 07			65,480	20,373 07	
	Tatamagouche	42,595	12,804 68			42,595	12,804 68	
	Parrboro	60,835	14,573 17	315	179 37	61,150	14,752 86	27,557 54
	Wallace	12,585	5,056 29			12,585	5,056 29	
	Digby	88	28 62			88	28 62	5,084 91
Guysboro'	Weymouth	5,400	1,413 53			5,400	1,413 53	
	Guysboro'	26,230	6,546 70			26,230	6,546 70	
	Larry's River	3,532	1,749 78			3,532	1,749 78	
	Port Mulgrave	1,260	496 49			1,260	496 49	
	Sherbrooke	3,920	2,593 71			3,920	2,593 71	
	Chezetcook	6,177	2,063 88			6,177	2,063 88	
	Halifax Ferry	26,101	12,049 08			26,101	12,049 08	
	Herring Cove	2,989	985 59	1,238	70,494	4,227	1,690 53	
	Ketch Harbour	792	182 53			792	182 53	
	Richmond wharf	1,750	620 28			1,750	620 28	
Halifax	Roche's wharf	19,390	6,187 88			19,390	6,187 88	
	Halifax Railway Terminus	21,515	4,958 56			21,515	4,958 56	
	Jeddore	7,350	2,970 39			7,350	2,970 39	
	North-west Arm	1,400	530 04			1,400	530 04	
	Cunard's wharf	14,288	5,962 93			14,288	5,962 93	
	Salmon River							

Department of Public Works.

Spry Bay.....	10,665	3,075 72			10,665	3,075 72		
Eastern Passage.....	2,070	596 97			2,070	596 97		
Sambur.....	4,815	1,384 61			4,815	1,384 61		
Whycomagh.....	19,760	3,491 31		44,165 77	19,760	3,491 31		44,870 71
Campbell's Pond.....	4,940	872 83			4,940	872 83		
Fort Hastings.....	270	190 37			270	190 37		
Cheticamp.....	157,600	48,370 52			170,740	52,863 40		
Mabou.....	128,347	49,126 92			128,347	49,126 92		
Fort Hood.....	4,353	1,258 92		103,310 87	4,353	1,258 92		107,803 75
Lunenburg.....	70,510	22,194 57			70,510	22,194 57		
Lunenburg Bay.....	21,844	5,958 65			21,844	5,958 65		
Vogler's Cove.....	11,610	5,075 53			11,610	5,075 53		
Acadia Coal Co. wharf.....	12,310	4,043 81			12,310	4,043 81		
Albion Mines.....	9,475	2,181 25			9,475	2,181 25		
do do.....	142,877	47,173 28		1,530	144,407	47,696 43		
East River.....	1,650	359 90			1,650	359 90		
Halifax Coal Co. wharf.....	7,020	1,634 82			7,020	1,634 82		
Pictou Public wharf.....	78,250	21,687 04			78,250	21,687 04		
do Market wharf.....	32,164	9,959 34			32,164	9,959 34		
do Railway do.....	7,345	2,880 01			7,345	2,880 01		
do Landing do.....				720		246 18		
Vale Colliery.....	1,395	682 15			1,395	682 15		
River John.....	85,173	22,243 98			85,173	22,243 98		
Granton.....	25,110	10,707 59			25,110	10,707 59		
New Glasgow.....	35,445	11,795 79			35,445	11,795 79		
Middle River.....	13,060	4,984 40			13,060	4,984 40		
C. Dwyer's wharf, for SS. do berth for SS. "Campana".....	2,250	672 72		141,056 08	2,250	672 72		
Dwyer & Co.'s wharf.....					5,850	2,000 22		143,918 72
Liverpool.....	12,940	4,762 38			12,940	4,762 38		143,918 72
D'E-cousse.....	23,650	10,052 76		4,762 38	23,650	10,052 76		4,762 38
St. Peter's Canal.....	90,830	27,435 95			90,830	27,435 95		
St. Peter's.....	7,150	2,407 41			7,150	2,407 41		
Grand Goulet.....	23,584	5,570 49			23,584	5,570 49		
River Bourgeois.....	18,920	4,468 87			18,920	4,468 87		
Marine Slip.....	320	56 53			320	56 53		
Poulement.....	10,080	2,566 14			10,080	2,566 14		
Fourchu Harbour.....				52,558 15				60,117 21
Lockeport.....	34,048	10,591 41			34,048	10,591 41		
Barrington.....	24,580	10,085 07		20,676 48	24,580	10,085 07		20,676 48
Yarmouth.....	160,952	56,788 01		56,788 01	160,952	56,788 01		56,788 01
Hants.....	5,450	1,627 60		1,627 60	5,450	1,627 60		1,627 60
Victoria.....	3,820	1,569 95		1,569 95	3,820	1,569 95		1,569 95
Aspey Bay.....								
Dredge "C.E." losses.....		762 98		762 98		762 98		762 98
Inverness.....	1,896,118	626,465 33		626,465 33	1,896,118	626,465 33		642,294 22
				36,428				642,294 22
				15,828 80				642,294 22
								642,294 22

EXPENDITURE for Dredging in New Brunswick for the Twenty-four Years ended 30th June, 1896.

County.	Locality.	For the Twenty-three Years ended 30th June, 1895.				For the Year 1895-96.				Total Quantity.	Total Cost.	Cost for each County.
		Quantity.		Cost.		Quantity.		Cost.				
		c. yds.	\$ cts.	\$ cts.	\$ cts.	c. yds.	\$ cts.	\$ cts.	\$ cts.			
Gloucester.	Bathurst	98,637	29,095 79	29,095 79					98,637	29,095 79	29,095 79	
Kent.	Richibucto.	101,048	84,940 07		1,800	615 46	615 46		102,848	35,555 53	35,555 53	
	Cocagne	27,180	9,601 45						27,180	9,601 45	9,601 45	
	Bouchouche	13,005	4,934 24						13,005	4,934 24	4,934 24	
	do Priest's Point.	3,510	1,110 70						3,510	1,110 70	1,110 70	
	do Chapel Point.	4,140	1,310 07						4,140	1,310 07	1,310 07	
	do Robertson's wharf.	45	14 23	51,910 76				45	14 23	52,526 22		
King's	Bellisle Point	60,170	8,156 76						60,170	8,156 76	8,156 76	
	Kennebecasis River.	116,270	20,081 83						116,270	20,081 83	20,081 83	
	Moss Glen	10,200	1,924 47	30,163 06					10,200	1,924 47	30,163 06	
Northumberland.	Horse Shoe, Miramichi.	197,692	53,185 83		11,200	1,872 53	1,872 53		208,892	55,058 36	55,058 36	
	Outer Bar	27,125	7,495 51		2,810	469 80	2,342 33		29,935	7,965 31	7,965 31	
	Grand Dune	37,975	10,121 57						37,975	10,121 57	10,121 57	
	Gordon Flats	22,425	4,403 95	75,206 96					22,425	4,403 95	77,549 29	
Queen's	Grand Lake	93,555	16,372 96						93,555	16,372 96	16,372 96	
	do McMami's Cove.	20,440	4,522 82						20,440	4,522 82	4,522 82	
	Jensseg	61,305	12,117 74						61,305	12,117 74	12,117 74	
	Washedemoak	48,975	6,340 83						48,975	6,340 83	6,340 83	
	Grinross Mid-ground	12,040	3,274 99						12,040	3,274 99	3,274 99	
	Gagetown Creek	6,965	1,894 52	44,523 86					6,965	1,894 52	44,523 86	
Restigouche	Dalhousie.	22,301	6,543 08		33,460	5,594 19	5,594 19		22,301	6,543 08	6,543 08	
	Traverse	29,400	9,008 64	15,551 72					62,860	14,602 83	21,145 91	
St. John	I. C. R. Terminus.	139,810	37,130 01						139,810	37,130 01	37,130 01	
	Navy Island	25,294	9,296 79						25,294	9,296 79	9,296 79	
	Marble Cove	20,925	4,374 40						20,925	4,374 40	4,374 40	
	Murray's Mills	23,880	3,441 65						23,880	3,441 65	3,441 65	
	Indian town wharf.	1,615	192 83						1,615	192 83	192 83	
	Long wharf.	7,137	2,680 24						7,137	2,680 24	2,680 24	
	Adam's wharf.	7,513	3,247 29						7,513	3,247 29	3,247 29	

Department of Public Works.

Miller & Woodman's	9,275	1,080 42					1,080 42	
Hayford, Steenson & Co.	8,015	942 29					942 29	
International wharf	450	52 90					52 90	
Anchor Line wharf	4,695	996 81					996 81	
Dominion Atlantic Ry. wharf ..			63,443 63				4,484 72	67,930 35
Oromocto	284,573	54,822 52	54,822 52		15,525	4,484 72	55,775 79	55,775 79
Point du Chêne	80,290	25,487 45	25,487 45		3,300	953 27	27,599 90	27,599 90
Fredericton	39,395	7,699 15			12,635	2,112 45	12,010 54	
St. Mary's Ferry	15,570	6,827 36			14,925	4,311 39	6,827 36	
Gibson	30,895	4,379 52					4,379 52	
Nashwaak	1,600	435 22					435 22	
Fisher's and Chestnut Shoals ..	8,200	1,547 12	20,888 37				1,547 12	
Canadian Eastern Ry. wharf ..					3,250	988 82	3,250	26,138 58
Sunbury								
Westmoreland	1,732,035	411,096 12	411,096 12	98,905	21,352 63	21,352 63	432,448 75	432,448 75
York								

EXPENDITURE for Dredging in Prince Edward Island for the Twenty-four Years ended 30th June, 1896.

County.	Locality.	Total for the Twenty-three Years ended 30th June, 1895.		For the Year 1895-96.		Total Quantity.	Total Cost.	Cost for each County.
		Quantity.	Cost.	Quantity.	Cost.			
		c. yds.	\$ cts.	c. yds.	\$ cts.			
King's	Grand River	76,170	15,304 04			76,170	15,304 04	
	Montague River	132,480	22,819 11			132,480	22,819 11	
	Murray Harbour South	90,453	17,638 73			90,453	17,638 73	
	Sturgeon	16,026	6,066 27			16,026	6,066 27	
	St. Mary's wharf	21,963	4,752 55			21,963	4,752 55	
	Georgetown Railway wharf	1,002	408 32			1,002	408 32	
	Cardigan Bridge	23,625	5,126 56	12,330	3,492 80	35,955	8,619 36	
	Newport			3,240	917 82	3,240	917 82	
	Souris			3,825	1,083 53	3,825	1,083 53	77,609 73
					5,494 15			
Queen's	Charlottetown R'y. wharf.	54,618	15,003 50			54,618	15,003 50	
	do Pownal wharf.	14,193	2,963 50			14,193	2,963 50	
	do Ferry	4,045	670 61			4,045	670 61	
	do Steam Nav. Co.	7,668	4,904 15			7,668	4,904 15	
	do Connolly's wh'f.	5,343	3,417 17			5,343	3,417 17	
	do Peake Bros. do	5,355	3,424 85	6,840	1,937 61	12,195	5,362 46	
	do Queen St. Slip.			3,915	1,109 03	3,915	1,109 03	
	do G. Peake's wh'f.			5,805	1,644 42	5,805	1,644 42	
	do Poole's wharf.			405	114 72	405	114 72	
	Crapaud	89,782	27,493 03			89,782	27,493 03	
	Pownal Bay	33,610	6,536 20			33,610	6,536 20	
	Rocky Point	82,920	13,426 13			82,920	13,426 13	
	Vernon River	17,860	6,326 72			17,860	6,326 72	
	Wood Islands	2,780	548 00			2,780	548 00	
	Nine Mile Creek	31,650	6,286 46			31,650	6,286 46	
	Hickey's wharf	12,165	2,441 28			12,165	2,441 28	
	Carr's Point	3,825	756 24			3,825	756 24	
	Pinette	3,195	631 68			3,195	631 68	
	Fort Augustus	33,015	5,528 75			33,015	5,528 75	
	Southport Ferry	7,161	3,879 60			7,161	3,879 60	
Red Point	13,536	4,775 38			13,536	4,775 38		
North Rustico	11,649	4,109 67			11,649	4,109 67		
South Rustico	17,847	8,305 50			17,847	8,305 50		
Gauthier's Creek			121,578 93					126,384 71

Department of Public Works.

Prince	Summerside	8,013 37	29,396	8,013 37	29,396	8,013 37
Hurd's Point pier	41,070	7,289 95	41,070	7,289 95	41,070	7,289 95
Tignish	11,387	13,005 45	11,387	13,005 45	11,387	13,005 45
Cascumpec	1,157	538 42	1,157	538 42	1,157	538 42
Cape Traverse	16,740	5,105 89	16,740	5,105 89	16,740	5,105 89
	923,436	227,647 59	36,360	10,299 93	959,796	237,947 52

EXPENDITURE for Dredging in Quebec for the Twenty-four Years ended 30th June, 1896, from Appropriations Maritime Provinces.

County.	Locality.	Total for the Twenty-three Years ended 30th June, 1895.				For the Year 1895-96.				Total Cost.	Total Quantity.	Cost for each County.	
		Quantity.	Cost.	Cost for County.	Quantity.	Cost.	Cost for County.						
Magdalen Islands, Co.	House Harbour.	c. yds.	\$	cts.	c. yds.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Gaspe	Amherst Harbour.	6,800	2,392 92	...	...	...	...	6,800	2,392 92	...	...	2,634 97	...
	River du Loup.	495	242 05	...	...	...	...	495	242 05	...	...	825 47	...
Temiscouata	Rimouski	2,587	825 47	...	...	...	...	2,587	825 47	...	...	3,997 59	...
		8,123	3,997 59	...	...	...	...	8,123	3,997 59	...	...	7,458 03	...
		18,005	7,458 03	...	...	...	...	18,005	7,458 03	...	...	7,458 03	...

STATEMENT of Dredging, showing Quantities removed in each Province, and cost of each Work for the Twenty-four Years ended 30th June, 1896.

Fiscal Year.	NEW BRUNSWICK.		NOVA SCOTIA.		QUEBEC.		PRINCE EDWARD ISLAND.		Total Quantity.	Total Expenditure.	Cost per cubic Yard.
	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.			
	c. yds.	\$ cts.	c. yds.	\$ cts.	c. yds.	\$ cts.	c. yds.	\$ cts.			
1872-73.	38,060	13,240 50	23,260	8,422 70	6,800	2,392 92	18,055	9,892 89	61,320	21,663 20	0 35 328
1873-74	57,725	14,395 57	18,600	6,545 61	.....	.....	58,288	10,891 80	83,125	23,334 10	0 28 071
1874-75	78,223	17,325 05	24,416	13,238 83	.....	.....	74,460	12,758 27	121,294	40,456 77	0 33 354
1875-76	79,935	17,040 52	91,974	21,885 90	.....	.....	82,860	12,011 18	280,192	49,818 22	0 21 642
1876-77	97,690	23,161 90	127,785	34,846 74	.....	.....	46,490	9,164 07	199,935	70,766 91	0 23 594
1877-78	81,070	23,323 92	106,857	29,507 94	.....	.....	36,390	12,674 98	270,787	64,943 04	0 23 983
1878-79	132,555	27,400 22	116,307	28,267 59	.....	.....	46,330	12,674 98	295,352	64,831 88	0 21 951
1879-80.	63,540	16,581 79	127,684	34,765 81	765	374 08	46,330	9,298 53	228,379	64,386 69	0 28 197
1880-81	44,315	12,385 85	87,118	23,061 64	2,317	693 44	46,335	9,356 57	180,085	45,439 46	0 25 232
1881-82	79,640	18,626 87	89,566	33,363 71	.....	.....	47,325	11,080 37	161,531	61,347 15	0 28 331
1882-83	48,565	13,422 70	143,616	42,996 93	.....	.....	68,535	13,365 05	290,716	67,500 00	0 25 890
1883-84	47,068	17,103 38	157,560	49,050 58	.....	.....	79,750	13,365 05	284,368	79,509 01	0 27 959
1884-85	128,997	24,400 35	76,164	25,250 73	.....	.....	55,075	10,349 66	268,359	62,376 63	0 23 242
1885-86	68,505	14,874 63	56,790	21,482 05	8,123	3,999 59	17,137	6,214 74	142,432	46,706 94	0 32 792
1886-87	69,440	11,452 86	53,400	25,621 19	.....	.....	3,775	5,899 90	128,977	43,288 79	0 33 056
1887-88	50,152	9,252 50	84,175	29,847 60	.....	.....	24,240	15,502 95	138,102	45,000 00	0 27 029
1888-89.	63,633	16,598 08	56,910	32,697 00	.....	.....	31,422	11,085 30	144,783	64,798 03	0 32 028
1889-90.	86,068	20,544 93	59,783	22,821 65	.....	.....	19,004	8,843 92	177,273	54,451 87	0 30 071
1890-91.	96,568	20,375 06	61,698	24,366 57	.....	.....	31,382	12,788 34	177,290	53,605 55	0 30 023
1891-92.	75,023	20,592 85	81,993	27,376 08	.....	.....	66,585	15,112 83	188,398	67,757 27	0 32 249
1892-93.	108,035	23,742 26	40,834	18,125 58	.....	.....	61,536	12,269 24	215,454	56,980 67	0 26 044
1893-94.	77,505	21,564 27	59,581	28,664 90	.....	.....	48,060	10,428 90	198,622	62,498 50	0 31 046
1894-95.	59,715	13,630 11	105,463	32,202 70	.....	.....	36,360	10,299 93	213,238	56,281 71	0 26 038
1895-96.	98,906	21,352 63	36,428	15,828 80	.....	.....	959,796	237,947 52	171,693	47,481 45	0 27 065
	1,830,942	432,448 80	1,887,962	630,358 94	18,005	7,458 03	.....	.....	4,696,705	1,308,213 29	0 27 085

Department of Public Works.

STATEMENT of Dredging, showing Quantities removed by Hand in each Province, and cost of each Dredging for the Twenty-four Years ended 30th June, 1896.

Fiscal Year.	NEW BRUNSWICK.		NOVA SCOTIA.		QUEBEC.		PRINCE EDWARD ISLAND.		Total Quantity.	Total Expenditure.	Cost per cubic Yard.
	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.			
	c. yds.	\$ cts.	c. yds.	\$ cts.	c. yds.	\$ cts.	c. yds.	\$ cts.	c. yds.	\$ cts.	\$ cts.
1878-79.	245	555 13	245	555 13	245	555 13	245	555 13	980	2 26 068	
1879-80.	12,370	3,666 90	12,370	3,666 90	12,370	3,666 90	12,370	3,666 90	48,045	0 29 064	
1880-81.	11,140	2,560 25	11,140	2,560 25	11,140	2,560 25	11,140	2,560 25	44,000	0 22 098	
1881-82.	10,640	2,650 00	10,640	2,650 00	10,640	2,650 00	10,640	2,650 00	40,000	0 24 090	
1882-83.	8,190	2,500 00	8,190	2,500 00	8,190	2,500 00	8,190	2,500 00	32,000	0 30 052	
1883-84.	5,460	2,500 00	5,460	2,500 00	5,460	2,500 00	5,460	2,500 00	20,000	0 45 078	
1884-85.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	48,045	14,432 28	48,045	14,432 28	48,045	14,432 28	48,045	14,432 28	192,175	0 30 003	

STATEMENT of Dredging in the Maritime Provinces, showing quantities removed by and expenditure of each dredge during the Twenty-four Years ended 30th June, 1896.

Dredge.	Total quantities and cost for Twenty-three Years ended 30th June, 1895.			1895-96.			Total for Twenty-four Years ended 30th June, 1896.		
	Total Quantity.	Cost.	Per cubic yard.	Quantity.	Cost.	Per cubic yard.	Total Quantity.	Total Cost.	Cost per cubic yard.
	c. yds.	\$ cts.	\$ cts.	c. yds.	\$ cts.	\$ cts.	c. yds.	\$ cts.	\$ cts.
"St. Lawrence"	915,719	283,957 20	0 31 00	60,105	10,048 97	0 16 719	975,824	294,006 17	0 30 129
"Canada"	663,199	224,400 16	0 33 86	23,400	8,000 98	0 34 192	686,599	232,401 14	0 33 848
"New Dominion"	982,928	187,199 23	0 19 04	37,000	10,688 20	0 28 887	1,019,928	197,887 43	0 19 402
"Prince Edward"	917,526	224,292 63	0 24 44	36,360	10,299 93	0 28 328	953,886	234,592 56	0 24 593
"Cape Breton"	534,938	139,074 33	0 25 99	.....	.....	.....	534,938	139,074 33	0 25 99
"Geo. McKenzie"	499,187	195,310 70	0 39 12	14,828	8,443 37	0 56 942	513,965	203,754 07	0 39 643
Totals	4,513,447	1,234,234 25	0 27 28	171,693	47,481 45	0 27 655	4,685,140	1,301,715 70	0 27 784

Department of Public Works.

STATEMENT of Dredging performed by hand in the Maritime Provinces showing quantities removed and expenditure at each locality for Twenty-four Years ended 30th June, 1896.

Locality.	Total quantities and cost for Twenty-three Years ending 30th June, 1895.			1895-96.			Total for Twenty-four Years ended 30th June, 1896.		
	Total Quantity.	Cost.	Per cubic yard.	Quantity.	Cost.	Per cubic yard.	Total Quantity.	Cost.	Cost per cubic yard.
	c. yds.	\$ cts.	\$ cts.	c. yds.	\$ cts.	\$ cts.	c. yds.	\$ cts.	\$ cts.
Ferrisboro', N.S.	42,595	12,804 68	0 30 06	.....	.....	.....	42,595	12,804 68	0 30 06
Windsor, N.S.	5,450	1,627 60	0 29 86	.....	.....	.....	5,450	1,627 60	0 29 86
Totals.....	48,045	14,432 28	0 30 08	.....	.....	.....	48,045	14,432 28	0 30 03

PROVINCE OF QUEBEC.

SHIP CHANNEL, RIVER ST. LAWRENCE, BETWEEN MONTREAL AND QUEBEC.

The continuation of the dredging operations on the ship channel between Montreal and Quebec was carried on at the following places during the fiscal year 1895-96, viz.: Molson's Shoal, Hochelaga, Maisonneuve, Longueuil, Pointe aux Trembles, Varennes, Contrecoeur, Nicolet and Lotbinière.

Molson's Shoal.

Dredge No. 8 was engaged at work on this shoal between the 13th August and 14th October, 1895, during which period it removed 17,800 cubic yards of stones and gravel at a cost of \$10,935.39, or 61.43 cents per cubic yard.

Hochelaga.

On the close of the work on Molson's Shoal, dredge No. 8 was taken to Hochelaga, dredging there, from the 15th to the 26th October, 1895. The quantity of material removed was 7,280 cubic yards of stones and gravel, at a cost of \$2,334.52, or 32.06 cents per cubic yard.

Maisonneuve.

The widening and cleaning up of the Maisonneuve channel was commenced by dredge No. 11, on the 28th August, and continued till the 11th October, 1895. It removed 15,697 cubic yards of hard pan and stones, at a cost of \$4,386.85, or 27.94 cents per cubic yard.

Longueuil.

Dredge No. 8 was moved from Hochelaga to Longueuil, where it worked from the 28th October to the 19th November, 1895, and from 25th May, 1896, to the close of the fiscal year. During this time 3,000 cubic yards of sand and gravel were removed at a cost of \$1,720.18, or 47.78 cents per cubic yard.

Pointe aux Trembles.

At this place dredge No. 11 was at work from 12th October to 30th November, 1895, and from the 28th May to the 30th June, 1896, the work in hand being the further deepening of the channel to 28 feet 6 inches at lowest water. 44,065 cubic yards of hard pan and clay were removed at a cost of \$7,573.84, or 17.88 cents per cubic yard.

Dredge No. 12 was also engaged at this part of the channel between the 17th October and 9th November, 1895, and from the 12th May to 30th June, 1896. It removed 31,080 cubic yards of clay and gravel at a cost of \$5,050.41, or 16.25 cents per cubic yard.

Varennes.

At the beginning of the fiscal year, dredge No. 11 continued widening the bend at Cap St. Michel, Varennes channel, where it worked until the 27th August, 1895,

Department of Public Works.

and removed 69,930 cubic yards of clay and sand at a cost of \$5,511.63, or 7.89 cents per cubic yard.

On August 28th, dredge No. 12 was put to work at this point and continued dredging till the 24th September, 1895, removing 97,050 cubic yards of clay and stones at a cost of \$6,944.31, or 7.15 cents per cubic yard.

Contrecoeur.

The continuation of the deepening of the Bell mouth of the Contrecoeur Channel at St. Ours, to 29 feet at low water, was commenced by dredge No. 8 on the 1st July, and was continued until the 9th August, 1895, when it completed the work. The quantity removed was 46,280 cubic yards of clay and stones at a cost of \$4,177.57, or 9.03 cents per cubic yard.

At the beginning of the fiscal year, dredge No. 12 resumed the work, commenced in 1894, of cleaning up and widening the Contrecoeur channel, and completed the work on the 27th August, 1895, 52,800 cubic yards of clay and gravel being removed at a cost of \$6,313.00, or 11.95 cents per cubic yard.

Nicolet.

After completing the work at Varennes, dredge No. 12 was taken to Nicolet, where it worked from September 27th to October 16th, 1895, cleaning up the channel at the Force shoal. The quantity of clay and boulders removed was 4,050 cubic yards, at a cost of \$2,146.43, or 52.99 cents per cubic yard.

Lotbinière.

The further deepening of the north half of the Ship Channel at Barre à Boulard was commenced by the dredge "Laval" on 1st July, 1895, and continued till the end of the fiscal year. The quantity removed, consisting of stones embedded in hardpan, and large boulders, was 48,010 cubic yards, and the cost \$22,317.82, or 46.48 cents per cubic yard.

ABSTRACT of work done, in deepening the Ship Channel in the St. Lawrence

Vessels.	Locality of Dredging.	Time of Service.		Nominal working time 10 hours per day.		Dredging machinery in motion.		Quantity Dredged, in cubic yards, scow measurement.		
		Days.	Total days.	Hours.	Total hours.	Hours.	Total hours.	Earth.	Rock.	Total.
Dredge Laval	Lotbinière	157	157	1,570	1,570	948	948	.....	48,010	48,010
Dredge No. 8	Contrecoeur	34	.....	.....	.....	296 $\frac{3}{4}$	.....	46,280	.....	46,280
do	Molson's Shoal..	89	.....	.....	.....	617 $\frac{3}{4}$	.....	17,800	.....	.....
do	Hochelaga Ferry	19	.....	.....	.....	162	.....	7,280	.....	.....
do	Longueuil do	14	156	1,560	1,560	114 $\frac{3}{4}$	1,191 $\frac{1}{2}$	.....	3,600	28,680
Dredge No. 11	Varenes	49	.....	.....	.....	418	.....	69,930	.....	.....
do	Maisonneuve	39	.....	.....	.....	323 $\frac{1}{2}$	.....	.....	15,697	15,697
do	Pointe aux Trem- bles	70	158	1,580	1,580	548	1,289 $\frac{1}{2}$	44,065	.....	113,995
Dredge No. 12	Contrecoeur	50	.....	.....	.....	401 $\frac{1}{2}$	.....	52,800	.....	.....
do	Varenes	55	.....	.....	.....	486 $\frac{1}{2}$	.....	97,050	.....	.....
do	Nicolet	17	.....	.....	.....	74 $\frac{1}{2}$	.....	4,050	.....	.....
do	Pointe aux Trem- bles	40	162	1,620	1,620	293 $\frac{1}{2}$	1,255 $\frac{1}{2}$	31,080	.....	184,980
		633	633	6,330	6,330	4,683 $\frac{3}{4}$	4,683 $\frac{3}{4}$	345,255	92,387	437,642

Department of Public Works.

River, between Montreal and Quebec, for Fiscal Year ended 30th June, 1896.

Character of soil.	Quantity dredged, in cubic yards, in each locality.								
	Lotbinière.	Contrecoeur.	Molson's Shoal.	Hochelaga Ferry.	Longueuil Ferry.	Vareannes.	Maison-neuve.	Pointe aux Trembles.	Nicolet.
Hard-pan, stones and boulders.	48,010								
Clay and stones		46,280							
Mostly all stones			17,800						
All stones				7,280					
do					3,600				
Clay and sand.						69,930			
Hard-pan and stones							15,697		
do								44,065	
Clay and gravel		52,800							
do stones						97,050			
do boulders									4,050
do gravel								31,080	
	48,010	99,080	17,800	7,280	3,600	166,980	15,697	75,145	4,050

STATEMENT showing Classification of Cost of Dredging on the Ship Channel, River

Names of Vessels and Locality of Dredging.	Fuel.	Wages.	Board.	Stores and Materials.	Rebuild- ing and Repairs.	Cost of Building New Plant.	Propor- tion of General Expenses.	Proportion of Salaries and Official Ex- penses.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Dredge Laval, Lotbi- nière	1,660 95	4,190 03	981 07	2,595 25	1,462 62	.....	2,091 02	1,390 03
Dredge No. 8.....	1,748 75	3,125 68	892 87	992 01	3,180 70	.....	1,908 80	1,268 90
Contrecoeur.....								
Molson's Shoal								
Hochelaga Ferry								
Longueuil do								
Dredge No. 11.....	2,032 00	2,641 20	905 72	287 37	3,350 35	.....	1,769 78	1,176 49
Varenes.....								
Maisonneuve								
Pointe aux Trembles								
Dredge No. 12.....	2,235 50	3,038 94	983 50	496 39	3,539 06	.....	1,976 59	1,313 94
Contrecoeur								
Varenes								
Nicolet								
Pointe aux Trembles								
Stone Lifter No. 1.....	5 60	397 25	25 00	31 06	.....	.....	87 96	58 47
do No. 2.....	54 75	531 62	65 00	122 62	225 56	.....	191 87	127 53
Tug "John Pratt"	1,168 20	1,824 12	723 47	299 67	245 50	.....	818 08	543 83
do "St. James"		510 99	.....	133 62	.....	.....	123 69	82 21
do "Cartier".....	551 20	1,506 65	536 88	263 31	303 51	.....	606 99	403 55
do "St. Francis"....	979 60	1,305 95	441 17	136 79	703 57	.....	684 95	455 37
do "M. F. Parsons" ..	1,242 00	1,170 62	460 49	135 12	348 68	.....	644 44	428 47
do "C. J. Brydges" ..	1,274 25	1,373 95	522 57	163 79	279 91	.....	693 83	461 21
<i>New Dredge Plant.</i>								
New Dredge.....						23,400 27		
do iron tug.....						8,767 24		
200 yards scows.....						5,513 49		
	12,952 80	21,617 00	6,537 74	5,657 00	13,639 46	37,681 00	11,598 00	7,710 00

Department of Public Works.

St. Lawrence, between Montreal and Quebec, for Fiscal Year ended 30th June, 1896.

Total Cost.	Stone Lifter Service.	Tug Service.	Total Cost of Dredge and Plant.	No. of Working Days.	Hours of Actual Work.	Cost of Working Expenses at each Locality.	Number of Cubic Yards Dredged at each Locality.	Cost per Cubic Yard.	Character of Soil.
\$ cts.	\$ cts.	\$ cts.	\$ cts.			\$ cts.		cts.	
14,370 97	1,318 95	6,627 90	22,317 82	157	948	22,317 82	48,010	46 ⁴ / ₁₀₀	Hard-pan, stones and boulders.
13,117 71		6,049 94	19,167 65						
				34	296 ³ / ₄	4,176 57	46,280	9 ⁰ / ₁₀₀	Clay and stones.
				89	617 ³ / ₄	10,935 39	17,800	61 ⁴ / ₁₀₀	Mostly all stones.
				19	162	2,334 52	7,280	32 ⁰ / ₁₀₀	All stones.
				14	114 ³ / ₄	1,720 18	3,600	47 ⁷ / ₁₀₀	do
12,162 91		5,609 47	17,772 38						
				49	418	5,511 68	69,930	7 ⁸ / ₁₀₀	Clay and sand.
				39	323 ¹ / ₄	4,386 85	15,697	27 ² / ₁₀₀	Hardpan and stones.
				70	548	7,873 84	44,065	17 ⁸ / ₁₀₀	do
13,583 92	605 34	6,264 89	20,454 15						
				50	401 ¹ / ₂	6,313 00	52,800	11 ² / ₁₀₀	Clay and gravel.
				55	486 ¹ / ₄	6,944 31	97,050	7 ¹ / ₁₀₀	do stones.
				17	74 ¹ / ₄	2,146 43	4,050	52 ² / ₁₀₀	do boulders.
				40	293 ¹ / ₄	5,050 41	31,080	16 ² / ₁₀₀	do gravel.
605 34									
1,318 95									
5,622 87									
850 51									
4,172 09									
4,707 40									
4,429 82									
4,769 51									
23,400 27									
8,767 24									
5,513 49									
117,393 00	1,924 29	24,552 20	79,712 00	633	4,683 ³ / ₄	79,712 00	437,642		

DREDGING AT CHATEAUGUAY.

Chateaugay Basin, is at the mouth of the Chateaugay River, 5 miles from Caughnawaga, and 14 miles south-west of Montreal.

The dredge "St. Louis" worked here from the 15th until the 31st July, and from the 26th of August until the 16th of September, 1895. It made one cut of 210 feet long, alongside the steamboat wharf, and one cut of 190 feet long, running from above cut, outwards to the boat channel. In the eastern channel of the river two cuts were made of 375 and 136 feet long, all cuts being 23 feet wide, and to 6 feet in depth.

4,025 cubic yards of hard-pan, clay, sand and boulders, were removed by the "St. Louis."

The dredge "Little Giant" also operated here between the 24th and 30th of June, 1896, removing obstructions consisting of hard-pan and sand, at the village wharf.

DREDGING AT DORVAL.

Dorval, Jacques Cartier County, is on Lake St. Louis, on the south-west side of the island of Montreal.

The dredge "St. Louis" worked here from the 2nd until the 12th of July, 1895, cleaning and straightening the various cuts made during the previous year, removing 1,770 cubic yards of clay.

DREDGING AT ILE DE GROS BOIS.

Ile de Gros Bois is one of the group of islands situated in the River St. Lawrence, about 6 miles east of Montreal.

The dredge "St. Louis" operated at this locality between the 3rd and 22nd of August, 1895, making 2 cuts of 400 feet long, by 46 feet wide, to a depth of 6 feet, from navigable water towards the steamboat wharf, removing 4,221 cubic yards of clay and sand.

DREDGING AT LAPRAIRIE.

Laprairie is the chef-lieu of the county of the same name, on the south shore of the River St. Lawrence, 7 miles above Montreal.

One of the steamers of the Richelieu and Ontario Navigation Company plies between Laprairie and Montreal, making several trips daily during the season of navigation.

Between the 12th of May, and the close of the fiscal year 1896, the dredge "Nithsdale" worked in the steamboat channel, making a channel 4,500 feet long, by 25 feet wide, to a depth of 8 feet below zero, or low water level, from the outward or main channel, towards the wharf, removing 8,587 cubic yards of hard-pan, clay and stone and boulders.

DREDGING AT LONGUEUIL.

Longueuil is the chef-lieu of the county of Chambly, and is situated on the south shore of the River St. Lawrence, nearly opposite the city of Montreal.

On the 16th of July the dredge "Nithsdale" began operating at this locality, and continued working until the 12th of October, 1895.

Dredging was done on the east side and in front of the Richelieu and Ontario Navigation Company's wharf to a depth of 8 feet, also in front of the Government wharf, to the same depth.

The total quantity of materials removed was 12,832 cubic yards of clay and stone, boulders, hard-pan and gravel.

Department of Public Works.

DREDGING AT LOUISEVILLE.

Louiseville, county of Maskinongé, is situated on the River du Loup, which empties into Lake St. Peter, on its northern shore. The village lies about 3 miles inland from the lake, and is 74 miles east of Montreal.

Between the 21st of May and the 21st of June, 1896, the dredge "St. Pierre" was engaged in removing a shoal at the mouth of the River du Loup, where 8,911 cubic yards of clay and sand were excavated, and a depth of $5\frac{1}{2}$ feet of water was obtained.

DREDGING AT NICOLET.

The River Nicolet empties into the St. Lawrence, on its southern shore, at the foot of Lake St. Peter.

Between the 1st of July and the 31st October, 1895, and the 24th and 30th of June, 1896, the dredge "St. Pierre" was engaged in dredging a channel from outside the end of the pier (Lake St. Peter) to the mouth of the river, making a cutting of about 2,500 feet long, to a depth of $8\frac{1}{2}$ feet below zero. The materials removed consisted of 44,459 cubic yards of clay and sand.

DREDGING AT ST. PLACIDE.

St. Placide, a village in the county of Two Mountains, is on the north bank of the River Ottawa, and 18 miles above its junction with the River St. Lawrence, and 9 miles from St. Andrews.

For several years past, dredging operations have been carried on at this place in improving and deepening the steamboat channel, and around the village wharf.

The dredge "Nithsdale" continuing its work from the previous year, dredged from the 2nd until the 12th of July, 1895, in front of the wharf, and removed 3,224 cubic yards of clay, stone and boulders.

PROVINCE OF ONTARIO.

DREDGING AT AMHERSTBURG.

Amherstburg is a port of entry in the county of Essex, situated on the Detroit River, 5 miles above Lake Erie, and is a coaling station.

For some years the department has been carrying on dredging operations here, in deepening and widening the channel leading to the wharfs, as well as at the wharfs themselves, also in clearing the channel of very large boulders and other obstructions.

Between the 29th of July, and the 24th of September, 1895, the dredge "Ontario" worked at this locality. Beginning at Mullen's new dock, the dredging was continued downwards in the Detroit River, making cuts of 75, 130, 140, 350, 400, 550, 650 and 800 feet long, all these cuts adjoining, having a width of 25 feet each cut, and to a depth of $18\frac{1}{2}$ feet at lowest stage of water.

The materials removed consisted of 8,204 cubic yards of hard clay and boulders.

DREDGING AT BELLE RIVER.

Belle River is a village on a river of the same name, in the county of Essex, and is situated 17 miles east of Windsor.

Large quantities of sand for building purposes, also railway ties, are shipped from this river.

Between the 14th of May, and the close of the fiscal year 1896, the dredge "Ontario" was employed in making a channel through a sand shoal, extending from the

mouth of the river, out into Lake St. Clair, through which two adjoining cuts were made of 977 and 865 feet long, having a total width of 45 feet, and a depth of 9 feet, the quantity removed being 12,596 cubic yards of clay and fine sand.

DREDGING AT BELLEVILLE.

Belleville, the shire town of the county of Hastings, is situated on the Bay of Quinté, at the mouth of the River Moira, and is 43 miles west of Kingston.

As already stated in the previous annual report, the dredging performed at this locality during the past few years, has been of much benefit.

The work done in the river has prevented the recurrence of floods in the spring, caused by the river overflowing its banks, through ice grounding, the river being too shallow to carry off the ice previous to this undertaking.

The dredge "Queen" worked from the 9th of September until the 16 of November, 1895, and from the 26th of May until the close of the fiscal year 1896, making four cuts on the western side of Mill Island, extending up the River Moira, of 800, 500 and two of 675 feet long, each cut being 25 feet wide, and from 7 to 8 feet deep. Also one cut of 100 feet long, to a depth of 7 feet, between Rathburn's and Stewart's wharf. And, as a channel leading to Lozier's wharf, three cuts of 500, 905, and 1,033 feet long, to a depth of 9 feet, were made; the dredge removing altogether 24,880 cubic yards of gravel, boulders and broken stone at this place.

DREDGING AT BOWMANVILLE.

Bowmanville or Port Darlington, Durham County, is on the north shore of Lake Ontario, 40 miles east of Toronto. It is an artificial harbour, being formed by two parallel piers built at the mouth of a creek, and extending out into the lake.

A large quantity of sand having being washed in between the piers, the dredge "Nipissing" was put to work on the 8th July, and continued working until the 3rd of August, 1895. A cut 1,400 feet long, by 25 feet wide, and 11 feet in depth, from the entrance, down between the piers, and into the harbour was made, 9,270 cubic yards of fine sand being removed.

DREDGING AT BURLINGTON CHANNEL.

Burlington channel connects the waters of Hamilton Harbour with Lake Ontario.

During 1895-96, a dredge was engaged in deepening the channel to 14 feet at low water level, and in preparing a berth for the 70 foot crib. Work was commenced on the 25th May and was completed on the 22nd June, 1896, during which time 6,680 cubic yards of material were removed.

DREDGING AT FORT ERIE.

Fort Erie is an incorporated village on the Niagara River, in the county of Welland, and is situated 20 miles south-east of the town of Welland.

The dredge "Ontario" worked at this locality from the 10th until the 18th of July, in front of the old Fort Erie Ferry wharf, making a cutting 200 feet long, by 60 feet wide, to a depth of 9 feet, and removing 345 cubic yards of clay and boulders.

DREDGING AT FRENCHMAN'S BAY.

Frenchman's Bay, or Pickering Harbour, in the county of Ontario, is on Lake Ontario, 21 miles east of Toronto.

The dredge "Nipissing" worked at this locality, from the 15th until the 30th of August, 1895, deepening the channel between the piers. One cut of 800 feet long, 25 feet wide, to a depth of 10 feet was made, removing 4,560 cubic yards of sand.

Department of Public Works.

DREDGING AT KINCARDINE.

Kincardine, Bruce County, is situated at the mouth of the River Penetangore, which empties into Lake Huron, 30 miles north of Goderich.

During 1895-96, the sum of \$2,000.00 was expended in dredging two cuts through the channel and along the north pier to a depth of 12 feet, the material removed measuring, 8,000 cubic yards in the scows.

DREDGING AT MEAFORD.

Meaford is on the southern shore of Georgian Bay, and in the county of Grey, 115 miles north of Toronto.

Between the 6th and the 31st of July, 1895, the dredge "Challenge" deepened the channel between the piers, making one cut of 800 feet long, by 25 feet wide to a depth of 16 feet, and removed 6,870 cubic yards of hard-pan, clay and boulders.

DREDGING AT MIDLAND.

Midland, Simcoe County, is the Georgian Bay terminus of the Grand Trunk Railway.

The dredge "Challenge" was engaged here from the 29th of May until the 19th of July, 1896, doing the following work.

In front of the Grand Trunk Railway wharf, a cut 300 feet long, and on the west side of same, a cut 150 feet long, by 25 feet in width each, were made to a depth of 15 feet at low water.

Alongside the Esplanade, a cut of 300 feet long, to a depth of 14 feet, was finished.

A cut was also made in front of Thew's Mill of 450 feet long, by 40 feet wide, and having a depth of 9 feet.

7,200 cubic yards of hard-pan, clay, sand and mud, were removed at this place.

DREDGING AT NEWCASTLE.

The harbour of Newcastle is on the north shore of Lake Ontario, 47 miles east of Toronto.

On the 3rd of September, 1895, the dredge "Nipissing" commenced the removal of a sand shoal which had formed between the piers, and continued working until the 27th of the same month. Two cuts were made 386 feet long, and 50 feet wide, leaving a depth of 11 feet of water, and 3,990 cubic yards of fine sand were removed.

DREDGING AT PENETANGUISHENE.

Penetanguishene, county of Simcoe, is an inlet of Georgian Bay. It is a terminus of one of the branches of the Grand Trunk Railway.

On the 22nd of June, the dredge "Challenge" began working, and continued until the close of the fiscal year 1896, doing the following work:—At the Town Dock, a cut 210 feet long, to a depth of 16 feet, and opposite the "Reformatory," on a point of land, two cuts of 290 and 256 feet long, to 16 feet in depth were made, removing altogether 3,180 cubic yards of clay and mud.

DREDGING AT PORT ELGIN.

Port Elgin is situated in the electoral division of the southern portion of the county of Bruce, on the eastern shore of Lake Huron, about 24 miles north of Kincardine and 4 miles south of Southampton. It is a station on the Grand Trunk Railway, but there is no track from the railway to the harbour.

In 1895 a dredge worked 114 hours and removed 5,150 cubic yards of material from the harbour at a cost of \$962.00.

Further dredging was commenced on the 21st April, 1896, and continued to the 14th May. The dredge worked 200 hours and removed 8,320 cubic yards of material at a cost of \$1,600.00. The inspector's wages were \$92.45. Total \$1,692.45.

DREDGING AT PORT HOPE.

Port Hope, in the county of Durham, is situated on Lake Ontario, 63 miles east of Toronto, and 102 miles above Kingston.

The harbour is an artificial one, formed by piers which have been built into the lake.

The dredge "Nipissing" was engaged at this locality from the 2nd until the 6th of July, and from the 5th until the 14th of August, 1895.

At the entrance to the harbour, one cut of 300 feet long, to a depth of 12 feet was made, also one cut alongside the eastern pier in the harbour of 600 feet long, and 11 feet in depth, the quantity removed being 5,130 cubic yards of sand.

DREDGING AT PRESCOTT.

Prescott is an incorporated town on the River St. Lawrence, in the county of Grenville, and is 13 miles east of Brockville.

The dredge "Queen" was engaged in dredging at this locality from the 17th of July, until the 6th of September, 1895, and did the following work:—Four adjoining cuts in front of the new elevator wharf, of 250, 300, 375 and 400 feet long, having a total width of 100 feet, to 16 feet in depth were made. On the east side of same, six cuts of 150 feet long, and on the west side, three cuts of 150 feet long, to a depth of 14 feet, were made.

At the Canadian Pacific Railway Company's wharf, three cuts 150 feet long, by 75 feet wide, and 9 feet deep were finished.

15,360 cubic yards of clay and stone, hard-pan, and boulders, were removed by the dredge "Queen."

The dredge "Nipissing" also worked at Prescott from the 22nd of May, until the close of the fiscal year, (30th of June 1896) and did the following dredging:—three cuts 390 feet long, in front of the elevator wharf, having a total width of 75 feet, to a depth of 18 feet, also two cuts 210 feet long in front of "Plumb's" wharf, having a depth of 15 feet, and 50 feet wide were made. At Labatt's wharf, one cut was made 205 feet long, to 14 feet in depth, and at "Wiser's" wharf, one cut of 70 feet long in front, and three cuts of 90, 190, and 218 feet long, from the wharf outwards to deep water were made, each cut being 25 feet wide, and to a depth of 15 feet below low water level.

The dredge "Nipissing" removed 8,100 cubic yards of clay and sand.

DREDGING RIVER KAMINISTIQUIA.

This river empties into Thunder Bay, Lake Superior, to the westward of Port Arthur, in the electoral district of Algoma.

Large grain shipments are made from this river to the east.

During the fiscal year 1894-95, the elevator dredge "No. 9" was engaged in dredging a channel through a sand and clay shoal at the mouth of the river, which extended far out into the bay, and upon which, very considerable progress had been made that year.

In the fiscal year of 1895-96, the work was carried on without interruption through the shoal and up the river to a short distance above the Canadian Pacific Railway Company's freight sheds, making a cutting 5,000 feet long, having a

Department of Public Works.

width of 200 feet to the mouth of the river, after which it varies from 230 to 300 feet wide in the river itself. A depth of 20 feet was obtained throughout.

During the year 1895-96, there were 237,750 cubic yards of clay and sand excavated.

In the year 1894-95 the material removed by this same dredge amounted to 162,950 cubic yards.

DREDGING AT THE SAUGEEN RIVER.

The Saugeen River runs into Lake Huron, 143 miles above Sarnia, passing through the village of Southampton, which is situated on the shore of this lake in the North Riding of Bruce.

On the 31st May last dredging was ordered to be done across the bar at the Saugeen River, but after a trial of three days, it was found impossible to make any progress on account of the hard nature of the material to be removed, and the work was abandoned.

The amount expended was \$225.56.

DREDGING AT THE RIVER THAMES.

The River Thames has its outlet in Lake St. Clair at the south-east end of same, and is navigable up to the town of Chatham, in the county of Kent.

During the fiscal year 1895-96, dredging operations were carried on over the bar at the mouth of this river. The dredge worked 117 hours and removed 6,025 cubic yards of material, at a total cost of \$999.45.

DREDGING AT THORNBURY.

Thornbury is situated on the west side of Georgian Bay, at the mouth of Beaver River, in the county of Grey, 13 miles west of Collingwood.

A sand shoal having formed at the harbour entrance, the dredge "Challenge" was put to work on the 2nd August, and continued working until the 21st of September, 1895, doing the following dredging: a cut 900 feet long was made, beginning at the entrance to the harbour, continuing it down between the piers, and into the harbour, leaving a depth of 15 feet for a distance of 700 feet, and of 10 feet for the remaining 200 feet in the harbour. The width of the cutting varies from 100 feet at the outside or entrance, to 50 feet in the harbour.

12,180 cubic yards of hard-pan and sand were taken out.

DREDGING AT TRENTON.

Trenton is a port of entry, on the Bay of Quinté, at the mouth of the River Trent, where is situated the eastern entrance to the Murray Canal.

The dredge "Queen" continued its work from the previous fiscal year, and was engaged from the 2nd until the 13th of July, 1895. Two cuts 160 feet long, and one cut 80 feet long, having a total width of 75 feet, to a depth of 5 feet, were made at the Gilmour Company's logway.

In front of the Central Ontario Railway Company's wharf, two cuts 220 feet long, having a width of 50 feet, and a depth of 9 feet, were finished, removing 2,416 cubic yards of clay and stone, and boulders.

CLASSIFICATION OF DISBURSEMENTS OF THE DREDGE "CHALLENGE" DURING THE YEAR ENDED 30TH JUNE, 1896.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Total.		
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
Wages.....	395 00		395 00		395 00		30 00		30 00		30 00		35 75		30 00		30 00		37 00		35 93		395 00		395 00		1,802 75
Coal.....	288 45		124 50		69 15																		206 65		206 65		629 60
Wood.....			94 50		103 00																						199 58
Provisions.....	103 00		103 00																								412 00
Stores.....																											83 15
Equipment.....			1 00																								73 39
Repairs.....	0 50		22 30		11 69																						883 60
Pilotage.....																											
Towage.....																											
Contingencies.....	30 29																										94 84
Totals.....	827 24		615 80		703 34		64 70		95 31		36 00		73 11		279 83		94 71		39 65		457 98		891 24		4,178 91		
Working expenses.....	827 24		593 50		691 65		64 70		30 00		36 00		35 75		30 00		63 15		39 65		51 52		835 30		3,298 46		
Repairs, ordinary.....			22 30		11 69				65 31				37 36		49 83		31 56				406 46		55 94		680 45		
do extraordinary.....															200 00											200 00	
Totals.....	827 24		615 80		703 34		64 70		95 31		36 00		73 11		279 83		94 71		39 65		457 98		891 24		4,178 91		

Department of Public Works.

CLASSIFICATION OF Disbursements of the Dredge "Ontario" during the Year ended 30th June, 1896.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Total.		
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
Wages.....	395	00	426	00	404	70	32	00	30	00	30	00	30	00	30	00	30	00	26	25	188	39	385	00	1,991	09	
Coal.....	254	10	148	99	98	98	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	149	84	125	35	803	51
Wood.....	103	00	103	00	96	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	98	13	103	00	503	47
Provisions.....
Stores.....
Equipment.....
Repairs.....	32	89	65	07	93	45	56	00	65	31	420	14	38	46	49	83	4	40	327	58	382	61	1,030	17	2,576	51	
Pilotage.....
Towage.....
Contingencies.....	10	98
Totals.....	795	97	743	06	693	47	126	77	95	31	450	14	68	46	79	83	49	40	392	55	823	82	1,675	57	5,994	35	
Working expenses.....	763	08	677	99	600	02	70	77	30	00	30	00	30	00	30	00	34	40	64	97	441	21	645	40	3,417	84	
Repairs, ordinary.....	32	89	66	07	33	45	56	00	65	31	420	14	38	46	49	83	15	00	327	58	382	61	24	11	1,150	31	
do extraordinary.....
Totals.....	795	97	743	06	693	47	126	77	95	31	450	14	68	46	79	83	49	40	392	55	823	82	1,675	57	5,994	35	

CLASSIFICATION OF Disbursements of the Dredge "Nipissing" during the Year ended 30th June, 1896.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Totals.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Wages.....	442 74	354 68	363 33	139 67	23 00		16 45	30 00	30 00	30 00	120 96	375 00	1,925 83
Coal.....	94 92	257 02	74 65	214 95							104 25	123 55	869 94
Wood.....											45 54	103 00	475 49
Provisions.....	93 00	100 40	100 33	33 22							2 35	105 00	113 78
Stores.....			5 15	1 28							7 50	95 18	121 68
Equipment.....									18 40				
Repairs.....	25 29	44 22	26 27	2 75	117 18	281 00	683 39	8 16			382 14	66 85	1,637 25
Pilotage.....											15 00		15 00
Towage.....													
Contingencies.....				15 79	40 00		51 49	3 00		1 00	4 50		115 78
Totals.....	655 95	756 32	569 73	407 66	180 18	281 00	751 33	44 16	48 40	31 00	682 24	868 58	5,273 55
Working expenses.....	630 66	712 10	543 46	404 91	23 00		16 45	33 00	48 40	31 00	300 10	801 73	3,544 81
Repairs, ordinary.....	25 29	44 22	26 27	2 75	157 18			8 16			382 14	66 85	712 86
do extraordinary.....						281 00	734 88						1,015 88
Totals.....	655 95	756 32	569 73	407 66	180 18	281 00	751 33	41 16	48 40	31 00	682 24	868 58	5,273 55

Department of Public Works.

CLASSIFICATION of Disbursements of the Dredge "Queen" during the Year ended 30th June, 1896.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Totals.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Wages.....	395 00	395 00	395 00	395 00	285 50	30 00	30 00	30 00	30 00	30 00	.....	385 00	2,400 50
Coal.....	200 00	229 07	72 28	212 50	180 87	.....	.....	.....	.....	.....	.....	263 53	1,158 25
Provisions.....	103 75	103 00	104 05	103 00	73 00	.....	.....	.....	.....	.....	49 59	103 00	638 39
Stores.....	5 13	.....	29 50	.....	8 58	.....	.....	.....	.....	.....	100 00	115 00	258 21
Equipment.....	.....	.....	.....	.....	.....	.....	.....	.....	4 03	.....	.....	.....	.....
Repairs.....	150 34	89 53	4 69	52 44	71 49	.....	.....	.....	.....	12 50	.....	69 33	101 86
Pilotage.....	.....	.....	15 00	.....	.....	.....	.....	.....	.....	.....	942 28	52 24	1,363 06
Contingencies.....	.....	.....	5 00	.....	28 78	.....	.....	.....	.....	2 50	.....	.....	15 00
Totals.....	854 22	816 65	625 52	762 94	647 22	30 00	30 00	30 00	34 03	45 00	1,118 57	988 10	5,982 25
Working expenses.....	703 88	727 07	635 52	710 50	575 73	30 00	30 00	30 00	34 03	45 00	165 59	935 86	4,613 18
Repairs, ordinary.....	150 34	89 58	.....	52 44	71 49	.....	.....	.....	.....	.....	952 98	52 24	1,369 07
Totals.....	854 22	816 65	625 52	762 94	647 22	30 00	30 00	30 00	34 03	45 00	1,118 57	988 10	5,982 25

CLASSIFICATION of disbursements of the dredge "St. Louis" during the Year ended 30th June, 1896.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Total.		
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
Wages.....	346	77	350	00	186	67																				883	44
Coal.....	107	30	206	45																						313	75
Provisions.....	92	50	32	50	50	50																				235	50
Stores.....	30	36			7	14			9	51																47	01
Equipment.....	15	00																								15	00
Repairs.....	92	22	124	66	12	60			10	5				2	06											459	51
Contingencies.....	6	53			6	30																				12	88
Totals.....	690	68	773	61	263	21			20	08				2	06											1,967	04
Working expenses.....	588	46	648	95	250	61			9	51																1,507	58
Repairs, ordinary.....	32	22	17	76	12	60			10	57				2	06											135	21
do extraordinary.....			106	90																						324	30
Totals.....	690	68	773	61	263	21			20	08				2	06											1,967	04

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Department of Public Works.

CLASSIFICATION of disbursements of the dredge "No. 9" during the Year ended 30th June, 1896.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Total.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Wages	640 50	632 50	627 50	675 30	50 00	51 50	50 00	51 00	50 00	139 20	615 43	653 16	4,236 09
Provisions	165 00	165 00	165 00	165 00	.....	.....	.....	.....	.....	.....	95 40	197 00	952 40
Stores .....	.....	.....	16 06	.....	.....	.....	.....	1 95	1 20	.....	8 30	.....	27 51
Equipment .....	.....	.....	.....	.....	.....	.....	.....	5 50	34 10	.....	.....	7 35	46 95
Repairs	25 96	358 77	.....	49 45	.....	12 50	676 23	152 67	460 92	128 57	94 07	45 00	2,005 04
Contingencies .....	.....	.....	.....	38 50	296 98	.....	.....	.....	186 00	16 98	71 69	54 66	644 51
Totals	831 46	1,156 27	808 56	928 25	346 68	64 00	726 23	211 12	732 22	284 75	884 89	938 07	7,912 50
Working expenses.....	895 50	797 50	808 56	878 80	346 68	51 50	50 00	58 45	271 80	156 18	790 82	892 17	5,907 46
Repairs, ordinary	25 96	82 49	.....	49 45	.....	12 50	.....	152 67	460 92	128 57	94 07	45 90	1,062 53
do extraordinary .....	.....	276 28	.....	.....	.....	.....	676 23	.....	.....	.....	.....	.....	952 51
Totals	831 46	1,156 27	808 56	928 25	346 68	64 00	726 23	211 12	732 22	284 75	884 89	938 07	7,912 50

CLASSIFICATION OF Disbursements of the Dredge "Nithsdale" during the Year ended 30th June, 1896.

Items.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Totals.						
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.					
Wages.....	318	00	318	00	332	18	285	88													390	08	510	00	361	33	1,955	47			
Coal.....																											510	00			
Wood.....	1	75	94	85	92	50	46	40													77	42			109	00	511	37	1	75	
Provisions.....	106	65	931	75	15	77	26	76	3	50														17	92	180	60				
Repairs.....	930	00					1,326	75																1,910	72	5,089	22				
Contingencies.....																															
Totals.....	1,447	60	1,344	60	440	45	1,645	79	3	50											977	50			2,398	97	8,258	41			
Working expenses.....	1,340	95	1,344	60	424	68	1,609	03													977	50			2,398	97	8,095	73			
Repairs, ordinary.....	106	65			15	77	36	76	3	50																	162	68			
Totals.....	1,447	60	1,344	60	440	45	1,645	79	3	50											977	50			2,398	97	8,258	41			

CLASSIFICATION and Quantities of Material removed by Dredge "Challenge" during the Year ended 30th June, 1896.

Description of Material Dredged.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Grand Totals.			
	c. yds.	e. yds.	c. yds.	e. yds.	c. yds.	e. yds.	c. yds.	e. yds.	c. yds.	e. yds.	c. yds.	e. yds.	c. yds.	e. yds.	c. yds.	e. yds.	c. yds.	e. yds.	c. yds.	e. yds.	c. yds.	e. yds.	c. yds.	e. yds.	c. yds.	e. yds.		
Hard-pan.....	4,600		2,370		610																		390				7,970	
Boulders.....	100																										100	
Clay.....	2,170																										6,870	
Sand—ordinary.....			5,220		3,980																						10,400	
Mud.....																											1,200	
Totals.....	6,870		7,590		4,590																						1,920	
																											9,480	29,430

Department of Public Works.

CLASSIFICATION and Quantities of Material removed by the following Dredges during the Year ended 30th June, 1896.

"ONTARIO."

Description of Material Dredged.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Total.
	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.
Boulders.....	345	494	100	.....	.....	.....	.....	.....	.....	.....	2,610	6,146	989
Clay.....	.....	4,990	2,620	.....	.....	.....	.....	.....	.....	.....	.....	3,840	16,366
Sand—ordinary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,840
Totals.....	345	5,484	2,720	.....	.....	.....	.....	.....	.....	.....	2,610	9,986	21,145

"NIPISSING."

Clay.....	.....	4,560	.....	.....	.....	.....	.....	.....	.....	.....	660	5,340	6,000
Sand—ordinary.....	.....	4,170	3,990	.....	.....	.....	.....	.....	.....	.....	.....	2,100	6,660
Sand—very fine.....	10,280	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18,390
Totals.....	10,280	8,730	3,990	.....	.....	.....	.....	.....	.....	.....	660	7,440	31,060

"QUEEN."

Hard-pan.....	.....	2,050	500	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,550
Boulders.....	176	196	572	516	728	.....	.....	.....	.....	.....	164	1,380	3,732
Gravel.....	.....	.....	4,460	3,670	3,868	.....	.....	.....	.....	.....	1,000	5,996	18,994
Clay.....	2,912	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,912
Clay and stone.....	3,988	7,442	512	2,526	.....	.....	.....	.....	.....	.....	.....	.....	14,468
Totals.....	7,076	9,688	6,044	6,712	4,596	.....	.....	.....	.....	.....	1,164	7,376	42,656

CLASSIFICATION and Quantities of Material removed by Dredges, during the Year ended 30th June, 1896.—*Concluded.*

“ST. LOUIS.”

Description of Material Dredged.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Totals.
	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.	c. yds.
Hard-pan	330	640	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	970
Boulders	80	85	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	205
Clay	3,040	3,075	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,715
Clay and stone .....	.....	155	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	155
Sand—ordinary	600	546	825	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,971
Totals	4,050	4,946	1,020	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,016

“No. 9”

Clay	26,800	34,750	22,200	13,150	.....	.....	.....	.....	.....	.....	.....	.....	125,125
Sand—ordinary	27,950	22,250	22,050	13,700	.....	.....	.....	.....	.....	.....	.....	.....	112,625
Totals	54,750	57,000	44,250	26,850	.....	.....	.....	.....	.....	.....	.....	.....	237,750

“NITHSDALE.”

Hard-pan	258	434	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,602
Boulders	516	311	829	260	.....	.....	.....	.....	.....	.....	.....	.....	2,060
Gravel .....	.....	720	.....	1,330	.....	.....	.....	.....	.....	.....	.....	.....	2,050
Clay and stone	4,589	2,921	2,658	1,230	.....	.....	.....	.....	.....	.....	.....	.....	16,931
Totals	5,363	4,386	3,487	2,820	.....	.....	.....	.....	.....	.....	.....	.....	24,643

Department of Public Works.

DREDGE STATEMENT, showing Material removed at different localities, total amount of Expenditure on each dredge, and average cost per cubic yard.

DREDGE "CHALLENGE."

Location.	Hard-pan.	Boulders.	Gravel.	Clay.	Clay and Stone.	Sand, ordinary.	Sand, fine.	Mud.	Totals.
Meaford.....	4,600	100		2,170					6,870
Thornbury.....	2,980					9,200			12,180
Penetanguishene.....				2,160				1,020	3,180
Midland.....	390			4,710		1,200		900	7,200
	7,970	100		9,040		10,400		1,920	29,430
Total amount of expenditure, \$4,178.91. Cost per cubic yard, 14½ cents.									

DREDGE "ONTARIO."

Fort Erie.....		345							345
Amherstburg.....		594		7,610					8,204
Belle River.....				8,756		3,840			12,596
		939		16,366		3,840			21,145
Total amount of expenditure, \$5,994.35. Cost per cubic yard, 28¾ cents.									

DREDGE "NIPISSING."

Port Hope.....							5,130		5,130
Bowmanville.....							9,270		9,270
Frenchman's Bay.....						4,560			4,560
Newcastle.....							3,990		3,990
Prescott.....				6,000		2,100			8,100
				6,000		6,660	18,390		31,050
Total amount of expenditure, \$5,273.55. Cost per cubic yard, 16¾ cents.									

DREDGE "QUEEN."

Trenton.....		176			2,240				2,416
Prescott.....	2,550	196		2,912	9,702				15,360
Belleville.....		3,360	18,994		2,526				24,880
	2,550	3,732	18,994	2,912	14,468				42,656
Total amount of expenditure, \$5,982.25. Cost per cubic yard, 14¼ cents.									

DREDGE STATEMENT showing Material removed at different localities, &c.—*Concluded.*

DREDGE "ST. LOUIS."

Location.	Hard-pan.	Boulders.	Gravel.	Clay.	Clay and Stone.	Sand, ordinary.	Sand, fine.	Mud.	Total.
Dorval				1,770					1,770
Chateauguay.....	970	205		1,270	155	1,425			4,025
Ile de Gros Bois				3,675		546			4,221
	970	205		6,715	155	1,971			10,016
Total amount of expenditure, \$1,967.04. Cost per cubic yard, 19½ cents.									

DREDGE "NITHSDALE."

Ste. Placide.....		300			2,924				3,224
Longueuil	692	1,616	2,050		8,474				12,832
Laprairie.....	910	144			7,533				8,587
	1,602	2,060	2,050		18,931				24,643
Total amount of expenditure, \$8,258.41. Cost per cubic yard, 33½ cents.									

DREDGE "No. 9."

River Kaministiquia..				125,125		112,625			237,750
Total amount of expenditure, \$7,912.50. Cost per cubic yard, 3½ cents.									

Department of Public Works.

PROVINCE OF MANITOBA.

DREDGING AT THE MOUTH OF THE RED RIVER, LAKE WINNIPEG.

Dredging a channel through the bar at the mouth of the Red River, Lake Winnipeg, in order to give uninterrupted navigation to lake boats, and thereby develop the industries associated with the lake, began in 1884, and the work of dredging has been carried on each succeeding year since then.

Previous to 1893, dredging operations were carried on at the mouth of the west channel. Transferring operations from the west to the east channel, was occasioned by the flood and heavy ice flow of 1893, which caused the one to fill in and very effectually scoured out the other.

The work done in the west channel, however, cannot in every sense be considered as thrown away, for uninterrupted navigation was maintained there, while previous to 1893, the extent of the bar opposite the east channel (now used) would have required at least three seasons' work to give passage through it.

After dredging operations closed down on August 24th, 1895, the necessary repairs to the plant were gone on with.

After the work authorized to be done in the west slough, near West Selkirk, was completed, the dredge was removed to the lake, the channel permanently staked out for the season, and dredging operations began June 1st.

The statements attached, in duplicate entitled "classifications of disbursements" and "material removed," shows as follows:—

Total expenditure (1895-96).....	\$10,596.46
Material removed ".....	48,120 cubic yards.
Average cost per cubic yard.....	22 cents.

The output during 1895-96, is in excess of the previous year by 4,000 cubic yards. The average cost per yard, one cent less. The lake trade has increased very much, during the past year, in fish, lumber and general business.

The value of fish caught during the past year represents about \$300,000.00. Steamboats, tugs, sail and row boats represent a value of \$146,000.00. Tonnage equals 2,597 tons. Men employed, fully 1,200.

DREDGING AT THE WEST SLOUGH WEST SELKIRK.

The west slough is an arm of the Red River, near West Selkirk.

This slough or arm is the only safe place as winter quarters for the dredging plant and steamboats, being protected from the ice flow during flood season, and is in every way convenient in connection with hauling out boats for repairs, etc., etc.

It is decidedly in the interests of navigation that this slough be kept navigable, and with that intention some dredging has been done there, a little in 1887, 1889, and 1893. By this the channel was very much improved from the mouth of the slough up to the fishing establishment (about three fourths of the distance to head of slough.) There is a saw-mill and a large fishery establishment on the slough. The fish company, in connection with the cold storage department, put in a plant this year, at an expenditure of \$25,000.00.

In recognition of a petition from vessel owners, navigators and others of West Selkirk, praying that further dredging be done in the slough, one week's dredging was done where required, before placing the dredge at work at Lake Winnipeg. This work was accomplished satisfactorily, the quantity of material removed amounting to 3,840 cubic yards.

CLASSIFICATION of Disbursements of the Dredge "Winnipeg" and Tug "Sir Hector" during the Year ended 30th June, 1896.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Wages	625 00	625 00	612 00	302 50	143 83	80 00	80 00	80 00	120 00	480 00	614 67	620 00	4,383 00
Coal	702 10	560 00	192 89	104 51	27 33	.....	.....	.....	.....	164 66	670 67	670 33	2,603 10
Provisions	288 03	219 31	147 98	.....	.....	.....	.....	.....	248 53	.....	203 94	264 50	1,465 17
Equipment	12 00	147 98	.....	.....	.....	.....	.....	.....	.....	429 36	183 53	.....	1,592 04
Repairs	53 21	32 07	269 42	188 18	.....	.....	.....	.....	.....	.....	231 28	44 50	1,248 03
Contingencies	33 50	56 17	71 44	15 00	.....	.....	.....	.....	.....	.....	79 81	49 20	305 12
Totals	1,713 84	1,640 53	1,145 75	610 19	171 16	80 00	80 00	80 00	368 53	1,074 02	1,983 91	1,648 53	10,596 46
Working expenses	1,650 63	1,608 46	.....	422 01	171 16	80 00	80 00	80 00	120 00	644 06	1,250 00	1,604 03	7,720 95
Repairs, ordinary	53 21	32 07	1,145 75	188 18	.....	.....	.....	.....	248 53	429 36	733 91	44 50	2,875 51
Totals	1,713 84	1,640 53	1,145 75	610 19	171 16	80 00	80 00	80 00	368 53	1,074 02	1,983 91	1,648 53	10,596 46

Department of Public Works.

STATEMENT showing the Material removed at different Localities, the Total Annual Expenditure on each Dredge, and the average cost per cubic yard.

Localities.	Hard-pan.	Boulders.	Gravel.	Clay.	Clay and Stone.	Sand, Ordinary.	Sand and Clay.	Mud.	Totals.
				c. yds.			c. yds.		c. yds.
Mouth of Red River, Lake Winnipeg, at east channel							43,920		43,920
West slough of Red River, near West Selkirk				3,840					3,840
Red River, at Fish Hatchery, West Selkirk				360					360
Totals				4,200			43,920		48,120

Total expenditure during fiscal year 1895-96, \$10,596.46.
Average cost per cubic yard, 22 cents.

PROVINCE OF BRITISH COLUMBIA.

DREDGING VICTORIA HARBOUR, AND THE SNAG BOAT "SAMSON."

The vote for this service was to cover the combined running expenses of the dredge "Mud Lark" operating in Victoria Harbour, and the snag boat "Samson" operating on the Fraser River. This appropriation was augmented by the amounts aggregating \$1,357, charged to the Marine Department, and credited to dredging British Columbia from month to month during the year for the services of the snag boat "Samson" in attending to the buoys marking the channel at the mouth of the Fraser River. Therefore the amount available for the combined expenditures during the past year was \$11,357.

Dredge "Mud Lark" and plant.

The sum of \$5,307.98 has been expended in defraying the running expenses of the above from the 1st July, 1895, to the following 14th December and in payment of the watchman's wages from the latter date to the 30th June last.

The general details of the disbursements are given hereunder, but will be found in more extended form by the month in the classification of disbursements appended hereto:—

Wages, including watchman since plant was laid up.....	\$3,650 58
Provisions.....	573 09
Stores.....	198 54
Equipment.....	131 02
Water.....	24 47
Coal.....	723 78
Contingencies.....	6 50

Total..... \$5,307 98

During the first mentioned period dredging operations were carried on in Victoria Harbour, and the quantities of material removed at the several localities in the harbour are shown in the following tabulated statement:—

Locality.	Period.	Quantity.	Description.
James Bay...	27th July to 11th October.....	13,200 cubic yards...	Hard brown and blue clay and rock.
Outer Wharf...	11th October to 15th November	8,500 cubic yards...	Hard sand and gravel.
James Bay...	15th November to 30th Nov....	3,900 cubic yards....	Hard brown and blue clay.
	1st December to 14th December	.....	Laid up.
		25,600 cubic yards...	

The actual dredging time consumed in the removal of this quantity was 460 hours, or 46 days.

The smallness of the quantity of material removed is chiefly attributable to various mishaps which occurred to the plant. (1.) A fire broke out on board the tender "Princess" which destroyed the deck house and caused a delay of 24 days; (2.) the boiler of the "Princess" developed frequent and annoying defects from time to time, which of course had to be attended to at once, and these effects ultimately became so serious as to render the further use of the steamer hazardous; and (3.) the doors and rollers of the hopper scows gave way from time to time unexpectedly, occasioning many vexatious stoppages.

The following is a statement accounting for the possible working time covered by the period the plant was in operation:—

Possible working days.....	144
Actual ".....	46
Repairing days.....	47
Stormy ".....	2
Sundries, including time moving, coaling, and laying up days.....	46½
Holidays.....	2½
	— 144

When the plant was laid up on the 14th December it had all been previously properly prepared and a reliable watchman left in charge.

The disbursements made in connection with repairs and renewals effected to the plant, embracing the cost of materials, and labour outside of that afforded by the regular crew, amounted to \$2,155.60 in detail, as follows:—

Repairs and renewals to boiler and machinery "Mud Lark".....	\$ 21 42
Repairs and renewals to hull "Mud Lark".....	45 65
Repairs and renewals to hopper scows.....	107 38
1½ in. pliable steel wire hoisting rope.....	178 20
Repairs and renewals to boiler and engines "Princess".....	669 81
Repairs and renewals to hull, house and equipment "Princess".....	706 56
General repairs and renewals.....	426 58
Total.....	\$ 2,155 60

Snag Boat "Samson."

The liabilities incurred and paid in connection with the running expenses of the snag boat "Samson" while engaged in various ways on the Fraser River amounted to \$8,054.97 during the past year. This sum was charged to the several services in the following proportions:—

Department of Public Works.

(1.) Dredging, B. C.....	\$4,669 32
Marine Department.....	1,357 50
	\$6,026 82
(2.) Fraser River	2,028 15
	\$8,054 97

The following are the details of these expenditures which will, however, be found extended by the month in the "classification of disbursements" appended hereto:—

(1.) Wages.....	\$ 4,186 63
Provisions.....	754 22
Stores.....	67 99
Equipment.....	130 68
Water.....	45 00
Coal.....	593 43
Wood.....	201 25
Contingencies.....	47 62
	\$ 6,026 82
(2.) Wages	\$ 1,609 17
Provisions.....	286 48
Stores.....	24 80
Wood.....	95 00
Contingencies.....	12 70
	\$ 2,028 15

The "Samson" was in commission 332 days, and after deducting \$40.00 watchman's wages from the above sum of \$8,054.97, the running of this boat, exclusive of extraordinary repairs and renewals, averages about \$24.00 per day. Owing to the smallness of the appropriation last year, but very little repairs and renewals, amounting only to \$320.00, were effected, but the general average cost per day for such is about \$6.00.

The following is a tabulated statement of the working time the "Samson" was engaged upon the several services needing her assistance in connection with the Fraser River, including the period she was laid up during last winter:—

Removing snags, 265 in number between Chilliwack and the mouth of the river.....	33·75 days
Sounding and surveying.....	76·00 "
Channel improvement and bank protection.....	52·30 "
Constructing repairing ways.....	20·00 "
Inspecting.....	6·00 "
Painting and repairing.....	33·00 "
Buoy service.....	45·25 "
Fog, wind, rain and ice detentions.....	7·50 "
Raising ferry pontoon New Westminster, and removing other obstructions.....	2·30 "
Repairing winter quarters	3·50 "
Laying up.....	1·00 "
In winter quarters.....	28·00 "

Total 308·70 days.

On the 16th June last, the engineer reported through the captain, that the shaft was cracked at both ends in the journals. The captain also reported about the same time that the top, sides, bottom planking in several places, four hog posts and other parts were seriously decayed. In consequence, and there being no money available for repairs, the boat was laid up.

CLASSIFICATION of disbursements of the dredge "Mud Lark" during the Year ended 30th June, 1896.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Wages.....	110 00	615 00	605 00	605 00	583 31	849 27	.....	40 00	40 00	40 00	40 00	231 00	3,650 58
Coal.....	.....	.....	.....	613 78	.....	13 22	.....	.....	.....	.....	.....	11 25	723 78
Water.....	.....	.....	.....	.....	109 06	111 94	2 40	.....	.....	.....	.....	.....	24 47
Provisions.....	22 72	102 78	57 73	166 46	30 82	19 19	9 13	3 80	.....	.....	3 00	.....	573 09
Stores.....	.....	.....	.....	132 60	.....	.....	49 50	.....	.....	.....	.....	.....	198 54
Equipment.....	.....	.....	.....	38 57	.....	.....	.....	.....	.....	.....	.....	.....	131 02
Repairs.....	352 47	262 51	81 00	625 86	173 95	30 88	52 94	70 50	473 76	14 25	.....	17 48	2,155 60
Contingencies..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6 50	6 50
Totals.....	485 19	980 29	743 73	2,182 27	899 14	1,024 50	113 97	114 30	513 76	54 25	43 00	309 18	7,463 58
Working expenses.....	132 72	717 78	682 73	1,566 41	725 19	993 62	61 03	43 80	40 00	40 00	43 00	291 70	5,307 98
Repairs, ordinary.....	79 28	186 01	.....	146 18	128 95	30 88	52 94	.....	42 68	14 25	.....	17 48	698 65
do extraordinary.....	273 16	76 50	81 00	479 68	45 00	.....	.....	70 50	431 08	.....	.....	.....	1,456 95
Totals.....	485 19	980 29	743 73	2,182 27	899 14	1,024 50	113 97	114 30	513 76	54 25	43 00	309 18	7,463 58

DREDGING PLANT.

The dredging plant belonging to the department is as follows :—

IN THE MARITIME PROVINCES.

The propeller hopper dredge "St. Lawrence."
 " " " " "Canada."
 The dipper dredge "New Dominion" and 4 scows.
 " " " " "Prince Edward" 3 scows and water boat.
 " " " " "Geo. McKenzie" 4 " "
 One stone lifter, boiler, engine and large grips.

IN QUEBEC AND ONTARIO.

The elevator dredge "No. 9," 3 scows and tug "Delisle."
 dipper " " "Queen," 2 " " " "Ottawa."
 " " " " "Nipissing," 2 " " " "St. Paul."
 " " " " "Ontario," 3 " " " "St. John."
 " " " " "St. Louis," 2 " " " "Sensation."
 " " " " "Challenge," 2 " " " "Trudeau."
 Stone lifter No. 1.

IN MANITOBA.

The dipper dredge "Winnipeg," tug "Sir Hector," 2 scows and coal barge.

IN BRITISH COLUMBIA.

The snag boat "Samson."
 The dipper dredge "Mud Lark," 3 scows and tug "Princess."

SHIP CHANNEL, RIVER ST. LAWRENCE.

Four elevator dredges, tugs "John Pratt," "St. James," "St. Francis," "C. J. Brydges," "M. F. Parsons," "Cartier," 2 stone lifters, 2 coal barges, 12 dump scows of 80 yards capacity, 2 scows of 150 yards capacity, 1 sounding scow, 2 coal scows and 2 winch scows.

NEW DREDGING PLANT.

One elevator dredge for the ship channel—sister dredge to the "Laval."
 One steel tug as tender to new dredge.
 One steel dipper dredge for the maritime provinces.
 Two steel hopper barges for salt water service.
 The above vessels were in course of construction at the end of the fiscal year.

Department of Public Works.

DREDGE VESSELS, REPAIRS.

The following amounts were expended on repairs to the dredges, tugs, etc.

MARITIME PROVINCES.

" St. Lawrence ".....	\$2,173 24
" Canada ".....	2,376 50
" New Dominion ".....	4,533 19
" Prince Edward ".....	1,561 58
" Geo. McKenzie ".....	1,488 03

ONTARIO AND QUEBEC.

" Challenge ".....	880 45
" Ontario ".....	2,576 51
" Nipissing ".....	1,728 74
" Queen ".....	1,369 07
" St. Louis ".....	459 51
" No. 9 ".....	2,005 04
" Nithsdale ".....	162 68

MANITOBA.

" Winnipeg ".....	2,875 51
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BRITISH COLUMBIA.

" Mud Lark ".....	2,155 60
" Samson ".....	320 00

The plant employed on the ship channel of the River St. Lawrence between Montreal and Quebec was repaired, the expenditure being as follows :—

" Laval ".....	\$1,462 62
" No. 8 ".....	3,180 70
" No. 11 ".....	3,350 35
" No. 12 ".....	3,539 06
" John Pratt ".....	245 50
" St. James ".....	644 61
" Cartier ".....	303 51
" St. Francis ".....	703 59
" M. F. Parsons ".....	348 68
" C. J. Brydges ".....	279 91
Stone lifter, scows, etc.....	234 82

GRAVING DOCKS.

The Dominion Government owns and maintains three graving docks, viz.: the Lorne dock at Lévis, Quebec: the dock at Kingston, Ontario, and the Esquimalt dock, at Esquimalt, near Victoria, British Columbia.

LÉVIS GRAVING DOCK.

The Lévis Graving Dock is situated at St. Joseph de Lévis, on the southern shore of the St. Lawrence, two miles east of Quebec. The general plan of the dock is a rectangular figure, 445 feet in length by 100 in breadth, with a circular head 31 feet radius, with a square offset on each side of 19 feet, forming the top and width of the timber slides and stairs, which are placed in pairs side by side at either end. The width of the inner invert, between the main body of the dock and the caisson berth is eight feet, making the total length of the dock inside the first meeting place of the caisson 484 feet.

The wing wall on the eastern side of the entrance extends 150 feet from the caisson into the river, while that on the western side extends 270 feet.

The depth of water on the sill is $26\frac{1}{2}$ feet at high water spring tides, and $20\frac{1}{2}$ at high water neap tides, while the width at the entrance is 62 feet.

The dock has been kept in excellent working condition with the ordinary care to the pumping machinery. In the latter part of May last the caisson berth and recess were cleaned, sediment having accumulated in the bottom to a depth of about 10 inches: The bottom, sides and ends of the caisson were scraped of all rust and painted two coats.

KINGSTON GRAVING DOCK.

This dock is situated in the centre of the harbour at the foot of Union Street. It is built of stone laid in cement, has good yard accommodation, and can take in any vessel that passes through the Welland Canal.

The dock is 280 feet long, from the inner face of invert to the foot of the stairs, and from the inner face of the caisson to the foot of the stairs is 290 feet. This length can be increased by 13 feet, by placing the caisson on the apron line. The width of dock at floor level is 47 feet and at coping 79 feet. The depth is 20 feet 6 inches. The rudder well commences at 10 feet from the inner face of the invert and is 3 feet wide, 12 feet deep and 24 feet long. The keel blocks extend the whole length of the dock at 5 feet centres. There are 32 bilge blocks placed at 10 feet centres. The depth of water on the sill at low water is 16 feet, and at high water 18 feet.

The only new work that was undertaken and carried out in connection with this dock during the fiscal year ended the 30th June, 1896, was the putting in of sprocket wheels and chains (specially made to order) in lieu of the old drums and cables for operating the caisson, which has proved in every way a great success, and will effect a large saving in the matter of cost for cables. The cost of the sprocket-wheels and chains in question was \$925.00.

The engines, pumps and boilers are in first class working order. The grate bars of the large boilers may require to be renewed shortly.

ESQUIMALT GRAVING DOCK.

This dock commenced by the Provincial Government of British Columbia, was assumed by the Dominion Government and completed and opened in July, 1887.

Department of Public Works.

It is situated in a small cove in Esquimalt Harbour, and the following is a description of the dock :

	Feet.	Inches.
Length of dock over keel blocks.....	430	
Width of inner invert.....	20	
" caisson chamber.....	15	10
" outer invert.....	15	
Total length of dock.....	480	10
Width of dock at coping.....	90	
" " entrance.....	65	
" " floor of dock.....	41	1
Radius of invert.....	16	6
Depth of water on invert at low water.....	24	6
" " " ordinary high water.....	26	6
Total depth of dock above invert.....	33	6
Height of invert above floor of dock.....	3	
" keel block.....	2	10
Length of ".....	4	
" caisson (inside facing).....	67	
" " (outside facing reversible).....	71	
Width of caisson over teak meeting faces.....	15	8

On the 28th November last, one half of the large spur driving wheel of the main pumps broke, while the dock was being pumped out for the purpose of rearranging the keel blocks preparatory to docking a ship. Tenders were immediately called for a new wheel and the contract was awarded to the Victoria Iron Works, the lowest tenderer. On the 11th of the month following the machinery was in working order. Fortunately but little damage was done to the rest of the machinery by the flying pieces of metal. To guard against protracted delay, an extra half wheel was made ready to be fitted should a similar accident again occur.

Various other necessary repairs and renewals have been made from time to time to the machinery and pumps. The whole are kept in as efficient a state as possible.

A planer has been added to the equipment of the dock capable of taking in the largest brass-casting used in either pumps or engines. This will enable the majority of the repairs and renewals, not of too large a character, to be done on the premises.

SLIDES AND BOOMS.

The Dominion Government owns and operates slides and booms to facilitate the passage of timber and logs on the River Ottawa and tributaries, on the River St. Maurice, and in the Trent and Newcastle district between Fenelon Falls and Heeley's Falls.

Information relative to these works will be found in the appended reports by Mr. G. P. Brophy, Superintending Engineer of the Ottawa River Works; of Mr. Thos. Berlinguet, Engineer in charge of the River St. Maurice Works; and of Mr. R. B. Rogers, superintending engineer of the Trent and Newcastle District.

OTTAWA RIVER WORKS OFFICE,

OTTAWA, 23rd September, 1896.

LOUIS COSTE, Esq.,

Chief Engineer, Department of Public Works.

SIR,—As requested by you in communication No. 1934, of 15th July last, I have the honour to submit the following report relating to the works under my charge on the Ottawa River and its tributaries, for the fiscal year ended 30th June, 1896.

During the summer and autumn months of 1895, rather a low pitch of water was found in some of the tributary streams, so that portions of the drives of logs were somewhat delayed. The operations of the lumbermen are gradually being extended in the remote timber berths of the forest belts, and that of itself accounts, in some measure, for late arrivals at the lower works. The foundations of the river structures having been examined at low water season, the necessary repair and reconstruction work was commenced and continued at the proper time during the winter and spring months, preparatory to the opening of navigation of 1896, and may be described as follows:—

REPAIRS AT STATIONS ON THE OTTAWA RIVER.

(*Main Stream*) *Carillon Station*.—At this place the bulkhead platform was renewed, the apron timbers repaired and the guide booms partially replanked and strengthened.

Hull or North Chaudière Station.—The sheeting of the bottom of the slide was renewed in places where worn out and decayed; the boom planking patched; the stop-log checks faced up; the apron and boom chains and attachments adjusted and the station house, sheds and fences repaired.

Ottawa or South Chaudière Station.—The work done here was in splicing and patching boom at head of 2nd slide; repairing stop-logs at 2nd bulkhead; taking soundings and making measurements in timber channel above upper slide entrance; strengthening support post below stop-logs on northerly side of 2nd bulkhead; unwatering slide to admit of removal of stone from piers and the re-filling of same; new oak post set in position, a splice having been effected above with bolts and plates; securing booms and aprons against ice shoves; re-shingling roof of large store-house; repairing fences and patching the bottoms of slides.

Bridges at Ottawa and Hull and roadway or causeway between these cities. After the unpaved portions of the roadway and bridge approaches had been thoroughly cleaned, a coating, 5 inches thick, of brooken stone was laid thereon; but the traffic here is so great and the loads so heavy that no lasting improvement can be made until some system of paving with more durable materials is adopted. The Hull slide bridge had its timbers and planking renewed; new stringer pieces laid under the whole length of the sidewalk and corbels inserted to support the same. The westerly half of the roadway of the Union Bridge was repaired throughout its whole length, a sheeting of 3 inch white oak plank having been laid on the bottom, with supports of 4 inch oak laid at regular intervals of 6 feet and checked down on the beams, the top plank of 3 inch elm was laid at an angle of 45° with the centre line of bridge. On the westerly side of the line of iron bridges over the Chaudière slide and hydraulic channels, a number of the floor timbers had to be renewed and 3 inch elm planking substituted for that worn out. The whole of the floor beams and planking of the southerly addition which increases the width of the Sapper's Bridge over the canal in this city, having, on examination, been found decayed and unserviceable, a renewal of these parts had to be effected.

Maria Street Bridge required attention, and the roadway and sidewalk planking repaired where worn through. It may be stated that, from time to time the roadway and bridges between Ottawa and Hull were scraped and cleaned; the drainage outlet pipes and the catch drain gratings kept clear and in winter the snow obstructions removed.

Chats Station.—The floor plank of the long slide here had become very much worn in many places and was repaired with elm plank and on the sides, the same description of material was used for patching, where required. The timber apron at foot of slide was renewed and three new maple stop-logs were furnished for the bulkhead at the entrance of canal.

Mountain Station.—At this place certain measurements were taken in order that a specification of required repairs might be made.

Calumet Station.—The work done here consisted of blasting and removing rocky reefs and projections that at the season of low water interfered with the running of

Department of Public Works.

timber at the foot of the 3rd slide; rebuilding about 125 feet in length of the side pier near the lower end of the 3rd slide which had become very much decayed and threatened to fall into the channel, this pier diverts the current from below the chute, as otherwise it would drive the cribs against the shore; patching bottom plank in 1st and 3rd slides; covering with plank the top of bulkhead and the bridge over the 1st slide; putting additional blocks and new sill under apron at the foot of the 2nd slide and repairing the handrails of bridge.

Joachim Station.—Preparatory to the execution of necessary repairs here an examination of the works was made.

Rocher Capitaine.—At this station, a portion of the bottom planking of the slide was repaired and the upper section of a pier at the outer end of flat dam (which had been damaged by the floods of the spring of 1895) was rebuilt.

REPAIRS ON TRIBUTARIES OF THE OTTAWA.

Gatineau River.—At the outlet of Pond Creek, in a channel through which the timber and logs pass from the series of improvements on the Gatineau to the rafting area on the northerly side of the Ottawa, a large deposit of sand, bark and other debris had to be excavated and removed, as this obstruction retarded the operations of the lumbermen, certain portions of the booms were straightened, new cap pieces furnished and the chain attachments adjusted. The workmen's camp-house and the fences were repaired and the planking of the bridges over the old and new canals maintained in a state of efficiency.

Madawaska River.—At Chain Rapids the boom which had been displaced was brought back to position and secured; the planking of the slides where defective made good and the bulkhead repaired. At High Falls the stop-log checks of both the bulkheads were re-faced and the sides of piers lined with maple plank; the boom between the upper and lower bulkheads of slide was strengthened by the use of additional screw-bolts and the main guide boom at the slide entrance and the waste gates were overhauled and repaired.

At Barrett's Chute, the flat dam, 125 ft. long, on the northerly side, furthest up stream, was partially rebuilt, the new foundation timbers being bolted to the rock bottom.

Near the foot of Calabogie Lake a boom was placed across the Mill Channel; this boom is about 1,060 feet long and is kept in position by stone-filled support piers.

At Little Rapids, four projecting reefs were removed from the log channel in front of the dam and the apron at the rear which had been battered by logs passing over the crest, was repaired.

At Ragged Chute, the main dam was raised with the view of turning a greater volume of water into the log channel and also deadening the current against guide-boom leading to timber chute, as formerly logs were drawn under the booms and over the crest of the dam at time of high water, involving considerable expense to the lumbermen as they had to be drawn back by teams when the log-sweeps took place.

At Bailey's Chute the outer ends of the wing dams were patched, portions of them having been carried away during the season of high water.

Coulouge River.—The principal repairs executed on this stream were those at pier No. 4, supporting main guide boom near head of slide above High Falls. This pier was emptied of its stone-filling, torn down to low water level and rebuilt with new timbers to the top and the stone-filling replaced, pier No. 2 at the upper end of guide boom was also rebuilt above the water level. The single stick guide boom had its timbers dressed and converted into a double boom by having new timbers bolted on for a distance of 675 feet. Two piers near the village of Fort Coulouge were repaired by facing the corners with plank. The planking on the sides and bottom of the long slide having been much worn, renewals had to be effected at various places and new posts, braces and key-blocks substituted for those worn out and decayed. About 300 lineal feet of foot-boards had to be replaced on the top of posts on the side of slide, and owing to the very great pressure to which the slide is

subjected by the body of logs passing through it, portions of the structure had to be brought into alignment and the sills levelled up. A section of the main dam above the chute was wrecked by the ice shoves of last spring and as a temporary expedient a pier was placed in the gap, so that a water supply for the slide could be maintained.

Black River.—The following repair works were carried out on this stream:— Replacing with sound materials worn out timbers and plank in the sides and bottom of the High Falls slide; making and placing in position new stop-logs; driving in projecting spikes in the planking of slide; unwatering channel by the use of temporary dam; splicing and sheeting glance boom and furnishing new stay timber for same and planting new oak snubbing post in side pier at the head of slide.

On the Petewawa and Dumoine rivers it was deemed advisable to have an inspection and measurements made preparatory to the execution of certain necessary repairs which must be proceeded with at an early date.

RE-CONSTRUCTION.

The work done under this head was on the Petewawa River where at Crooked Chute it was found that the slide bottom was so much worn as to require complete renewal, and as nothing in the timber line but hardwood would stand any length of time, and as this could only be obtained by a long haul of twenty miles over a difficult road and at very great expense, it was found that a more economical protection could be afforded by laying 6 inch by $\frac{1}{2}$ inch flat iron bars longitudinally with small intervals on the bottom. The work was done on this principle and the ends of boom pieces and stays dressed anew, while defective posts and sills in the slide were replaced by sound ones.

At Bois dur Station the work of blasting obstructions from the bed of the river was undertaken with the view of abandoning the slide. The portion of the work done has had a very good effect on this season's running of timber and logs and at the stage of lowest water this autumn, it is intended to carry out to completion the blasting necessary to clear the channel. The cost of this work will be very much less than that of the reconstruction of the slide, which is in a very dilapidated condition; while the charge for maintenance will be comparatively small involving only the repairing of guide booms and support piers. There will be also a saving of time for the raftsmen, as the drives can be much more expeditiously taken down the improved river bed than through a slide.

Cedar Lake dam.—The bulkhead pier on the north side was partially rebuilt and a new pier placed about 300 feet above the dam for the purpose of supporting guide boom leading to the sluiceway and at the extreme southerly end of dam, a pier 18 feet by 5 feet by 4 feet was built to fill the gap caused by a washout.

At Devil's Chute a pier dam 72 feet by 9 feet by 7 feet was built in the northerly channel between an island and the shore to raise the water in the southerly outlet and prevent jams.

The bed of the stream was improved for facilitating the descent of timber, &c., by blasting and removing rock obstructions at the following rapids on the upper reaches of the Petewawa River viz., "Cedar," "Sault," "Devil's Chute," "Sawyer," "Squirrel," "Memo," and "Ragged Chute."

The water this spring rose to a great height in the Ottawa and tributary rivers, and damage to a considerable extent was done at some of the stations by ice shoves and the pressure of the floods, notably at High Falls on the Coulonge River where a section of the main dam was displaced and carried away, the substructure of the slide near the chute pushed out of alignment, and the piers above slide entrance partially wrecked.

To control the floating masses of logs and timber at the time of highest water, was attended with great difficulty; but at a later period, the pitch of water was favourable for driving and on most of the streams, therefore, a satisfactory sweep for the season of 1896 may be augured.

Department of Public Works.

The following statement, which is copied from a return furnished by the collector of slide dues in your department, shows the quantities of the various descriptions of timber that passed the Government works, together with the revenue accrued as tolls for the fiscal year covered by this report :—

Square timber.....	15,124	pieces.
Saw-logs.....	4,116,705	“
Shingle logs.....	8,598	“
Boom timber.....	142,623	“
Railroad ties.....	88,813	“
Fence posts.....	32,914	“
Cedar logs.....	19,934	“
	4,424,711	“ and 8,239½ cords pulpwood.

The revenue accrued on the above was \$49,328.04.
In respectfully submitting the above,

I have the honour to be, sir,

Your obedient servant,

GEO. P. BROPHY,

Supt. Eng'r O. R. Works.

THREE RIVERS, 20th August, 1896.

LOUIS COSTE, Esq.,
Chief Engineer
Department of Public Works,
Ottawa.

SIR,—As requested by your communication, No. 1933, of the 15th ultimo, I have the honour to submit the following report on the works under my charge on the St. Maurice River for the fiscal year ended 30th June last.

The freshets of the season 1895 were as usual. The river commenced to rise at the beginning of April and reached its maximum height on the 23rd April, corresponding to 19·7 feet above low water.

After the 3rd of June, the water commenced to recede rapidly and reached its minimum height on the 14th September, 1895, corresponding to 2·8 feet on gauge at Grandes Piles.

The fluctuation of the water level has been great during the season, varying from 3 to 14·7 feet, giving a high pitch of water for the descent of the logs.

During the working season in 1895, for the descent of the logs, from the 16th April to 30th October, the water level rose during 53 days and receded during 97 days, and was at a stand still during 24 days.

Out of the 190 days, we had 81 days when the river gave a good pitch of water for the floating of the logs.

The average height of water for the working season was 5·1 feet above low water summer level.

At the time of low water, an examination was made of the foundations of the river structures; and, as soon as it was possible to do so, the necessary repair and reconstruction work was begun and continued after the season of navigation had closed, which may be described as follows :—

At Grandes Piles Station.—In the spring of 1894, ice shoves wrecked some five of the boom support piers (No. 5, 6, 7, 8 and 12)—several had to be rebuilt (Nos. 12, 13 and 14) others were partially taken down and had the damaged timbers

removed and replaced by new ones; plank fenders spied on the exposed sides of the piers; snubbing posts planted and the stone filling brought up to level, also 1,663 feet of single boom were renewed at Les Plaines, below Grandes Piles Falls.

At Grand'-Mère Station.—Slight repairs were made to the booms above and below the falls. Additional boom chains were provided for the work here and certain minor repairs carried out.

At Shawenegan Station.—Five anchor piers (Nos. 77, 78, 79, 80 and 81) were built with 700 feet of three-ply booms, above the Shawenegan falls. The bottom and sides of the slide were partially repaired by replacing the worn-out timber and planking with new material, the projecting spikes in the bottom and sides of the slide were counter sunk. Slight repairs were made to the house occupied by the boom master at Shawenegan Bay.

At the beginning of January, 1896, the highest flood ever known on the river in winter time occurred, and grave fears were entertained for the safety of the booms. About 800 feet of the booms at Shawenegan Bay were totally destroyed in the fall at the Grès.

A quantity of chain was procured for the booms at this place and the fastenings made secure.

At Three Rivers Station.—Pier No. 33 at Ile aux Cochons had to be rebuilt from the water's edge, others were partially taken down and had the damaged timbers removed and replaced by new ones, mooring posts were placed where necessary. Additional chains were provided to increase the capacity of the booms above the railway bridge.

On the 31st December, 1895, water rose considerably on the River St. Maurice, ice moved at the railway bridge and carried about two thousand feet of booms into the St. Lawrence and several piers were considerably damaged.

The following statement, furnished by the collector of slide and boom dues in your department, shows the quantities of the various descriptions of timber that passed the Government works, for the fiscal year covered by this report:—

Statement of the number of saw-logs, etc., passed through the St. Maurice River works during the season of 1895.

	Pieces.
Saw-logs	763,597
Pulp wood.....	400,013
Total.....	1,163,610

The revenue accrued was \$21,358.74.

The amount of expenditure for staff, maintenance, repairs and improvements for fiscal year ended 30th June, 1896, was:—

Staff and maintenance expenses	\$8,114.01
Repairs and improvements:	
Grandes Piles Station.....	1,086.19
Grand'-Mère do	203.37
Shawenegan do	1,901.45
Three Rivers do	2,454.37
Total expenditure for 1895-96.....	\$13,759.39

I have the honour to be, sir,

Your obedient servant,

F. X. THOS. BERLINGUET,

Resident Engineer.

Department of Public Works.

TRENT AND NEWCASTLE DISTRICT,
SUPERINTENDING ENGINEER'S OFFICE,
PETERBOROUGH, 15th July, 1896.

LOUIS COSTE, Esq.,
Chief Engineer of Public Works,
Ottawa.

SIR—I have the honour to submit the annual report on the works under my charge for the fiscal year ending 30th June, 1896.

The works under my supervision in this district are constructed for two purposes, namely, those constructed to facilitate the descent of timber, and those constructed for the benefit of navigation. The former of these are under the control of the Department of Public Works and the latter under the control of the Department of Railways and Canals.

The works are situated along the River Trent (and its upper waters) and Trenton, on the Bay of Quinté, a distance of about 170 miles. This district has a watershed of over 2,000 square miles, which is bounded on the north by the Muskoka and Madawaska rivers.

The regulation of the water from this large watershed, when being used to float down the timber, is a matter of great importance to the many industries situated along the route and to navigation.

The water during the spring was above the average height for this season of the year, but did very little damage to the works. There was good water on the several reaches during the year. The regulations regarding the size of bags of logs were not as strictly carried out as they should be. It is impossible to keep navigation clear in the more contracted parts of the channel unless the logs are brought down in small bags.

The works are now in good condition, and most of the larger works that are required to facilitate the descent of timber are now constructed, so that for some time a comparatively small sum only will be required yearly for this purpose.

The following repairs were executed :

Fenelon Falls.

The booms leading to the slide at the upper entrance were repaired.

Buckhorn.

The slide, booms and piers were repaired.

Burleigh.

The glance booms were repaired.

Katchewannoe Lake.

The boom at Henderson's Narrows was broken during the winter. This was replaced and repaired.

Little Lake.

The piers in the lake which were damaged by the ice were repaired and the boom was also overhauled.

Peterborough.

The slide which was leaking badly was repaired. The piers of the slide were sheet-piled and planked, and a puddle trench was put along the upper end of the slide. A new boom 246 feet in length was placed as a glance to the upper entrance to the slide. Minor repairs were also done at several other stations.

I inclose a table showing the number of pieces of timber which passed through the slides and booms during the past year.

I have the honour to be, sir,

Your obedient servant,

RICHARD B. ROGERS,
Superintending Engineer.

STATEMENT showing the number of saw-logs, &c., &c., which passed through the different slides on the River Trent and Newcastle District Works, for the fiscal year ended 30th June, 1896.

Station.	Pine Saw-Logs.	Boom Timber.	Railway Ties.	Fence Posts.	Long Cedars.	Dimension Timber.	Spruce Logs.	Other Saw-Logs.	Telegraph Poles.
Fenelon Falls.....	243,266	627	52,083	21,191	800				
Buckhorn.....	186,300		3,000					22,000	
Burleigh Falls.....	186,300		91,700	5,276	50	260	842	22,000	
Young's Point.....	194,914	750	91,700	5,276	50	260	842	22,000	1,500
Lakefield.....	194,914	3,407	91,700	5,276	50	260	842	19,854	
Peterborough.....	242,200	4,244	45,100	24,358			1,218	18,640	
Hastings.....	242,200	4,244	45,100	24,358			1,218	18,640	
Heeley's Falls.....									No return.

BRIDGES.

During the year the bridge at Cartier was completed and the construction of a swing bridge across the Burlington Channel leading from Lake Ontario to Hamilton Harbour was commenced, and the work nearly completed at the close of the fiscal year.

Repairs were made to the various bridges in the city of Ottawa; the Portage du Fort Bridge over the River Ottawa; the Battle River Bridge at Battleford; and the Langevin Bridge across the Bow River at Calgary.

BURLINGTON BRIDGE.

For many years past the only means of conveying vehicles and passengers from one side of the Burlington Channel to the opposite, has been a ferry scow and a punt. Of late years the traffic, at this place, has increased to so large an extent that it was found impossible to accommodate the public, and this department prepared plans and specifications for the erection of an iron swing bridge.

Department of Public Works.

On the 22nd August last, a contract was let to Mr. Geo. F. Webb, of Hamilton, to build the masonry, including foundations, for the pivot pier and abutments, for the proposed bridge at this place, for the bulk sum of \$15,799.00.

The work was set out for the contractor on the 10th October last, and the excavation for the foundation of the pivot pier commenced at same time. The caisson was placed in position on the 18th November. Work was continued with but little delay from bad weather, and the whole of the masonry completed ready for the iron superstructure in April last.

A certificate for \$14,000 on account of this work was issued in favour of the contractor on the 14th April last.

The iron work for the superstructure is being delivered and it is expected the bridge will be in working order at an early date.

Total expenditure for dredging \$1,500.

CARTIER.

The village of Cartier is situated on the St. Louis River in the county of Beauharnois, Que., 6 miles from Valleyfield.

A sum of \$250.00 was authorized for the building of the approaches to the bridge erected by this department during the fiscal year 1894-95 over the St. Louis River at this place. This amount was, however, not sufficient to carry out the work, which was completed by the municipalities interested.

The total amount expended by this department was \$247.25.

PORTAGE DU FORT.

The village of Portage du Fort is situated on the North shore of the Ottawa River in the County of Pontiac, Que., 60 miles North of Ottawa.

A sum of \$50.00 was authorized for repairs to the approach bridge. Two of the counter posts and some of the braces were renewed, missing bolts were replaced, and all the bolts in the structure were tightened.

The amount expended was \$49.67.

BATTLE RIVER BRIDGE, BATTLEFORD.

The Battle River bridge spans the Battle River at Battleford, in the district of Saskatchewan.

Battleford is situated at the junction of the North Saskatchewan and Battle rivers.

The bridge was constructed in 1890, by day's labour after being taken out of the hands of the Contractors, Messrs. Heney & Kennedy, and consists of one span 150 feet Howe truss, and two spans of 70 feet each, with trestle approach at north end, and two abutments. In 1892 the bridge was painted and repaired. The bridge requiring repair, the work was begun in July and closed in August, 1895.

The repairs consisted in replanking the trestle approach, and such of the planking taken from the approach, as could be utilized was used in repairing the flooring of the main bridge, and the bridge cross planked to a width of 12 feet in the centre, with 2 inch plank, screwing up all rods and bolts, and making such minor repairs, as were most necessary. Towards the end of the fiscal year further work was done consisting in removing the stone from the pier, and drawing the timbers to place by braces through the corners of 1 inch iron rods, 2 feet 6 inches apart, with iron straps 4 inches wide, $\frac{1}{2}$ inch thick and 8 feet long. The pier was refilled with stone. The filling in behind the pile protection was properly done, also some minor repairs, and painting.

The total sum expended during the fiscal year 1895-96 was \$1,278.96.

"LANGEVIN BRIDGE," CALGARY, ALBERTA.

The "Langevin Bridge" spans the Bow River at the town of Calgary. Calgary is the principal town and railway centre (branch lines of the Canadian Pacific Railway to Edmonton and Macleod) of the district of Alberta. It is also a division station of the Mounted Police.

The bridge is a Howe truss, and consists of three spans and trestle approaches. It was constructed under contract in 1890.

During the freshet of 1894, the piers were undermined to some degree, and the up stream ends of both settled. The down stream ends held to their original bearing. The settling of the piers threw the superstructure very much out of plumb, and not only left the bridge in a very shaky condition, but worse in appearance.

During the year the bridge was repaired, the work consisting in levelling up the piers to their proper level, plumbing the superstructure, putting in pile protection, and rip-rapping up stream end of piers with heavy stone; some minor repairs were also attended to, the whole at a cost of \$1,385.96.

SURVEYS AND EXAMINATIONS.

Surveys and examinations were made of the following localities during the year:—

NOVA SCOTIA.

Arisaig.....	Antigonish.	Merigomish.....	Pictou.
Aspey Bay.....	Victoria	Morden.....	King's.
Bayfield.....	Antigonish.	Moydart.....	Antigonish.
Bear Cove.....	Digby.	McNair's Cove.....	do
Carey's Passage.....	Richmond.	North Sydney.....	Cape Breton.
Cerberus Rock.....	do	Oyster Pond.....	Guysborough.
Cow Bay.....	Cape Breton.	Petit de Grat.....	Richmond.
Cribbin's Point.....	Antigonish.	Pictou Island.....	Pictou.
East Chezzetcook.....	Halifax.	Pleasant Bay.....	Inverness.
Fourchu.....	Richmond.	Port Maitland.....	Yarmouth.
Grand Etang.....	Inverness.	River Hebert.....	Cumberland.
Grand Grève.....	Richmond.	Saulnierville.....	Digby.
Great Tancook Island.....	Lunenburg.	St. Francois Harbour.....	Guysborough.
Hampton.....	Annapolis.	Somerville.....	Queen's.
Kennington Cove.....	Cape Breton.	Stony Island.....	Shelburne.
Lismore.....	Pictou.	Toney River.....	Pictou.
Mabou.....	Inverness.	Trenton.....	do
Main à Dieu.....	Cape Breton.	Trout Cove.....	Digby.
Margaree.....	Inverness.		

NEW BRUNSWICK.

Anderson's Hollow.....	Albert.	Moncton.....	Westmoreland.
Black Brook.....	Northumberland.	Negro Point.....	St. John.
Black River.....	St. John.	Neguac.....	Northumberland.
Burnt Church.....	Northumberland.	Partridge Island.....	St. John.
Campbellton.....	Restigouche.	Petit Rocher.....	Gloucester.
Cape Tormentine.....	Westmoreland.	Pokemouche.....	do
Dalhousie.....	Restigouche.	Quaco.....	St. John.
Edgett's Landing.....	Albert.	Richibucto.....	Kent.
Fort Dufferin.....	St. John.	Rocher Bay.....	Albert.
Gardner's Creek.....	do	Salmon River.....	do
Gray's Island.....	Albert.	Shediac.....	Westmoreland.
Herring Cove.....	do	Shippegan.....	Gloucester.
Hillsborough.....	do	Stonehaven.....	do
Lower Newcastle.....	Northumberland.	Tracadie.....	do
Miramichi.....	do	River St. John.....	

Department of Public Works.

PRINCE EDWARD ISLAND.

Bay Fortune..... King's. Brae Harbour..... Prince. Canoe Cove..... Queen's. Egmont Bay..... Prince. Hurd's Point..... do Lambert's Pier..... King's. Murray Harbuor..... do	New Lóndon..... Queen's. Port Selkirk..... do Rustico..... do Souris..... King's. Tignish..... Prince. Vernon River..... Queen's.
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QUEBEC.

Bic..... Rimouski. Coteau du Lac..... Soulanges. Coteau Landing..... do Gently..... Nicolet. Ile aux Coudres..... Charlevoix. Ile Perrot..... Vaudreuil. Les Eboulements..... Charlevoix. Little River St. François..... do Longueuil..... Chambly. Murray Bay..... Charlevoix.	Oak Point..... Bonaventure. Percé..... Gaspé. Pointe Citrouille..... Chambly. Pointe St. Charles..... Hochelaga. Rivière Blondelle..... Montmorency. Rivière du Loup..... Temiscouata. Rivière Noire..... Charlevoix. St. Lambert..... Chambly. St. Alphonse..... Chicoutimi.
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ONTARIO.

Amherstburgh..... Essex. Bronté..... Halton. Burlington Beach..... Wentworth. Coburg..... Northumberland. Goderich..... Huron. Kingston..... Frontenac. Kingsville..... Essex. L'Original..... Prescott. Owen Sound..... Grey.	Port Burwell..... Elgin. Port Dover..... Norfolk. Port Hope..... Durham. Prescott..... Grenville. Rainy River..... Algoma. River Castor..... Stormont. River Saugeen..... Bruce. River Thames..... Toronto..... York.
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MANITOBA.

Gimli..... Selkirk.	Red River..... Selkirk.
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BRITISH COLUMBIA.

Victoria Harbour.....	Vancouver Island.
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During the year 840 official papers were referred by the secretary of the department to this office for report or action. The letters received from resident engineers and others were about 10,000, and 4,239 were sent out.

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

LOUIS COSTE,
Chief Engineer.

Department of Public Works.

APPENDIX No. 4

REPORT OF THE COLLECTOR OF REVENUE

DEPARTMENT OF PUBLIC WORKS, 1895-96.

Department of Public Works.

REPORT OF THE COLLECTOR OF REVENUE.

DEPARTMENT OF PUBLIC WORKS,
COLLECTION OF REVENUE,
OTTAWA, 30th November, 1896.

E. F. E. ROY, Esq.,
Secretary, Department of Public Works,
Ottawa.

SIR,—I have the honour of submitting my report for the fiscal year ending 30th June, 1896.

I have examined the books and accounts of the different officials under my control, excepting those of the dock master at Esquimalt; and have much pleasure in testifying to their accuracy, and that the rules laid down by the department have been complied with by these gentlemen, who have faithfully accounted for all the revenues collected by them.

With your permission, I will refer to the different sources of revenue seriatim, commencing with that from

SLIDES AND BOOMS.

OTTAWA DISTRICT.

The revenue accrued, including interest; amounted to \$49,400.15 or \$2,711.05 less than the previous year: yet \$400 more than the average revenue anticipated when the tariff was revised in 1894. The revenue accrued would have been much larger, but for the unusually large quantity of logs left in the tributaries of the Ottawa, for want of water to bring them out.

The number of saw-logs which passed through the works was 498,098 pieces more than in 1894-5, but the falling off in the revenue is attributable to the smaller average measurement of the logs, as they are now taking as small as 7 inches in diameter, while but a few years ago, in purchasing logs, the contracts specified that only five per cent of 13 inches and under would be accepted: hence as the lumbermen now bring down the tops of trees which they formerly left in the woods, the measurement of which is very small, it will be readily understood how it is that the tolls being levied on the 1,000 feet B. M. are smaller than in previous years, although the number of pieces was larger.

I have much pleasure in stating that all the revenue accrued during the year ending 30th June last, in the Ottawa district, has been collected.

Of the dues accrued since 1st July, 1889, there remain at this date uncollected, \$6,903.05, Chaudière boomage, which it was reported to the Public Accounts Committee in 1895 should be written off. Then there are \$28.42 for which legal proceedings have been taken to recover and \$379.80 against which Mr. J. R. Booth has an acknowledged account against this department, but payment of which was refused by the Auditor General, because certain old charges, reported to the Public Accounts Committee had not been written off. These items making the total stand at the same figure as last year, namely, \$7,311.27, details of which will be found in Statement No. 2 herewith.

Of the dues accrued prior to 1st July, 1889, there was collected during the last fiscal year \$419.10 which reduces the total uncollected under this head to \$56,805.65, all of which should be written off. For details see Statement Nos 1 and 3, herewith.

In short, the accounts for the Ottawa district were as follows:—

Dues accrued during the year 1895-96, including interest	\$49,400 15
Of which there was collected during the	
year	\$48,965 94
Collected since 1st July, 1896.....	434 21 \$19,400 15

The gross collections were as follows:—

Dues of 1895-96	\$48,965 94
do 1894-95.....	738 29
do 1880.....	419 10 \$50,123 33

The amounts outstanding on 30th June last, were as follows:—

Dues accrued prior to the collection being transferred to this Department, 1st July, 1889.....	\$56,805 65
Dues of 1889-90.....	\$6,903 05
do 1890-91.....	28 42
do 1893-94.....	379 80
do 1895-96.....	434 21 7,745 48
Total.....	\$64,551 13

Of which there has been collected since 30th June..... 434 21

Leaving.....\$64,116 92

All of which but \$28.42 should be written off, being uncollectable.

I would take the liberty of drawing attention to the fact that since the collection of slide and boom dues was transferred to this department, 1st July, 1889, in the Ottawa district, of the revenue accrued, after deducting \$6,903.05 Chaudière boomage that should not have been charged, namely, \$434,652.05; only \$28.42 has not been collected.

Herewith are the statements above referred to:—

No. 1. Statement of amounts outstanding prior to 1st July, 1889, uncollected 30th September, 1896.

No. 2. Statement of amounts accrued at Ottawa since 1st July, 1889, uncollected 30th September, 1896.

No. 3. Statement of dues outstanding at Quebec prior to 1st July, 1889, uncollected 30th September, 1896.

No. 4. Statement of number of pieces square timber, saw-logs, etc., which passed through the Ottawa district works, during the year ending 30th June, 1896.

No. 5. Statement of dues accrued from each of the slides and works in the Ottawa district during the year ending 30th June, 1896.

ST. MAURICE DISTRICT.

The revenue for 1895-96 reached the satisfactory figure of \$21,358.74, all of which was collected during the fiscal year, and was the largest revenue from the district since the works were constructed.

The arrears outstanding at the time I took charge remain at the same figure, as last year, namely: \$14,481.49, all of which should be written off.

Statement No. 6 contains all the details of those outstanding dues.

SAGUENAY DISTRICT.

Again, this year, there was no revenue whatever. By Order in Council of 5th February, 1896, these works were abandoned.

Department of Public Works

NEWCASTLE DISTRICT.

The accompanying statement No. 7 shows \$6,058.34 yet outstanding, of which \$3,521.19 should be written off.

With regard to the remainder, \$2,537.15, a proposition of settlement is before the department.

Summary of collections of slide and boom dues :

From the Ottawa district.....	\$50,123.33
do St. Maurice district....	21,358.74
Total	<u>\$71,482.07</u>

GENERAL REMARKS.

Apart from exports to Great Britain, sawn lumber, during the past season, was very dull, and the quantity of square and waney timber taken out the smallest on record. Prospects for the coming winter are however brightening, as more than twice as much square timber will be taken out as last year and the quantity of saw-logs manufactured will not be very greatly diminished.

GRAVING DOCKS.

LÉVIS GRAVING DOCK.

The revenue for the year ending 30th June last was \$8,835.39 or \$5,159.80 less than in 1894-5. For full detail, see statement No. 8 herewith.

It will be seen that the dock was occupied for 65 days as against 114 days in 1894-95, but was also occupied by the SS. "Campana" and Government dredge "Challenger" from 26th November, 1895 to 28th April, 1896.

The tonnage of vessels docked in 1894-95 was 14,835, and in 1895-96, 16,106 tons.

KINGSTON GRAVING DOCK.

The total revenue from this work during the financial year was \$3,954.78, as against \$2,450.33 in 1894-5.

As it was found that the tariff as reduced in April, 1895, would not yield sufficient revenue to pay working expenses, it was decided to revert to the old tariff from 11th April, 1896, the charges since that date being, on vessels of 100 to 500 tons, for dockage 20c. per ton and 10c. per ton for all in excess of 500 tons; 10 cents per ton for each lay day. In no case less than \$20.00 per day.

The result being that from the opening of navigation to 30th June, 1896, the revenue was \$1,538.49, while for the same period in 1895 it was only \$1,175.33.

It will be seen from the detailed statement No. 9, herewith, that the tonnage of vessels docked during the year was 25,063.60, as against 10,493½ tons during 1894-5.

ESQUIMALT GRAVING DOCK.

The revenue was \$10,221.68 or \$3,883.43 more than in 1894-5.

The tonnage of vessels docked was 26,731 tons, against 21,573 tons in the preceding year.

During the year, as will be seen in statement No. 10, herewith, the dock was occupied by vessels of the British Navy for 76 days, beside one of them having been 39 days in the dock before 30th June, 1895, on all of which only actual working expenses were paid, as per agreement.

LOCKS.

RIVIÈRE DU LIÈVRE.

The revenue from this source was \$230.35 or \$173.97 less than the previous year.

RIVIÈRE YAMASKA.

From this lock the revenue was \$284.40, being \$73.38 less than in 1894-5.

It is worthy of remark that owing to the high water in the River Yamaska last spring, it was 10 days later than the previous year when the first vessel passed through the lock.

Thus the total collections from all sources, that passed through my hands were as follows:—

From Slides and booms.....	\$71,482 07
“ Graving docks	23,011 85
“ Locks.....	514 73
Total	<u>\$95,008 65</u>

In conclusion, I have to thank all the officials with whom I have to deal, for their strict adherence to the rules laid down for their guidance and the uniform courtesy so cordially extended to me during the past year.

I have the honour to be respectfully, sir,

Your very obedient servant,

EDWARD T. SMITH,
Collector Public Works Revenue.

Department of Public Works.

No. 1.—STATEMENT of Slidage and Boomage from the Ottawa Slides and Works accrued prior to 1st July, 1889, outstanding on 30th June, 1896, and remaining uncollected on 30th September, 1896.

By Whom Due.	Bad and Doubtful Debts.	Chaudière Boomage in Suspense.	Other Slide and Boom Dues disputed.	Total Dues outstanding on 30th Sept., 1896.	Year to which Dues belong.	Remarks.
	\$	\$	\$	\$		
John & Wm. McLean.....	53 14			53 14	1873.....	Insolvent.
James Yuill.....	9 29			9 29	1876.....	Overcharge.
John Rowan.....	342 50			342 50	1872 and 1873.....	Insolvent.
Lemieux & Charette.....	21 30			21 30	1873.....	do
Tailon & Lapiere.....	148 10			148 10	1873 and 1874.....	do
Mogrove & McHarry.....	261 42			261 42	1873 and 1874.....	do
W. C. Wells.....	600 90			600 90	1873 and 1874.....	do
Dufresne & McGarity.....	528 80			528 80	1874 and 1875.....	do
Walton Smith.....	171 46			171 46	1874 and 1875.....	do
A. H. Baldwin.....	3,507 92			3,507 92	1871 to 1874.....	do
Hon. James Skead.....	9,807 65			9,807 65	1861, 1862, 1864, 1869, 1875 to 1878.....	do
Batson & Currier.....	5,558 70			5,558 70	1875 to 1877.....	do
A. F. A. Knight.....	546 30			546 30	1878.....	do
James Walker.....	11 25			11 25	1877.....	do
R. Campbell & Son.....	1,558 50			1,558 50	1879 to 1881.....	do
James G. Bryson.....	73 50			73 50	1886.....	do
Coastello Brothers.....	90 62			90 62	1882.....	do
N. E. Cormier.....	428 34			428 34	1888.....	do
J. & B. Grier.....	76 84			76 84	1883.....	do
R. & W. Conroy.....	95 42			95 42	1882 and 1883.....	do
A. & P. White.....	101 00			101 00	1881.....	do
J. R. Booth.....	9,871 83	368 88		10,240 71	1881 to 1888.....	do
Penley & Fatves.....	8,889 95			8,889 95	1881 to 1884.....	do
The Bronsons & Weston Lumber Co.....	8,180 79			8,180 79	1881 to 1885.....	do
Pierce & Co.....	462 18			462 18	1888.....	do
G. A. Grier & Co.....	1,060 59			1,060 59	1886 and 1887.....	do
Estate late Levi Young.....	1,461 20			1,461 20	1881 to 1885.....	do
Wm. Mason.....	413 85			413 85	1881 to 1888.....	do
Gilmour & Co.....	406 27			406 27	1884.....	do
John Rochester.....	258 88			258 88	1881 to 1883.....	do

No. 1.—STATEMENT of Slidage and Boomage from the Ottawa Slides and Works accrued prior to 1st July, 1889, outstanding on 30th June, 1896, and remaining uncollected on 30th September, 1896.—*Concluded.*

By Whom Due.	Bad and Doubtful Debts.	Chaudière Boomage in Suspense.	Other Slide and Boom Dues disputed.	Total Dues outstanding on 30th Sept., 1896.	Year to which Dues belong.	Remarks.
J. & G. Bryson	\$ cts. 4 33	\$ cts. 252 20	\$ cts. 252 20	\$ cts. 252 20	1886	Counter-claim for damages by breaking of Coulouge works. Overcharge.
B. Caldwell & Son	\$ cts. 23,987 28	\$ cts. 31,005 54	\$ cts. 651 08	\$ cts. 4 33	1887	
				55,653 90		

EDWARD T. SMITH,
Collector of Slide and Boom Dues.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 23rd November, 1896.

Department of Public Works.

No. 2.—STATEMENT of Slide and Boom Dues accrued from the Ottawa River Works since 1st July, 1889, outstanding on 30th September, 1896.

NAME.	Years to which Dues belong.	Chaudière Boomage in Suspense.	Ordinary Dues.	Total outstanding.	Remarks.
		\$ cts.	\$ cts.	\$ cts.	
J. R. Booth.....	1889-90	2,561 69		2,561 69	<p>Chaudière boomage, reported to Council and referred to the Treasury Board. Should be written off.</p> <p>Legal action taken to recover this. Retained by Mr. Booth in settlement of an account due him which the Auditor General refuses to pay, as Mr. Booth appeared to be in arrears in this and Statement No. 1.</p>
The Bronsons & Weston Lumber Co.....	1889-90	2,066 96		2,066 96	
Perley & Pattee.....	1889-90	1,203 26		1,203 26	
William Mason & Sons.....	1889-90	167 66		167 66	
Pierce & Co.....	1889-90	913 48		913 48	
Alex. Fraser, acct. of Thos. Stephens.....	1890-91		28 42	28 42	
J. R. Booth.....	1892-93		379 80	379 80	
Alex. Fraser.....	1895.		17 63	17 63	
Co William Mason & Sons (Paid Oct. 21, 1896.	1895.		166 58	166 58	
		6,903 05	592 43	7,495 48	

EDWARD T. SMITH
Collector of Slide and Boom Dues.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 23rd November, 1896.

No. 3.—STATEMENT of Outstanding Slide Dues, Ottawa District, bonds for which were sent to Quebec for collection.

Name.	From 1860.	From 1861.	Total.
	\$ cts.	\$ cts.	\$ cts.
Hon. James Skead.....	245 00	210 00	455 00
James Mair.....	.....	696 75	696 75
	245 00	906 75	1,151 75

These accounts were uncollected, as the parties claimed damages for loss caused by the Madawaska boom breaking away in 1860.

A decision on their claims was not arrived at till 2nd August, 1869, on the 5th idem, Messrs. Skead and Mair were notified that the department could not recognize their claim.

To the best of my knowledge this decision was never communicated to the collector of slide dues, consequently their accounts remained in abeyance.

Since then, both parties died, and I believe both were insolvent at the time of their death.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 23rd November, 1896.

EDWARD T. SMITH,
Collector of Slide and Boom Dues.

No. 4.—STATEMENT of the number of pieces of square timber, saw logs, &c., that passed through the Government slides and works, on the River Ottawa and its tributaries during the fiscal year ended 30th June, 1896.

Square timber	15,124 pieces.
Saw logs	4,116,705 do
Shingle logs.....	8,598 do
Boom timber	142,623 do
Railway ties	88,813 do
Fence posts.....	32,914 do
Cedar logs.....	19,934 do
Total.....	4,424,711 do
and 8,239½ cords pulp woods.	

The revenue accrued on the above was \$49,328.04.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 30th September, 1896.

EDWARD T. SMITH,
Collector of Slide and Boom Dues.

Department of Public Works.

No. 5.—STATEMENT showing the dues accrued on the undermentioned works on the River Ottawa and its tributaries, during the fiscal year ending 30th June, 1896.

River or other Improvement.	Amount.
	\$ cts.
Main Ottawa.....	4,648 02
Chenaux boom.....	8,480 84
River Petewawa.....	13,345 71
do Madawaska.....	8,666 18
do Coulonge.....	4,542 89
do Dumoine.....	633 54
Black River.....	2,302 25
Gatineau boom.....	6,708 61
Total.....	49,328 04

Accrued amounting to forty-nine thousand three hundred and twenty-eight dollars and four cents.

EDWARD T. SMITH,
Collector of Slide and Boom Dues.
 DEPARTMENT OF PUBLIC WORKS,
 OTTAWA, 30th September, 1896.

No. 6.—STATEMENT of Slide and Boom Dues from the St. Maurice Slides and Works outstanding on 30th June, 1896, and remaining uncollected on the 30th September, 1896.

Name.	Year to which dues belong	Amount.	Total.	Remarks.
		\$ cts.	\$ cts.	
George Baptist, Son & Co..	1878	469 95		Have counter claims for damages to logs caused by the booms not being stretched early enough in the spring of 1878 to prevent the logs going over the chutes.
do do	1879	2,110 62		
do do	1880	1,696 18		
do do	1881	293 69		
do do	1882	165 80		
do do	1884	118 50		
do do	1888	4 28	4,859 02	
Ross, Ritchie & Co.....	1878	3,072 84		These claims were submitted to special commissioner Mr. McDougall, afterwards judge, who after hearing the evidence on both sides, recommended that the claims of the parties should be allowed.
do do	1883	2,173 68		
do do	1884	28 96		
do do	1886	1 62		
do do	1887	4 38	5,281 48	
Alexander Baptist.....	1879	779 24	2,116 96	
William Ritchie & Co.....	1888	332 11		Of this amount \$754.20 is claimed to be an overcharge.
do do	1889	332 11	1,111 35	
do do	1886	413 43		
Ritchie Bros.....	1886	634 71	1,048 14	This amount is composed of overcharges in 1886 and 1887 of \$842.76 and overpayment in 1884 of \$205.38.
do do	1887	634 71		
G. B. Hall.....	1890	49 34	49 34	Insolvent. Claims that this balance is an overcharge. Would cost more to collect than it is worth.
T. E. Normand.....	1890	14 28	14 28	
Trefflé Biron.....	1891	0 92	0 92	
			14,481 49	

EDWARD T. SMITH,
Collector of Slide and Boom Dues.
 DEPARTMENT OF PUBLIC WORKS,
 OTTAWA, 23rd November, 1896.

No. 7.—STATEMENT of Slide and Boom Dues accrued from the Newcastle and Trent River Works, Outstanding on the 30th June, 1896, and remaining uncollected on the 30th September, 1896.

Name.	Year to which dues belong.	Amount.	Remarks.
		\$ cts.	
T. G. Hazlett.....	1881, 1882, 1884 and 1889...	885 25	
J. M. Irwin.....	1882, 1883, 1885 and 1888...	698 45	
D. Ulyott.....	1881 and 1887.....	547 68	
Estate George Hilliard.....	1882 and 1886.....	354 15	
Greene & Ellis.....	1881 and 1883, 1885, 1888 and 1889.....	157 01	
Irwin & Boyd.....	1881.....	59 79	Insolvent.
Thomson & McArthur.....	1880.....	52 78	do
A. W. Parkin.....	1884, 1885, 1888, 1890 and 1891.....	65 92	
The Dixon Estate.....	1883.....	137 50	
Jabez Thurston.....	1882.....	12 50	Insolvent.
Alfred McDonald.....	1888.....	40 80	
John Parkin.....	1889.....	13 00	
McDougall & Ludgate.....	1879.....	65 07	Insolvent.
Bigelow & Trounce.....	1882 and 1885.....	216 21	do
R. & G. Strickland.....	1882, 1883, 1885, 1886 and 1837.....	215 08	do
Gilmour & Co.....	1893.....	690 58	Disputed; referred to the Depart- ment of Justice.
The Rathbun Co.....	1893.....	1,846 57	do do
		6,058 34	

The actual amount due by the Rathbun Co., for 1893, was \$2,222.89 and is reduced to this amount \$1,846.57 by crediting them with \$376.32 paid in 1892 on account of arrears, which sum in accordance with judgment in the case of *Boyd vs. the Queen* was illegally collected.

EDWARD T. SMITH,
Collector of Slide and Boom Dues.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 23rd November, 1896.

Department of Public Works.

THE DRY DOCK AT LEVIS.

No. 8.—STATEMENT of Dues and other charges collected during the Year ending
30th June, 1896.

NAME OF VESSEL DOCKED.	Tonnage.	PERIOD OF DOCKAGE.		Dockage Charges.	Other Charges	Total.
		From	To			
		1895.	1895.	\$ cts.	\$ cts.	\$ cts.
Turret Cape.....	1,827	July 15....	July 20....	761 08	8 00	769 08
Canada.....	2,000	Aug. 6....	Aug. 16....	1,250 00		1,250 00
Brizilian.....	3,804	Nov. 3....	Nov. 14....	1,786 88	5 00	1,791 88
Canada.....	2,479	“ 16....	“ 24....	1,196 64	10 00	1,206 64
Campana.....	1,288	Wint ering.		1,000 00	13 20	1,013 20
		1896.	1896.			
Turret Cape.....	1,827	June 4....	June 30....	2,487 59	17 00	2,504 59
Repton.....	2,881	Entry	Fee.	200 00		200 00
Challenge.....		Wint	ering.	100 00		100 00
	10,106			8,782 19	53 20	8,835 39

EDWARD T. SMITH,
Collector of Public Works Revenue.

DEPARTMENT OF PUBLIC WORKS.
OTTAWA, 30th September, 1896.

THE DRY DOCK AT KINGSTON.

No. 9.—STATEMENT of Dues and other charges collected during the Year ending 30th June, 1896.

NAME OF VESSEL DOCKED.	Tonnage.	PERIOD OF DOCKAGE.		Dockage Charges.		Other Charges.	Total.
		From	To	\$	cts.	\$	cts.
		1895.	1895.					$	cts.
Barge Nebraska	387	July 8	July 8	38	70		38 70
Yacht Cleopatra	104 ⁴¹	do 9	do 10	20	00		20 00
Tug Rigaud	46 ⁵⁴	do 12	do 13	20	00		20 00
Str. America	553 ⁹³	do 16	do 17	72	65		72 65
Barge Detroit	350	do 17	do 18	35	00		35 00
Barge Montreal	337	do 19	do 20	33	70		33 70
Tug Petrel	345 ⁷⁹	do 22	do 23	34	58		34 58
Barge Acadia	374						
Tug Bronson	70						
	444	do 25	do 26	44	40		44 40
Barge Kildonan	522 ⁷⁸	Aug. 8	Aug. 10	69	43		69 43
Tug Walker	138 ⁸⁸	do 12	do 12	20	00	5 00	25 00
Barge Albina	180	do 12	do 13	20	00		20 00
Barge Dorchester	375						
Tug Bronson	70						
	445	do 19	do 20	44	50		44 50
Str. Spartan	1,168 ⁹²	do 23	do 24	83	47		83 47
Barge Nebraska	387	do 24	do 24	38	70		38 70
Tug Reginald	186 ⁹⁶	do 26	do 27	20	00	13 00	33 00
Str. Princess Louise	114 ⁸⁸	do 29	do 30	20	00		20 00
Tug Thompson	185 ⁵						
Barge Union	303						
	488 ⁵	Sept. 2	Sept. 2	48	85		48 85
Tug Petrel	111 ⁶	do 4	do 5	20	00		20 00
Barge Iowa	365						
Barge Coal Heaver	143						
	508	do 6	do 7	50	40		50 40
Str. Owen Sound	731 ⁷⁷	do 9	do 13	138	45		138 45
Barge Montreal	337	do 13	do 14	33	70		33 70
Str. Tecumseh	839 ⁹⁷	do 16	do 17	66	98		66 98
Barge Duluth	337	do 21	do 21	33	70		33 70
Sch. S. H. Dunn	483 ⁷³						
Cargo (ore)	700						
	1,183 ⁷³	do 23	do 26	167	05		167 05
Barge Toledo	363	do 26	do 27	36	30		36 30
Tug Thompson	185 ⁵	Oct. 14	Oct. 14	20	00		20 00
Str. Myles	1,210 ⁹³						
Cargo	100						
	1,310 ⁹³	do 18	do 19	90	53		90 53
Str. Glengary	438	do 21	do 21	43	80		43 80
Str. Cuba	931 ¹³						
Freight	86						
	1,017 ¹³	Nov. 2	Nov. 3	75	86	2 00	77 86
Barge Bella	454	do 4	do 5	61	29		61 29
Barge Jennie	461 ⁹⁸	do 5	do 6	46	11		46 11
Tug Walker	138 ⁵⁸	do 20	do 21	40	00	9 50	49 50
Barge Chicago	350	Dec. 3	Dec. 4	35	00		35 00
Barge Toronto	335						
Tug Walker	138 ⁵⁸						
	473 ⁵⁸	do 4	do 5	47	36		47 36
Barge Regina	440 ⁸⁰						
Tug J. Hall	29						
	469 ⁸⁰	do 5	do 7	79	83		79 83
Tug Thompson	185 ⁵						
Tug J. Hall	29						
	214 ⁵	do 9	do 10	21	45		21 45
Str. Myles	1,210 ⁹³	do 13	To winter,	entrance fee.			100 00
Str. Myles		do 13	April 15, '96	600	00	15 00	615 00
Dredge Nipissing (Gov't.)		Winter Dockage—No charge, by order.					

Department of Public Works.

THE DRY DOCK AT KINGSTON—Continued.

No. 9.—STATEMENT of Dues and other charges collected during the Year ending
30th June, 1896.

NAME OF VESSEL DOCKED.	Tonnage.	PERIOD OF DOCKAGE.		Dockage Charges.	Other Charges.	Total.
		From	To			
		1896.	1896.			
Str. Islander	118 ⁶¹	April 18	April 18	23 73		23 73
Str. America	553 ⁰³	do 20	do 21	105 31		105 31
Str. North King	872 ⁹⁵	do 21	do 22	137 30		137 30
Tug Glide	36					
Tug Walker	133 ⁶⁸					
Barge Acadia	374					
Barge McCarthy	254					
Elevator Ceres	252					
Barge Union	303					
Barge Cornwall	585 ⁰⁶					
Tug Jessie Hall	29					
Barge Minnie Francis	614 ⁰⁶	May 1	May 2	154 55	10 50	165 05
Str. G. H. Morley	97 ⁸⁸	do 7	do 8	20 00		20 00
Str. barge Seguin	1,045 ⁷⁹	do 8	do 9	154 58		154 58
Barge Senator	818 ⁰⁷	do 11	do 11	131 81		131 81
Barge McCarthy	309	do 16	do 16	61 80		61 80
Tug Petrel	254	do 18	do 18	50 80		50 80
Str. Seguin	345 ⁷⁶	do 27	do 28	69 16		69 16
Str. America	818 ⁰⁷	June 2	June 2	131 81	5 00	136 81
Overpayment	623 ⁶⁸	do 3	do 3	112 36		112 36
	25,063 ⁰⁰			3,894 77	66 00	3,954 78

EDWARD T. SMITH,
Collector of Public Works Revenue.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 30th September, 1896.

THE DRY DOCK AT ESQUIMALT.

No. 10.—STATEMENT of Dues and other charges collected during the Year ending 30th June, 1896.

NAME OF VESSEL DOCKED.	Tonnage.	PERIOD OF DOCKAGE.		Dockage Charges.	Other Charges.	Total.
		From	To			
		1895.		\$ cts.	\$ cts.	\$ cts.
H.M.S. "Hyacinth".....	1,420	May 23...	July 20...	Working ex.		1,906 17
H.M.S. "Wild Swan".....	1,130	July 22...	do 26...	do		209 85
Steamer "Warrimoo".....	3,335	Aug. 12...	Aug. 19...	1,042 00	49 20	1,091 20
H.M.S. "Nymphe".....	1,140	Sept. 25...	Sept. 28...	Working ex.		199 94
Str. "Strait of Sunda".....	2,992	do 30...	Oct. 3...	600 00	9 00	609 00
H.M.S. "Pheasant".....	755	Nov. 11...	Nov. 20...	Working ex.		407 67
Str. "Quadra".....	573	do 23...	do 23...			
Str. "Mathilda".....	3,480	do 25...	do 27...	509 60	10 20	519 80
Str. "Quadra".....	573	Dec. 12...	Jan. 2...	1,201 65	1 20	1,202 85
		1896.				
H.M.S. "Satellite".....	1,420	Jan. 3...	do 29...	Working ex.		1,151 69
Str. "Hanghow".....	3,594	Feb. 1...	Feb. 3...	624 00		624 00
H.M.S. "Comus".....	2,380	March 9...	March 11...	Working ex.		225 27
Str. "Transit".....	1,334	April 4...	April 4...	350 00		350 00
Ship "Kilbrannan".....	1,635	do 13...	do 28...	1,389 50		1,389 50
H.M.S. "Icaries".....	970	June 3...	June 9...	Working ex.		332 34
	26,731					
Water supplied "Kilbrannan" 4,000 galls.....						2 40
						\$10,221 68

EDWARD T. SMITH,
Collector of Public Works Revenue.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 30th September, 1896.

Department of Public Works.

APPENDIX No. 5

LIST OF SOME OF THE ACTS OF PARLIAMENT

PASSED AT THE SESSION OF 1896

HAVING

REFERENCE TO THE DEPARTMENT OF PUBLIC WORKS
OR WORKS UNDER ITS CHARGE.

Department of Public Works.

List of some of the Public Acts of the Parliament of Canada passed at the Sixth Session of the Seventh Parliament, closed by Prorogation on the 23rd day of April, 1896, and having reference to the Public Works Department or works under its charge (59 Victoria).

Subject.	Full Title of the Statute.	Chapter.	Page in Statute Book.
Sums granted to Her Majesty for the financial year ending 30th June, 1896, and the purposes for which they are granted.	An Act for granting to Her Majesty certain sums of money required for defraying certain expenses of the public service, for the financial years ending respectively the 30th June, 1896, and the 30th June, 1897, and for other purposes relating to the public service.....	1	3
For authority to borrow a sum of \$1,000,000.00 for construction and improvements in the Harbour of Montreal.	An Act respecting the Harbour Commissioners of Montreal.....	10	40
As to liability of contractors toward workmen, &c., &c.	An Act respecting the liability of Her Majesty and public companies for labour used in the construction of public works.....	5	27

N.B.—Tariff proposed to be charged by the Upper Ottawa Improvement Company during season 1896
—Order in Council passed on the 18th February, 1896. Page LXX.

J. A. CHASSÉ,
Law Clerk.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 30th November, 1896.

Department of Public Works.

APPENDIX No. 6

STATEMENTS

SHOWING

- 1st.—CONTRACTS LET BY THE DEPARTMENT OF PUBLIC WORKS OF CANADA, FROM THE 30TH JUNE, 1895, TO THE 30TH JUNE, 1896.
- 2nd.—PROPERTY PURCHASED OR SOLD BY THE DEPARTMENT OF PUBLIC WORKS, DURING THE FISCAL YEAR ENDED 30TH JUNE, 1896.
- 3rd.—PROPERTY LEASED TO AND BY THE DEPARTMENT OF PUBLIC WORKS, DURING THE FISCAL YEAR ENDED 30TH JUNE, 1896.

Department of Public Works.

CONTRACTS LET, PROPERTY PURCHASED AND LEASED.

OTTAWA, 30th November, 1896.

SIR,—I beg leave to submit the following statements which are required for insertion in the annual report 1895-96, viz.:

No. 1.—Statement of contracts let by this department during the fiscal year ended 30th June last.

No. 2.—Statement of property purchased and sold by this department during the same period.

No. 3.—Statement of property leased to and by this department during the same period.

I have the honour to be, sir,

Your obedient servant,

J. A. CHASSÉ,

Law Clerk.

E. F. E. ROY, Esq.,
Secretary of the Department of Public Works of Canada,
Ottawa.

No. 1.—CONTRACTS let by the Department of Public Works of Canada, from the 30th June, 1895, to the 30th June, 1896.

Works.	Names of Contractors.	Date of Contract.	Amount.
PUBLIC BUILDINGS.			\$ cts.
<i>Government House, Parliament and Departmental Buildings.</i>			
Parliament and Departmental buildings—Supply of coal.....	J. W. McRae	July 8, 1895	11,106 58
Parliament and Departmental buildings and grounds—Removal of snow.....	W. H. Cuddie & Co....	Nov. 19, 1895	415 00
Parliament and Departmental buildings—Supply of ice.....	Ottawa Ice Co.....	Mch. 10, 1896	For season 350 00
Parliament grounds—Sidewalks in rock asphalt and "Mastic de Seyssel".....	Bellhouse, Dillon & Co.	June 16, 1896	Scheduled rates.
Public buildings—(Parliament buildings excepted)—Gas governors.....	"The Citizens Gas Control Co. (Lt'd)".	do 12, 1896	do
Rideau Hall—Removal of snow.....	Alexander Hunter	Nov. 19, 1895	288 00
do Supply of ice.....	J. O. Charlebois.....	Mch. 19, 1896	p. block 04½

No. 1—CONTRACTS let by the Department of Public Works, &c.—Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.
			\$ cts.
PUBLIC BUILDINGS—Continued.			
<i>Nova Scotia.</i>			
Amherst post office building—Supply of coal.....	The Cumberland Ry. & Coal Co.....	Aug. 5, 1895	186 00
Annapolis do do.....	The Canada Coal & Ry. Co. (Ltd.).....	July 30, 1895	142 88
Antigonish do do.....	R. L. McLean.....	Aug. 1, 1895	77 42
Arichat do do.....	James Kenna.....	do 3, 1895	23 20
do custom-house do.....	Burchell Bros.....	do 12, 1895	24 00
do savings bank do.....	do.....	do 12, 1895	20 00
Baddeck, post office do.....	do.....	do 12, 1895	97 50
Dartmouth do do.....	Intercolonial Coal Mining Co. (Ltd.).....	do 17, 1895	76 96
Halifax do do.....	do do.....	do 17, 1895	57 68
do Dominion buildings do.....	Acadia Coal Co. (Ltd.).....	do 3, 1895	686 80
do examining warehouse do.....	do do.....	do 3, 1895	174 79
do construction of a drill hall.....	John E. Askwith.....	July 8, 1895	195,000 00
do construction of an immigrant building.....	Rhodes, Curry & Co. (Ltd.).....	Jan. 24, 1896	14,390 00
Lunenburg post office—Supply of coal.....	James Kenna.....	Aug. 3, 1895	216 84
New Glasgow do do.....	Acadia Coal Co. (Ltd.).....	do 3, 1895	129 15
North Sydney do do.....	Burchell Bros.....	do 12, 1895	137 50
Pictou public buildings do.....	James Kenna.....	do 12, 1895	161 28
do post office—Erection of a heating apparatus.....	Frank Powers.....	Feb. 29, 1896	655 00
Sydney do Supply of coal.....	Fred. Routledge.....	Aug. 7, 1895	212 00
do public building—Lighting by electricity.....	"Sydney Gas & Electric Light Co. (Ltd)"	do 5, 1895	p. 1000 watt hours 16½
Truro, post office—Supply of coal.....	The Canada Coal & Ry. Co. (Ltd.).....	July 30, 1895	140 29
Windsor do do.....	do do.....	July 30, 1895	153 08
Yarmouth do do.....	do do.....	July 30, 1895	162 50
<i>Prince Edward Island.</i>			
Charlottetown Dominion building—Supply of coal.....	C. Lyons & Co.....	Aug. 1, 1895	354 65
Montague post office do.....	George Wightman.....	do 6, 1895	44 76
Summerside do do.....	Burchell Bros.....	do 12, 1895	34 94
<i>New Brunswick.</i>			
Bathurst post office—Supply of coal.....	James S. McGivern.....	July 31, 1895	266 60
Carleton do do.....	do.....	do 31, 1895	32 97
Chatham do do.....	Chas. Powell.....	Aug. 13, 1895	313 76
Dalhousie do do.....	do.....	do 13, 1895	204 19
Fredericton do do.....	James S. McGivern.....	July 31, 1895	225 97
Moncton do do.....	The Canada Coal and Ry. Co. Lt.....	do 30, 1895	195 21
New Castle do do.....	James S. McGivern.....	do 31, 1895	257 20
do do do.....	Robert R. Call.....	do 31, 1895	257 20
Portland do do.....	Robert B. Humphrey..	do 31, 1895	28 97
St. John do do.....	do.....	do 31, 1895	440 39
do savings bank do.....	do.....	do 31, 1895	151 97
do custom-house.....	do.....	do 31, 1895	1,114 23
do do.....	R. P. & W. F. Starr.....	Aug. 1, 1895	18 51
do savings bank.....	do.....	do 1, 1895	23 42
St. Stephens post office.....	A. J. Teed.....	July 30, 1895	114 00
Sussex do.....	James S. McGivern.....	do 31, 1895	148 50
Tracadie Lazaretto—Heating apparatus.....	David Ouimet.....	Oct. 22, 1895	4,188 00
Woodstock, post office.....	James S. McGivern.....	July 31, 1895	171 83
<i>Quebec.</i>			
Aylmer post office—Supply of coal.....	John Wm. McRae.....	Aug. 8, 1895	130 00
Coaticook do do.....	W. C. Webster & Son.....	July 31, 1895	189 00
Fraserville do do.....	Nap. Dion.....	Aug. 7, 1895	288 00
Hull do do.....	John Wm. McRae.....	do 8, 1895	153 13

Department of Public Works.

No. 1.—CONTRACTS let by the Department of Public Works, &c.—Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.
			\$ cts.
PUBLIC BUILDINGS—Continued.			
Quebec—Concluded.			
Joliette	post office—Supply of coal	J. O. Labrecque, Cousineau, & Co.	Aug. 12, 1895 187 47
Lachine	do do	Bridge Co. Coal Committee	do 5, 1895 70 83
Laprairie	do do	Jacques Bourdon	Sept. 20, 1895 73 50
Montreal	do do	Pat. McCrory	Aug. 13, 1895 688 20
do	custom-house do	do	do 13, 1895 561 19.
do	post office do	Evans Bros.	do 12, 1895 15 06
do	revenue building do	do	do 12, 1895 190 38
do	examining warehouse—Supply of coal	J. O. Labrecque, Cousineau & Co.	do 12, 1895 1,489 95
do	to supply the Dominion Government with 5,000 lock box fronts	The Chanteloup M'fg.	Feb. 3, 1896 per box 1 50
Quebec	public buildings—Supply of coal	Madden & Ellis	Aug. 10, 1895 2,492 38
Richmond	construction of a post office	Paquet & Godbout	Nov. 6, 1895 10,500 00
St. Henri	post office—Supply of coal	J. O. Labrecque, Cousineau & Co.	Aug. 12, 1895 50 09
St. Hyacinthe	do do	J. O. Labrecque, Cousineau & Co.	do 12, 1895 166 17
St. Jérôme	do do	F. Robertson	do 12, 1895 287 27
St. Johns	do do	Bissett & Donaghy	do 1, 1895 132 00
Sherbrooke	do do	J. O. Labrecque, Cousineau & Co.	do 12, 1895 252 55
Sorel	do do	Leclaire & Lavallée	do 21, 1895 171 60
Three Rivers	do do	Zéphirin Marchand	do 14, 1895 157 50
do	do do	do	do 14, 1895 336 00
Valleyfield	do do	J. H. Wilson	July 7, 1895 40 25
West Farnham	do do	J. O. Labrecque, Cousineau & Co.	Aug. 12, 1895 126 76
Ontario.			
Alexandria	construction of a reformatory building	Joseph Bourque	March 17, 1896 95,000 00
Arnprior	do public do	Fortin & Gravelle	May 21, 1896 14,833 55
Almonte	post office—supply of coal	Thos. White	Aug. 1, 1895 121 25
Amherstburg	do do	O. W. Shipman	do 14, 1895 131 81
Barrie	do do	Johnston & Sargeant	July 29, 1895 228 00
Belleville	do do	The Rathbun Co.	do 29, 1895 248 40
Berlin	do do	A. A. Pipe	Aug. 14, 1895 105 82
do	do do	Frank Frank	do 13, 1895 14 98
Brampton	do do	R. J. McCallum	July 29, 1895 116 25
Brantford	do do	Huffman-Gibson Coal Co.	do 30, 1895 265 97
Brockville	do do	A. S. Ault	do 29, 1895 288 75
Carleton Place	do do	Alexander Steele	do 30, 1895 104 00
Chatham	do do	Huffman-Gibson Coal Co.	do 30, 1895 128 95
Clifton	do do	Histrop & Thomas	do 31, 1895 147 20
Cobourg	do do	Geo. Spence	do 31, 1895
Cornwall	do do	Flock Bros	do 29, 1895 220 00
Dundas	do do	W. Couper	Sept. 7, 1895 33 00
Galt	do do	Hogg & Brownlee	Aug. 10, 1895 125 20
Gananoque	do do	The Rathbun Co.	July 29, 1895 71 10
do	custom-house do	do	do 29, 1895 124 60
Goderich	post office do	Huffman-Gibson Coal Co.	do 30, 1895 156 18
Guelph	do do	Frank Frank	Aug. 13, 1895 171 94
Hamilton	do do	Thos. Myles & Sons	Sept. 11, 1895 660 21
Kingston	do and custom-house—supply of coal	James Sawards	do 12, 1895 306 13
Lindsay	do supply of coal	The Rathbun Co.	July 29, 1895 120 83
London	do and custom-house—supply of coal	Hunt Bros	do 30, 1895 856 21
Napanee	do supply of coal	The Rathbun Co.	do 29, 1895 136 28
Orangeville	do do	Thos. Lynn	do 29, 1895 90 88
Orillia	do do	The Rathbun Co.	do 29, 1895 131 25

No. 1.—CONTRACTS let by the Department of Public Works, &c.—Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.
PUBLIC BUILDINGS—Continued.			\$ cts.
<i>Ontario—Concluded.</i>			
Orillia public building—lighting with electricity.....	“Corporation of the town of Orillia”.....	July 25, 1895	sched. rates.
Ottawa central experimental farm—supply of coal.....	C. C. Rae & Co.....	do 30, 1895	752 10
do Langevin block, post office, geological and fisheries museums, Cartier square—Removing snow.....	F. G. Guy.....	Nov. 19, 1895	365 00
Pembroke post office—supply of coal.....	Dunlop & Co.....	July 30, 1895	117 59
Peterborough do do.....	T. Fitzgerald.....	do 30, 1895	296 78
Petrolea do do.....	Huffman-Gibson Coal Co.....	do 30, 1895	166 39
Port Hope do do.....	Brown & Henning.....	do 30, 1895	225 25
Prescott do and custom-house—supply of coal.....	Isaac W. Plumb.....	Aug. 20, 1895	217 50
St. Catharines do supply of coal.....	E. C. Rogers.....	July 30, 1895	133 52
St. Thomas do do.....	People's Coal Co.....	Aug. 22, 1895	261 00
Stratford do do.....	M. F. Goodwin.....	July 31, 1895	250 14
do public building—additions and alterations to heating apparatus.....	Purdy, Mansell & Mash-inter	Oct. 2, 1895	319 00
Strathroy post office—supply of coal.....	Huffman-Gibson Coal Co.....	July 30, 1895	131 28
Toronto public buildings do.....	P. Burns & Co.....	Aug. 31, 1895	1,399 89
Trenton post office do.....	Chas. Crowe.....	do 31, 1895	150 00
Trenton, public building—Lighting with electricity.....	“The Trenton Electric Co.”.....	May 28, 1896	p.an. 200 00
Walkerton post office.....	S. W. Vogan.....	July 30, 1895	134 35
Windsor do.....	J. & T. Hurley.....	Aug. 10, 1895	335 25
<i>Manitoba.</i>			
Brandon post office—Supply of coal.....	John Hanbury.....	Aug. 16, 1895	691 36
Portage LaPrairie—Construction of a post office, customs and inland revenue offices.....	Viau & Lachance.....	July 29, 1895	22,999 00
Winnipeg post office—Supply of coal.....	The Alberta Ry. & Coal Co.....	Sept. 21, 1895	2,556 25
do custom-house do.....	Harston, Windall & Co.....	Dec. 2, 1895	229 50
do immigrant buildings—Supply of coal.....	do do.....	do 2, 1895	76 50
do Indian and Crown timber offices—Supply of coal.....	do do.....	do 2, 1895	151 05
do examining warehouse.....	do do.....	do 2, 1895	153 00
<i>North-west Territories.</i>			
Calgary immigrant building—Supply of coal.....	A. B. Few & Co.....	Oct. 9, 1895	28 48
do post office do.....	do.....	do 9, 1895	388 62
do court-house do.....	do.....	do 9, 1895	329 41
do registry office do.....	do.....	do 9, 1895	.....
do public works office do.....	do.....	do 9, 1895	40 46
Edmonton Dominion land office do.....	W. M. Humberstone.....	Sept. 20, 1895	131 93
Indian Head experimental farm do.....	Geo. Thompson.....	Aug. 12, 1895	169 84
Lethbridge public building—Lighting with electricity.....	The Lethbridge Water-works and Electric Light Co.....	July 6, 1895	Sched. rates.
Moose Jaw court-house—Supply of coal.....	Paul Knight & McKinnon.....	Aug. 6, 1895	144 85
Moosomin do do.....	do do.....	do 6, 1895	272 27
Regina do do.....	do do.....	do 6, 1895	630 80
do post office do.....	do do.....	do 6, 1895	243 75
do land titles' office do.....	do do.....	do 6, 1895	21 30
do N.W. M. P. barrack building—Stone foundations under barrack building.....	Wm. Henderson.....	do 28, 1895	3,500 00
Wolseley, court-house.....	Paul Knight & McKinnon.....	do 6, 1895	193 65
<i>British Columbia.</i>			
New Westminster—Construction of a drill hall.....	David Bain.....	do 13, 1895	6,889 00

Department of Public Works.

No. 1.—CONTRACTS let by the Department of Public Works, &c.—*Concluded.*

Works.	Names of Contractors.	Date of Contract.	Amount.
HARBOURS AND RIVERS.			
<i>Nova Scotia.</i>			
Ross Ferry, Boularderie Island—Construction of wharf	John McMillan	Aug. 26, 1895	2,770 00
Seaside do	Hugh Henderson	March 6, 1896	6,596 00
<i>Prince Edward Island.</i>			
Souris—Construction of a block at the outer end of the breakwater.	Heney & Smith	Feb. 17, 1896	27,950 00
<i>New Brunswick.</i>			
Burnt Church—Construction of a public wharf	Lawrence Doyle	Aug. 14, 1895	12,450 00
Gardner's Creek—Construction of wharf	Thos. Brown Carson	July 1, 1895	7,400 00
<i>Quebec.</i>			
Philipsburg—Construction of pier.	Olivier Lefebvre	do 29, 1895	9,942 00
<i>Ontario.</i>			
Burlington Channel, swing bridge—Construction of the masonry.	Geo. F. Webb	Aug. 22, 1895	15,799 00
do superstructure of a highway swing bridge.	Dominion Bridge Co., Limited	Jan. 28, 1896	15,290 00
VESSELS, DREDGES AND PLANT.			
New steel boiler for Dredge "Prince Edward"	McKinnon & McLean	do 23, 1896	2,340 00
Marine return tubular boiler for "Tug No. 1"	J. C. Weir & R. S. Weir	April 6, 1896	4,695 00
Two steel hopper barges	Carrier, Lainé & Co.	June 9, 1896	21,336 00
TELEGRAPH AND SIGNAL SERVICE.			
Lilloet to Hat Creek, B.C.—Construction of a telegraph line.	Wm. H. Keatley	July 8, 1895	Sched. rates.

J. A. CHASSÉ,
Law Clerk.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 30th November, 1896.

No. 2.—STATEMENT of Property Purchased or Sold by the Department of Public Works during the Fiscal Year ending 30th June, 1896.

Date of Conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price.
1895.						\$ cts.
July 18.....	Ephrem Desilets.....	Her Majesty	Telephone line, Shawenigan to Grandes Piles.....	Government purposes.....	.....	108 70
do 20.....	Elfie Greiner.....	do	Right of way in connection with the Shawenigan Telephone Line.....	do	.....	5 00
Aug. 13.....	Geo. Fraser <i>et ux</i>	do	Lot of land at Bouliarderie Island.....	Right of way to a public landing.....	½ acre, more or less.....	1 00
Oct. 14.....	B. A. Scott.....	do	Pontoon or floating stage at the entrance of "Grande Décharge," Lake St. John, P.Q.....	Government purposes.....	.....	400 00
Aug 7.....	C. C. Smith Co.....	do	Wharf, stone house and approaches at Magog, P.Q., lot No. 221 "A.".....	do	.....	2,500 00
Nov. 28.....	B. V. Stafford & Rudd..	do	Tract of land and premises, part of lots Nos. 11 and 13, John St., North, Arnprior.....	For erection of public building.....	4,150 sq. ft., more or less.....	2,000 00
do 28.....	C. McLachlin <i>et ux</i>	do	Tract of land and premises, part of lots Nos. 11 and 13, John St., North, Arnprior.....	do	2,350 sq. ft., more or less.....	2,000 00
do 7.....	Jas. Keating <i>et ux</i>	do	Parcel of land and buildings, Point Edward, N.S.....	Public purposes.....	¼ of an acre.....	175 00
Dec. 7.....	Chs. McKinnon <i>et ux</i>	do	Lot of land being a portion of the south beach at the entrance of Pictou Harbour, N.S.....	Harbour improvements.....	5½ acres, more or less.....	300 00
1896.						1 00 00
Mch 21.....	Moses Doucet <i>et ux</i>	do	Lots Nos. 1, 2, 3, 4, Grand Etang, N.S.....	do	.....	4,000 00
do 24.....	David J. Barker <i>et ux</i>	do	Piece of land and premises, part of town lot No. 285, Pictou, Ont.....	For erection of a public building.....	8,400 sq. ft.....	1 00
April 14.....	Alex. J. McDonald <i>et ux</i> ..	do	Lot of land situate at Seaside, shore of St. George's Bay, N.S.....	Wharf purposes.....	1¼ of an acre, more or less.....	1 00

Department of Public Works.

No. 3.—STATEMENT of Property Leased to and by the Department of Public Works during the Fiscal Year ending 30th June, 1896.

Date of Lease.	Lessor.	Lessee.	Property leased.	For what purpose.	Duration of Lease.	Annual rental payable.
1895.						
July 8.	J. W. McRae.	Her Majesty	Ottawa, Rideau Canal Basin, wooden shed	Storage of coal for public buildings.	1 year	\$300 per annum.
Oct. 24.	Her Majesty	Alfred Desjardins	Ottawa River Government Reserve, piece of ground Long Point Rouge	Private enterprise.	During pleasure.	\$ 1 do
do 24.	do	The Edmonton District Telephone Co., Ltd.	Edmonton to St. Albert, telephone line of about 9 miles	do	do	\$ 1 do
Dec. 30.	do	L. C. Archibald.	McNair's Cove, N. S., portion of western lot of land on the shore of Bay St. George.	Lobster factory.	30 years	\$ 16 do
1896.						
Feb. 7.	do	Narcisse Blais.	River St. Charles, Quebec, permission to build a temporary bridge	Private enterprise.	During pleasure.	\$ 1 do
Mich. 24.	R. T. Wilson.	Her Majesty	Dundas, Ont., ground floor of the "Elgin House."	For post office, customs & inland revenue offices.	10 years	\$ 5 do

J. A. CHASSÉ,
Law Clerk

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 30th November, 1896.

Department of Public Works.

APPENDIX No. 7

NAMES OF THE CHIEF OFFICERS OF THE DEPARTMENT OF PUBLIC WORKS

WITH

DATE OF APPOINTMENT, &c., FROM 1841 TO 1896.

Department of Public Works.

NAMES OF THE CHIEF OFFICERS.

APPENDIX No. 7.—The names with the date of appointment, &c., of the principal Officials of the Department of Public Works, from 1841 to 1896.

Names.	Capacity or Office.	Date of Appointment.	
		Served From	To
<i>Under Statute 4-5 Vic., Cap. 38.</i>			
CORPORATION BOARD OF WORKS.			
Killaly, Hon. H. H.	Chairman	Dec. 29, 1841	Oct. 3, 1844
Daly, Hon. D.	} Members		
Harrison, S. B.			
Davidson, J., Esq.			
Begly, Thomas A.			
Keefer, Samuel.			
Rubidge, F. B.	Secretary	Aug. 17, 1841	
	Chief Engineer	do 17, 1841	
	Architect and Assistant Chief Engineer	Dec. 15, 1841	
NEW BOARD OF WORKS.			
Killaly, Hon. H. H.	Chairman	Oct. 5, 1844	June 8, 1846
Daly, Hon. D.	} Members		
Draper, Hon. W. H.			
Morris, Hon. W.			
Papineau, Hon. D. B.			
<i>Under Statute 9th Vic., Cap. 37, &c.</i>			
Robinson, Hon. W. B.	Chief Commissioner	July 4, 1846	March 10, 1848
Taché, Hon. E. P.	do	March 11, 1848	Nov. 26, 1849
Chabot, Hon. J.	do	Dec. 15, 1849	March 31, 1850
Merritt, Hon. W. H.	do	April 20, 1850	Feb. 11, 1851
Bourret, Hon. J.	do	Feb. 15, 1851	Oct. 27, 1851
Young, Hon. John.	do	Oct. 28, 1851	Sept. 22, 1852
Chabot, Hon. J.	do	Sept. 23, 1852	Jan. 26, 1855
Lemieux, Hon. F.	do	Jan. 27, 1855	Nov. 25, 1857
Alleyn, Hon. C.	do	Nov. 28, 1857	Aug. 1, 1858
Holton, Hon. L. H.	do	Aug. 2, 1858	do 6, 1858
Sicotte, Hon. L. V.	do	do 6, 1858	Jan. 10, 1859
Rose, Hon. John.	do	Jan. 15, 1859	June 12, 1861
Cauchon, Hon. Jos.	Commissioner	June 15, 1861	May 23, 1862
Tessier, Hon. U. J.	do	May 24, 1863	do 27, 1863
Drummond, Hon. L. T.	do	do 28, 1863	July 23, 1863
Laframboise, Hon. M.	do	July 23, 1863	March 29, 1864
Chapais, J. C.	do	March 30, 1864	June 30, 1867
Casgrain, Hon. Chas. Eus.	Second Commissioner	Aug. 1, 1846	
Cameron, Hon. M.	Assistant Commissioner	March 11, 1848	
Wetenhall, John.	do	Feb. 2, 1860	
Bourret, Hon. Jos.	do	April 20, 1860	
Killaly, Hon. H. H.	do	Feb. 15, 1851	
Keefer, Samuel.	Deputy Commissioner	May 6, 1859	
Trudeau, Toussaint.	do	March 15, 1864	
Begly, Thomas A.	Secretary	Sept. 25, 1847	
Trudeau, Toussaint.	do	Dec. 13, 1859	
Braun, Frederick.	do	March 8, 1864	
Page, John.	Chief Engineer	Oct. 31, 1853	July 2, 1890
<i>Under Statute 31 Vic., Cap. 12.</i>			
McDougall, Hon. Wm.	Minister	July 1, 1867	Oct. —, 1869
Langevin, C. B., Hon. Hector L.	do	Dec. 8, 1869	Nov. 5, 1873
Mackenzie, Hon. Alexander	do	Nov. 7, 1873	Oct. 16, 1878
Tupper, C. B., K.C.M.G., Sir Charles.	do	Oct. 17, 1878	May 20, 1879
Langevin, C. B., K.C.M.G., Sir Hector L.	do	May 20, 1879	Sept. 8, 1891

APPENDIX No. 7.—The names with the date of appointment, &c., of the principal Officials of the Department of Public Works, from 1841 to 1896—*Concluded.*

Names.	Capacity or Office.	Date of Appointment. Served	
		From	To
<i>Under Statute 31 Vic., Cap. 12.—Con.</i>			
Smith, Hon. Frank	Acting Minister	Aug. 14, 1891	Jan. 11, 1892
Ouimet, Hon. Joseph Aldric	Minister	Jan. 11, 1892	April 30, 1896
Desjardins, Hon. Alphonse	do	May 1, 1896	July 12, 1896
Tarte, Hon. J. Israel	do	July 13, 1896	
Trudeau, Toussaint	Deputy Minister	July 1, 1868	Oct. 1, 1879
Baillaigé, G. F.	do	Oct. 4, 1879	Dec. 18, 1891
Gobeil, A.	do	Dec. 18, 1891	
Chapleau, S.	Secretary	Oct. 4, 1879	Nov. 4, 1880
Ennis, F. H.	do	Nov. 4, 1880	
Gobeil, A.	do	Jan. 23, 1885	Dec. 18, 1891
Roy, E. F. E.	do	Dec. 18, 1891	
McPherson, D. A.	Assistant Secretary	do 18, 1891	
Desroches, Charles Rodolphe	do	Jan. 8, 1896	
Perley, H. F.	Chief Engineer	Nov. 25, 1880	Oct. 21, 1891
Baillaigé, G. F.	Assistant Chief Engineer	July 5, 1871	do 4, 1879
Coste, Louis	Chief Engineer	do 26, 1892	
Scott, Thos. S.	Chief Architect	Feb. 7, 1872	Nov. 4, 1881
Fuller, Thomas	do	Oct. 31, 1881	

Department of Public Works.

APPENDIX No. 8

NAMES OF THE OFFICIALS EMPLOYED ON THE SLIDES AND BOOMS OF CANADA

ON THE 30th JUNE, 1896

WITH

DATES OF APPOINTMENT, SALARIES, Etc.

OFFICIALS EMPLOYED ON THE SLIDES AND BOOMS.

STATEMENT showing Names, Dates of Appointment, Salaries, &c., of persons employed on the different Slides and Booms, on 30th June, 1896.

Name.	Date of Birth.	Position.	Where employed.	Date of Appointment.	Salary.	Remarks.
<i>Collector of Slide and Boom Dues.</i>					\$ cts.	
E. T. Smith.....	Nov. 26, 1846	Collector.....	Ottawa.....	July, 1, 1889	1,675 00 per annum.	Date of first appointment to crown timber office, Ottawa, 23rd June, 1864. Clerk, Dept. of Inland Revenue, 1st July, 1870 to 30th June, 1889. Transferred to civil list with rank of first class clerk, 5th January, 1892.
James Slater.....	April 30, 1847	Assistant collector..	do	Nov. 14, 1889	1,000 00 do	Date of first appointment to crown timber office, Ottawa, 21st April, 1877. Clerk, Dept. of Inland Revenue, 1st April, 1883 to 30th June, 1889. Transferred to civil list with rank of 3rd class clerk, January 1892.
James Steen.....	June 17, 1830	Boatman.....	do	July 12, 1889	60 00 per month.	Employed during the season of navigation, for 8 months each year. Date of first appointment, 26th May, 1861. Timber cutter, Ottawa, for Dept. of Inland Revenue, 7th Jan., 1884, to 30th June, 1889.
John Redmond.....	August 2, 1833	do	do	do 12, 1889	60 00 do	Employed during the season of navigation, for 8 months each year. Date of first appointment, 1st May, 1872. Assistant timber counter, Ottawa, for Dept. of Inland Revenue, 7th Jan., 1884, to 30th June, 1889.
<i>Saguenay District.</i>						
Arthur Boulanger	Sept. 11, 1854	Superintendent.....	Saguenay	May 19, 1881	475 00 per annum.	<i>Saguenay Works.</i> —In addition to the Superintendent there are employed on the Saguenay works, 4 flagmen at 70c. per day each, during the passing of the logs through the slides, which lasts one or two months. Saguenay District slides abandoned by authority of O. C. dated February 5, 1896, (No. 168,740). Services of A. Boulanger, superintendent, dispensed with Nov. 1, 1896. See O. C. October 12, 1896 (No. 175,640).
Joseph Boulanger.....	.....	Asst. superintendent	do	Oct. 1, 1889	30 00 per month.	

Department of Public Works.

St. Maurice District.

Nap. Dagneay.....	Paymaster.....	Three Rivers.....	1, 1886	50 00	per month.
Cyrac Lymburner.....	Slide master.....	Month of St. Maurice.....	Apr. 25, 1881	46 67	do
Jos. Page.....	Asst. do.....	Cap aux Cornuelles.....	Dec. 10, 1879	30 00	do
Louis Hamel.....	Gate keeper.....	Month of St. Maurice.....	June 1, 1892	54 16	do
Gédéon Brousseau.....	Asst. slide master.....	Shawengwan.....	Apr. 7, 1896	33 33	do
Arth. Pellerin.....	do.....	do and Gros.....	Aug. 5, 1885	55 00	do
N. Lymburner.....	Boom master.....	Grand Mère.....	July 1, 1895	55 00	do
Jos. Brousseau.....	Boom keeper.....	Grandes Piles.....	June 1, 1892	55 00	do
Azarie Bienvenue.....	Boom master.....	Belœil Station.....	Jan. 1, 1882	100 00	per annum.

Richelieu District.

Ottawa District.

G. P. Brophy.....	Feb. 24, 1846	Superinten't ent.....	Ottawa.....	July 6, 1873	2,500 00	do	<i>Ottawa River Works.</i> —In addition to the above officers, &c., there are employed during the running season, one foreman on slide at \$1.50 and one assistant foreman at \$1.25 per day; also 25 to 30 labourers at from \$1 to \$1.40 per working day. Oversees repairs in winter. Actively employed about 7 months. Oversees repairs in winter.
D. Scott.....	Feb. 15, 1830	Accountant.....	do.....	Oct. 1, 1864	1,500 00	do	
J. C. Scott.....	June 27, 1865	Measurer.....	do.....	Apr. 1, 1889	3 25	per day	
J. Kent.....	Jan. 28, 1864	Clerk.....	do.....	Aug. 1, 1886	3 00	do	
Wm. Cain.....	April 22, 1860	Messenger.....	do.....	Jan. 1, 1892	1 25	do	
J. Middleton.....	Aug. 6, 1834	Deputy slide master.....	Carillon.....	April 1, 1891	1 40	do	
D. Noonan.....	June 17, 1840	Boom master.....	Gatineau.....	Mar. 21, 1878	500 00	per annum.	
J. Soulière.....	Nov. 8, 1829	Deputy slide master.....	Chaudière.....	..... 1874	2 50	per day
J. McDonell.....	Nov. 1, 1818	do.....	Hull.....	Mar. 1, 1877	1 25	do	
D. McFarlane.....	Feb. 25, 1836	do.....	Chats.....	Mar. 27, 1860	480 00	per annum.	
John Harvey.....	May 22, 1831	Slide master.....	Arnprior.....	July 12, 1882	2 50	per day	
Jos. ph McCrea.....	Mar. 26, 1859	Boom master.....	Springtown.....	May 15, 1880	300 00	per annum.	
Patrick Barry.....	Mar. 27, 1858	Slide master.....	High Falls.....	Mar. 10, 1888	1 50	per day	
Duncan McLaren.....	Jan. 7, 1860	Deputy slide master.....	Portage du Fort.....	Sept. 7, 1881	456 25	per annum.	
J. G. Poupore.....	Feb. 27, 1857	do.....	Black River.....	Oct. 15, 1880	480 00	do	
James Steen Rowan.....	Aug. 27, 1836	do.....	Lower Petewawa.....	Mar. 18, 1887	480 00	do	
W. E. Biggs.....	May 3, 1843	Deputy slide master.....	Upper Petewawa.....	.....	2 00	per day
Wm. Thomson.....	.....	do.....	Mountain.....	Oct. 10, 1879	1 25	do
G. H. Brabazon.....	.....	do.....	Calumet.....	Apr. 1, 1894	360 00	per annum.
E. Davis.....	.....	do.....	Coulonge.....	Apr. 1, 1894	360 00	do
H. R. Downey.....	May 16, 1846	do.....	Desjosehins.....	July 1, 1889	300 00	do	
Hugh Grant.....	Mar. 25, 1829	do.....	Dumoine.....	April 12, 1872	300 00	do	
A. McEwen.....	Aug. 20, 1829	do.....	Rocher Capitaine.....	May 1, 1874	480 00	do	
A. H. Johnson.....	Nov. 28, 1839	do.....	Chenaux.....	..... 1865	2 50	per day
G. T. Johnson.....	Sept. 10, 1841	do.....	do.....	..... 1872	1 75	do

STATEMENT showing Names, &c., of persons employed on the different Slides and Booms—*Concluded.*

Name.	Date of Birth.	Position.	Where Employed.	Date of Appointment.	Salary.	Remarks.
<i>Nevacstie District.</i>						
R. B. Rogers	Jan. 17, 1857.	Superintendent	Peterboro'	July 1, 1884. . .	\$ cts. 800 00 per annum.	Receives \$800 per annum from Department of Railways and Canals.
G. H. Giroux	Clerk, supt.'s office	do	July 1, 1880	400 00 do	do
Clément Armstrong	Slide master	Chisholm Rapids	April 1, 1883	200 00 do	
Wm. McArthur	do	Fenelon Falls	July 1, 1885	100 00 do	\$250 per annum as lock master. do R. & C.
R. T. Hill	do	Buckhorn	July 1, 1891	100 00 do	Receives \$150 per annum from Department of Railways and Canals.
Hamilton Johnston	do	Heeley's Fall	July 15, 1883	200 00 do	
John Dinwoodie	do	Lakefield	June 20, 1891	150 00 do	
<i>Burlington Channel.</i>						
<i>Swing Bridge.</i>						
Wm. Omand	Bridge attendant	Burlington	Sept. 19, 1896	600 00 do	
A. McDonald	Bridge asst.	do	April 1, 1896	1 25 per day	Employed 9 months.
Ch. Rasberry	do	do	Sept. 19, 1896	1 25 do	do
Jos. Eustace	do	do	Sept. 19, 1896	1 25 do	do
<i>Yamaska District.</i>						
A. Labbé	Lock keeper	Yamaska	Sept. 1, 1885	40 00 per month.	
O. Mineau	do	do	Sept. 1, 1885	40 00 do	
<i>Rivière du Lièvre.</i>						
Alex. MacCallum	Lock master	Rivière du Lièvre	May 14, 1892	40 00 do	
Simon Raymond	Labourer .....	.....	April 1, 1894	35 00 do	

R. STECKEL.

Department of Public Works.

APPENDIX No. 9

LIST OF ENGINEERS, ENGINEMEN, FIREMEN AND CARETAKERS

EMPLOYED

IN THE PUBLIC BUILDINGS THROUGHOUT THE DOMINION
ON THE 30TH JUNE, 1896

GIVING

DATE OF APPOINTMENT, SALARY PAID, ETC.

ENGINEERS AND CARETAKERS, PUBLIC BUILDINGS.

STATEMENT showing the Engineers, Firemen, Caretakers, Hoist Attendants and Watchmen employed at Dominion Public Buildings on 30th June, 1896.

Place.	Building.	Name.	Date of Birth.	Position.	Date of Appointment.	Salary per Month.	Time employed per Annum.	Total Salary per Annum.
						\$ cts.		\$ cts.
Amherst.	Post office.	James Morrison.	May 2, 1824	Caretaker.	Nov. 2, 1886	33 33	12 months	400 00
Antigonish	Public building.	Angus McDonald	March 1, 1820	do	Feb. 5, 1891	33 33	12 do	400 00
Annapolis	Post office and C-house.	John McKay	Oct. 26, 1847	do	April 1, 1891	33 33	12 do	400 00
Baddeck	Public building.	Alex. S. McDonald.	Dec. 11, 1855	do	Dec. 23, 1886	16 67	12 do	200 00
Dartmouth	do	I. C. Henley	do 11, 1846	do	May 22, 1894	20 83	12 do	250 00
Halifax	Dominion building	Richard Power.	Aug. 15, 1831	Engineer	Oct. 1, 1871	62 50	12 do	750 00
do	do	John Powell	do 21, 1836	Fireman	do 1, 1871	50 00	9 do	450 00
do	do	J. F. Sullivan.	Nov. 26, 1848	Caretaker	July 1, 1892	33 33	12 do	400 00
do	do	W. H. Gray	Feb. 6, 1834	Watchman	Sept. 10, 1891	39 00	12 do	468 00
do	Examining warehouse	Wm. Power	Jan. 26, 1887	Caretaker	Jan. 26, 1887	41 67	12 do	500 00
do	Immigrant building	John Oxley	April 17, 1856	Fireman	Feb. 7, 1897	25 00	12 months	300 00
Lanenburg	Public building.	J. E. Hebb	Nov. 3, 1833	Caretaker	June 2, 1895	25 00	12 do	300 00
New Glasgow	Post office	Daniel McDonald	Dec. 17, 1832	do	Oct. 1, 1889	33 33	12 do	400 00
North Sydney	Public building.	Angus McEachran	do 24, 1847	do	Jan. 20, 1890	33 33	12 do	400 00
Pictou	Post office and C-house	James Arbuckle.	do 24, 1847	do	Dec. 20, 1896	25 00	12 do	300 00
Sydney, South	do	N. H. McNeill	Dec. 25, 1845	do	do 13, 1890	33 33	12 do	400 00
Truro	do	do	do	do	do	33 33	12 do	400 00
Windsor	do	Aug. F. Parsons	March 3, 1846	do	Sept. 22, 1892	33 33	12 do	400 00
Yarmouth	Public building.	Robert Spears	Sept. 15, 1824	do	Dec. 23, 1886	33 33	12 do	400 00
Charlottetown	Dominion building	Wm. J. Fraser	Jan. 1, 1836	do & fireman	April 3, 1894	33 33	12 do	400 00
do	do	Geo. Walker	Aug. 28, 1826	Messenger.	Jan. 19, 1875	37 03	12 do	444 36
do	do	Wm. Bryne	Jan. 15, 1851	do	Dec. 5, 1892	37 50	12 do	450 00
do	do	Angus McKenzie.	Nov. 12, 1816	Watchman	Nov. 1, 1896	33 33	12 do	400 00
Montague	Public building.	Marion Lambert	Nov. 12, 1845	Caretaker.	Jan. 12, 1887	13 33	12 do	160 00
Summerside	Dominion building	James Brazil	Nov. 12, 1816	do	Nov. 5, 1885	33 33	12 do	400 00
Bathurst	Post office	J. A. Melanpon	Jan. 20, 1825	do	April 13, 1887	33 33	12 do	400 00
Chatham	do	C. Johnston.	May 18, 1856	do	March 27, 1895	25 00	12 do	300 00
Charleton, St. John.	do	James R. Reid	Aug. 15, 1823	do	Oct. 1, 1889	8 33	12 do	100 00
Dalhousie	do	Wm. Gould.	Jan. 1, 1853	do	Nov. 26, 1890	33 33	12 do	400 00
Fredericton	do	Jas. Perkins	Oct. 5, 1847	do	May 31, 1881	33 33	12 do	400 00
Moncton	do	E. B. Hicks.	Jan. 11, 1832	do	Jan. 11, 1886	33 33	12 do	400 00

Department of Public Works

Newcastle	do	Patrick Keating	March 13, 1840	do	Oct. 23, 1886	33 33 12	do	400 00
St. Stephen	do	Samuel Topping	April 2, 1839	do	May 25, 1887	33 33 12	do	400 00
Sussex	do	Shepherd Dryden	do	do	Jan. 15, 1897	33 33 12	do	400 00
St. John	Custom-house	Noël J. Morrison	July 25, 1868	Brig'n'r & caretaker	April 17, 1894	60 00 12	do	720 00
do	do	Christopher White	Nov. 20, 1844	Fireman	Oct. 9, 1885	50 00 6	do	300 00
do	do	Jas. A. Paul	Aug. 1, 1837	Caretaker	Nov. 13, 1891	41 67 12	do	500 00
do	Post office	James Wolfe	March 10, 1850	Engineer	Dec. 1, 1893	55 00 12	do	660 00
do	do	Ed. Hanev	Feb. 22, 1849	Hoist attendant	Nov. 27, 1882	50 00 12	do	600 00
Woodstock	do	Wm. Kennedy	May 2, 1825	Caretaker	Feb. 1, 1890	33 33 12	do	400 00
Aylmer	do	Miss M. G. Woods	Nov. 16, 1839	do	April 29, 1895	5 00 12	do	60 00
Castcook	Public building	Israel Baldwin	May 15, 1824	do	June 27, 1889	33 33 12	do	400 00
Fraserville	Post off. e.	Z. Boucher	April 13, 1847	do	July 2, 1892	20 83 12	do	250 00
Hull	Post office, &c	J. H. Kerr	Sept. 23, 1826	do	Feb. 14, 1893	12 50 12	do	150 00
Joliette	do	Chas. Guilbault	Feb. 21, 1831	do	Oct. 15, 1889	33 33 12	do	400 00
do	do	F. Caisse	Aug. 8, 1848	do	Sept. 22, 1893	8 33 12	do	100 00
do	do	A. Thomas	June 18, 1836	do	Nov. 13, 1894	4 16 12	do	50 00
Laprairie	Dominion buildings	Thos. Ryan	Feb. 18, 1848	Foreman engineer	March 4, 1882	100 00 12	do	1,200 00
Montreal	Examining warehouse	M. Boyer	May 27, 1868	Fireman	do 4, 1882	50 00 12	do	600 00
do	do	Alex. Daudelin	do	do	do 1, 1893	45 00 12	do	540 00
do	Post office	F. Greene	Oct. 4, 1837	Engineer	Jan. 1, 1885	60 00 12	do	720 00
do	do	L. A. Thibault	Jan. 28, 1861	Electrician	June 1, 1885	60 00 12	do	720 00
do	do	G. S. Gingras	Dec. 13, 1867	Electrician, &c	Jan. 17, 1895	60 00 12	do	720 00
do	do	Jos. Dufresac	Feb. 2, 1863	Elevator man	Dec. 15, 1893	50 00 12	do	600 00
do	do	Art. Forget	July 25, 1867	do	do 15, 1893	50 00 12	do	600 00
do	do	S. N. Nickle	Dec. 25, 1871	do	March 1, 1894	50 00 12	do	600 00
do	do	C. Vadeboncoeur	May 17, 1842	Caretaker W. C.	Feb. 6, 1894	1.25 p.d.	do	456 25
do	Inland revenue	Louis St. Jean	Sept. 17, 1840	Fireman	Dec. 1, 1892	50 00 12	do	600 00
do	do	J. H. Marchand	do 6, 1849	do	do 2, 1882	50 00 12	do	600 00
do	do	C. Daudelin	June 18, 1843	do	July 16, 1892	2.00 p.d.	do	730 00
do	Custom-h. and ex. wareh.	B. Lajeunesse	Nov. 20, 1861	Fireman	Nov. 23, 1896	45 00 9	do	405 00
do	Drill hall and armouries	Wm. McDonald	Sept. 17, 1832	Engineerman	Feb. 21, 1888	45 00 12	do	540 00
do	Examining warehouse	D. P. Kennedy	do	Engineer	do 1, 1897	75 00 12	do	900 00
Quebec	do	Thos. P. McLaughlin	Aug. 25, 1871	Fireman	Aug. 26, 1892	45 00 8	do	360 00
do	do	James O'Neil	do 15, 1861	do	do 1, 1894	45 00 12	do	540 00
do	do	John R. Mountain	Nov. 1, 1848	do	Nov. 10, 1888	45 00 12	do	540 00
do	do	A. Blouin	do	Caretaker	May 1, 1896	58 33 12	do	700 00
do	do	F. J. Cooper	do	do	do 15, 1884	33 33 12	do	360 00
Sherbrooke	do	Thos. Rawson	May 20, 1841	do	Dec. 12, 1884	33 33 12	do	400 00
Sorel	do	P. St. Michel	Feb. 26, 1829	do	Sept. 22, 1886	33 33 12	do	400 00
St. Henri	do	A. C. A. Bissonnette	do	do	March 4, 1885	33 33 12	do	400 00
St. Hyacinthe	Public building	F. X. Tétraut	Nov. 8, 1846	Fireman	Aug. 5, 1893	16 66 12	do	400 00
St. Johns	Post office	Mrs. J. Forrant	Oct. 27, 1814	Caretaker	May 30, 1888	12 50 12	do	200 00
do	do	Wm. Comper	May 20, 1826	Watchman	Dec. 28, 1881	12 50 12	do	150 00
St. Jérôme	Public building	Ph. Gravel	June 3, 1828	Caretaker	Feb. 1, 1891	25 00 12	do	300 00
Three Rivers	Custom-house	Jos. Carbonneau	do 24, 1828	do	July 27, 1883	33 33 12	do	400 00
do	Post office	John Lovegrove	Dec. 19, 1836	do	Nov. 5, 1885	33 33 12	do	400 00
Amherstburg	do	Wm. Moulton	March 23, 1839	do	Jan. 29, 1891	33 33 12	do	400 00
Almonte	do	W. H. Moore	do	do	do 8, 1896	33 33 12	do	400 00
Brookville	do	John Squire	April 24, 1842	do	Oct. 27, 1880	50 00 12	do	600 00
Brantford	do	do	do	do	do	do	do	do

STATEMENT showing the Engineers, Firemen, Caretakers, Hoist Attendants and Watchmen employed at the Dominion Public Buildings, &c.—Continued.

Place.	Building.	Name.	Date of Birth.	Position.	Date of Appointment.	Salary per Month.	Time employed per Annum.	Total Salary per Annum.
						\$ cts.		\$ cts.
Barrie.	Post office.	R. D. Hill.	Nov. 1, 1857	Caretaker.	June 26, 1896	33 33	12 months	400 00
Belleville.	do	J. P. Reeves.	do 27, 1820	do	Oct. 17, 1893	50 00	12 do	600 00
Berlin.	do	A. E. Lyons.	Aug. 14, 1860	do	do 1, 1895	33 33	12 do	400 00
Brampton.	do	James McBride.	Oct. 5, 1840	do	Jan. 28, 1891	33 33	12 do	400 00
Carleton Place.	do	Jas. F. Halpenny.	April 17, 1858	do	May 31, 1892	25 00	12 do	300 00
Chatham.	do	Henry Dunn.	May 25, 1841	Fingman.	Sept. 23, 1884	16 66	12 do	200 00
do	do	W. W. Mitchell.	do 25, 1848	Caretaker.	Jan. 7, 1885	20 83	12 do	250 00
Cornwall.	do	Thos. Murphy.	do 1, 1843	do	March 7, 1885	33 33	12 do	400 00
Cayuga.	do	G. A. Gibson.	do 29, 1861	do	Sept. 3, 1891	4 16	12 do	50 00
Cobourg.	do	H. J. Payne.	Jan. 31, 1854	do	April 24, 1890	33 33	12 do	400 00
Galt.	do	Wm. Kilgour.	March 3, 1857	do	Sept. 23, 1886	33 33	12 do	400 00
Guelph.	do	Robert Higham.	May 20, 1854	do	Oct. 29, 1889	33 33	12 do	400 00
Gananoque.	do	Thos. P. Richardson.	Feb. 25, 1834	do	May 1, 1889	33 33	12 months	400 00
Goderich.	do &c.	Lewis Elliot.	April 8, 1832	do	July 2, 1890	33 33	12 months	400 00
Hamilton.	Dominion building.	Alfred Barnard.	Dec. 27, 1847	do & engin r	Dec. 10, 1894	50 00	12 do	600 00
do	do	John Wigglesworth.	Aug. 17, 1863	Fireman.	Oct. 1, 1896	40 00	6 do	240 00
do	do	Thos. Nicholson.	Dec. 17, 1867	Engineer.	March 2, 1887	50 00	12 do	600 00
do	Drill hall.	Wm. J. Harris.	May 20, 1841	Fireman.	Dec. 12, 1889	45 00	8 do	360 00
do	Military college.	William Johnston.	Sept. 12, 1842	Engineer.	May 31, 1881	65 00	12 do	780 00
Kingston.	do	M. Madden.	Dec. 22, 1838	Fireman.	Oct. 12, 1878	55 00	12 do	660 00
do	do	M. Mulken.	Sept. 4, 1857	Fireman.	Sept. 18, 1888	50 00	12 do	600 00
London.	Custom-house.	Wm. Greer.	Oct. 12, 1839	Caretaker.	March 16, 1884	33 33	12 do	400 00
do	Post office.	John Price.	do 6, 1836	Engineer.	Jan. 14, 1884	50 00	12 do	600 00
do	do	Wm. Gallbraith.	Jan. 8, 1844	Caretaker.	Nov. 16, 1893	33 33	12 do	400 00
Lindsay.	do and C. house.	John Hearn.	March 28, 1853	do	June 22, 1889	33 33	12 do	400 00
Napanee.	do	Wm. J. Sheppard.	Jan. 4, 1854	do	Jan. 15, 1897	33 33	12 do	400 00
Niagara Falls.	do	John Wilkins.	May 29, 1830	do	Sept. 15, 1886	33 33	12 do	400 00
Orangeville.	do	S. Baskerville.	Aug. 1, 1839	do	Nov. 24, 1883	29 16	12 do	350 00
Orillia.	do	John Irwin.	May 17, 1842	do	July 8, 1887	41 66	12 do	500 00
Peterborough.	do	Chas. McRitchie.	March 29, 1853	do	June 11, 1894	33 33	12 do	400 00
Petrolia.	do	Wm. Armstrong.	Sept. 9, 1846	do	June 11, 1888	20 00	12 do	240 00
Port Colborne.	do	Levi Reynolds.	Feb. 15, 1839	do	Nov. 17, 1885	33 33	12 do	400 00
Port Hope.	do	John Whitehead.	April 15, 1839	do	Sept. 11, 1893	25 00	12 do	300 00
Port Arthur.	Public building.	Samuel Hamilton.	June 4, 1834	do	Oct. 29, 1890	33 33	12 do	400 00
Pembroke.	do							

Department of Public Works.

Prescott	"	"	"	"	"	Post office	Rufus C. Henderson	April	6, 1822	do	do	Dec.	23, 1890	33	33	12	do	400 00	
Stratford	"	"	"	"	"	Post office, &c	J. H. Roberts	May	1, 1847	Engineer	do	Feb.	7, 1884	50	00	12	do	600 00	
St. Catharines	"	"	"	"	"	do	Wm. Bryson	Feb.	4, 1843	Caretaker	do	Aug.	9, 1883	33	33	12	do	400 00	
St. Thomas	"	"	"	"	"	do	Jas. Russell	Sept.	15, 1832	do	do	Sept.	4, 1885	33	33	12	do	400 00	
Strathroy	"	"	"	"	"	Public building	Wm. J. Johnston	May	12, 1840	do	do	Oct.	25, 1890	33	33	12	do	400 00	
Smith's Falls	"	"	"	"	"	do	R. W. Lewis	Aug.	13, 1863	do	do	Jan.	8, 1896	25	00	12	do	300 00	
Toronto	"	"	"	"	"	Dominion buildings	Wm. Bell	Sept.	9, 1836	Foreman, engineer	do	Sept.	30, 1893	100	00	12	do	1,200 00	
do	"	"	"	"	"	Inland revenue building	C. H. Baillie	do	22, 1852	Fireman	do	Jan.	13, 1891	50	00	12	do	600 00	
do	"	"	"	"	"	Custom-house	Fred. Faragher	Oct.	10, 1844	do	do	Nov.	1, 1889	50	00	12	do	600 00	
do	"	"	"	"	"	Examining warehouse	Jas. Cosgrove	Feb.	10, 1844	Engineer	do	Dec.	28, 1874	65	00	12	do	780 00	
do	"	"	"	"	"	do	Ed. Appleton	Sept.	26, 1864	Fireman	do	Dec.	23, 1886	55	00	12	do	660 00	
do	"	"	"	"	"	do	Alex. Dey	do	27, 1863	Hoist attendant	do	Dec.	1, 1887	50	00	12	do	600 00	
do	"	"	"	"	"	do	Wm. Cheney	Dec.	19, 1851	do	do	March	1, 1887	50	00	12	do	600 00	
do	"	"	"	"	"	do	W. J. Slean	July	5, 1855	do	do	Sept.	3, 1888	46	50	12	do	600 00	
do	"	"	"	"	"	do	Jas. Richardson	Feb.	23, 1831	Watchman	do	Sept.	3, 1888	46	50	12	do	558 00	
do	"	"	"	"	"	Post office	John Coulter	July	28, 1846	Engineer	do	Oct.	14, 1896	45	00	8	do	360 00	
do	"	"	"	"	"	do	John Graham	do	do	Fireman	do	do	16, 1896	45	00	6	do	270 00	
do	"	"	"	"	"	do	Geo. Letray	do	do	do	do	Nov.	1, 1896	45	00	6	do	300 00	
do	"	"	"	"	"	Drill hall	Richard Eyre	Oct.	11, 1849	do	do	do	do	45	00	12	do	540 00	
Trenton	"	"	"	"	"	do	Wm. Townley	Feb.	25, 1856	do	do	Dec.	31, 1895	45	00	12	do	540 00	
Walkerton	"	"	"	"	"	Public building	David Allan	May	13, 1844	Caretaker	do	Aug.	31, 1889	33	33	12	do	400 00	
Windsor	"	"	"	"	"	do	F. Parker	Aug.	6, 1833	Engineman	do	Oct.	3, 1888	50	00	12	do	600 00	
do	"	"	"	"	"	Post office	W. Curtis	March	6, 1844	Caretaker	do	Nov.	9, 1880	33	33	12	do	407 00	
do	"	"	"	"	"	Public building	Andrew McLean	Nov.	24, 1825	do	do	July	20, 1891	33	33	12	do	400 00	
do	"	"	"	"	"	do	John Fawcett	May	11, 1857	do	do	Aug.	18, 1890	40	00	12	do	480 00	
do	"	"	"	"	"	Post office	J. R. Alexander	Aug.	19, 1852	Engineman	do	June	1, 1888	70	00	12	do	840 00	
do	"	"	"	"	"	do	Patrick Dillon	March	17, 1849	Fireman	do	Jan.	1, 1889	45	00	6	do	270 00	
do	"	"	"	"	"	do	Jos. Coudu	May	10, 1843	Hoist attendant	do	March	16, 1887	45	00	12	do	540 00	
do	"	"	"	"	"	do	Jos. Gagnier	April	11, 1853	Watchman	do	June	7, 1892	45	00	12	do	540 00	
do	"	"	"	"	"	do	G. L. Fraser	Oct.	20, 1851	do	do	Aug.	1, 1894	40	00	12	do	480 00	
Calgary	"	"	"	"	"	Public building	E. N. Brown	March	8, 1845	do	do	Jan.	24, 1891	45	00	12	do	540 00	
do	"	"	"	"	"	Court house	R. Wylie	July	7, 1859	do	do	June	21, 1894	33	33	12	do	400 00	
Edmonton	"	"	"	"	"	Land and registry office	Robert Sage	Oct.	15, 1849	do	do	Aug.	26, 1894	35	00	12	do	420 00	
Lethbridge	"	"	"	"	"	Court house and C. house	A. G. Hamilton	May	14, 1848	Caretaker	do	Jan.	31, 1891	45	00	12	do	540 00	
Moosomin	"	"	"	"	"	do and jail	George D. Northgraves	do	20, 1838	do	do	June	14, 1888	33	33	12	do	400 00	
Prince Albert	"	"	"	"	"	Land and registry office	Geo. Cassie	Jan.	13, 1833	do	do	Aug.	25, 1893	33	33	12	do	400 00	
do	"	"	"	"	"	Court house and C. house	W. J. White	July	21, 1865	do	do	Dec.	13, 1895	33	33	12	do	400 00	
Moose Jaw	"	"	"	"	"	do	John Ryan	June	24, 1827	do	do	Nov.	1, 1893	14	38	12	do	175 00	
McLeod	"	"	"	"	"	do	P. McEran	March	24, 1840	do	do	Aug.	1, 1889	45	00	12	do	540 00	
Regina	"	"	"	"	"	do	L. Rankin	Aug.	8, 1855	Fireman	do	Oct.	20, 1896	40	00	12	do	540 00	
do	"	"	"	"	"	do	Chas. Taylor	June	11, 1844	Caretaker	do	Oct.	2, 1895	45	00	12	do	480 00	
Wolsley	"	"	"	"	"	do	Ralph Johnson	Nov.	4, 1822	do	do	Jan.	11, 1892	50	00	12	do	600 00	
Nanaimo	"	"	"	"	"	Post office	John McMurphy	Aug.	12, 1812	do	do	Oct.	1, 1884	50	00	12	do	600 00	
New Westminster	"	"	"	"	"	do	W. H. Bailey	May	6, 1865	do	do	July	1, 1894	50	00	12	do	600 00	
Victoria	"	"	"	"	"	Public building	Atwell King	April	6, 1843	do	do	Aug.	25, 1893	33	33	12	do	400 00	
Vancouver	"	"	"	"	"	do													

R. STECKEL.

Department of Public Works.

APPENDIX No. 10

NAMES OF PERSONS EMPLOYED ON THE DIFFERENT GRAVING DOCKS

ON THE 30th JUNE, 1896

WITH

DATES OF APPOINTMENTS, SALARIES, Etc.

Department of Public Works.

GRAVING DOCK EMPLOYEES.

STATEMENT showing Names, Dates of Appointment, Salaries, &c., of persons employed on the different Graving Docks, 30th June, 1896.

Name.	Date of Birth.	Position.	Where employed.	Date of Appointment.	Salary.	Remarks.
<i>Esquimalt Graving Dock, British Columbia.</i>						
John Devereux.....		Dockmaster.....	Esquimalt.....	Sept. 17, 1887.....	\$166 66 per month	
A. C. Muir.....		Engineer.....	do.....	April 1st, 1887.....	100 00 do	
J. W. Muir.....		Asst. engineer.....	do.....	Jan. 11, 1892.....	80 00 do	
A. D. Greeves.....		Carpenter.....	do.....	Dec. 1st, 1887.....	80 00 do	
F. M. Jones.....		Stoker.....	do.....		60 00 do	
E. Williams.....		do.....	do.....		60 00 do	
John Stack.....		Watchman.....	do.....		50 00 do	
<i>Lévis Graving Dock.</i>						
Ulric Valiquette.....	30th June, 1856.	Dockmaster.....	Lévis.....	April 13, 1891.....	1,800 00 per annum	Annual allowance of \$200 for house rent. First appointment, 9th May, 1873.
Wm. Macdougall.....		Mech'l engineer.....	do.....	June 1st, 1888.....	75 00 per month	
Napoléon Lemelin.....		Asst. mech'l engr'r.....	do.....	do 1st, 1888.....	45 00 do	
Narcisse Lemelin.....		Fireman.....	do.....	do 1st, 1888.....	32 00 do	
Théodore Chabot.....		Caretaker and watchman.....	do.....	April 9, 1891.....	45 00 do	
<i>Kingston Graving Dock.</i>						
James Wilson.....		Dockman.....	Kingston.....	July 2, 1892.....	1,400 00 per annum	
Robert McLeod.....		1st engineer.....	do.....	do 1st, 1892.....	75 00 per month	
Wm. Geaghean.....		Fireman.....	do.....	do 1st, 1892.....	45 00 do	
C. Staley.....		Watchman.....	do.....	do 1st, 1892.....	45 00 do	

R. STECKEL.

Department of Public Works.

APPENDIX No. II

TABULAR STATEMENT

SHOWING THE DATES OF

THE CLOSING AND OPENING OF NAVIGATION

AT THE PRINCIPAL PORTS OF CANADA

ON THE SEABORD, THE RIVER AND GULF OF ST. LAWRENCE

AND ON THE GREAT LAKES

1895-96

Department of Public Works.

OTTAWA, 31st August, 1896.

SIR,—I have the honour to transmit, herewith inclosed, for insertion in the Annual Report of the Department, a statement showing the dates of the opening and closing of navigation at several ports in Canada, in 1895-96.

I have the honour to be, sir,

Your obedient servant,

M. McRAE.

E. F. E. ROY, Esq.,
Secretary, Department of Public Works.

OPENING AND CLOSING OF NAVIGATION.

STATEMENT showing the date of the closing and opening of navigation at the undermentioned ports in Canada, in 1895 and 1896.

Ports.	Province.	Location.	Date of Closing 1895-96.	Date of Opening 1896.	Remarks.
Arichat, C.B.	Nova Scotia	Isle Madame.....	Feb. 10, 1896.	Mar. 10.....	
Bathurst.	New Brunswick	Baie des Chaleurs.....	Nov. 25, 1895.	April 28.....	
Bellefleur	Ontario	Lake Ontario.....	Dec. 1, 1895.	do 20.....	
Campbellton	New Brunswick	Baie des Chaleurs.....	Nov. 23, 1895.	May 1.....	
Charlottetown	P. E. Island	Gulf of St. Lawrence.....	Jan. 7, 1896.	April 12.....	
Collingwood	Ontario	Georgian Bay, Lake Huron.....	Dec. 5, 1895.	do 20.....	
Gaspé	Quebec	Gulf of St. Lawrence.....	Jan. 6, 1896.	May 9.....	
Georgetown	P. E. Island	do.....	Jan. 25, 1896.	April 2.....	SS. "Stanley" made comparatively regular trips from Pictou during the winter.
Goderich	Ontario	Lake Huron.....	Nov. 23, 1895.	do 13.....	This port is never closed.
Halifax	Nova Scotia	Atlantic Ocean.....	Nov. 26, 1895.	9.....	
Kingcarline	Ontario	Lake Huron.....	Jan. 2, 1896.	do 14.....	
Kingston.	do	Lake Ontario.....			Open all winter. Coal shipped during all the winter months.
Louisburg, C.B.	Nova Scotia	Atlantic Ocean.....	Nov. 25, 1895.	April 28.....	Ice formed in harbour Dec. 6th, 1895.
Montreal.	Quebec	River St. Lawrence.....	Dec. 31, 1895.	do 15.....	Had no heavy drift ice during the winter and spring. We entered and cleared vessels any month of winter. A large steamer entered and cleared here on March 23rd bound for Europe. She called for "bunker coal." May say we had no drift ice this spring.
North Rustico	P. E. Island	Gulf of St. Lawrence.....			Dates on which last vessel arrived in 1895, and first departure in 1896.
North Sydney, C.B.	Nova Scotia	Atlantic Ocean.....			
Owen Sound.	Ontario	Georgian Bay, Lake Huron.....	Dec. 28, 1895.	April 20.....	
Percé.	Quebec	Gulf of St. Lawrence.....	Jan. 1, 1896.	do 13.....	First vessel cleared 6th April, 1896.
Pictou.	Nova Scotia	do.....	Jan. 6, 1896.	do 6.....	Last steamer left for Duluth, Minn., Dec. 5th, 1895.
Port Arthur.	Ontario	Lake Superior.....	Dec. 20, 1895.	do 27.....	Ferry boats ran until the 19th Feb.
Port Dover	do	do Erie.....	do 12, 1895.	do 3.....	
Port Hope.	do	do Ontario.....	do 18, 1895.	do 15.....	
Port Stanley..	do	do Erie.....	do 10, 1895.	Mar. 29.....	The lake and harbour were clear of ice off and on during the winter. No very heavy ice formed on the lake at this place.
Quebec.	Quebec	River St. Lawrence.....	do 2, 1895.	April 1.....	Last freight steamer left port 26th Nov. First ocean steamer arrived 27th April. First schooner arrived from Murray Bay, April 1st.
St. Ann's	Nova Scotia	Atlantic Ocean.....	Feb. 1, 1896.	do 27.....	Winter was mild. Ice did not form as early as usual.
St. John.	New Brunswick	Bay of Fundy.....			No ice ever forms to impede navigation at this port.
St. Johns	Quebec	River Richelieu.....	Dec. 2, 1895.	April 8.....	Canal opened 4th May. The River between St. John and Lake Champlain clear of ice on the 8th of April.

Department of Public Works.

St. Peter's, C.B.	Nova Scotia	Atlantic Ocean	Feb. 13, 1896	Mar. 30	St. Peter's Inlet, the Bras d'Or Lake end of the canal, was closed about 2½ months.
Sarnia	Ontario	Lake Huron	Dec. 12, 1895	April 3	On St. Clair River.
Sault Ste. Marie	do	Lake Superior	do 11, 1895	do 18	
Shediac	New Brunswick	Gulf of St. Lawrence	do 10, 1895	do 25	Ice in harbour was clear two weeks before first arrival. Easterly winds kept entrance blocked with heavy field ice.
Sorel	Quebec	River Richelieu	Nov. 30, 1895	do 20	Vessels loaded coal on the 20th January.
Sydney, C. B.	Nova Scotia	Atlantic Ocean	Jan. 22, 1896	Mar. 28	Last departure for sea 16th Nov., and first arrival 15th May. The
Tadoussac	Quebec	River St. Lawrence	Nov. 23, 1895	April 5	"Gabriel Boulihamies," crossed to Rivière du Loup, April 5th.
Three Rivers	Quebec	do	Nov. 23, 1895	do 28	
Toronto	Ontario	Lake Ontario	Dec. 9, 1895	Mar. 28	
Warton	do	Georgian Bay, Lake Huron	do 26, 1895	April 16	
Windsor	do	Detroit River	do 5, 1895	Mar. 23	The railway and city ferry boats crossed every day during the last
Winnipeg	Manitoba	Lake Winnipeg	Nov. 25, 1895	April 26	winter.

Department of Public Works.

APPENDIX No. 12.

REPORT ON GOVERNMENT TELEGRAPH LINES

FOR THE

FISCAL YEAR ENDED 30TH JUNE, 1896

Department of Public Works.

GOVERNMENT TELEGRAPH SERVICE.

DEPARTMENT OF PUBLIC WORKS,
OFFICE OF THE GENERAL SUPERINTENDENT,
OTTAWA, 13th August, 1896.

SIR,—I beg leave to submit herewith a list of the Government telegraph lines and cables, with data of lengths, year of construction, number of offices at present established, and an estimated average of the traffic obtaining; also the following report upon this service for the twelve months ended 30th June, 1896, with accompanying list of offices, operating staff, &c., in the several districts; and, for convenience of reference, a further appendix giving the tariffs for messages on the different lines.

I have the honour to be, sir,

Your obedient servant,

D. H. KEELEY,
General Superintendent.

E. F. E. ROY, Esq.,
Secretary, Dept. of Public Works,
Ottawa.

GOVERNMENT TELEGRAPH SERVICE.

Location of Lines.	Points connected.	Year.	LENGTHS OF LINES.			Number of Offices.	Yearly Average of Messages Sent.
			Land Lines.	Cables.	Total.*		
			Miles.	Knots.			
Newfoundland ..	Port au Basque—Cape Ray	1883	14		14	2	
Nova Scotia	North Sydney—Meat Cove (with loops)	1880-95	156½				
do	Across Bras d'Or Channel	1880		¼	157½	13	5,700
do	do St. Ann's Harbour	1887		¼			
do	do Ingonish Harbour	1887		¼			
do	do Meat Cove—St. Paul's Island	1890		20			
do	On St. Paul's Island	1890	3		23	2	50
do	Mabou—Cheticamp	1887	63		63	7	2,000
do	Barrington—Cape Sable	1883	16				
do	Across Bear Point Channel	1883		1½	17½	3	450
do	do Lt. Howe Channel	1883		½			
New Brunswick.	Chatham—Escuminac	1885	42		42	5	750
do	<i>Bay of Fundy System:</i>						
do	Eastport—Campobello	1880		1½			
do	On mainland Eastport	1880	½				
do	On Campobello Island	1880	7½				
do	Campobello—Grand Manan	1880		7½			
do	On Grand Manan Island	1880	25½		44½	8	600
do	Grand Manan—Cheney's Island	1890		½			
do	On Cheney's Island	1890	¾				
do	Cheney's Island—Whitehead Island	1890		¾			
Quebec	Bay St. Paul—Chicoutimi	1881	92		92	6	
do	Murray Bay—Point Esquimaux	1881-87	456½				
do	Across Saguenay River	1883		1½	496	35	18,400
do	Bersimis to Manicouagan	1883		12			
do	Manicouagan to Godbout	1883		26			
do	<i>Quarantine System:</i>						
do	Quebec—L'Ange Gardien	1885	13				
do	L'Ange Gardien—Orleans Island	1885		¾			
do	On Orleans Island	1885	29½		52½	7	3,400
do	Orleans Island—Isle Réaux	1889		2			
do	On Isle Réaux	1889	2½				
do	Isle Réaux—Grosse Isle	1889		2			
do	On Grosse Isle (all told)	1885-94	3½				
do	<i>Anticosti System:</i>						
do	Gaspé—L'Anse à Fougère	1881	28				
do	L'Anse à Fougère—Anticosti	1881		44½	316½	10	500
do	On Anticosti Island	1881-90	223½				
do	Anticosti—Long Point, Mingan	1890		21			
do	Meat Cove (C.B.)—Magdalen Islands	1880		55	138½	9	500
do	On Magdalen Islands	1881	83	½			
Ontario	<i>Pelee Island System:</i>						
do	Leamington—Point Pelee	1889	12		32½	7	500
do	Point Pelee—Pelee Island	1889		8½			
do	On Pelee Island	1889	12				
North-west	Qu'Appelle—Edmonton and St. Albert	1883-87	607½		607½	15	4,200
do	Moose Jaw—Wood Mountain	1885	90½		90½	2	250
British Columbia	Ashcroft—Barkerville	1878-87	276½		276½	8	2,000
do	Victoria—Cape Beale	1891	118		118	7	250
do	Nanaimo—Comox and Alberni	1893-95	110½		110½	8	2,500
do	Ashcroft—Lillooet	1896	62		62	1	500
	Total		2,548½	206½	2,754½	155	42,550

* For convenience in totalling, the knots of cable are regarded as statute miles.

Department of Public Works.

REPORT ON ABOVE SERVICE FOR 1895-96.

NEWFOUNDLAND.

The line between Port au Basque and Cape Ray has been maintained in good order throughout the year, under the agreement by which it has all along been operated for the Government by the Anglo-American Telegraph Company.

MARITIME PROVINCES.

All of our lines in Nova Scotia and New Brunswick have been with ordinary general repairs kept in good and continuous working order since the last annual report was submitted, excepting the Barrington-Cape Sable connection, which in that report was stated to have been interrupted but put in order in the month of September, 1895, by the partial renewal of the cable across Barrington Passage. Four months later (in January) the other cable section of that system, between the island and the lighthouse became inoperative. It was, however, restored by local repairers in March, when the ice moved off, and the line then continued uninterrupted till the 16th June, when the Barrington Passage cable was reported to have again given out; but it was also put in order by the local repairers on the 4th July. The land line sections of that system are in good condition.

In the course of some general repairs on the Mabou-Cheticamp line, after extensive damage by a sleet storm in March last, it was found the poles for most part between Margaree and Cheticamp required renewal. An item is submitted in the supplementary estimates for this purpose, and a sufficient number of new poles has been procured to patch up and keep the line in working order in the meantime.

The Escuminac line for a length of about 4 miles approaching the point, was thrown down during a heavy storm in the first week of March and the lighthouse was thus cut off. So soon as the snow and ice disappeared the reconstruction was effected and communication was re-established in May in good time for local and marine requirements.

The Bay of Fundy system since the repair of the Grand Manan-Campobello cable (on the 22nd October, 1895), mentioned in last year's report, has been maintained in good order and free from interruption.

RIVER AND GULF ST. LAWRENCE.

The St. Paul's Island cable which had been interrupted and was put in working order last November, though not wholly repaired, because of the lateness of the season, has, as anticipated, continued so far satisfactorily operative.

The cable between Anticosti Island and Long Point on the north shore ceased working on the 28th December, 1895. The shore ends were as far as possible examined by the local linemen with boats after the ice moved off in the spring and it was concluded the break was in deep water. The steamer "Newfield" has been applied for and the repair of this cable will be made as early as practicable. In the meantime uninterrupted communication has been had with Anticosti by the cable from Gaspé to South-west Point, and the lines on the island have been maintained in good order.

During an unusually heavy storm that prevailed along the St. Lawrence at the end of December, considerable damage was done to the line between Sault au Cochon and Bersimis, and on the 30th it was found the cable between Bersimis and Point aux Outardes had given out. In consequence of this and of the interruption of the Anticosti-Long Point cable at the same time, the whole of the north shore line below Bersimis was cut off during the greater part of January; but a messenger service between Bersimis and Manicouagan was established in the interval for the exchange of telegrams. On the 29th January the cable was got at and found to be

considerably damaged on the shore at Point aux Outardes. It was temporarily repaired by the local agent, and later on (in April) was overhauled and put in good condition by the regular lineman, who at the same time examined the Manicouagan-Godbout section, and found it badly wasted away for a length of about $\frac{3}{4}$ mile at the Godbout end. To replace this a reserve length of the same type of cable (Ozokerited I. R.) that was on hand in Halifax was brought up to Rimouski and subsequently taken over on a small schooner and placed in position by our local agent, Mr. N. A. Comeau. The land line on the north shore has lately been gone over and generally repaired, a few pole renewals being made where found needful and the whole is now in first rate condition from Bersimis to Point Esquimaux.

The St. Francois-Isle Réaux cable of the quarantine telegraph system was subjected to another interruption from the 4th February till the 17th May, 1896, the earliest date at which it could be properly examined, owing to running ice followed by stormy weather. The cable was found to have been torn out of the cemented groove provided for it and badly crushed by ice. In fact, part of the shore ground including the groove had been scooped up and carried away under an unusually heavy pressure of ice, above low water mark and higher up than the new length of special type of cable put in last year. The damaged portion was replaced by a piece of good cable and as thus repaired the section was secured in its former position which is about as good as is afforded at that spot.

The telephone system installed at the quarantine station in 1894 continues in reliable operation and has been found in every way satisfactory.

ONTARIO.

The Pelee Island connection was rendered inoperative during the past winter in consequence of a vessel's anchor having dragged into it during a heavy gale on the 26th November, 1895. An attempt was made forthwith to effect repairs, but the formation of heavy ice interfered with the work and operations had to be abandoned on the 6th December. On the 3rd May following, the connection was re-established, but in the course of repair the cable was found to have been very badly damaged in many places by vessels' anchors running foul of it and by ice crushing upon it in the vicinity of the middle ground. It needs to be overhauled and all bad spots cut out as early as practicable; and as, with a view to its greater security, an item has been placed in the estimates to provide for an additional length wherewith to change the route of the cable from its present position to the east side of Point Pelee and the middle ground, it will probably be convenient to effect the whole improvement at one time.

The repoling of the island section was completed early in the spring and the land line is now in first rate condition. As the operation of the circuit embracing in all 8 telephone stations, has never been as satisfactory as is desirable, it has been decided to change the present equipment for improved instruments operated on the plan that has been found so satisfactory in the case of the Grosse Isle quarantine system and this improvement will be effected as soon as practicable after the appropriations for the ensuing year are made available.

NORTH-WEST.

The lines in the North-west have been maintained satisfactorily throughout the year with the provision that was made in the way of pole renewals mentioned in last year's report.

On the 9th September, 1895, an office was established at Bresaylor, 27 miles north-west of Battleford, with Mr. H. McCleneghan in charge as agent-operator.

The Edmonton-St. Albert telephone line (9 miles), which was constructed in 1885, and latterly embraced 4 stations, was leased from the 24th October, 1895, to the Edmonton District Telephone Co., for a yearly rental of \$1.00. The lease is terminable at any time on six months' notice.

Department of Public Works.

On an application from the residents of Morinville for the establishment of telephonic connection with St. Albert, the department agreed to grant assistance in the shape of the requisite material, which was already on hand and for which there was no prospective use elsewhere. There was accordingly delivered in July, 1895, to a representative of the residents of Morinville by our agent at Edmonton, the following quantities of materials to be used in the construction and equipment of the line: 11 miles line wire, 380 insulators and 2 sets telephone apparatus; the supply of poles and work of construction was left to be provided for by the parties concerned.

BRITISH COLUMBIA.

The general repair and resetting of the poles on the Barkerville line last season was completed in the month of August, and is reported to have been thoroughly well done, all poor joints cut out, etc., and the whole put in first class condition.

The new line to Lillooet mentioned in last year's report was completed in December, and an office was opened at Lillooet for business on the 5th January, 1896, with Mr. S. A. Macfarlane in charge as agent-operator. It is operated as a branch from Ashcroft in conjunction with the Barkerville line.

The Comox line has been satisfactorily maintained as heretofore; and to increase the facilities for traffic, the Nanaimo agency has been established in the Canadian Pacific Telegraph Office at that place; and a telegraph operator has been appointed at Comox, the telephone (as formerly) being continued between Union and Courtney.

In consequence of the coast line to Cape Beale having been thrown down during a heavy storm in January, and thereby rendered inoperative at a time when there happened to be especial need for it; the desirability of seeking another and more promising route for an alternative connection was taken into consideration, and an item has been placed in the estimates for a proposed extension to Cape Beale from Alberni. In further pursuance of the same object an examination of the intervening country is now being made to determine the practicability of an all year round maintenance of a telegraph in that locality.

SERVICE GENERALLY.

As a matter of precaution, and with a view to obviating a repetition of causes for complaint received from several different districts, the following notice, in the form of a linen poster, has been issued in sufficient quantities to the respective district superintendents for distribution along the lines as opportunities offer:—

“NOTICE.—Notice is hereby given that any person found unlawfully destroying or removing telegraph poles, wire, insulators, brackets or spikes; or any boats or boathouses, or shelter huts or the contents thereof, pertaining to the Government telegraph, will be prosecuted under “Cap. 168, sec. 40, Revised Statutes of Canada,” which declares every such person to be guilty of misdemeanour and liable to imprisonment.

“The Government offers \$100 reward for the arrest and sufficient evidence to secure the conviction of any person guilty of the misdemeanour above defined.

D. H. KEELEY,

“General Superintendent.”

“GOVERNMENT TELEGRAPH SERVICE,

“Department of Public Works,

“OTTAWA, ONT., 1st January, 1896.”

REVENUE AND EXPENDITURE.

The revenue and expenditure figures for each of the lines in the several districts hereinbefore mentioned are given in the following table:—

Telegraph Service.	Expenditure.	Revenue.	Remarks.
	\$ cts.	\$ cts.	
Lower St. Lawrence and Maritime Province:—			
Anticosti Island lines	2,305 45	268 34	Signal Service messages, Meteorological Service messages and reports, and Fisheries bulletins are handled free of tolls.
Bay of Fundy do	3,854 82	430 51	
Cape Ray do	250 00		
Cape Sable do	812 60	5 81	
Cheticamp do	841 10	343 36	
Escuminac do	705 01	171 77	
Low Point agency	50 00		
Magdalen Island lines	4,095 56	468 47	
Meat Cove do (including St. Paul's Island).....	2,292 15	677 24	
North Shore St. Lawrence (East of Bersimis)	5,496 95	808 49	
do do (West of Bersimis)	3,385 98	950 54	
Quarantine line	1,430 07	284 62	
Subsidies, stationery, line and office material, reserve cable and cable repairs and contingencies chargeable to the appropriation for Gulf lines	3,979 95		
	29,499 64	4,409 15	
Ontario: Pelee Island line	1,360 90	121 80	
North-West telegraph lines	14,062 22	1,381 24	
British Columbia: Comox line, including Alberni branch	4,029 32	1,518 28	
*Barkerville line	3,957 62		
*Cape Beale line	5,424 58		
Total	58,334 28	7,430 47	

* The company operating these two lines retains the revenue and the Government reimburses them the excess of expenditure over revenue.

APPENDED TABLES.

The usual tabular statements of the lines and offices, staff, etc., appended to this report will be found to contain whatever additions or changes have been made up to the 30th June last.

D. H. KEELEY,
General Superintendent.

OTTAWA, 13th August, 1896.

GOVERNMENT TELEGRAPH SERVICE.

NEWFOUNDLAND TELEGRAPH SYSTEM.

No.	Stations.	Intermediate Distances.	Operators.	Salaries per Annum.	Date of Appointment.	Memo.
1	Port au Basque	Miles. 0	.....	\$ cts. 50 00 or com'n.	.....	N. B.—The commission is 25 per cent upon all business to and from the office; said commission guaranteed not to be less than at the rate of \$50 per annum.
2	Cap Ray Lighthouse	14	.....	50 00 do	.....
	Total	14		100 00 do		

N. B.—The above short line is constructed in connection with the Signal Service, and connects at Port au Basque with the land line system of the Anglo-American Telegraph Company.

GOVERNMENT TELEGRAPH SERVICE—Continued.

ANTICOSTI TELEGRAPH SYSTEM.
ANTICOSTI ISLAND SERVICE.

No.	Stations.	Intermediate Distances.	Agent and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
1	* Fox Bay	Miles. 0	J. Stubbart.....	\$ cts. 50 00 or com'n	Nov. 1, 1888.	The commission is 25 per cent on all business to and from the office in each instance; and commission guaranteed not to be less than at the rate of \$50 per annum.
2	Heath Point Lighthouse.....	23	T. Gagné	50 00 do	July 20, 1881.	
3	South Point Lighthouse	32½	A. Nadeau	50 00 do	Oct. 1, 1888.	
4	* Shallop Creek.....	17½	B. Bradley	50 00 do	July 7, 1881.	
5	Salt Lake.....	52½	{ Z. Beaudin, repairer. { A. Beaudin, operator	365 00 do 50 00 do	May 6, 1896. May 12, 1896.	General repairer. Plus \$1 per day when absent on duty.
6	South-west Point Lighthouse.	15	{ Miss G. Pope	420 00 do	Oct. 18, 1880.	Chief operator since 1st August, 1882.
			{ H. Pope	200 00 do	July 21, 1893.	District superintendent. Plus \$1 per day when absent on duty.
7	Jupiter River	7	.....	50 00 do	.....
8	Otter River	17½	.....	50 00 do	.....
9	* Beccarie River	22	.....	50 00 do	.....	Beccarie River closed 30th May, 1896.
10	Cape Eagle (Ellis Bay)	10	.....	50 00 do	.....
11	West Point Lighthouse.....	9	A. Malouin.....	50 00 do	Aug. 1, 1881.	
12	* English Bay.....	3	F. Cabet	50 00 do	July 1, 1882.	NOTE—A special allowance for maintenance of office, \$50 per annum, has been added to the commission for offices marked *, since September, 1887.
13	Mechastic Bay	14½	.....	.....	.....
	Totals	223½		1,535 00		

South-west Point connects with l'Anse à Fougère, Gaspé, by cable 44½ knots; and from Mechastic Bay connection is made with Long Point of Mingan by cable 21 knots.

GASPÉ SECTION.

1	L'Anse à Fougère.....		N. Bernier.....	17 00	.....	Special allowance for the cable terminus. A testing station only.
2	Gaspé Basin	28	J. J. Annett.....	240 00	Oct. 16, 1881.	Transfer office. Connection with G. N. W. telegraph system.
		28		257 00		

Department of Public Works.

MAGDALEN ISLANDS TELEGRAPH SYSTEM.

MAGDALEN ISLANDS SECTION.

Stations.	Intermediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
1 Amherst.....	Miles. 0	Miss J. Shea.....	\$ cts. 50 00 or com'n	Oct. 1, 1882	The commission is 25 per cent on all business to and from the office in each instance; said commission guaranteed to be not less than at the rate of \$50 per annum.
2 Amherst Lighthouse.....	9	Wm. Cormier.....	50 00 do	June 11, 1881	
3 Etang du Nord village.....	15	(P. Pelletier.....	400 00 do	Dec. 1, 1891	Plus \$20 per annum for rent. General line repairer.
4 Etang du Nord lighthouse.....	1	(Mrs. A. Binet.....	50 00 do	Sept. 1, 1891	Two-wire loop line.
5 Grindstone Island.....		(N. Arsenault.....	50 00 do	Aug. 17, 1880	Plus \$1 per day when absent on duty.
6 House Harbour (½ knot cable)	8	(A. LeBourdais, D.Spt	600 00 do	Sept. 15, 1893	
7 Wolfe Island.....	28½	(M's. E. LeBourdais, op	50 00 do	June 1, 1888	
8 Grosse Isle.....	11	P. L. Joncas.....	50 00 do	June 1, 1888	
9 Grand Entry.....	11	N. Clark.....	200 00 and do	June 1, 1888	
Totals.....	88½	Mrs. F. Aikins.....	50 00 or do	Feb. 18, 1882	
			1,560 00		

GOVERNMENT TELEGRAPH SERVICE—Continued.

MAGDALEN ISLANDS TELEGRAPH SYSTEM.

CAPE BRETON SECTION.

Stations.	Intermediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
1 Meat Cove (Cable Station).	Miles. 0	A. B. McDonald.....	\$ cts. 500 00	Nov. 7, 1890.	The commission is 25 per cent upon all business to and from the office in each instance: said commission guaranteed to be not less than at the rate of \$50 per annum.
2 Aspy Bay.	10½	I. Y. Nichols.....	50 00 or com'n.	July 1, 1894.	Closed November, 1895.
3 White Point (7¼ miles, loop).	14½		M. McLeod.....	50 00 do	April 1, 1897.	NOTE.—This line is at present operated and maintained by the Western Union Telegraph Company, but at the cost of the Government.
4 Neil's Harbour (¾ way house, loop line).	14½	J. M. Burke.....	50 00 do	April 1, 1892.	
5 Ingonish, North Bay.	9	F. C. Brewer.....	50 00 do	Aug. 1, 1891.	
6 South Ingonish.	10½	John McDonald.....	50 00 do	April 1, 1888.	
7 French River (¾ knot cable).	23	W. Bingham (agent).	50 00 do	July 19, 1882.	
8 Englishtown (¾ knot cable).	11	W. J. McRitchie (rep'r).	400 00 do	May 1, 1894.	
9 South Gut, St. Ann's (on loop).	5	Miss C. Morrison.....	50 00 do	April 1, 1894.	
10 Baddeck (on loop).	13	D. Dunlop.....	50 00 do	Jan. 1, 1892.	
11 Fort Bevis (2¼ miles, looped off Baddeck line).	5	Miss M. Campbell.....	Com'n. only	April 1, 1885.	Construction of this loop line completed June, 1895.
12 Kelley's Cove (N. Campbellton).	6	Mrs. E. Livingston.....	50 00 or com'n.	Jan. 1, 1889.	
13 Big Bras d'Or (¾ knot cable).	2½	W. U. Tel. Co.....	50 00 do	Jan. 1, 1890.	
14 North Sydney.	12½				
Totals.....	157½		1,450 00		

Meat Cove station connects with the Magdalen Islands system by a cable to Old Harry Head, 55 knots, and with St. Paul's Island by a cable of 20 knots. The latter is operated with telephones.

Department of Public Works

NOVA SCOTIA TELEGRAPH SYSTEM.

CAPE SABLE SECTION.

No.	Sections.	Intermediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
1	Barrington.....	Miles. 0	W. U. Tel. Co.'s Agent.	\$ ctr. 50 00 or com'n.	Dec. 18, 1883.	The commission is 25 per cent upon all business to and from the office in each instance; said commission guaranteed to be not less than at the rate of \$50 per annum.
2	Newellton (including 1½ knots cable).....	11	Miss. E. A. Smith	50 00 do ..	April 1, 1889.	
3	Cape Sable Island lighthouse (including 1½ mile cable).....	6½	I. K. Doane.....	50 00 do ..	Dec. 18, 1883.	
	Totals.....	17½		150 00		

EAST COAST SECTION.

N. B.—In connection with the Signal Service, a land line, 208 miles in length was erected in 1881, between Canso and Halifax, for a bonus of \$16,000, and is maintained and operated by the Western Union Telegraph Company, without further cost to the Government.

GOVERNMENT TELEGRAPH SERVICE—Continued.

MABOU-CHETICAMP, C.B., TELEGRAPH SYSTEM.

No.	Stations.	Intermediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.				
1	Mabou	0	Mrs. M. McDonald.....	\$120 per annum.....	April 1, 1887.	The commission is 25 p. c. of the Government line tariff receipts, and is guaranteed to amount to not less than \$50 per annum. Where 50 p. c. commission is paid there is no guarantee as to amount.
2	Broad Cove	20	Mrs. Annie McLellan.....	\$50 or commission.....	March 1, 1892.	
3	S. W. Margaree.....	11	Angus Collins.....	Com'n 50 per cent.....	do 3, 1888.	
4	Margaree Harbour.....	5	J. P. McFarlane.....	\$60 or commission.....	May 18, 1886.	
5	N. E. Margaree (loop line wire).....	10	Miss B. M. Ross.....	do.....	Jan. 1, 1889.	
6	Grand Etang	8	Joseph Doucette.....	Com'n 50 per cent.....	April 23, 1893.	
7	Cheticamp	8	Mrs. M. Fiset.....	\$50 or commission.....	do 1, 1887.	
	Totals	63				

CHATHAM-ESCUMINAC, N.B., TELEGRAPH SYSTEM.

1	Chatham	0	Great North-western Telegraph Co.....	\$185 00 or com'n.....	This amount is paid for supervision of the line and office accommodation at Chatham. The commission is 25 p. c. of the Government line tariff receipts in each instance, and is guaranteed to amount to not less than \$50 per annum. \$12 per annum allowed for care of train battery at Point Escuminac.
2	Black Brook	5½	Miss M. Williston.....	50 00 do.....	March 1, 1885.	
3	Baie du Vin	15	Mrs. M. Brimmer.....	50 00 do.....	Aug. 1, 1891.	
4	Lower Hardwicke	6	Mrs. A. Lewis.....	50 00 do.....	Sept. 1, 1885.	
5	Escuminac.....	3½	K. R. McLennan.....	50 00 do.....	Nov. 1, 1888.	
6	Point Escuminac lighthouse	12				
	Totals	42		\$435 00		

Department of Public Works.

BAY OF FUNDY, N.B., TELEGRAPH SYSTEM.

GRAND MANAN SECTION.

Sections.	Intermediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
<i>Long Eddy Cable Hut, to</i>					
1	Miles. 3	Mrs. C. C. Seely (D. Supt.) Miss A. G. Watt.	\$ cts. 420 00 50 00 or com'n.	Nov. 18, 1880. Jan. 1, 1895.	The commission is 25 p. c. upon all business to and from the office in each instance; said commission guaranteed not to be less than at the rate of \$60 per annum. When 50 p. c. commission is paid there is no guarantee as to amount.
<i>Branch Line.</i>					
2	6	W. A. Fraser.	Com'r 50 per cent.	Feb. 28, 1893	
3	2	F. A. Newton	\$75 00 or com'n.	April 1, 1887	\$25 p. annum is included for repeating Whitehead br.
4	4½	P. Russell.	50 00 do	May 1, 1891.	
5	5½	A. Gilmon, repairer.	50 00 do 60 00	Dec. 1, 1894.	Southern Head office closed 30th November, 1889.
<i>Grand Harbour.</i>					
6	0	W. Cheney	Commis'n 25 p.c.	Feb. 1, 1891.	
7	4½	E. Carroll	\$50 00 or com'n.	Dec. 1, 1890.	
	1½		\$805 00		
Totals	27½				

CAMPOBELLO SECTION.

<i>Liberty Cove Cable Hut, to</i>					
1	7½	Miss E. G. Vennell	100 00 or com'n.	Sept. 1, 1895.	
2	¾	J. Cushing	100 00	Dec. 26, 1881.	
Totals	8		200 00		

A cable of 1½ knots connects Welchpool with the landing ¼ mile from Eastport; and a cable of 7½ knots is laid from Long Eddy, Grand Manan, to Liberty Cove, Campobello.

GOVERNMENT TELEGRAPH SERVICE—Continued.

GROSE ISLE QUARANTINE TELEGRAPH SYSTEM.

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
1	Quebec.....	Miles. 0	Great North-western Telegraph Co.	\$ cts. 185 00	.....	This amount is paid for supervision of the line, and covers rent of pole line from Quebec to L'Ange Gardien, for which \$35 per annum is charged.
2	L'Ange Gardien. Orleans Island landing (cable). St. Pierre.....	13 $\frac{3}{4}$ 3 $\frac{1}{4}$	C. Turcott.....	50 00 or com'n.....	Mar. 1, 1886	The commission is 25 per cent of the Government line tariff in each instance, and is guaranteed to amount to not less than \$50 per annum.
3	St. Pétronille.....	4 $\frac{1}{2}$	M. Plante.....	50 00 do.....	April 7, 1896	
4	St. Laurent.....	6 $\frac{1}{2}$	M. Gobeil.....	120 00 and 25 p. c. commission.....	Sept. 15, 1888	
5	St. Jean.....	7	P. Pouliot.....	120 00 and 25 p. c. commission.....	July 1, 1888	
6	St. François.....	6 $\frac{3}{4}$	M. Emmond.....	50 00 or com'n.....	Mar. 1, 1895	
7	Isle Réaux (including 2 knots cable).....	3 $\frac{1}{4}$				
8	Isle Réaux (land line). Grosse Isle quarantine office (in- cluding 2 knots cable).....	2 $\frac{1}{2}$ 3 $\frac{1}{2}$	M. Langlois.....	50 00 do.....	Sept. 1, 1885	\$12 per annum allowed for care of main battery at Grosse Isle. Note. — The telephone system on Grosse Isle since May, 1893, has comprised $\frac{1}{2}$ mile of 2-wire line, with 11 connections or stations.
	Quarantine telephone system } 2-wire line.....	1 $\frac{1}{2}$				
		52 $\frac{1}{4}$		625 00		

CHICOUTIMI AND NORTH SHORE OF ST. LAWRENCE TELEGRAPH SYSTEM.

CHICOUTIMI SECTION.

No.	Stations.	Inter-mediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.		\$ cts.		
1	Bay St. Paul	0	F. Boivin	180 00 per ann.*	Previous to April 1, 1885	*The commission upon business is 25 per cent of the Government tolls of the line; the amount guaranteed to be not less than \$50 per annum.
2	St. Urbain	9	A. Boivin	50 00 do	do	
3	La Cruche	37	A. Gauthier (repairer)	50 00 do	do	
4	St. Alexis	31½	O. Pelletier	420 00	May 15, 1887	
5	St. Alphonse de Begotville	3	A. Simard	50 00 or com'n.	Jan. 1, 1889	
6	Chicoutimi	11½	G.N.W. Tel. Co.	50 00 do	April 1, 1885	
	Totals	92		25 p. cent com'n.	Nov. 1893	Plus \$12 per annum for care of main battery.
				800 00		

NORTH SHORE SECTION.

1	Murray Bay	6	Mrs. F. Vincent	50 00 or com'n	Previous to April 1, 1885
3	Cap & L'Aigle	4	N. Duchesne	50 00 do	June 1, 1888
4	Ste. Fidèle	6	A. N. Parent	50 00 do	April 1, 1890
5	Port au Persil	7	A. Brassard	50 00 do	May 1, 1889
6	St. Siméon	4	D. Gaudin	50 00 do	Dec. 1, 1887
6	Baie des Rochers.	12	G. Savard	50 00 do	June 1887
7	Riv. aux Canards } Loop Line.	17	G. Bouillenne	100 00 do	Nov. 1886
8	St. Etienne	13	J. E. Caron	420 00	Sept. 1, 1890
9	Tadoussac (1¼ knot cable)	15	M. Savard	50 00 or com'n.	Nov. 1, 1888
10	Bergeronnes	15	J. H. Topping	50 00 do	April 1, 1885
11	Escoumains	12	P. Bouchard	50 00 do	do
12	Baie des Bacons	8	J. A. Puise	50 00 or com'n.	May 6, 1892
13	Mille Vaches	8	P. O. Bonenfant	50 00 or com'n.	April 1, 1885
14	Portneuf Mills	11½	S. Bouchard	50 00 or com'n.	May 1, 1890
15	Portneuf light.	6	E. Courbron (repairer)	420 00	July 1, 1890
16	Sault au Cochon	7	J. Forrest	50 00 or com'n.	April 1, 1888
17	Betsiamits.	31	A. LePage	50 00 do	Dec. 1, 1887

Mr. Bouillenne at River Canard has acted as repeating operator for the St. Etienne branch since August, 1889.

Commission at 25 per cent not guaranteed at Baie Racons or at Portneuf Mills. Closed November, 1885.

GOVERNMENT TELEGRAPH SERVICE—Continued.

CHICOUTIMI AND NORTH SHORE OF ST. LAWRENCE TELEGRAPH SYSTEM—Concluded.

NORTH SHORE SECTION—Concluded.

No.	Stations.	Intermediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.		\$ cts.		
18	Pointe aux Outardes (cable).....	12	A. Lausier.....	500 00 per annum	May 21, 1893	
19	Pointe Paradis, Manicouagan.....	18	N. A. Comeau.....	50 00 or com'n.	Oct. 15, 1883	
20	River Godbout (cable).....	26	L. A. Fafard.....	50 00 do	Dec. 28, 1883	
21	Pointe des Monts.....	18½	Z. Poulin.....	50 00 do	May 16, 1884	
22	Trinity Bay West.....	5¼	A. Bilodeau.....	Accommodation of do	1, 1889	
23	Trinity Bay East.....	2½	I. Comeau.....	do	Sept. 1, 1889	
24	Caribou Islands.....	7	E. H. Tétu, D. Supt.....	90 00 per month.	Nov. 1, 1891	
25	Pentecost River.....	17	A. Therriault.....	180 00 per annum	July 1, 1888	
26	Sa. Marguerite.....	47½	P. E. Vignault, opr.....	180 00 do	Jan. 2, 1884	
27	Seven Islands.....	22½	F. Gallienne, lineaman.....	540 00 do	April 22, 1890	Plus 50 cents per day when absent on duty.
28	River Moisie.....	15½	D. Potier.....	50 00 do	May 1, 1885	Closed January, 1896.
29	Sheldrake.....	72	Mrs. H. Cody.....	50 00 or com'n.	Feb. 1, 1890	
30	Thunder River.....	6½	Geo. Molloy.....	50 00 do	Oct. 1, 1889	
31	Magpie.....	14	B. Chambers.....	50 00 do	do	
32	St. John's River.....	9	E. S. Vibert.....	360 00 per annum	Nov. 1, 1889	Long Point is the repeating office for the Anticosti cable in operation since September 1, 1891.
33	Long Point.....	10	M. J. Maloney.....	50 00 or com'n.	Oct. 1, 1888	The commission at Pointe aux Esquimaux is 50 per cent, without guarantee as to amount.
34	Mingan.....	7	D. Cormier.....	Commission only	May 21, 1893	
35	Pointe aux Esquimaux.....	24				
	Totals.....	496				

NOTE.—In the estimates the maintenance of the Chicoutimi and North Shore lines is provided under head of North Shore Line. They are operated conjointly.

Department of Public Works.

ONTARIO—PELEE ISLAND TELEGRAPH SYSTEM.

No.	Stations.	Intermediate Distances.	Agents.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.		\$ cts.		
1	Leamington	7	J. McR. Selkirk D. Supt.	50 00	Nov. 1, 1888.	The commission is upon the receipts for the Government line. North Point Lighthouse is the repeating office for the system.
2	Club House	5	C. Harrison	Comsn. 25 p.c.	April 1, 1889.	
3	Point Pelee	8½	W. A. Grubb.	do	Nov. 1, 1888.	
4	Cable to Island					
4	North Point Lighthouse (½ mile loop)	1	J. E. Quick	\$50 00 and Com'n.	Dec. 1, 1890.	
5	North dock	1½	C. B. Quick	Comsn. 25 p.c.	Nov. 1, 1888.	
6	West dock	5	A. M. McCormick	do	do 9, 1888.	
7	South dock	4½	F. B. McCormick	do	do 1, 1888.	
	Total	32¾				

NOTE.—This line is operated with telephones.

GOVERNMENT TELEGRAPH SERVICE—Continued.

LINES IN THE NORTH-WEST TERRITORY.

QU'APPELLE-EDMONTON SECTION.

Stations.	Inter- mediate Distances.	Agents.	Salaries per Annum.	Date of Appointment.	Memo.
1 Qu'Appelle.	Miles.		\$ cts.		
2 Fort Qu'Appelle.	0	E. W. Warner	720 00	Jan. — 1883	
3 Touchwood.	17	Miss E. Johnston	600 00	Mar. 1, 1885	
4 Humboldt	46	A. Von Lindeburg	600 00	Nov. 1, 1883	
5 Saskatoon (14 miles loop).	78				Humboldt office was closed 20th August, 1893.
6 Henrietta do	69	C. P. R. Tel. Co's	300 00	Jan. 1, 1892	
7 Battleford	52	J. Harrington, repairer.	600 00	Jan. 1, 1888	
8 Bressaylor	47	W. Salsbury, repairer.	720 00	Oct. 1, 1886	
9 Fort Pitt.	27	L. P. O. Noel	720 00	Apr. 15, 1890	
10 Onion Lake	62	H. McCleneghan	480 00	Sept. 19, 1895	The repairer formerly stationed at Battleford was transferred to Humboldt, in November, 1892, and thence to Moose Jaw, in May, 1893.
11 Moose.	32½	J. F. Lake, repairer.	720 00	Aug. 1, 1891	
12 Saddle Lake.	45	G. G. Mann, oper. & agt.	240 00	Jan. 1, 1892	
13 Victoria	37	A. W. Campbell	600 00	June 26, 1896	
{ Fort Saskatchewan }	49	L. Picard, repairer	600 00	July 1, 1891	
do	49	W. C. Gillis, repairer	720 00	Jan. — 1887	
Edmonton	24	W. G. Ross, agent	Com. 25 p. c	Dec. — 1886	
		G. M. Graham	120 00	Jan. — 1896	The office at Edmonton has been operated jointly with the C. P. R. Tel. Co. since 1st January, 1892.
		G. Voyer	300 00	Mar. 1, 1893	
		W. McKay, repairer	720 00	May 1, 1886	
Branch Line— *Edmonton.	0				* The St. Albert branch line is operated with tele- phones. It was leased to the Edmonton District Telephone Co., from 24th October, 1895.
16 St. Albert	9				
Total	607½				

Department of Public Works.

NORTH-WEST TELEGRAPH LINES—WOOD MOUNTAIN AND FORT MACLEOD SECTION.

No.	Stations.	Intermediate Distances.	Staff.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.		\$ cts.		
1	<i>Fort Macleod Line</i> — Galt Junction (Dunmore).....	0				
2	Lethbridge.....	107				
3	Macleod.....	28½				
4	Fort Macleod.....	½				
	Total.....	136				
1	<i>Wood Mountain Line</i> — Moose Jaw.....	0	A. Wilcox, agent. H. Sikes, repairer.	240 00 600 00	Dec. 1, 1891... do 1, 1893...	The Dunmore-Lethbridge section of this line has been sold to the Alberta Railway Co. and the Lethbridge-Fort Macleod section has been transferred to the Mounted Police (August, 1896).
2	Wood Mountain.....	90½	J. H. Thompson, agent.	180 00	do 1, 1890...	Moose Jaw office is operated jointly with the Canadian Pacific Telegraph Co.

GOVERNMENT TELEGRAPH SERVICE IN BRITISH COLUMBIA.
ASHCROFT-BARKERVILLE.

No.	Office.	Inter-mediate Distances.	Agents, etc.	Positions.	Salaries per Month.	Date of Appointment.	Memo.
		Miles.			\$ cts.		
1	{ Ashcroft Station.....	0	Canadian Pac. Ry. Co.	Agent and repairer	50 00	Feb. 16, 1883.	These lines are operated by the Canadian Pacific Railway Co. for the Government, the arrangement being terminable at any time.
2	{ Cache Creek.....	4					
3	{ Bridge Creek.....	26					
4	{ 160-Mile House.....	53					
5	{ Soda Creek.....	40					
6	{ Quesnelle.....	38					
7	{ Stanley.....	54½					
8	{ Barkerville.....	43					
	Branch.						
9	{ Ashcroft Station.....	.62	S. A. Macfarlane.....	Agent and operator	50 00	Jan. 3, 1896.	
	{ Lillooet.....	276½					

VICTORIA-CAPE BEALE.

1	Victoria.....	0	{ J. Wilson (Vancouver).....	District Supt....	25 00	Dec. 23, 1891.	This line is operated by the Canadian Pacific Railway Co. for the Government, the arrangement being terminable at any time.
2	Sooke.....	18	{ E. Houghton.....	Agent and operator	20 00	Nov. 1, 1891.	
3	Otter Point.....	8	{ M. Milne.....	do	Com'n. April 21, 1896.		
4	Jordan River.....	10	{ E. Gordon.....	Agent and repairer	60 00	Dec. 1, 1891.	
5	Port San Juan.....	30	{ L. Desbiens.....	do	55 00	Nov. 1, 1891.	
			{ J. W. Williams.....	do	60 00	Oct. 25, 1892.	
6	Carmansgh Lighthouse..	24	{ W. P. Daykin.....	Agent and operator	20 00	Nov. 1, 1891.	
			{ R. McDonald.....	Repairer.....	45 00	do 1, 1891.	
7	Cape Beale.....	28	{ M. Patterson.....	do	45 00	Sept. 1, 1894.	
		118		Agent and operator	10 00	do 1, 1895.	

Department of Public Works.

GOVERNMENT TELEGRAPH SERVICE IN BRITISH COLUMBIA.

NANAIMO-COMOX AND ALBERNI.

No.	Office.	Inter- mediate Distances.	Agents, etc.	Positions.	Salaries per Month.	Date of Appointment.	Memo.
		Miles.			\$ cts.		
1	Nanaimo.....	0	Joint with C.P.R.....	Agent and operator..	10 00	March 1, 1896.	NOTE.—These two lines are operated by the Govern- ment through the office of the resident engineer at Victoria. Courtney and Fanny Bay are communicated with by telephone at prearranged intervals.
2	Wellington.....	5	E. & N. Ry. Co.....	do	20 00	April 1, 1893.	
3	Parksville.....	23	A. McMillan.....	do	47 50	June 26, 1895.	
4	Fanny Bay.....	23	D. A. McMillan.....	Repairer.....	65 00	Oct. 18, 1895.	
5	Union (wharf).....	94	D. R. O'Hanley.....	do	Commission.	May 22, 1896.	
6	do (mines).....	10	J. Dunsmuir.....	Agent.....	do	April 1, 1893.	
7	Courtney.....	7	do.....	do	do	do 1, 1893.	
8	Comox.....	34	M. McDonald.....	Agent and operator..	10 00	Nov. 1, 1895.	
	Total.....	81					
	<i>Branch.</i>						
9	{ Parksville..... Alberni..... }	29½	C. T. Haslam.....	Agent and operator..	50 00	June 27, 1895.	

GOVERNMENT TELEGRAPH LINES.

SPECIAL TARIFF.

Cable messages.—The rate for transatlantic messages passing over the Government lines is the same as for ordinary through messages, excepting where the ordinary tariff is more than 25 cts.; in such cases the Government line rate is 4 cts. per word, with a minimum charge of 25 cts. For example:—

For a message of 6 words or less the charge is 25 cts. for Government line.
 “ “ 7 “ the charge is (7 x 4 c.) 28 c. “ “
 “ “ 12 “ “ (12 x 4 c.) 48 c. “ “

In every case the counting of words includes the address and signature in the same way as for transatlantic cable tolls.

Press despatches.—The rate for press despatches on the Government lines is a quarter cent per word, but no single message less than 15 cts., where that is the regular rate; or less than 25 cts., where the regular rate is 25 cts. or over.

REGULAR TARIFF.

NOVA SCOTIA.

Line from North Sydney to Meat Cove—Local rate 25-1. (13 offices).

Big Bras d'Or.....	Through rate 25-1 from North Sydney, W. U. Office.
New Campbellton (Kelly's Cove)	do do
Port Bevis.....	do do
Englishtown	do do
Baddeok.....	do do
St. Anne, South Gut.....	do do
French River.....	do do
South Ingonish.....	do do
Ingonish.	do do
Neil's Harbour.....	do do
White Point	do do
Aspy Bay.....	do do
Meat Cove.....	do do

Line from Mabou to Cheticamp—Local rate 25-2 (6 offices).

Broad Cove	Through rate 15-1 from Mabou, W. U. Office.
S. W. Margaree.....	do do
Margaree Harbour	do do
North East Margaree.....	do do
Grand Etang.....	do do
Cheticamp.....	do do

Line from Barrington to Cape Sable—Local rate 12-1 (2 offices).

Newellton.....	Through rate 12-1 from Barrington, W. U. O.
Cape Sable Lt. House	do do

Department of Public Works.

NEW BRUNSWICK.

Line from Chatham to Point Escuminac—Local rate 25-1 (4 offices).

Bay du Vin.....	Through rate 15-1 from Chatham, G. N. W. O.	
Lower Hardwicke.....	do	do
Escuminac	do	do
Pt. Escuminac Lt. House.....	do	do

Line from Eastport, Me., to Campo Bello, Grand Manan, and Whitehead Island (8 offices).—Local rates between offices on Grand Manan, and Whitehead Islands 15-1: Grand Manan and Campo Bello Island 25-2: The Islands and Eastport, Me. 25-2. W. U. O.

Welchpool, Campo Bello	Through rate 25-2 from Eastport, Me., W. U. O.	
Flagg's Cove, Grand Manan.....	do	do
Woodward's Cove	do	do
Grand Harbour.....	do	do
Seal Cove.....	do	do
Southern Head.....	do	do
Cheney's Island.....	do	do
Whitehead Island.....	do	do

QUEBEC.

Line from Gaspé to Anticosti Island, Q. (9 offices)—Local rates between offices on the Island 25-1: Gaspé and the Island offices 50-2.

South-west Point	Through rate 50-2 from Gaspé, G. N. W. office.	
Salt Lake	do	do
Shallop Creek.....	do	do
South Point.....	do	do
Heath Point.....	do	do
Fox Bay.....	do	do
Becsie River.....	do	do
West Point.....	do	do
English Bay.....	do	do

Line from Meat Cove, C.B., N.S., to Magdalen Islands, Q. (8 offices)—Local rates between offices on the Islands 25-1: Meat Cove and the Islands 50-2; Offices on the Meat Cove Line and the Islands 50-2.

Amherst Island.....	Through rate 50-2 from N. Sydney N.S., W. U. O.	
Amherst Lt. House	do	do
Etang du Nord Village.....	do	do
Etang du Nord Lt. House.....	do	do
Cap aux Meules, (Grindstone)...	do	do
House Harbour.....	do	do
Grosce Isle.....	do	do
Grand Entry.....	do	do

Line from Meat Cove, C.B., N.S., to St. Paul's Island, Q.—Local rate between offices on Meat Cove Line and St. Paul's 50-2 (1 office).

St. Paul's Island Lt. House.....	50-2 from North Sydney, N.S., W.U. Office.
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Line from Quebec to Grosse Isle Quarantine station (7 offices)—Local rates between offices on Orleans Island and Isle Réaux 15-1; on Orleans Island, Isle Réaux and Quebec 15-1; on Orleans Island and Grosse Isle 25-1; on Isle Réaux and Grosse Isle 15-1.

St. Pierre, Orleans Island.....	Through rate 15-1 from Quebec, G. N. W. O.	
Ste. Pétronille.....	do	do
St. Laurent.....	do	do
St. Jean.....	do	do
St. François.....	do	do
Isle Réaux.....	do	do
Grosse Isle.....	do	25-1 do

Line from Baie St. Paul to Chicoutimi—Local rate 15-1 (5 offices).

For business with offices west of Baie St. Paul, and terminating at Quebec, add 15c. and 1c. to the Government line tariff.

For business with offices west of Baie St. Paul, beyond Quebec, add the full rate of the Great North-western Telegraph Company to the Government line tariff.

St. Urbain.....	15-1 from Baie St. Paul (Ck Que.) G. N. W. O.
Lacruche.....	do do
St. Alexis.....	do do
St. Alphonse de Bagotville.....	do do
Chicoutimi.....	do do

Line from Murray Bay to Point Esquimaux with branch to Anticosti—Local rates between offices not more than 100 miles apart 15-1; more than 100 miles apart 25-1; on main land and Anticosti 50-2.

For business with offices west of Murray Bay and terminating at Quebec, add 15c. and 1c. to the Government line tariff.

For business with offices west of Murray Bay beyond Quebec, add the full rate of the Great North-western Telegraph Company to the Government line tariff.

Cap à l'Aigle.....	15-1 from Murray Bay (Ck. Que.) G. N. W. Office
Ste. Fidèle.....	do do
Port au Persil.....	do do
St. Siméon.....	do do
Baie des Rochers.....	do do
Rivière aux Canards.....	do do
St. Etienne.....	do do
Tadoussac.....	do do
Bergeronnes.....	do do
Escoumains.....	do do
Baie des Bacons.....	do do
Mille Vaches.....	25-1 do do
Portneuf Mills.....	do do
Port Neuf Light.....	do do
Sault au Cochon.....	do do
Betsiamits (Bersimis).....	do do
Manicouagan.....	do do
River Godbout.....	do do
Pointé de Monts.....	do do
Trinity Bay, West.....	do do
Trinity Bay, East.....	do do
Caribou Islands.....	do do
Pentecost.....	do do
Ste. Marguerite.....	do do
Seven Islands.....	do do

Department of Public Works.

River Moisie.....	25-1	from Murray Bay (Ck. Que.)	G. N. W. Office.
Sheldrake	do		do
Thunder River	do		do
Maggie.....	do		do
St. John's River.....	do		do
Long Point.....	do		do
Mingan	do		do
Point Esquimaux.	do		do
Anticosti Island, via Long Point.	50-2	do	do

ONTARIO.

Line from Leamington to Pelee Island (Telephone Circuit—Local rates between Leamington and Point Pelée 15-1; Mainland and Island Offices, 25-1 : Offices on the Island, 15-1. (6 offices.)

Gun Club House, Mainland.....	15-1	(tho' business) from Leamington,	G. N. W.
Point Pelee do	do		do
North Point Lt. Hse, Pelee Island	do		do
North Dock, Pelee Island	do		do
West Dock do	do		do
South Dock do	do		do

NORTH-WEST TERRITORY.

Line from Qu'Appelle (C.P.R. Stn.) to Edmonton, Alberta—Local rates 15-1, 25-2 and 50-3 for distances 10 to 600 miles. (13 offices.)

Fort Qu'Appelle.....	25-2	Qu'Appelle or Saskatoon	
Touchwood.....	do	do	
Saskatoon (Trans. Office C.P.R. Tel.)	do	do	
Henrietta.....	do	do	
Battleford.....	do	do	
Bresaylor.....	25-2	Saskatoon ; 50-3 Qu'Appelle or Edmonton.	
Pitt.....	do	do	
Onion Lake	do	do	
Moose	50.3	Saskatoon, Qu'Appelle or Edmonton	
Saddle Lake.....	do	do	do
Victoria.....	25 2	Edmonton ; 50-3 Qu'Appelle or Saskatoon	
Fort Saskatchewan.....	do	do	do
Edmonton (Trans. office C.P.R. Tel.)	do	do	do

Line from Moose Jaw (C.P.R. Stn.) to Wood Mountain—Local rates 25-2 (1 office).

Wood Mountain.....	25-2	from Moose Jaw.
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BRITISH COLUMBIA.

Line from Ashcroft (C.P.R. Stn.) to Barkerville—Local rates 25, 50, 75 (8 offices).

Clinton	25-2	from Ashcroft C.P.R. Tel. Office
Bridge Creek.....	do	do
150-Mile House.....	50-3	do
Soda Creek.....	do	do
Quesnelle.....	do	do
Stanley.....	75-5	do
Barkerville.....	75-5	do
Lillooet (branch).....	25-2	do

Line from Victoria C.P.R. Tel. to Cape Beale—Local rate 50-3 (6 offices).

Sooke.....	50-3 from Victoria, C.P.R. Tel. Office	
Otter Point..	do	do
Jordan River.....	do	do
Port San Juan.....	do	do
Carmanah Lt. House.....	do	do
Cape Beale.....	do	do

Line from Nanaimo to Comox—Local rate 25-2 (8 offices).

Wellington/(C.P.R. & E. & N. Ry).	25-2 from Nanaimo or Wellington	
Parksville.....	do	do
Fanny Bay.....	do	do
Union (wharf).....	do	do
Union mines.....	do	do
Courtney	do	do
Comox.....	do	do
Alberni (branch).....	do	do
Offices on Government lines as listed.....		140
Offices at transfer points with connecting lines.....		15
		155

Total number embraced by the service..... 155

N.B.—When the tariff rate is entered as 25-1 or 50-2, etc., the meaning is that the rate is 25 cents or 50 cents for ten words and 1 cent or 2 cents for each additional word.

Department of Public Works.

APPENDIX No. 13

NATIONAL ART GALLERY

CURATOR'S REPORT

FOR THE FISCAL YEAR ENDED 30TH JUNE, 1896

Department of Public Works.

NATIONAL ART GALLERY.

CHIEF ARCHITECT'S OFFICE,

OTTAWA, August 18, 1896.

SIR,—I have the honour to report that the following additions have been made to the Gallery during the fiscal year ended 30th June, 1896 :—

Oil painting "The Photographer," by F. Brownell, R.C.A. This painting was presented to the Gallery by the Royal Canadian Academy in accordance with the Act of incorporation requiring diploma pictures to be sent to the National Gallery.

A large oil painting "Death of Nelson," by George Phillip Reinagle, R.A., has been purchased by the Government for the sum of \$1,000.00.

During the fiscal year, 22,961 visitors have registered their names, showing an increase of 3,815 over the number of visitors in the preceding year.

I have the honour to be, sir,

Your obedient servant,

JOHN W. H. WATTS,

Curator.

E. F. E. ROY, Esq.,
Secretary,
Department of Public Works.

Department of Public Works.

APPENDIX No. 14

OFFICIAL CORRESPONDENCE

DEPARTMENT OF PUBLIC WORKS

FROM 1ST JULY, 1867, TO 30TH JUNE, 1896

Department of Public Works.

OFFICIAL CORRESPONDENCE.

LETTERS Received and Sent from 1st July, 1867, to 30th June, 1896.

Years.	Received.	Sent.
1867—From 1st July to 31st December.....	2,075	1,511
1868 do 1st January to 31st December.....	3,498	2,317
1869 do do do.....	3,448	2,171
1870 do do do.....	4,961	3,185
1871 do do do.....	6,268	3,983
1872 do do do.....	8,333	4,428
1873 do do do.....	10,072	5,707
1874 do do do.....	9,800	5,043
1875 do do do.....	9,006	5,006
1876 do do do.....	7,971	4,773
1877 do do do.....	7,517	4,425
1878 do do do.....	6,886	4,021
1879 do do to 6th October.....	7,186	4,547
1879 do 7th October to 31st December.....	2,033	810
1880 do 1st January do.....	8,451	4,410
1881 do do do.....	9,599	5,529
1882 do do do.....	10,505	5,699
1883 do do do.....	11,633	6,227
1884 do do do.....	13,114	6,903
1885 do do do.....	8,977	5,321
1886 do do do.....	9,644	5,352
1887 do do to 30th June.....	4,866	2,735
1887 do 1st July do 1888.....	10,493	6,343
1888 do do do 1889.....	10,522	7,042
1889 do do do 1890.....	10,098	7,448
1890 do do do 1891.....	10,576	7,286
1891 do do do 1892.....	11,637	6,700
1892 do do do 1893.....	11,720	6,220
1893 do do do 1894.....	9,517	6,028
1894 do do do 1895.....	10,190	5,148
1895 do do do 1896.....	10,223	5,573

NUMBER of Cheques sent by Accountant's to Secretary's Branch and Mailed,
from 1882 to 1896.

Year.		No.
1882.....	From 22nd September to 30th June, 1883.....	1,566
1883.....	do 1st July do 1884.....	3,366
1884.....	do do do 1885.....	3,298
1885.....	do do do 1886.....	3,466
1886.....	do do do 1887.....	4,198
1887.....	do do do 1888.....	4,692
1888.....	do do do 1889.....	4,960
1889.....	do do do 1890.....	4,819
1890.....	do do do 1891.....	5,376
1891.....	do do do 1892.....	5,400
1892.....	do do do 1893.....	7,174
1893.....	do do do 1894.....	7,792
1894.....	do do do 1895.....	8,745
1895.....	do do do 1896.....	9,849

CHEQUES issued by Finance Department and Mailed from Secretary's Branch.

Year.		No.
1885.....	From 1st April to 30th June, 1885.....	245
1885.....	do 1st July do 1886.....	954
1886.....	do do do 1887.....	1,158
1887.....	do do do 1888.....	918
1888.....	do do do 1889.....	887
1889.....	do do do 1890.....	908
1890.....	do do do 1891.....	790
1891.....	do do do 1892.....	820
1892.....	do do do 1893.....	822
1893.....	do do do 1894.....	868
1894.....	do do do 1895.....	594
1895.....	do do do 1896.....	267

LETTERS Received and Sent, Chief Architect's Office, from 1st January, 1880, to 30th June, 1896.

Years.	Received.	Sent.
1880—From 1st January to 30th June.....		1,273
1880 do 1st July do 1881.....		2,943
1881 do do do 1882.....		2,859
1882 do do do 1883.....	3,538	4,600
1883 do do do 1884.....	3,860	6,004
1884 do do do 1885.....	4,500	6,718
1885 do do do 1886.....	6,075	6,450
1886 do do do 1887.....	6,816	6,380
1887 do do do 1888.....	6,947	6,870
1888 do do do 1889.....	6,484	7,667
1889 do do do 1890.....	7,448	6,578
1890 do do do 1891.....		7,751
1891 do do do 1892.....	6,113	4,260
1892 do do do 1893.....	7,428	6,453
1893 do do do 1894.....	6,900	†4,517
1894 do do do 1895.....	7,538	†5,327
1895 do do do 1896.....	7,843	5,783

* The exact number of letters received cannot be accurately given, but would bear about the same proportion to letters sent as last year.

† The decrease in the number of letters sent, is due to a change made on 1st January, 1894, in the manner of transmitting accounts to the secretary. Previous to that date a letter accompanied each account, but now a bundle of accounts goes with each letter.

Department of Public Works.

LETTERS Sent from Chief Engineer's Office, from January, 1880, to 30th June, 1896.

Year.	—	No.
1880.....	From 10th January to 30th June	418
1880.....	do 1st July do 1881.....	1,795
1881.....	do do do 1882.....	2,352
1882.....	do do do 1883.....	2,651
1883.....	do do do 1884.....	3,611
1884.....	do do do 1885.....	3,119
1885.....	do do do 1886.....	2,867
1886.....	do do do 1887.....	3,281
1887.....	do do do 1888.....	3,552
1888.....	do do do 1889.....	4,229
1889.....	do do do 1890.....	3,374
1890.....	do do do 1891.....	3,948
1891.....	do do do 1892.....	4,009
1892.....	do do do 1893.....	4,232
1893.....	do do do 1894.....	3,966
1894.....	do do do 1895.....	4,603
1895.....	do do do 1896.....	4,239

NOTE—The letters, including returns, received in the Chief Engineer's Office may be estimated at the rate of two received to one sent.

Department of Public Works.

APPENDIX No. 15

DETAILED STATEMENT OF EXPENDITURE

ON ACCOUNT OF

REPAIRS, ETC., TO PUBLIC BUILDINGS, CANADA

FOR THE FISCAL YEAR ENDED 30TH JUNE, 1896

BY

O. DIONNE, Esq., Accountant

REPAIRS TO PUBLIC BUILDINGS.

DETAILED STATEMENT of Expenditure on account of "Public Buildings—Repairs, &c.," for Fiscal Year ended 30th June, 1896.

No.	NAME OF BUILDING.	REPAIRS.										Total for repairs.	Wages.	Rents.	Furniture, carpets, &c.	Maintenance of build-ings, &c.	Grand total.	No.			
		Hardware, metal &c.	Repairing roofs, chimney tops, &c.	Lumber, &c.	Brick and stone-work, plaster-ing, &c.	Painting, glazing, &c.	Extraordinary re-pairs.	Travelling expen-ses, telegrams, &c.	Sundries.												
1	<i>Nova Scotia.</i> Amherst post office.	42 35		8 90	235 00	412 00						28 78	727 03							727 03	1
2	Annapolis do	223 17										31 14	254 31							254 31	2
3	Antigonish do	104 81										4 31	109 12					1 00		110 12	3
4	Arichat do	1 75											1 75							1 75	4
5	Baddeck do	119 39				2 10							121 49							121 49	5
6	Dartmouth do	89 62		4 75								41 07	135 44							140 54	6
7	Halifax assistant receiver general's office.											5 00	5 00							1,215 85	7
8	do Dominion build-ing	699 35		25 25		24 00						147 17	895 77							990 89	8
9	do engineer's office.																			320 00	9
10	do examining ware-house.	18 50				49 05						15 75	83 30							1,292 30	10
11	do Lawlor's Island quarant. station					61 45						32 90	94 35							94 35	11
12	do penitentiary.																		0 24	0 24	12
13	Launenburg post office.																			25 45	13
14	New Glasgow do					0 49							0 49							1 89	14
15	North Sydney do	8 97											8 97							8 97	15
16	Parishboro' savings banks.																			16 00	16
17	Pictou custom-house.																			32 20	17
18	do quarantine station	30 20										2 00	32 20							32 20	18
19	Point Edward do											236 03	236 03							236 03	19
20	Sydney post office.											62 92	62 92							62 92	20
21	Springhill custom-house.	4 92											106 36							91 22	21
22	Truro post office	151 65			101 44							57 10	342 40							23 00	22
23	Windsor do				133 65															1 40	23
24	Yarmouth do			12 00		8 83							20 83							9 00	24

Department of Public Works

25	Princed Edward Island.	Charlottetown	Dominion	70 31	6 00		407 80 ^d	302 97	787 08		3 65	790 73	25
26		building	post office.	6 93				4 00	10 98			10 98	26
27		Summerside	do	9 36	10 00			0 50	19 86		3 85	23 71	27
28		<i>New Brunswick.</i>											
28		Bathurst	post office.	8 46				2 30	10 76			10 76	28
29		Carleton	do	2 50				154 90	284 74			2 50	29
30		Chatham	do	91 24	15 00	3 60		11 50	489 90			264 74	30
31		Dalhousie	do	51 40								51 40	31
32		Fredrickton	do	40 90	95 00		292 50 ^b		489 90		3 00	442 90	32
33		Milltown	custom-house.								2 50	2 50	33
34		Moncton	post office.	56 20	24 00			243 55	90 20			80 20	34
35		Newcastle	do	177 65			1,544 67 ^c		1,965 87			1,965 87	35
36		Partridge Island	quaran-					150 50	150 50			150 50	36
37		Portland	post office.	200 68				44 95	245 63		28 00	404 53	37
38		St. Andrew's	do					10 17	10 17			10 17	38
39		St. John	custom-house.	136 89	17 85	827 32		283 06	1,325 12		813 25	2,277 29	39
40		do	inland										
41		do	post office.	161 16	35 85	104 91		515 01	816 93		85 00	85 00	40
42		do	savings bank.	8 45				1 20	9 65		126 48	1,000 11	41
43		do	steamboat spec-					0 75	0 75			0 75	43
44		St. Stephen's	post office.	17 32	598 00	191 00	6 65	20 00	812 97			812 97	44
45		Sussex	do	24 33				16 00	44 33			44 33	45
46		Woodstock	do	2 20					18 20			18 20	46
47		Maritime provinces	gen-					535 10	576 72			1,301 72	47
		Total for Maritime	Provinces	2,560 66	53 70	176 81	2,014 41	2,483 15	10,897 97		447 37	16,025 25	
		Quebec.											
1		Aylmer	post office.	109 44				7 60	117 04			117 04	1
2		Coaticook	do	45 33				6 55	49 88		8 40	58 28	2
3		Grosse Isle	quar. station.					437 06	437 06			437 06	3
4		Hull	post office.								8 80	8 80	4
5		Levis	do					8 50	8 50		14 37	22 87	5
6		Leschene	do					188 75	188 75		24 50	213 25	6
7		Leprairie	do			135 00	7 75		184 75		9 75	194 50	7
8		Montreal	civil service exa-										
9		do	mination office.	167 36						25 00		25 00	8
10		do	custom-house.	10 00	10 50			131 35	181 85			223 36	9
		do	exam. warehouse.									11 85	10
		Carried forward		342 15	10 50	135 00	7 75	779 81	1,275 21		121 82	1,422 03	

a. Drain. b. New letter boxes. c. Repairing masonry.

EXPENDITURE ON ACCOUNT OF "PUBLIC BUILDINGS, REPAIRS," &c.—Continued.

No.	NAME OF BUILDING.	REPAIRS.										Wages.	Rents.	Furniture, carpets, &c.	Maintenance of build-ings, &c.	Grand Total.	No.			
		Hardware, metal, &c.	Repairing roofs, chimney tops, &c.	Lumber, &c.	Brick and stone work, plastering, &c.	Painting, glazing, &c.	Extraordinary re-pairs.	Travelling expen-ees, telegrams, &c.	Sundries.	Total for repairs.										
	Quebec—Concluded.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
	Brought forward.	342 15		10 50	135 00	7 75						779 81	1,275 21		25 00				1,422 03	
11	Montreal immigrant build-ing	84 22											34 22		466 60				466 60	11
12	do inland rev. office.		7 75										66 40						3,189 43	12
13	do post office.					45 45							19 90						3,189 43	13
14	Quebec citadel buildings	442 26											188 00						1,315 39	14
15	do clerk of works office												32 59						231 41	15
16	do custom-house.	51 85											15 47						232 63	16
17	do engineer's office.																		144 00	17
18	do examln. warehouse.	16 79		209 00									378 74						390 74	18
19	do gas inspection office	142 08											230 08						426 63	19
20	do observatory.												203 84						203 84	20
21	do post office	14 50											74 35						328 91	21
22	do Queen's wharf building																			22
23	Rimouski post office												179 75						179 75	23
24	Riviere du Loup post office												95 37						95 37	24
25	Sherbrooke post office												12 60						14 10	25
26	Sorel do												21 90						177 00	26
27	St. Henri												451 99						2 00	27
28	St. Hyacinthe do												227 72						919 64	28
29	St. Jerome do												59 90						236 72	29
30	St. John's do	37 70											4 90						2 00	30
31	St. Lin (Laurentides) post office	647 36											37 70						61 90	31
32	Three Rivers custom-house do post office.	59 00											647 36						987 36	32
33	Valleyfield do	256 20											287 18						306 43	33
34	West Farnham do												173 94						272 28	34
35	Generally Quebec.												273 68						698 58	35
36													265 40						265 40	36
	Total for Quebec.	2,044 71	847 51	219 50	135 00	369 68						2,044 71	7,357 63	901 82	1,315 30	656 97	3,740 45		13,971 67	

EXPENDITURE ON ACCOUNT OF "PUBLIC BUILDINGS, REPAIRS," &c.—Continued.

No.	NAME OF BUILDING.	REPAIRS.											Grand total.	No.				
		Hardware, metal &c.	Repairing roofs, chimney tops, &c.	Lumber, etc.	Brick and stone work, plaster, &c.	Painting, glazing, &c.	Extraordinary repairs.	Travelling expenses, telegrams, &c.	Sundries.	Total for repairs.	Wages.	Rents.			Furniture, carpets, &c.	Maintenance of buildings, &c.		
	<i>Ontario—Continued.</i>																	
46	Brought forward.....	\$ 8,155 73	\$ 161 60	\$ 2,385 21	\$ 1,513 66	\$ 2,716 86	\$ 1,265 78	\$ 8 20	\$ 4,826 08	\$ 21,043 72	\$ 79,491 28	\$ 6,109 74	\$ 3,809 62	\$ 1,488 12	\$ 111,942 48	46		
47	Owen Sound post office.....														5 00	47		
48	Pembroke do	9 34				5 00			4 00	13 34					13 34	48		
49	Peterboro' custom-house do post office.					37 50			71 29	37 50				7 00	44 90	49		
50	Petrolas do								7 78	7 78				15 86	87 15	50		
51	Point Edward cattle quar. station			20 00						20 00				3 00	20 00	51		
52	Port Arthur post office.								79 50	79 50					82 50	52		
53	Port Colborne post office.								4 48	4 48					4 48	53		
54	Port Hope do						300 00		16 50	315 50				4 00	319 50	54		
55	Prescott do								22 25	22 25					22 25	55		
56	Smith's Falls do								58 75	58 75			96 00		154 75	56		
57	Stratford do								27 10	27 10					30 10	57		
58	do temporary post office											100 00			100 00	58		
59	Strathroy post office.								34 44	34 44					34 44	59		
60	St. Catharines do								7 88	7 88					9 88	60		
61	St. Thomas do	93 56							107 03	200 59				2 00	200 59	61		
62	Trenton do	6 50							30 25	42 75				5 00	47 75	62		
63	Toronto civil service examining office.															63		
64	Toronto custom-house.					1,801 00			172 56	1,473 66					77 20	63		
65	do drill hall.	604 09	7 10						50 10	651 29	90 00				1,473 56	64		
66	do engineers office.														751 29	65		
67	do exam. warehouse.	140 68				322 00	2,703 00	30 00	13 90	3,209 58			41 75		331 35	66		
68	do Inland revenue building.												40 00		3,249 58	67		
69	do post office.	175 41				41 31			148 03	361 82				15 30	15 41	68		
70	Walkerton do	22 37	7 25						29 62	29 62					31 62	69		
71	Windsor do	157 75		11 00					10 00	178 75			4 50	9 00	192 25	70		
72	Generally, Ontario.								93 80	301 30	200 00				595 10	71		
	Total for Ontario.	9,377 91	181 95	2,416 21	1,513 66	4,423 67	4,268 78	132 00	6,002 82	28,317 00	79,781 28	6,576 54	4,010 37	1,552 28	120,237 47	72		

Department of Public Works.

Manitoba.	12 00	7 91	13 85	70 50	104 26	1,900 00	481 50	355 59	10 00	114 26
1 Brandon post office.....									10 00	114 26
2 Winnipeg architect's office do Crown timber do office.....									205 72	205 72
4 do custom-house.....	22 85		14 60	32 37	52 78				11 75	203 12
5 do Dominion lands office.....	47 00			8 00	47 00		451 50	4 20	10 50	133 75
6 do engineer's office.....				4 11	45 66					86 74
7 do exam. wareh. se.....	41 55							16 70	459 50	459 50
8 do immigrant bldg. do Inland revenue office.....	334 64	7 45	9 20	30 90	397 49			8 25	62 36	62 36
10 do post office.....		15 30		7 15	56 85	1,900 00		65 42	1 50	1 50
11 Generally, Manitoba	457 54	15 36	37 65	168 86	744 41	1,900 00	481 50	21 55	1 50	1,978 40
Total for Manitoba.....				49 70	49 70		468 17			3,919 67
<i>North-west Territories.</i>										
1 Battleford Indian office.....				2 38	2 38					2 38
2 Calgary court-house	68 00				68 00				3 00	71 00
3 do post office.....	459 01			23 03	482 04			9 55		645 24
4 Edmont in Dominion lands office.....				2 50	2 50					2 50
5 do land and regis- try office.....	22 50		10 95	189 35	222 80			5 00		227 80
6 Lethbridge post office	223 60		21 75	142 56	387 91					387 91
7 Macleod court-house.....							250 00			250 00
8 Maple Creek Dominion lands office.....										30 50
9 Moose Jaw court-house.....										62 00
10 Moosomin court-house.....										87 75
11 do mounted police barracks.....				15 70	15 70					15 70
12 Prince Albert court-house do registry office.....				16 10	16 10			50 00	3 00	50 00
14 Qu'Appelle fishery inspec- tor's office.....										15 70
15 Regina clerk of works office							130 00			16 00
16 do court-house.....				83 35	83 35			69 25		204 95
17 do Dom. lands office.....				58 28	58 28			15 90		150 25
18 do Lt. Gov. residence, 79 10				126 84	205 94					58 28
19 do post office.....				22 70	22 70			268 28		474 22
20 Wolsley court-house								15 10		37 80
21 Yorkton Dom. lands office										112 19
22 Generally, N. W. T.				250 00	250 00					33 34
Total for N. W. T.	852 21		32 70	716 59	1,851 50	953 93	370 00	848 86	190 38	4,214 67

f. New furnace. g. Flooring, carpenter work and painting.

EXPENDITURE ON account of "Public Buildings, Repairs, &c."—*Concluded.*

No.	NAME OF BUILDING.	REPAIRS.										Total for repairs.	Wages.	Rents.	Furniture, carpets, &c.	Maintenance of build-ings.	Grand total.	No.					
		Hardware, metal &c.	Repairing roofs, chimney tops, &c.	Lumber, &c.	Brick and stone-work, plastering, &c.	Painting, glazing, &c.	Extraordinary re-pairs.	Travelling expen-dies, telegrams, &c.	Sundries.	Total for repairs.	Wages.								Rents.	Furniture, carpets, &c.	Maintenance of build-ings.	Grand total.	No.
1	British Columbia.																						
2	Nanaimo post office.																						
3	New Westminster post office.		8 00																				
4	Vancouver gun shed.																						
5	do post office.	207 15	16 06			10 34																	
6	Victoria custom-house.	16 40																					
7	do engineer's office.																						
8	do marine hospital.	53 15																					
9	do post office (old).	261 75	6 00	8 93	23 43	15 70																	
10	William's head quar. stat'n Generally, B. C.			8 93	23 43					700 00	700 00	60 50	8 99	284 93	1,407 03	172 00	60 00	9 15	38 65	382 70	1,639 03	70 21	10
	Total for British Col.	538 45	30 06	8 93	23 43	26 04	700 00	700 00	60 50	825 27	2,212 68	228 00	804 00	264 94	118 87	3,628 49							

RECAPITULATION.

Maritime Provinces	2,560 66	53 70	176 81	2,014 41	822 52	2,244 97	541 75	2,483 15	10,897 97	575 00	2,880 14	1,284 77	447 37	16,025 25
Quebec	2,044 71	847 51	219 50	135 00	369 68		526 79	3,214 44	7,367 63	901 32	1,315 30	656 97	3,740 45	13,971 67
Ontario	9,377 91	181 95	2,416 21	1,513 66	4,423 67	4,268 78	132 00	6,022 82	28,317 00	79,781 28	6,576 54	4,010 37	1,552 28	120,237 47
Manitoba	457 54	15 36	15 30		37 65		49 70	168 86	744 41	1,900 00	451 50	468 17	355 59	3,919 67
North-west Territories	852 21				32 70		250 00	716 59	1,851 50	953 93	370 00	848 86	190 38	4,214 67
British Columbia	538 45	30 06	8 93	23 43	26 04	700 00	60 50	825 27	2,212 68	228 00	804 00	264 94	118 87	3,628 49
Grand total	15,831 48	1,128 58	2,836 75	3,686 50	5,712 26	7,213 75	1,560 74	13,411 13	51,381 19	84,339 53	12,397 48	7,474 08	6,404 94	161,997 22

h. Making road to wharf.

60 Victoria.

Sessional Papers (No. 10.)

A. 1897

DOMINION OF CANADA

ANNUAL REPORT

OF THE

DEPARTMENT OF RAILWAYS AND CANALS

FOR THE PAST FISCAL YEAR

FROM 1ST JULY, 1895, TO 30TH JUNE, 1896

SUBMITTED IN ACCORDANCE WITH THE PROVISIONS OF THE REVISED STATUTES
OF CANADA, CHAPTER 37, SECTION 28

PRINTED BY ORDER OF PARLIAMENT



OTTAWA

PRINTED BY S. E. DAWSON, PRINTER TO THE QUEEN'S MOST
EXCELLENT MAJESTY

1897

[No. 10—1897.]

To His Excellency the Right Honourable Sir John Campbell Hamilton-Gordon, Earl of Aberdeen, &c., &c., &c., Governor General of Canada, &c., &c., &c.

MAY IT PLEASE YOUR EXCELLENCY :

The undersigned has the honour to present to Your Excellency the Annual Report of the Department of Railways and Canals, of the Dominion of Canada, for the past fiscal year, from the 1st of July, 1895, to the 30th June, 1896.

All of which is respectfully submitted,

ANDREW G. BLAIR,
Minister of Railways and Canals.

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RAILWAY SYSTEM.

1. General map of the Dominion.
2. Nova Scotia, Cape Breton, Prince Edward Island and part of New Brunswick.
3. New Brunswick and parts of Maine and Quebec.
4. do do do taking in Montreal.
5. Eastern Ontario and part of Quebec.
6. Western Ontario.
7. North of Lake Superior.
8. Lake Superior to Manitoba.
9. Manitoba and Assiniboia.
10. Assiniboia and Saskatchewan.
11. Assiniboia and Alberta to the Rocky Mountains.
12. British Columbia

CANAL SYSTEM.

13. St. Lawrence, Ottawa, Rideau and Richelieu Canals.
14. Welland Canal.
15. Trent Navigation and Murray Canal.
16. Sault Ste. Marie Ship Canal, also St. Mary's Falls Canal, Michigan.

Department of Railways and Canals

REPORT

1895-96.

To His Excellency
The Earl of Aberdeen,
Governor General.

MAY IT PLEASE YOUR EXCELLENCY,—I have the honour to submit the annual Report of the Department of Railways and Canals for the fiscal year ended on the 30th of June, 1896.

The annual reports of the engineers, together with general and special reports from superintendents, both of railways and canals, and from other officers of the department, are given in appendices.

Attached hereto (Appendices Part No. 2) will be found statements showing the amounts expended during the past fiscal year in construction, repairs and maintenance of the several works under the department; also statements showing total expenditure on each canal since its construction, on each of the Government railways, and on the Canadian Pacific Railway so far as the Government is concerned; also a statement showing the payments made, year by year, to subsidized railways, with the aggregates of such payments.

RAILWAYS.

The present report deals with those railways of the Dominion directly controlled by the Federal Government, and others towards the construction of which subsidies have been authorized.*

In an appendix will be found a special statistical report, embodying returns for the fiscal year ended on the 30th June, 1896, made by Canadian railway companies, as required by statute. This report gives information as to railroad operations in Canada, including the Government roads.

The following general facts gathered from the compilation will be of interest.

The number of railways in actual operation, including the two Government roads, the Intercolonial and the Prince Edward Island Railways, was 130, some of these, however, are amalgamated or leased; making the total number of controlling companies 77, not including the Government railways.

* It should be observed that while the usual reports furnished by the superintending officers, and to be found in the appendices hereto, deal with the fiscal year only, the Chief Engineer of Government Railways has reported, dealing with certain matters under his charge up to November, 1896. Information on points relating to subsidized lines of railway has, in previous years, been brought down in the general report to the end of December, thus giving the results of the season's work. This year, however, it has been found necessary to confine statements to the operations of the fiscal year.

The number of miles of completed railway was 16,387, an increase of 296 miles, besides 2,106 miles of sidings. The number of miles laid with steel rails was 16,137. The number of miles in operation was 16,270.

The paid up capital amounted to \$899,817,900, an increase of \$5,177,341. In this connection, however, it is necessary to draw attention to the foot note on page 32 of the appendices part I., page 32. The gross earnings amounted to \$50,545,569, an increase of \$3,760,082, and the working expenses aggregated \$35,042,655, an increase of \$2,292,986 compared with those of the previous year, leaving the net earnings \$15,502,914, an increase of \$1,467,096. The number of passengers carried was 14,810,407, an increase of 822,827, and the freight traffic amounted to 24,266,825 tons, an increase of 2,742,404 tons. The total number of miles run by trains was 44,500,602, an increase of 3,838,712. The accident returns show 11 passengers killed, of which number not one death was due to collision or derailment.

RAILWAY CONSTRUCTION EXPENDITURE.

BEFORE AND SINCE CONFEDERATION.

The following shows the total amount expended by the Government for construction of railway works, or granted in aid of such construction: embracing the period prior to confederation and extending down to the 30th of June, 1896.

EXPENDITURE BY THE GOVERNMENT OTHER THAN SUBSIDY.

(a.) Intercolonial Railway system, as established by the Act 54-55 Vic., ch. 50 (1891).....	\$55,267,044	63
Prince Edward Island Railway.....	3,750,565	38
Montreal and European Short Line Railway.....	333,942	72
(b.) Carleton Branch Railway.....	48,410	48
Canadian Pacific Railway—Works built by the Government and transferred to the Canadian Pacific Railway Company, including payments made under award for works in B.C.....	31,079,833	27
Canadian Pacific Railway—Other expenditure on surveys, explorations, telegraph lines, Dawson Route, Fort Frances Lock, &c.....	6,639,581	43
(c.) Annapolis and Digby Railway.....	119,225	80
Total expended by the Government itself on railway works.....	\$97,238,603	71

(a.) Certain amounts, total \$296,872.90, originally charged to "Capital," expended prior to confederation on railways which became part of the Intercolonial, were subsequently transferred to "Consolidated Fund" (see the accountant's note Part II, p. 32). They are not included in the above.

(b.) Being the difference between \$88,410.48, expended by the Government, and the sum of \$40,000, paid to it in March, 1893, by the Corporation of St. John, to whom this road was transferred.

(c.) Being the expenditure over and above the sum of \$500,000 voted as a subsidy by the special act 52 Vic., ch. 8 (1889), which sum is included in the "subsidies to railways" under the heading "Western Counties Railway" (see accountant's statement Part II., p. 47), this section having been transferred to that company.

Department of Railways and Canals

PAID AS SUBSIDIES TO RAILWAYS.

Canadian Pacific Railway	\$25,000,000 00
(d) Canadian Pacific Railway Extension to Quebec	1,500,000 00
(e) Canada Central Railway	1,525,250 00
Western Counties Railway (Annapolis and Digby).	500,000 00
(f) Other railways	13,135,282 03
Total paid as subsidy	\$41,660,532 03
Total expenditure on railway construction..	\$138,899,135 74

This amount does not include the annual subsidy of \$186,600 payable half yearly for twenty years, dating from the 1st of July, 1889, to the Atlantic and North-west Railway Company; nor the annual payment of \$119,700 to the Provincial Government of Quebec, being interest at the rate of 5 per cent on the sum of \$2,394,000 granted by 47 Vic., ch. 8 (1884), for the line between Ottawa and Quebec, which sum has now been transferred to the public debt as a liability. (See Public Accounts 1895-96, p. X.) These items are dealt with by the Finance Department.

The expenditure for each year is shown in the accountant's statement, part II.

CANADIAN TRANSCONTINENTAL RAILWAY COMMUNICATION

HALIFAX OR ST. JOHN TO MONTREAL.

The routes available between Halifax and Montreal are four in number; in all of which the Intercolonial is used, either in whole or in part, as follows; (the names adopted are those of the dominating roads):—

Intercolonial Railway Route—

	Miles.
By Intercolonial Railway to Point Lévis	675
Grand Trunk Railway to Montreal	173
	848

(Or by ferry across the St. Lawrence to Quebec, thence by North Shore Railway, C.P.R., also 173 miles.)

Canadian Pacific Railway Route—

By Intercolonial Railway to St. John, N.B.	275
New Brunswick Railway and Maine Central Rail- way to Mattawamkeag	146
Canadian Pacific Railway to Montreal	334
	775

(d) Of this, \$970,000 was expended in the purchase of bonds of the road, which were subsequently cancelled under the Act 54-55 Vic., ch. 11.

(e) Including \$85,250 refunded to the town of Pembroke.

(f) Including value of old rails transferred.

Grand Trunk Railway Route—

	Miles.
By Intercolonial Railway to St. John, N.B.....	275
New Brunswick Railway.....	90
Maine Central Railway.....	224
	<hr/>
Total up to Danville Junction.....	589
By Grand Trunk Railway to Montreal.....	270
	<hr/> 859

Témiscouata Railway Route—

By Intercolonial Railway to St. John.....	275
New Brunswick Railway to Edmundston.....	170
Témiscouata Railway to Rivière du Loup.....	81
Intercolonial Railway to Lévis.....	115
Grand Trunk Railway to Montreal.....	173
	<hr/> 814

MONTREAL TO THE PACIFIC COAST.

CANADIAN PACIFIC RAILWAY.

NOTE.—A somewhat detailed statement of the Government transactions with the company will be found in the Annual Report of this department for the year 1887.

Trunk Line.

	Miles.		
Quebec to St. Martin's Junction (13 miles north of Montreal)	159		
	<hr/>		
Montreal (at the head of Atlantic Ocean Navigation to St. Martin's Junction).....	13		
St. Martin's Junction to Callander.....	331		
For this portion the company were subsidized direct under their contract.	}	Callander to Port Arthur.....	649
		Port Arthur to Red River (opposite Winnipeg)....	428
		Red River to Savona's Ferry.....	1,257
		Savona's Ferry to the waters of the Pacific Ocean at Port Moody.....	213
			<hr/> 2,547
Port Moody to Vancouver.....	15		
	<hr/>		
Total, Montreal to Vancouver.....	2,906		
	<hr/> <hr/>		

This railway was opened for through traffic on the 28th of June, 1886.

By the Act 51 Vic., ch. 32, approval and ratification was given to a certain agreement, dated the 18th of April, 1888, provisionally made between the Government and the Company, whereby the restrictions contained in Article 15 of the original agreement for the construction of the road, barring the Dominion Parliament for twenty years from authorizing the construction of railways south of the Canadian Pacific Railway from any point at or near that road, except those running south-west, were removed. By this agreement, the Government undertook to guarantee the payment of interest at 3½ per cent on an issue of the company's bonds,

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to the extent of fifteen million dollars, running for a term not exceeding fifty years ; the unsold lands of the company's subsidy, estimated at nearly fifty million acres, to form the security for such bonds. The arrangements contemplated by this agreement are being carried out by the Department of Finance. A deed of mortgage in favour of special trustees, one of whom is the Minister of Finance, has been executed under date the 2nd of June, 1888, having previously been approved by an Order in Council of the 1st of that month, being a mortgage of the said unsold lands of the company's subsidy, amounting to 14,934,238 acres, and constitutes the said security.

By the Act passed in 1891, 54-55 Vic., c. 11, respecting the North Shore section of the Canadian Pacific Railway, authority was given, subject to certain provisions, for the cancellation of the mortgage bonds of the North Shore Railway, which to the value of \$1,108,626, had been purchased by the Government for the sum of \$970,000 (part of a sum of \$1,500,000 voted by Parliament in the years 1884 and 1885, to secure to the port of Quebec free access for the trains and traffic of the Canadian Pacific Railway) and for discharging that company from all liability in respect of such bonds. The conditions under which this action might be taken were, as stated in the Act, that the company should execute a deed of agreement binding itself to complete and provide, with all due diligence, the following works and improvements, namely:—

“ Rolling stock, including sleeping cars, day coaches, baggage, mail, and express cars, locomotives and freight cars, of a standard equal to that used on other portions of the company's railway system, involving an outlay of about three hundred and fifty thousand dollars.

“ Improvements over the whole line between St. Martin's Junction and the city of Quebec, of such a character as to bring that section up to the highest standard of the other Canadian Pacific stations, including additional accommodation for passengers at nearly every station, and increased space for the handling of freight, the lengthening of platforms and sidings, the furnishing of new sidings for the development of stone, lumber and other traffic, the substitution of iron for wooden bridges on the line of the North Shore Railway, and the construction of the following specific works, that is to say:—

(1.) In the city of Quebec :

- (a.) One grain elevator ;
- (b.) One flour shed ;
- (c.) Such local improvements and facilities as are necessary for the handling of the traffic of that city.

(2.) In Three Rivers :

- (a.) One grain elevator ;
- (b.) Improvements over the loop line ;
- (c.) Improvements on the Piles Branch ;

“ The said improvements over the whole line involving an outlay of about \$300,000, in addition to the said outlay on rolling stock ;

“ The whole to be completed to the satisfaction of the Minister of Railways and Canals.”

In pursuance of this Act, and on application by the company, an Order in Council was passed on the 14th of December, 1891, reciting the facts of the case, and approving of the execution of a draft agreement, by which the company binds

itself to carry out the improvements called for by the Act; expending the money thereon as follows:—

“At least two hundred thousand dollars (\$200,000) during the year ending on the first day of April, A.D. 1893; an aggregate of at least three hundred and fifty thousand dollars (\$350,000) to the end of the year ending on the first day of April, A.D. 1894; and an aggregate of at least five hundred thousand dollars (\$500,000) to the end of the year ending on the first day of April, A.D. 1895, and an aggregate of at least six hundred and fifty thousand dollars (\$650,000) to the end of the year ending on the first day of April, 1896, subject to such extension in respect of any repairs or renewals for which the necessity has not arisen as may be granted by His Excellency the Governor in Council.”

On the 22nd of December, 1891, the agreement so authorized was duly signed.

The works are in progress, but no inspection has yet been made.

In the agreement dated the 20th of November, 1886, and executed under an Order in Council of the 2nd of that month, which constituted the basis of the final settlement of matters between the Government and the company prior to the transfer of the road to them, a special provision was inserted, in view of dispute as to the condition in which the work in British Columbia executed by the Government should be handed over. The company accepted the same, “subject to the adjustment and correction by the Government of any defects or deficiencies in the construction thereof, if any, according to the specifications and conditions of the contracts therefor, except in so far as the same were modified by the Government prior to 21st of October, 1880.”*

For the determination of the questions covered by the foregoing, a special arbitration was authorized by an Order in Council of the 5th of January, 1888. The arbitrators duly made their award, dated the 6th of July, 1891, and it was furnished to the Government in October, 1891, the amount fixed thereby as payable by the Government to the company being \$579,255.20. The amount claimed by the company was \$12,000,000. This award, in effect, represents the value of work which the arbitrators find the Government should have performed on the sections of the road in British Columbia constructed by it. The amount awarded was to be expended, under the supervision of an officer of the Government, for the improvement of the railway in certain specified directions.

The total value of the work so executed up to the 1st of October, 1896, as returned by the Government officer in charge is \$568,006.15, which includes the expenditure, \$202,675.20, prior to the date of the award, leaving still to be expended the sum of \$11,249.05. A detailed report from the Inspecting Engineer on the work executed will be found in the Appendices, part I., p. 95.

It should be noted that for the year ended on the 30th June, 1896, the company had under traffic, in Canada, 6,211 miles of railway, including leased lines—and that its gross earnings were \$20,175,384.99 (as against 6,159 miles of railway and earnings \$17,912,273.60 the previous year). The total expenditure for working expenses was \$12,202,360.50, making the net earnings \$7,973,024.49, an increase of \$1,343,256.89 over the net earnings of the previous year. The company carried 3,036,619 passengers and 4,576,632 tons of freight. These figures, *which apply only to the traffic in Canada*, are taken from the sworn statements of the company, furnished in accordance with the Railway Act. (See Railway Statistics Part VI.)

*The date of the company's contract.

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GOVERNMENT RAILWAYS IN OPERATION.

The several lines maintained by the Government are: The Intercolonial, the Windsor Branch (maintained only), and the Prince Edward Island Railway, making a total of 1,397½ miles.

Details respecting these railways and their operations will be found in the Appendices part I., containing reports from the Chief Engineer of the department, the General Manager of Government Railways, and the officials of these roads.

The general revenue accounts for 1895-96 show the following as the financial position of these roads for the fiscal year.

The Intercolonial Railway system, 1,142 miles in operation, earned \$2,957,640.10 and the working expenses aggregated \$3,012,827.62, the loss on the year's operations being \$55,187.52.

The Windsor Branch is maintained, but not operated by the Government, which takes one-third of the entire receipts. Its length is 32 miles. The Government earnings amounted to \$36,561.83, and the expenditure on maintenance was \$16,476.46, leaving a profit of \$20,085.37.

The Prince Edward Island Railway is 211 miles long. Its earnings amounted to \$146,476.54, and the working expenses were \$225,138.56; the loss on the year's operation being \$78,662.02.

The gross earnings of all the Government roads for the past fiscal year amounted to \$3,140,678.47, and compared with those of the preceding year show an increase of \$11,228.10. The gross working expenses amounted to \$3,254,442.64, an increase of \$69,994.64. The repairs and renewals of wharfs on the Intercolonial, particularly those at Halifax and Richmond, destroyed by fire as stated in last year's report, were responsible for a large share of this increase, this item of expenditure aggregating \$72,080.28 as against \$7,824.78 the previous year.

The net loss on the operations of the year was \$113,764.17.

INTERCOLONIAL RAILWAY.

The Intercolonial Railway touches six Atlantic Ocean ports, namely Pointe du Chêne, Pictou, Halifax, St. John, Sydney and North Sydney. Connection is made with the Grand Trunk Railway at Chaudière Junction and with the Canadian Pacific Railway at Quebec (by ferry from Lévis).

The total length of the road is 1,142 miles, to which is to be added for freight branches 12½ miles, making a total of 1,154½ miles.

The following are the through distances:—

	Miles.
Lévis (opposite Quebec) via St. Joseph and St. Charles Junction (14 miles) to Halifax.....	675
Lévis to St. John.....	578
Lévis via Truro { to Sydney.....	827
{ to North Sydney.....	820

NOTE.—At Lévis, passengers make connection with the Canadian Pacific Railway with the Grand Trunk Railway. Freight is carried direct along the old main line between Chaudière Junction and St. Charles Junction (17 miles), instead of round by Lévis to St. Charles Junction, a total distance of 24 miles.

CAPITAL ACCOUNT.

During the fiscal year there was an addition of \$259,423.42 to the Capital Account expenditure, making the total expenditure chargeable to "Capital," on the whole road as amalgamated under the Act 54-55 Vic., ch. 50 (1891), up to the 30th June, 1896, \$55,267,362.82, less refund of previous year's expenditure, \$318.19, or a total of \$55,267,044.63.

The additions made during the year included \$124,910.03 for increased accommodation at Halifax, \$107,402.17 on the construction of the branch line from Windsor Junction to Dartmouth, \$11,374.41 for increased accommodation at Sydney, and \$10,000 on rolling stock.

REVENUE ACCOUNT.

The gross earnings of the year amounted to \$2,957,640.10, and the working expenses to \$3,012,827.62, making the excess of expenditure \$55,187.52. The expenditure exceeded that of the previous year by \$75,924.88, and the earnings by \$16,922.15.

Comparing the earnings with those of the previous year, the passenger traffic produced \$971,426.26, an increase of \$7,511.82; the freight traffic amounted to \$1,788,813.18, an increase of \$6,204.64, and the carriage of mails and sundries produced \$197,400.66, an increase of \$3,205.69.

The value of stores, including fuel and steel rails, on hand at the close of the fiscal year was \$765,848.89.

The cost per mile of railway was \$2,638.20 against \$2,571.71 the previous year, and the cost per mile run by trains was 78.41 cents against 73.43 cents the previous year.

GENERAL OBSERVATIONS.

In comparing the traffic of the past fiscal year with that of the previous year, the following features will be of interest:—

The total number of passengers carried was 1,471,866, an increase of 119,199. The local passenger traffic increased by 114,519, and the through traffic by 4,680. The freight traffic amounted to 1,379,618 tons, an increase of 111,802. Of this increase, 1,947 tons were through and 109,855 tons local freight.

Of flour there were carried 822,097 barrels, a decrease of 116,254. Of grain there were carried 1,064,385 bushels, an increase of 28,001. No portion of this was for shipment at Halifax. Lumber showed an increase of 24,085,446 superficial feet, the total quantity transported being 226,332,715 feet. There was a decrease of 8,055 in the number of live stock carried, the number being 64,051. Coal showed an increase of 47,313 tons, the quantity being 432,513 tons. Of raw sugar 9,824 tons were carried, a decrease of 518 tons, the whole quantity being for local stations. Of refined sugar 40,181 tons were carried, an increase of 6,316 tons; of this all but 11,309 tons was for points west of the road. A total of 6,344 tons of fresh fish, a decrease of 548 tons, and a total of 5,741 tons of salt fish, a decrease of 4,468 tons, were carried.

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Of ocean borne goods to and from Europe via Halifax the aggregate amounted to 20,829 tons, an increase of 3,468 tons ; of this 16,748 tons were local traffic of the road.

Forty-five miles of track were relaid with the heavier steel rail, 67 pounds to the yard, in place of the 56 pounds rail. This work was charged to revenue.

By a fire which occurred at the Halifax deep water terminus on the 27th February, 1895, railway property was destroyed to the value of \$202,100, the wharf and the grain elevator being the principal losses. The work of rebuilding has been carried on during the year, as also the rebuilding of the wharf at Richmond, destroyed by fire on the 19th of May, 1895, entailing a loss to the extent of \$100,000.

The old railway crossing of the Narrows at Halifax harbour, giving communication with Dartmouth, having been practically destroyed by storms, and abandoned, a branch line, 10½ miles in length, between Windsor Junction and Dartmouth has been constructed, and was sufficiently completed to admit of its being opened for traffic in June, 1896.

The winter of 1895-96 was not severe, and the cost of the removal of snow and ice was only \$42,554.17, being about \$10,000 below the average cost.

All necessary repairs were made to structures, buildings, wharfs, and other works ; and the whole road, with its rolling stock, has been efficiently maintained.

Various statistical and comparative tables and other detailed information will be found in the appended reports of the Chief Engineer of the department, and of the General Manager and other officers of the Intercolonial Railway.

WINDSOR BRANCH.

This road is 32 miles in length. It extends from Windsor Junction, on the Intercolonial Railway, to Windsor.

This railway is operated by the Windsor and Annapolis Railway Company, now called the Dominion Atlantic Railway Company. The company pay all charges in connection with the working of the traffic, two-thirds of the gross earnings being allowed them, the Government taking the remaining one-third, and assuming all costs of maintenance of the road and works. This arrangement is carried out under an agreement dated the 13th of December, 1892, which extends, for a further term of 21 years, arrangements similar to those made in 1871.

All charges for superintendence and supervision of maintenance of works are borne by the Government, the duty of supervision being performed by the chief officers of the Intercolonial Railway.

The gross earnings of the Government (one-third of gross receipts) amounted to \$36,561.83, a decrease of \$2,515.81. The expenses of maintenance amounted to \$16,476.46, an increase of \$1,836.39, leaving the profit to the Government \$20,085.37.

The road has been maintained in good order. Details will be found in the appendices. (*See part I, p. 72.*)

PRINCE EDWARD ISLAND RAILWAY.

LENGTH OF LINE.

	Miles.
Souris to Tignish.....	168
Mount Stewart to Georgetown.....	24
Charlottetown to Royalty Junction.....	5
Emerald Junction to Cape Traverse.....	13
Alberton to Cascumpec Wharf.....	1
	211

The railway was first opened for traffic on the 12th of May, 1875.

CAPITAL ACCOUNT.

The total cost of the road and equipment chargeable to capital account at the close of the fiscal year 1894-95 was \$3,750,565.38. There was no addition during the fiscal year 1895-96.

REVENUE ACCOUNT.

On revenue account the gross earnings amounted to \$146,476.54, and the working expenses to \$225,138.56, the over expenditure being \$78,662.02.

Compared with the previous year the gross earnings show a decrease of \$3,178,24. The railway carried 122,586 passengers, a decrease of 2,503, producing \$62,358.12, an increase of \$118.75. Of freight there were carried 46,395 tons, a decrease of 1,930 tons, producing \$65,391.92, a decrease of \$2,669.19. The transport of mails and sundries produced \$18,726.50, a decrease of \$627.80.

Compared with the previous year, the expenditure was greater by the sum of \$7,766.63.

The cost per mile run by trains was 91.60 cents, a reduction of 3.75 cents; and per mile of railway \$1,072.19, a decrease of \$36.98.

The value of stores on hand at the close of the fiscal year was \$115,228.03.

The road, with its buildings and rolling stock has been maintained in a satisfactory condition.

Details of operations will be found in the Appendices part I., p. 76.

Communication between the Prince Edward Island Railway and the Intercolonial is afforded in summer by steamer between Summerside and Point du Chêne, between Charlottetown and Pictou, and between Georgetown and Pictou, and in winter by the specially-built steamer "Stanley" between Georgetown and Pictou and between Charlottetown and Pictou; there is also further provision made for communication by iceboats from Cape Traverse. These cross the Strait to Cape Tormentine, on the mainland, a distance of about 9 miles. Here, by the line of the New Brunswick and Prince Edward Railway, about 40 miles in length, connection is made with the Intercolonial Railway at Sackville. This winter service is conducted by the Marine Department, the mails being taken to and met at Cape Traverse by special trains, whenever required by the Post Office Department.

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GOVERNMENT ACTION AS TO SUBSIDIZED LINES.

NOTE.—The numbers within brackets after the title of the company refer to the lists of railways subsidized by Parliament in part III.

With regard to the several lines of railway subsidized by the Dominion, the following represents the action taken and the progress made, in so far as the Dominion Government is concerned; only those lines and companies being mentioned as to which definite steps, other than merely preliminary, have been taken towards securing the subsidy. Information has been brought down to the end of the fiscal year, the 30th of June, 1896, only.

The following shows the aggregate of the payments made on ordinary subsidy account since the system of subsidy of railway enterprise was commenced.

For the fiscal year 1883-84, ended on June 30, 1884	\$		208,000	00
do 1884-85,		do 1885	403,245	00
do 1885-86,		do 1886	2,171,249	00
do 1886-87,		do 1887	1,406,533	00
do 1887-88,		do 1888	1,027,041	92
do 1888-89,		do 1889	846,721	83
do 1889-90,		do 1890	1,491,595	72
do 1890-91,		do 1891	1,079,105	87
do 1891-92,		do 1892	1,061,615	93
do 1892-93,		do 1893	624,794	07
do 1893-94,		do 1894	1,043,285	10
do 1894-95,		do 1895	1,123,949	10
do 1895-96,		do 1896	648,145	49
			\$13,135,282	03

To the above there have to be added the following exceptional subsidies :

Canada Central Railway.....	\$	1,525,250	00	
Canadian Pacific Railway.....		25,000,000	00	
“ “ extension.....		1,500,000	00	
Western Counties Railway (Digby Annapolis section)		500,000	00	
Total subsidies paid up to the 30th of June, 1896.			\$40,660,532	03

The above does not include the annual subsidy payable to the Atlantic and North-west Railway Company, nor the amount due to the province of Quebec for the railway between Ottawa and Quebec which has now been transferred to the public debt.

The following pages show, in alphabetical sequence, the position of those companies whose dealings with the Government in respect of subsidies are not yet closed. Reports of previous years give information as to companies whose subsidies have been fully earned and paid prior to the 1st of July, 1895.

A tabulated statement of payments will be found in Part II., page 44, and a list of subsidy agreements entered into during the fiscal year in Part IV., p. 10.

The several Subsidy Acts passed in each year from 1882 will be found in Part III., p. 7 No subsidies were authorized in the sessions of 1895 and 1896.

Albert Southern Railway Company.

(See Annual Report of 1891-92.)

Atlantic and North-west Railway Company.

(See Annual Report of 1889-90.)

Baie des Chaleurs Railway Company.

(See Nos. 6, 42 and 158.)

This company was incorporated by the Quebec Provincial Act, 43 Vic., ch. 53, (1880).

The Dominion Act 47 Vic., ch. 8, authorized the expenditure of \$300,000 (revoted in the year 1885), for the construction of a branch of the Intercolonial Railway, to extend for a distance of 20 miles eastward from Metapediac towards Paspébiac.

Tenders for the works were received, but none of them coming within the limit of expenditure authorized by Parliament, an offer made by the Baie des Chaleurs Railway Company to build and operate this section as a part of their own road from Metapediac to Paspébiac for the amount, was accepted by an Order in Council of the 18th of September, 1885, and a provisional contract was entered into with them on the 7th of November, the section to be finished by the 1st of July, 1888; plans being furnished and the work supervised by the department.

By the Act 46 Vic., ch. 25 (1883), a subsidy had been authorized in favour of this company towards the construction of their said road: the limit fixed by the Act being \$3,200 a mile, for 100 miles, or a total of \$320,000.

Provision, however, having been made, as above stated, for the building of the first 20 miles of this distance, the contract entered into with the company, also on the 7th of November, 1885, as authorized by an Order in Council, also dated the 18th of September, for the work under this subsidy, dealt with the construction of the last 80 miles only. It contained a clause under which, subject to authorization from Parliament to that end, the portion, namely, \$3,200 a mile, applicable to the first 20 mile section of the road under the 100-mile subsidy of 1883, should be transferred to the second 20-mile section as an additional subsidy therefor, making the grant for such section \$6,400 a mile.

To this arrangement approval of Parliament was given, the two agreements above mentioned being ratified and confirmed by the special Act 49 Vic., ch. 17; the date for the completion of the road being fixed by the Act as the 1st of December, 1888, in place of the 25th of May, 1887, as contemplated by the agreements.

By the Railway Subsidy Act of 1889, 52 Vic., ch. 3, the balance, \$244,500, remaining unpaid of the subsidy mentioned in the Act 49 Vic., ch. 17, was granted to the company.

By authority of the same Act, the subsidy applicable to the 30 miles between the 70th and 100th mile was transferred to the section between the 40th and the 70th, making the grant for this section also \$6,400 a mile. The company undertook to construct the section from the 70th to 100th mile without subsidy, and have deposited bonds to the value of £83,000 stg. as security to that effect.

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Under date the 1st of June, 1891, an Order in Council was passed approving of the location of the section between the 60th and the 80th miles, and under date the 26th of October, 1891, a copy was furnished to the department of a contract made by the company for the construction of this section of road.

By the Act 54-55 Vic., ch. 97 (1891), the company was declared to be a corporation under the Parliament of Canada, and the time for completion of its railway was extended for charter purposes, namely, up to Paspebiac, to the 30th September, 1893, and up to Gaspé Basin to the 30th of September, 1895.

The total subsidy for this road, covering the first 70 miles, was \$620,000.

Up to the close of the fiscal year 1889-90, payments had been made aggregating \$524,175. During the fiscal year 1893-94, there was paid the balance, \$95,825, covering the 70 miles subsidized and completed. Some further work has been done on the remainder of the road, for which no subsidy is payable.

Beauharnois Junction Railway Company.

(See Nos. 102 and 302.)

By the Railway Subsidy Act, 50-51 Vic., ch. 24, the grant of a subsidy not exceeding \$96,000 was authorized in favour of the Beauharnois Junction Railway Company from St. Martin towards St. Anicet, the estimated distance being 30 miles.

On the 21st of November, 1887, and under the authority of Orders in Council of the 1st October and 2nd of November, a contract for the work was made with the company, namely, from St. Martin to Valleyfield, towards St. Anicet, the road to be completed by the 1st of December, 1888. By the Order first named, approval was also given to the location of the road from its junction with the Montreal and Champlain Junction Railway, at St. Martin, to Valleyfield, 19 $\frac{9}{100}$ miles. Up to the close of the fiscal year 1889-90, the total payments amounted to \$58,900. By the Act 56 Vic., ch. 2 (1893), the unpaid balance, \$3,500, was revoked, and was paid during the past fiscal year, making the total payments \$62,400.

Belleville and North Hastings Railway Company.

(See Annual Report of 1888-89.)

Boston and Nova Scotia Coal Company.

(Nos. 251 and 356.)

The company was incorporated by the Act of the province of Nova Scotia, 56 Vic., ch. 147 (1893), with general powers for railway purchase or construction.

By the Dominion Subsidy Act, 57-58 Vic., ch. 4 (1894) a subsidy to this company, limited to \$113,600 (in lieu of one previously granted in 1892) was authorized for the construction of 35½ miles of railway from a point on the Cape Breton Railway at or near Orangedale to Broad Cove, on the western side of the Island, and under date the 16th of November, 1894, a contract was entered into with the company for the work subsidized, the date for completion being fixed as the 1st August, 1896.

No payments have been made up to the 30th of June, 1896.

Brockville, Westport and Sault Ste. Marie Railway Company.

(See Nos. 48, 181, 193, 240, 267 and 316.)

By the Act 48-49 Vic., ch. 59 (1885), aid was granted to an extent not exceeding \$128,000 towards the construction of the portion between Brockville and Westport, about 40 miles, of the line of the Brockville, Westport and Sault Ste. Marie Railway.

Under the authority of an Order in Council of the 28th of April, 1886, a contract was made with the company on the 16th of July, 1886, the subsidized road to be finished by the 1st of August, 1889.

Under an Order in Council of the 26th of November, 1888, the sum of \$45,000 was paid. The balance of the subsidy lapsed on the 1st of August, 1889, but was revoked by the Act 53 Vic., ch. 2 (1890).

By the Act 53 Vic., ch. 2 (1890), the grant of a subsidy to the extent of \$64,000 was authorized for 20 miles of railway from Newboro' towards Palmer's Rapids. For this subsidy there was substituted, by Act 54-55 Vic., ch. 8, one for the same amount, and for the same distance, 20 miles, but from a point "at or near Newboro' towards Palmer's Rapids," payment to be made on completion of each section of the railway as follows:—from, at, or near Newboro' to Westport, 4 miles, and from Westport towards Palmer's Rapids, 16 miles.

By the Subsidy Act 55-56 Vic., ch. 5 (1892), the unpaid balances granted by 52 Vic. and 53 Vic., were revoked, and were further revoked by the Act 57-58 Vic., ch. 4, (1894), the amount not to exceed \$86,800.

Up to the close of the fiscal year, 1891-92, payment has been made to the extent of \$105,200. Nothing further has been paid up to the 30th June, 1896.

Brantford, Waterloo and Lake Erie Railway Company.

(See Nos. 104 and 318.)

By the Act 50-51 Vic., ch. 24 (1887), authority was given for the grant of a subsidy of \$57,600 to the above company, for 18 miles of their railway from Brantford to Hagersville or Waterford, or some intermediate point on the Canada Southern Railway.

Under an Order in Council of the 4th of August, 1888, a contract was made with the company, on the 31st, for a line from Brantford to Waterford. An Order of the same date approved of the location, the actual distance being 16½ miles. Up to the close of the fiscal year 1890-91, the payments amounted to \$52,810, the amount of subsidy applicable being \$53,600. This company has now become amalgamated with the Toronto, Hamilton and Buffalo Railway Company, the agreement for amalgamation being approved by an Order in Council of the 16th of December, 1892.

By the Subsidy Act of 1894, 57-58 Vic., ch. 4, the unpaid balance of the previous subsidy, not exceeding \$4,790, was revoked, and was paid during the past fiscal year, making the total amount \$57,600.

Buctouche and Moncton Railway Company.

(See Annual Report for 1893-94.)

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Canada Atlantic Railway Company.

(See Annual Report for 1888-89.)

Canada Eastern Railway Company.

(See Annual Report for 1894-95.)

Canadian Pacific Railway Company.

(See No. 243.)

By the Subsidy Act 55-56 Vic., ch. 5 (1892), the grant of a subsidy limited to \$80,000 was authorized for 25 miles of a railway from a point on the Canadian Pacific Railway at or near Revelstoke to the head of Arrow Lake.

Under date the 24th of October, 1893, a contract has been made with the Canadian Pacific Railway Company for this work, the date for completion being the 1st of August, 1896. During the fiscal year 1894-95 the sum of \$28,000, covering the first 10 miles from Revelstoke, was paid. No further payments were made during the past fiscal year.

Cap de la Madeleine Railway Company.

(See No. 369.)

This company, was incorporated by the Quebec Act, 58 Vic., ch. 63 (1895) with powers to build a railway from some point on the Canadian Pacific Railway in the parish of Ste. Marie Madeleine to the River St. Lawrence in that parish.

By the Dominion Subsidy Act 57-58 Vic., ch. 4 (1894) authority was given for the grant of aid to the extent of \$9,600 for three miles of railway from Cap de la Madeleine to connect with the Piles Branch of the Canadian Pacific Railway.

The above company applied and were admitted to contract for the work on the 26th of June, 1896.

No payments have been made during the fiscal year.

Cape Breton Railway Extension Company.

(See No. 366.)

This company was incorporated by the Provincial Act of 1890, ch. 72, with powers for the construction of a line of railway from the Gut of Canso to Sydney or Louisbourg, with branches to any other railway.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), assistance was authorized to the extent of \$96,000 for 30 miles of the company's railway from Port Hawkesbury to St. Peter's on their line of railway from Hawkesbury to Louisbourg, and on the 21st of September, 1894, a contract was entered into with them for the work, the date for completion being fixed as the 1st of October, 1895.

No portion of the subsidy has been paid up to the 30th of June, 1896.

Caraquet Railway Company.

(See Annual Report of 1888-89.)

Central Railway Company of New Brunswick.

(See Nos. 40, 143, 156, 205 and 353.)

By the Act of 1884, 47 Vic., ch. 8, a subsidy not exceeding \$128,000 was granted in aid of the construction of about 40 miles of the Central Railway, from the head of the Grand Lake to a point on the Intercolonial Railway between Sussex and St. John, N.B.

Under the authority of an Order in Council of the 5th of June, 1886, a contract was made with the Central Railway Company, on the 7th July, 1886, for a line from Salmon River, at the head of Grand Lake, to Norton, on the Intercolonial Railway, work to be completed by the 1st of July, 1888. Certain work has been executed, but the contract obligations had not been carried out, and no portion of the subsidy was paid. The subsidy lapsed, but was revived by the Subsidy Act, 52 Vic., ch. 3 (1889).

On the 1st of December, 1890, a new contract was made with the company for this work under the Subsidy Act of 1889, the limit of subsidy being \$128,000: this contract covering also a subsidy for $4\frac{1}{2}$ miles, the limit of which was \$14,400, authorized by the Act, 53 Vic., ch. 2, making a total subsidy of \$142,400; the total length of road subsidized being $44\frac{1}{2}$ miles. The date for completion was fixed as the 1st of December, 1891.

By the Act 51 Vic., ch. 3, a grant as a subsidy to this company was authorized of used iron rails to the value of \$83,612.54, loaned to the St. Martin's and Upham Railway Company (which railway has been acquired by the Central Railway Company; the sale being approved by an Order in Council of the 15th of November, 1887), the condition of the grant being that such rails should first be replaced by new steel rails. The new steel rails were substituted, and an Order in Council of the 18th of October, 1889, authorized the transfer of the rails to the company.

By the Subsidy Act of 1894, 57-58 Vic., ch. 4, the grant of a subsidy, not exceeding \$48,000, to this company was authorized for 15 miles of their railway from Chipman station to the Newcastle coal fields, and a contract for the work was made with the company on the 7th of September, 1895.

Up to the end of the fiscal year 1891-92, there had been paid, including the value of the said rails, the sum of \$159,251.54; no payments have since been made up to the 30th of June, 1896.

Chatham Branch Railway Company.

(See Annual Report of 1893-94.)

Chignecto Marine Transport Company.

(See Annual report for 1894-95.)

Cobourg, Northumberland and Pacific Railway Company.

(See Nos. 301, 249 and 275.)

This company was incorporated by the Act 52 Vic., ch. 62 (1889), for the construction of a line of railway from Cobourg Harbour to the River Trent, to the Ontario and Quebec Railway, and to the mining regions of Marmora and Belmont.

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By subsequent legislation in 1891, 1892 and 1894, the company's charter has been revived, and powers given for extension to the mineral lands of the county of Hastings, and for leasing the road to the Canadian Pacific Railway Company; the time for completion being extended to the 9th of July, 1898.

By the Subsidy Act of 1890, assistance to the extent of \$96,000 was authorized for 30 miles of the company's railway from Cobourg to the Ontario and Quebec Railway, and by the Subsidy Act of 1892, an additional subsidy of \$60,800 was authorized for 19 miles. By the same Act the subsidy voted in 1890, was revoked.

A contract for the construction of the 49 miles subsidized was entered into with the company on the 16th of June, 1894, the date for completion being fixed as the 1st of August, 1896.

By an Order in Council of the 28th of December, 1894, approval has been given to an agreement between the company and the Canadian Pacific Railway Company, dated the 30th of June, 1894, for the lease of the road to the latter company, when completed, for a term of 999 years.

No payments have been made up to the 30th of June, 1896.

Columbia and Kootenay Railway and Navigation Company.

(Leased to the Canadian Pacific Railway Company.)

(See Annual Report for 1891-92.)

Cornwallis Valley Railway Company.

(See Annual Report for 1891-92.)

Cumberland Railway and Coal Company.

(See Annual Report for 1894-95.)

Dominion Atlantic Railway Company.

(See Western Counties Railway Company.)

Dominion Lime Company.

(See Annual Report for 1888-89.)

Dominion Coal Company.

(See No. 262.)

This company was incorporated by the Nova Scotia Act, 56 Vic., ch. 145 and 146. By the Subsidy Act, 55-56 Vic., ch. 5 (1892), a subsidy, limited to \$89,600, was authorized for 28 miles of a railway to complete connection between Sydney and Louisbourg, Cape Breton.

On the 26th January, 1894, a contract was entered into with the above company for the work from Bridgeport to Louisbourg Harbour. The railway is completed, the total distance being 27.44 miles. During the fiscal year the sum of \$55,808 has been paid, making a total of \$87,808, the full amount applicable.

Drummond County Railway Company.

(See Nos. 99, 175, 214 and 339.)

By the Railway Subsidy Act of 1888, 50-51 Vic., ch. 24, the grant of aid to an extent not exceeding \$96,000 was authorized to the Drummond County Railway Company for 30 miles of their railway from Drummondville towards Nicolet, Quebec.

Under the authority of an Order in Council of the 12th of November, 1887, a contract was made with the company on the 1st of December, 1887, covering a line from the South-eastern Railway, at the village of Drummondville, to the south-west branch of the River Nicolet; the road to be completed by the 1st of August, 1891.

On the 2nd of May, 1889, the company were admitted to contract for the balance, 17½ miles, of the 30 miles subsidized.

By the Subsidy Act of 1889, 52 Vic., ch. 3, the company were further subsidized for 4½ miles from the end of the line already subsidized, to Ball's wharf, on the River St. Lawrence, to the extent of \$14,400, and were admitted to contract on the 21st of January, 1890.

By the Subsidy Act 53 Vic., ch. 2 (1890), authority was given for the grant of a subsidy, the limit of which was \$76,000, for 24 miles of the railway of the company from Drummondville to Ste. Rosalie. Under date the 2nd of February, 1891, the company were admitted to contract for this work.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), authority was given for the grant of a subsidy to this company for 30 miles of railway from St. Leonard westerly towards a junction with the Intercolonial at Chaudière Junction; the limit being fixed at \$96,000, and a contract for the work was made with the company on the 14th of November, 1894.

Up to the close of the fiscal year 1892-93, there had been paid to the company the sum of \$195,840, and during the fiscal year 1894-95 the further sum of \$92,096 was paid, making the total payments \$287,936 up to the 30th of June, 1895. No payments were made during the past fiscal year.

Elgin, Petitediac and Havelock Railway Company.

(See Annual Report for 1885-86 and 1890-91.)

Erie and Huron Railway Company,

(See Annual Report for 1886-87.)

Esquimalt and Nanaimo Railway Company.

(See Annual Report for 1886-87.)

Fredericton and St. Mary's Bridge Company.

(See Annual Report for 1888-89.)

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Grand Trunk, Georgian Bay and Lake Erie Railway Company.

(See Annual Report for 1893-94.)

Great Eastern Railway Company.

(See Nos. 88, 114, 174, 213, 235 and 296.)

By the Act 49 Vic., ch. 10, authority was given for the grant of a subsidy to an extent not exceeding \$32,000, on an estimated distance of 10 miles, towards the construction of a line from Yamaska to the River St. Francis, Que. ; and the Great Eastern Railway Company having applied, a contract was made with them on the 12th of October, 1886, under the authority of an Order in Council of the 9th of that month, the time of completion being fixed as the 1st October, 1887.

The road having been completed and inspected, the whole of the subsidy due for its actual distance, 6 miles, namely \$19,200, was paid under an Order in Council of the 27th of March, 1887.

By the Act 50-51 Vic., ch. 24, authority was given for the grant of a subsidy to the company to an extent not exceeding \$96,000, for 30 miles of their railway from the River St. Francis to the Arthabaska (Grand Trunk) Railway at St. Grégoire, and under an Order in Council an agreement was entered into with them for the work, the date being 16th March, 1888. During the fiscal year 1890-91 the sum of \$16,300 was paid from this subsidy for 6.66 miles from the east bank of the River Nicolet to the Grand Trunk Railway at St. Grégoire.

By the Act 52 Vic., ch. 3, a subsidy was authorized to the extent of \$64,000 for a further distance of 20 miles from St. Grégoire. This subsidy was, in effect, revoked by the Act 56 Vic., ch. 2 (1893).

Authority has been given for entry into contract for this work, but the contract has not yet been signed.

By the Act 53 Vic., ch. 2 (1890), a subsidy of 15 per cent on the value of two bridges, one over the River Nicolet, the other over the River St. Francis, not exceeding \$37,500, was authorized. On the 20th of June, 1891, a contract was entered into with the company for the work. During that fiscal year there was paid the sum of \$4,845 for work on the Nicolet bridge.

By the Subsidy Act 54-55 Vic., ch. 8, there was revoked the balance unpaid, \$79,700, of the subsidy granted by the Act 50-51 Vic., ch. 26, which had lapsed, for a railway from the River St. Francis to the Arthabaska Railway at St. Grégoire.

The total amount paid the company up to the 30th of June 1892 is \$40,345. There has been no further payment up to the 30th of June, 1896.

Great Northern Railway Company.

(See Nos. 33, 37, 72, 79, 154, 215, 231, 308, 309 and 371.)

By the Act 47 Vic., ch. 8 (1884), a subsidy not exceeding \$32,000 was granted to this company for the construction of a line from St. Jérôme to New Glasgow, Que., the estimated length being 10 miles.

Under the authority of an Order in Council of the 3rd February, 1885, a contract for the work was entered into with the company on the 14th of that month, the road to be completed by the 1st of July, 1885.

The line was duly completed and inspected. Under an Order in Council of the 2nd of March, 1895, payment was made therefor, namely 7.84 miles, \$25,088.

By the Act 49 Vic., ch. 10 (1886), a subsidy not exceeding \$57,600 was authorized for a line from New Glasgow to Montcalm, a distance of about 18 miles. The Great Northern Railway Company having applied for it, it was granted to them by an Order in Council of the 18th July, 1887, which also approved of the location. The contract was made on the 19th of August, 1887, the road to be completed by the 1st of August, 1890.

By the Act 49 Vic., ch. 10, a subsidy not exceeding \$22,400 was granted for a line from St. Andrews to Lachute, Que., 7 miles. For this subsidy the above named company applied, but no contract was made. The same subsidy was again voted by the Act of 1889, 52 Vic., ch. 3, and under date the 8th of October, 1890, a contract was entered into with them for the work, calling for completion by the 1st of August, 1891. The road was built and allowed to be opened for public traffic in January, 1892.

By the Act 53 Vic., ch. 2 (1890), the grant of a subsidy was authorized, limited to \$48,000, for a line from at or near Montcalm to the Canadian Pacific Railway, between Joliette and St. Félix de Valois, fifteen miles.

By the Act 54-55 Vic., ch. 8 (1891), the unpaid balance, \$28,100, of the subsidy granted in 1886 was revoked.

By the Act 56 Vic., ch. 2 (1893), the unpaid balance, \$25,600 of the subsidy granted in 1891, was revoked, and a new contract for this work was entered into with the company on the 16th of June, 1894.

Also, by the same Act, the subsidy not exceeding \$48,000 granted to the company for 15 miles of their railway from Montcalm to the Canadian Pacific Railway, between Joliette and St. Félix de Valois, by 53 Vic., ch. 2, was revoked, and a contract for this work was entered into with them on the 16th of June, 1894.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), the grant to this company of a subsidy limited to \$96,000, was authorized for 30 miles of railway from a junction with the Lower Laurentian Railway near St. Tite, westwards, in lieu of a subsidy previously granted to the Maskinongé and Nipissing Railway Company. A contract was entered into with the company for this work on the 16th September, 1895, the railway to be completed by the 30th of November, 1896.

During the fiscal year 1894-95 there was paid the sum of \$32,000 for a ten mile section between the 18th and 28th mile from St. Jérôme, and during the past fiscal year \$32,000 was paid for 10 miles westwards from St. Tite, making the total payments to this company \$142,688 up to the 30th June, 1896.

Gulf Shore Railway Company of New Brunswick.

(See No. 374.)

This company was incorporated by the New Brunswick Act 48 Vic., ch. 49 (1885) with powers to construct a railway from some point on the Caraquet Railway to the

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village of Tracadie or to some point in the parish of Sumarey, county Gloucester. The Charter Act was revived by the Act 57 Vic., ch. 73 (1894)

By the Dominion Subsidy Act 57-58 Vic., ch. 4 (1894) assistance was authorized to the extent of \$38,400 for a railway from a point on the Caraquet Railway at or near Pokemouche siding towards Tracadie village, 12 miles.

The above company having applied they were admitted to contract for the work on the 22nd of April, 1896. No payment has been made up to the 30th of June, 1896.

Guelph Junction Railway Company.

(See Annual Report of 1888-89.)

Harvey Branch Railway Company.

(See Annual Report for 1889-90.)

Hereford Railway Company (formerly Hereford Branch Railway Company.)

(See Annual Report for 1891-92.)

International Railway Company.

(See Annual Reports for 1887-88 and 1889-90.)

Inverness and Richmond Railway Company.

(See No. 357.)

This company was incorporated by the Act of the province of Nova Scotia, 50 Vic., ch. 60 (1887), with powers for the construction of a line of railway between Hawkesbury and a point in the district of Margaree. By the Act of 1888, ch. 79, the location of the line was authorized as from Port Hawkesbury, through Port Hastings, Judique, Port Hood, Mabou and Margaree, to a point at Eastern Harbour, Cheticamp.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), assistance to the extent of \$80,000 was authorized for 25 miles of railway from Port Hawkesbury towards Cheticamp, and the above company was admitted to contract for the work on the 23rd of November, 1894, the time for completion being fixed at the first of December, 1896.

No payments have been made up to the 30th of June, 1896.

Irondale, Bancroft and Ottawa Railway Company.

(See Nos. 24, 159 and 301.)

By the Act 47 Vic., ch. 8 (1894), the Irondale, Bancroft and Ottawa Railway Company were subsidized, to an extent not exceeding \$160,000, for a line, about 50 miles long, to connect the Victoria Branch of the Midland Railway with the village of Bancroft.

With the sanction of an Order in Council of the 10th July, 1886, a contract was made with the company on the 19th of August, 1886.

The unpaid balance of subsidy, \$145,000, which had lapsed, was revoked by the Act 52 Vic., ch. 3 (1889), and was again revoked by the Act 56 Vic., ch. 2 (1893).

During the fiscal year 1894-5, the sum of \$32,000 was paid, making the total payments, \$96,000. No payments were made during the past fiscal year.

Joggins Railway Company.

(See Annual Report for 1891-92.)

Kingston, Napanee and Western Railway Company.

(See Napanee, Tamworth and Quebec Railway.)

Kingston and Pembroke Railway Company.

(See Annual Report for 1884-85.)

Lake Erie and Detroit River Railway Company.

Formerly "the Lake Erie, Essex and Detroit Railway Company," name changed by Dominion Act, 54-55 Vic., ch. 88 (1891).

(See Annual Report for 1893-94.)

L'Assomption Railway Company.

(See Annual Report of 1886-87.)

Leamington and St. Clair Railway Company.

(See Annual Report of 1888-89.)

Lake Temiscamingue Colonization Railway Company.

(See Nos. 55, 84, 119, 122, 169, 216, 278, 282 and 324.)

By the Act 48-49 Vic., ch. 59, a subsidy was authorized in aid of the construction of a line of railway from Long Sault to the foot of Lake Temiscamingue, surmounting certain rapids on the Ottawa River. The limit of the amount was \$25,600, covering a total distance of 8 miles. A contract was entered into on the 25th of November, 1885, for the construction of 6 miles, to be completed by the 1st of January, 1887.

In conformity with an express provision to that effect in clause 2 of the Act 49 Vic., ch. 10, letters patent were issued under an Order in Council of the 20th of July, 1886, published in the *Canada Gazette* of the 24th, granting a charter for the construction of this railway to the "Lake Temiscamingue Colonization Railway Company."

By the Subsidy Act 49 Vic., ch. 10, a further subsidy of \$6,000 was authorized for the building of wharfs and landing stages in connection with this line. This was subsequently cancelled, and by the Act 50-51 Vic., ch. 24 (1887), the definition of portions of the road to which the preceding Acts had granted subsidies was corrected, the amount of the subsidy, however, remaining the same, namely, a total of \$31,600.

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By the Act 50-51 Vic., ch. 24, the grant of subsidy to the extent of \$33,600, was authorized for 10½ miles of this company's line from Long Sault to Lake Kippewa. The contract for this subsidy was entered into on the 27th of June, 1888.

By the Act 52 Vic., ch. 3 (1889), a subsidy was authorized, not exceeding \$48,000, for 15 miles from Mattawa station, C.P.R., towards the Long Sault, or *vice versa*.

By the Act 53 Vic., ch. 2 (1890), a subsidy was authorized, not exceeding \$64,000 for 20 miles from the northern end of the line subsidized by 52 Vic., ch. 3.

By the Act 55-56 Vic., ch. 5 (1892), in lieu of the above named subsidies of 1889 and 1890, a subsidy was authorized to this company not exceeding \$112,000 for 35 miles of their railway from Mattawa to the Long Sault.

By the same Act a subsidy was granted to the company, namely, for 15 miles of their railway from the Long Sault to the crossing of the Kippewa River, and 15 per cent on the value of a wooden truss bridge over the Ottawa River, near Mattawa, not exceeding \$15,000, and not exceeding in all \$63,000.

Under date the 31st of August, 1893, a contract was entered into with the company for the construction of the section between Mattawa and the Long Sault Rapids under the subsidy granted in 1892.

By the special Act 54-55 Vic., ch. 94 (1891), the company were empowered to convey or lease their road to the Canadian Pacific Railway Company, and also to extend the railway to the head of Lake Temiscamingue; the company's works to be completed by the 10th of July, 1896. The road is now controlled by the Canadian Pacific Railway Company.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), the subsidies previously granted were revised, balances unpaid were revoked, and additional subsidy was granted; the whole of the subsidies not to exceed \$274,940. Under date the 12th of September, 1894, a new contract was entered into with the company for the work, embracing the distance between Mattawa and Lake Kippewa.

By a separate contract, dated the 1st of June, 1894, the company undertook to build a truss bridge over the Ottawa, at Mattawa.

Up to the end of the fiscal year of 1888-89, the sum of \$52,760 had been paid. No further payment was made until the fiscal year 1894-95, when \$233,198.95 was paid. During the past fiscal year the payments aggregated \$17,900.75, making the total \$303,859.70 up to the 30th June, 1896, and leaving a balance of subsidy available of \$6,476.25.

Lotbinière and Mégantic Railway Company.

(See Nos. 253 and 338.)

This company was incorporated by the Quebec Act, 52 Vic., ch. 89 (1889), for the construction of a railway from some point at or near the parish church of St. Jean Deschaillons, in the county of Lotbinière, to a point at or near Glen Lloyd, in the county of Mégantic.

By the Subsidy Act 55-56 Vic., ch. 5 (1892), a subsidy to the extent of \$48,000 was authorized for 15 miles of railway from a point at or near St. Jean Deschaillons toward Glen Lloyd.

On the 17th of July, 1893, a contract was entered into with the company for the work so subsidized, for which was substituted one dated the 27th of February, 1894, covering the distance from St. Jean Deschaillons to Lyster Station on the Grand Trunk Railway.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), a subsidy for a further distance of 15 miles was authorized, the limit being \$48,000.

A contract was entered into with the company on the 19th of November, 1894, covering the distance from Lyster Station to Lyster, $2\frac{1}{2}$ miles, and $12\frac{1}{2}$ miles from the end of the 15 miles built.

Up to the end of the fiscal year 1894-95, the sum of \$73,600 had been paid. There were no payments during the past fiscal year.

Montfort Colonization Railway Company.

(See Nos. 245, 310 and 373.)

This company was incorporated by the Quebec Act, 53 Vic., ch. 107 (1890), for the construction of a railway from a point on the Canadian Pacific Railway, or the Montreal and Occidental Railway, either from Lachute, St. Jérôme or St. Sauveur, or near the same, to Montfort, and for the continuation of the road to a point on the Rivière Rouge, in the township of Arundel.

By the Subsidy Act 55-56 Vic., ch. 5 (1892), the grant of a subsidy to this company to the extent of \$67,200 was authorized for 21 miles of railway from Lachute, St. Jérôme, or a point at or near St. Sauveur, on the line of the Montreal and Western Railway to Montfort.

By the Subsidy Act 55-56 Vic., (1893), this subsidy was revoked with an addition, specifying the gauge as "three feet."

On the 16th May, 1893, a contract was entered into with this company for the construction of 21 miles of railway from St. Sauveur to Montfort and westward, the road to be completed by the 1st of September, 1895.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), a subsidy to the company was authorized to the extent of \$38,400 for 12 miles from the end of the 21 miles previously subsidized.

Up to the 30th June, 1895, the sum of \$67,200 had been paid. There have been no further payments during the past fiscal year.

Montreal and Champlain Junction Railway Company.

(See Annual Report for 1892-93.)

Montreal and Lake Maskinongé Railway Company.

(See Annual Report for 1890-91.)

Montreal and Sorel Railway Company.

(See Annual Report for 1892-93.)

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Montreal and Western Railway Company.

(See Annual Report for 1893-94.)

Montreal and Ottawa Railway Company.

(Formerly the Vaudreuil and Prescott Railway Company.)

Name changed by 53 Vic., ch. 58.

(See Nos. 97, 186, 237 and 320.)

By the Railway Subsidy Act of 1887, 50-51 Vic., ch. 24, the grant of a subsidy to the above company was authorized for 30 miles of their railway from Vaudreuil towards Hawkesbury, the extent of such subsidy being \$96,000.

A contract was made with the company on the 11th of February, 1889, for the distance named, starting from the Grand Trunk Railway at Vaudreuil. The date for completion was fixed as the 1st August, 1891.

The company, on the 4th October, 1890, were authorized to open the portion of their road between Vaudreuil and Rigaud, 16 miles, for public traffic.

By the Act 53 Vic., ch. 2 (1890), a subsidy for a further distance of 30 miles towards Ottawa, \$96,000, was authorized.

By the Act 54-55 Vic., ch. 8 (1891), the unpaid balance, \$46,040, of the subsidy granted in 1887, was revoked.

In September, 1892, after inspection, permission was given to open for traffic the portion of the road between Vaudreuil and Pointe Fortune, 23½ miles.

By the Subsidy Act 57-58 Vic., ch. 4 (1894) the unpaid balances of subsidies granted in 1887 and 1890 were revoked, and a contract under this Act was made with the company dated the 26th June, 1896, the date for completion being fixed as the 1st of August, 1898.

No payments were made during the past fiscal year; the total payments up to the 30th of June, 1896, remaining, as last year, at \$73,600.

This railway has been leased in perpetuity to the Canadian Pacific Railway Company.

Napanee, Tamworth and Quebec Railway Company.

(Name changed to the Kingston, Napanee and Western Railway Company by the Act 53 Vic., ch. 62.

(See Nos. 13, 27, 57, 94, 107, 166, 256, and 273.)

In 1883 Parliament authorized a subsidy of \$89,600 to this company, covering their road from Napanee to Tamworth.

A contract, dated the 31st of December, 1883, was entered into with the company for this work, and upon completion, inspection, and approval of the road, the subsidy was all paid under Orders in Council, the last dated the 28th of July, 1884.

In the session of that year Parliament authorized the grant of a further subsidy, not exceeding \$3,200 a mile, or a total of \$70,406, for an extension of this company's

road from Tamworth to Bogart and Bridgewater. In 1885, however, in substitution for this subsidy, Parliament authorized the grant to the company of a subsidy of \$70,000 for a line "from Tamworth towards Bogart and Bridgewater, 16 miles." This, again, was cancelled by the Act 49 Vic., ch. 10 (1886), a subsidy of \$70,000 being granted to the company for 18 miles of their railway from Tamworth to Tweed.

By the Act 50-51 Vic., ch. 24 (1887), a further subsidy to this company, not exceeding \$12,800, was authorized for 4 miles of their road to Tweed.

Under date the 25th of July, 1888, an Order in Council authorized entry into contract, and approved the location plans from Tamworth to Tweed, 20 miles. The contract was signed on the 31st of July, 1888, covering both subsidies.

By the Act 52 Vic., ch. 3 (1889), the grant of a further subsidy to this company was authorized for 7 miles of their railway from Yarker to Harrowsmith, and also a grant to a company for 3 miles of railway from Harrowsmith to Sydenham, the total being \$32,000. Under date the 4th of September, 1889, the company were admitted to contract for 3 miles of railway, and under date the 26th of December, for the distance of $6\frac{3}{4}$ miles, from a point near Yarker to or near Harrowsmith.

By the Act 55-56 Vic., ch. 5 (1892), in lieu of the subsidy granted by the above Act for 3 miles, a subsidy not exceeding \$9,600 was granted for 3 miles from a point at or near Harrowsmith to a point at or near Sydenham. A contract was made with the company for this work on the 18th September, 1893.

By the Act 55-56 Vic., ch. 5 (1892), a subsidy not exceeding \$64,000 was granted to this company for 20 miles of their railway, being for branches to be built to certain iron deposits. A contract was made with the company for one of these branches (to Lake Sydenham) on the 11th of December, 1893, the distance being $1\frac{37.5}{1000}$ miles. Under date the 30th of November, 1889, the company were allowed to open for traffic between Tamworth and Tweed, and between Yarker and Harrowsmith; and from Harrowsmith to Sydenham in November, 1893. During the past fiscal year no payments were made, the total payments up to the 30th of June, 1896, being \$208,732.80.

Nakusp and Slocan Railway Company.

(See Annual Report for 1894-95.)

New Brunswick and Prince Edward Island Railway Company.

(See Annual Report for 1888-89.)

New Glasgow Iron, Coal and Railway Company.

(See No. 268.)

By the Subsidy Act 55-56 Vic., ch. 5, the grant of assistance to the above company for $12\frac{1}{2}$ miles of railway from Eureka Junction on the Intercolonial Railway, to a point at or near Sunnybrae, including a branch line to the charcoal iron furnace at Bridgeville, was authorized, the limit of aid being \$40,000.

Under date the 23rd of November, 1892, the company were admitted to contract for this work.

During the fiscal year \$1,440 was paid, making the total payments up to the 30th of June, 1896, \$39,840, covering the whole line subsidized.

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Northern and Pacific Junction Railway Company.

(See Annual Report of 1890-91.)

Northern and Western Railway Company.

(See Annual Report of 1889-90.)

Also under head "Canada Eastern Railway," in present report.

Nova Scotia Central Railway Company.

(See Nos. 129, 135 and 307.)

By the Subsidy Act of 1887, 50-51 Vic., ch. 24, the Nova Scotia Central Railway Company were subsidized for 34 miles of their railway, to an extent not exceeding \$108,800. Under an Order in Council of the 16th of September, 1887, the company were admitted to contract on the 17th of October, 1887, the works to be executed being a line of railway from Lunenburg, on the east coast of Nova Scotia, westward to a point in the district of New Germany, together with a spur, about $\frac{3}{4}$ mile long, to Bridgewater Railway wharf, the whole to be completed by the 31st of December, 1889.

By the Act 51 Vic., ch. 3 (1888), the grant of further subsidy, not exceeding \$147,200, was authorized for 46 miles of the company's railway, and under an Order in Council of the 9th of October, 1888, a contract, dated the 15th of October, 1888, was executed, covering a line of railway, $39\frac{1}{2}$ miles, starting from a point $33\frac{1}{2}$ miles from Lunenburg, and running to Middleton, on the Windsor and Annapolis Railway; the work to be completed by the 31st of December, 1890.

By the Subsidy Act 56 Vic., ch. 2 (1893), the unpaid balance, \$4,500, was revoked. Up to the close of the fiscal year 1891-92, the total payments to this company amounted to \$230,700, covering the distance from Lunenburg to Middleton and the spur to Bridgewater, a total of $73\frac{1}{2}$ miles. Authority for payment of the said balance of \$4,500 has been given by an Order in Council dated the 2nd of July, 1894, but no further payment has been made up to the 30th of June, 1896, pending decision on certain matters in litigation.

Nova Scotia Southern Railway Company.

(See Nos. 207 and 272.)

This company was incorporated by the Nova Scotia Act, 51 Vic., ch. 82, as the "Annapolis and Atlantic Railway Company." The name was changed as above by the Act 57 Vic., ch. 65.

By the Dominion Subsidy Act 55-56 Vic., ch. 5 (1892), a subsidy (taking the place of one previously granted), was authorized for 75 miles of railway from Sand Point, Shelburne Harbour, N.S., to Annapolis Royal, and to a point of junction with the Nova Scotia Central Railway, at or near New Germany, the subsidy limit being \$240,000.

The above company having applied for the subsidy, a contract, dated the 12th of January, 1894, has been entered into with them for the work of building a line from

Sand Point towards New Germany, and approval has been given by an Order in Council dated the 25th of August, 1894, to the location of the railway for the whole distance, 75 miles.

No payment has been made up to the 30th of June, 1896.

Ontario and Pacific Railway Company.

(See Nos. 31, 115, 150 and 288.)

By the Act 47 Vic., ch. 8 (1884), the grant of a subsidy to the Ontario and Pacific Railway Company was authorized, namely, to the extent of \$262,400, on an estimated distance of 82 miles, for a line from Cornwall to Perth, and on the 27th of July, 1886, a contract was made with the company, under the authority of an Order in Council of the first day of that month, for the construction of such line, via Newington, Chrysler, Manotick and Franktown, the road to be completed by the 1st of July, 1888. This subsidy lapsed on the 1st of July, 1888.

By the Act 50-51 Vic., ch. 24, a further subsidy of \$19,200 for a further distance of 6 miles was granted.

By the Act 52 Vic., ch. 3 (1889), a subsidy not exceeding \$172,400 was authorized to this company for a line from Cornwall to Ottawa.

By the Subsidy Act of 1892, 55-56 Vic., ch. 5, the subsidy granted in 1889 was revoked, the length being set down as $53\frac{8}{10}\frac{7}{10}$ miles. Under date the 1st of June, 1895, a contract was entered into with the company for the construction of this line from Cornwall to Ottawa, 53-87 miles, the work to be completed by the 1st of August, 1896.

No payment has been made up to the 30th of June, 1896.

Ontario and Quebec Railway Company.

(See West Ontario Pacific Railway Company, and Annual Report for 1891-92.)

Ontario, Belmont and Northern Company.

(See No. 246 and 298.)

This company was incorporated by the Ontario Act, 54 Vic., ch. 90 (1891), for the construction of a railway from the Midland Railway of Canada at either Hastings or Campbellford to some point on the Central Ontario Railway within the township of Marmora, county of Hastings.

By the Subsidy Act 55-56 Vic., ch. 5 (1892), the grant of a subsidy to this company to the extent of \$32,000, was authorized for 10 miles of railway from the Belmont iron mines to the Canadian Pacific and the Central Ontario Railway.

On the 9th of March, 1893, a contract was entered into with the company for this work, namely, from the Belmont mines to the junction of the two railways named. This contract was superseded by one, dated the 23rd of April, 1896, under the subsidy granted by 56 Vic., ch. 2, 1893, for the same amount, but payable on two sections, from the Belmont iron mines to Marmora, and from Marmora to the Ontario Central Railway.

No portion of this subsidy has been paid up to the 30th June, 1896.

Department of Railways and Canals.

Orford Mountain Railway Company.

(See Annual Reports for 1893-94 and 1894-95.)

Ottawa, Arnprior and Parry Sound Railway Company.

(See Nos. 92, 134, 199, 242, 276 and 277.)

This company was formed by the amalgamation, under the Act 54-55 Vic., ch. 93, of the Ottawa and Parry Sound Railway Company, incorporated by the Act 51 Vic., ch. 35, and the Ottawa, Arnprior and Renfrew Railway Company, incorporated by the Act 51 Vic., ch. 71. The company has powers to build a line of railway from the city of Ottawa through Arnprior, Renfrew, Eganville and Killaloe, to a point on the Georgian Bay at or near the village of Parry Sound.

By the Subsidy Act 55-56 Vic., ch. 5 (1892), there were granted to this company the following subsidies (in lieu of subsidies previously granted but not utilized) :—

- (a.) For 22 miles of railway from a point on the Canadian Pacific Railway to Eganville, a subsidy limited to \$70,400.
- (b.) For 30 miles of railway from Eganville to Barry's Bay, a subsidy limited to \$96,000.
- (c.) For 55 miles of railway from Barry's Bay towards the Northern Pacific Junction Railway, a subsidy limited to \$6,400 a mile on the first half of that division, and to \$3,200 a mile on the second half, not exceeding in the whole \$264,000.

The first two subsidies were covered by a contract dated the 29th of September, 1892; the starting point on the Canadian Pacific Railway being Renfrew, and the date for completion being fixed as the 1st of August, 1896.

The third subsidy, from Barry's Bay towards the Northern Pacific Junction Railway, was covered by a contract with the company dated the 8th of November, 1892, for which was substituted a contract dated the 20th of September, 1894.

The sections between Ottawa and Renfrew, were opened for traffic in September and December, 1893.

During the past fiscal year, payments have been made to the extent of \$80,000, making the total payments to the company \$430,400, the whole amount of the subsidies. The distance covered thereby is to the end of the 55th mile west from Barry's Bay, or a total of 107 miles west from Renfrew, the whole distance subsidized.

By the Act 60 Vic., ch. 8 (1896) the company became amalgamated, under its own name, with the Parry Sound Colonization Railway Company.

A portion, the westerly $47\frac{3}{4}$ miles of the amalgamated company's railway to Parry Sound, is subsidized under the name of the Parry Sound Colonization Railway Company, which see.

Ottawa and Gatineau Valley Railway Company.

Name changed to the Ottawa and Gatineau Railway Company (by the Act 57-58, Vic. ch. 87, which consolidated and amended Acts relating to the Company).

(See Nos. 8, 26, 58, 151, 305 and 349).

By the Act 48-49 Vic., ch. 29 (1885), the grant of a subsidy to this company was authorized (in lieu of subsidies granted in previous years), namely, for a line of
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railway from Hull station towards the village of Le Désert, 62 miles, the amount being \$320,000. The subsidy having lapsed, it was revoked by the Act 52 Vic., ch. 3 (1889).

Under authority of an Order in Council of the 10th of July, 1889, a contract with the company for the work in question, 62 miles, was signed on the 19th of August.

By the Subsidy Act 56 Vic., ch. 2 (1883), the unpaid balance, \$89,248, was revoked.

By the Subsidy Act 57-58 Vic., ch. 6 (1894), authority was given for subsidizing to the extent of \$64,000, a further distance of 20 miles from the end of the 62 miles already subsidized, and a contract for the work was entered into with the company on the 7th of October, 1895.

The total payments up to the 30th of June, 1894, amounted to \$284,128. No further payments have been made up to the 30th of June, 1896.

Oshawa Railway and Navigation Company.

Name changed to the Oshawa Railway Company, by 54-55 Vic., ch. 91.

(See Nos. 112, 233 and 314.)

By the Act 50-51 Vic., ch. 24 (1887), the grant of a subsidy, to the extent of \$22,400, was authorized for seven miles of this company's railway, extending from Port Oshawa towards Raglan; they were admitted to contract on the 20th of July, 1889. This subsidy was renewed by the Act 54-55 Vic., ch. 8; and by the Act 56 Vic., ch. 2, 1893, it was revoked in such form as to admit of payment on completion of named sections. A contract for the work was entered into with the company on the 5th of August, 1895.

By the special Act 54-55 Vic., ch. 91, the corporate powers of the company were revived, and its name was changed as above.

During the past fiscal year the sum of \$22,400 has been paid.

Parry Sound Colonization Railway Company.

(See Nos. 153, 312, 342.)

By the Subsidy Act of 1889, 52 Vic., ch. 3, authority was given for the grant of a subsidy to this company, not exceeding \$128,000, for 40 miles of a railway from the village of Parry Sound to the village of Sundridge, or some other point on the line of the Northern and Pacific Junction Railway.

On the 21st of July, 1890, the company were admitted to contract accordingly, the line to run from the village of Parry Sound through the townships of Foley, Christie, Monteith, McMurrich and Parry, joining the line of the Northern and Pacific Railway at Scotia, or a point about two miles from Elmsdale station. The date for completion has been extended to the 1st of August, 1897. The location for 50 miles has been approved by Order in Council, covering the distance between the Northern Pacific Junction Railway and Parry Sound.

By the Act 56 Vic., ch. 2 (1893), the unpaid balance of subsidy, \$97,600, was revoked.

Department of Railways and Canals.

By the Act 57-58 Vic., ch. 4 (1894), the grant of a further subsidy, limited to \$64,000, was authorized, for 20 miles of this company's railway east from Parry Sound.

During the past fiscal year there was paid the sum of \$24,800, making the total payments up to the 30th of June, 1896, \$152,800, covering the distance, 47 $\frac{3}{4}$ miles, up to Parry Sound.

By the Act 60 Vic., ch. 8 (1896), the company became amalgamated with the Ottawa, Arnprior and Parry Sound Railway Company under the name of that company.

Phillipsburg Junction Railway and Quarry Company.

(See Annual Report for 1894-95.)

Port Arthur, Duluth and Western Railway Company.

(Formerly the **Thunder Bay Colonization Railway Company.**)

(See Annual Report for 1892-93.)

Pontiac and Renfrew Railway Company.

(See Annual Report for 1889-90.)

Pontiac Pacific Junction Railway Company.

(See Nos. 25, 137, 211, 329, 330 and 331.)

This company was incorporated by the Dominion Act, 43 Vic., ch. 55 (1880), with powers to construct a railway from a point on the line of the Quebec, Montreal, Ottawa and Occidental Railway, at or near Hull or Aylmer, to a point in the county of Pontiac, suitable for crossing the River Ottawa, thence to Pembroke to connect with the Canada Central Railway.

The Act 45 Vic., ch. 69, gave authority for the construction of a bridge across the River Ottawa.

This line was subsidized by Parliament in 1884, by 49 Vic., ch. 8, to the extent of \$3,200 a mile, not exceeding \$272,000.

Under authority of an Order in Council, dated the 12th of December, 1884, a contract, dated the 22nd of that month, was made with this company for the building of the line subsidized, namely, from Aylmer, Quebec, to Pembroke, crossing the River Ottawa at a point "not east of Lapasse"; the first twenty-seven miles to be completed by the 1st of September, 1885, (extended to the 15th of December by Order in Council of the 13th of August, 1885), the second twenty-seven miles by the 1st of July, 1886, and the whole road, estimated at eighty-five miles west of Aylmer, by the 1st of July, 1887.

By the Act 51 Vic., ch. 3 (1888), a subsidy to this company of \$31,500 was authorized for the bridging of the River Ottawa at Culbute; also a subsidy of \$9,600 for 3 miles of their railway from a point 3 $\frac{1}{2}$ miles east of Pembroke to Pembroke, provided

that the entire work subsidized on this railway be completed within four years from the 22nd of May, 1888.

By the Act 53 Vic., ch. 2 (1890), a subsidy limited to \$24,000 was authorized for 7½ miles of this railway, between Hull and Aylmer.

By the Act 53 Vic., ch. 68 (1890), the time for completion of the railway to the town of Pembroke, and of the bridge over the River Ottawa, at or near the city of Ottawa, which the company were empowered to construct by the Act 45 Vic., ch. 69, was extended to the 22nd of May, 1892. The same Act gave the company power to extend their line from the said bridge to the canal basin in the city of Ottawa.

The Act 53 Vic., ch. 69 (1890), gave to this company power to purchase from the Canadian Pacific Railway Company the section between Hull and Aylmer, or any part thereof.

By the Subsidy Act 55-56 Vic., ch. 5, clause 4 (1892), the balance unpaid of the subsidy voted in 1884 was revoked; and by the special Act of 1892, ch. 56, the time for the commencement of the bridge over the River Ottawa, at or near Ottawa, was extended for two years, and its completion for five years from the 9th of July, 1892. The time for the completion of the line to Pembroke was also extended for four years from that date.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), the subsidies voted in 1888 were revoked, subject to the condition that the entire work subsidized on this railway should be completed within four years. The time for completion is thus extended, so far as subsidy is concerned, to the 23rd of July, 1898.

By the same Act the unpaid balance of the subsidy voted by ch. 8 of the Act of 1884, less \$24,000 for the 7½ miles from Hull to Aylmer, was revoked, namely \$73,172.

By the same Act the sum of \$24,000, voted for the road from Hull to Aylmer in 1890, was, in effect, revoked.

Up to the close of the fiscal year 1887-88, a total of \$174,828 had been paid out of the subsidy voted in 1884. During the fiscal year 1894-95 the sum of \$18,750 was paid, making a total of \$193,578. No payments were made during the past fiscal year.

Quebec Central Railway Company.

(See Nos. 22, 142, 219 and 321.)

This company was subsidized in 1884, to the extent of \$211,200, in aid of the construction of 66 miles of their railway from Beauce Junction to the International Boundary.

Under the authority of an Order in Council, dated the 2nd of August, 1884, a contract was made with the company on that date for the construction of a line from Beauce Junction on their trunk line, thence up the valley of the River Chaudière to the frontier, the line to be completed by the 2nd of February, 1888.

The location of the first 23 miles was approved of by an Order in Council of the 8th of May, 1885. The amount of the subsidy paid up to the end of the fiscal year 1885-86, under an Order in Council of the 14th of August, 1885, was \$60,342, covering 15½ miles of road inspected, starting from Beauce Junction.

Department of Railways and Canals.

In lieu of the balance of this subsidy, which lapsed on the 1st of July, 1888, authority was given by the Act 51 Vic., ch. 3 (1888), for the grant of a subsidy to this company of \$21,191.54 a year, for 20 years, equivalent to a cash grant of \$288,000, for a line of railway from St. Francis station to a point on the Atlantic and North-west Railway, near Moose River, 90 miles. No contract was made for this work.

By the Act 53 Vic., ch. 2 (1890), in lieu of the subsidy so granted, the company may receive the same amount for a similar term of years, or a guarantee of interest on bonds for a like sum, for 90 miles of their railway from St. Francis station on their line to a point on the Atlantic and North-western Railway near Moose River, or from a point on their line between the Chaudière River and Tring station to a point on the International Railway at or near Lake Megantic; the first annual payment to be made at the end of twelve months from the date of the certificate of completion. A contract was entered into for this subsidy on the 30th of June, 1892, the work to be completed by the 1st of July, 1894.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), authority was given for the payment of the subsidy granted by the Act of 1890, as a cash subsidy, at the present value, \$288,000; payment to be made on completion, inspection and acceptance of the railway.

In September, 1895, a final inspection was made of the section of railway so subsidized, which is known as the Tring and Megantic Branch, extending from Tring Junction to a point of junction with the Canadian Pacific Railway at Lake Megantic, a distance of 59.36 miles, and such inspection showing the road to have been substantially built and according to contract, payment was made of the full amount of subsidy, \$288,000, under authority of an Order in Council dated the 16th of October, 1895. The total of the subsidies received by the company amounts to \$348,342.

Quebec and Lake St. John Railway Company.

(See Nos. 2, 14, 40, 82, 126, 140, 177, 220, 232, 300 and 347.)

By the Subsidy Act of 1882, a subsidy of \$384,000 was granted for a line from St. Raymond to Lake St. John. By the Act of 1883, the Quebec and Lake St. John Railway Company, engaged in the work of constructing the line, was permitted to receive a further subsidy of \$80,000. By the Act of 1885, a subsidy of \$96,000 was authorized for a line extending from the point of their junction with the North Shore Railway (4 miles from Quebec) up to St. Raymond (36 miles from Quebec), conditionally upon the construction of their line to a point 50 miles north of St. Raymond; and by the Act of 1886, a subsidy was authorized, not exceeding \$186,295, for the portion, 95 miles, extending from a point 50 miles north of St. Raymond, to Lake St. John.

By the Act 50-51 Vic., ch. 24 (1887), an additional subsidy, not exceeding \$28,800, was authorized for a distance of 9 miles, the distance which previous subsidies granted were short of covering from the city of Quebec to Lake St. John. By this Act authority was given for payment up to the 23rd of June, 1888 (under the usual conditions) of balances available from the subsidies granted in 1882 and 1883. The aggregate of the subsidies granted to this company for the whole distance from Quebec to Lake St. John was \$775,095, the number of miles subsidized being 186.

An agreement was duly entered into on the 4th of September, 1883, in respect of the two subsidies first named, under which this line was to be completed by the 25th of

May, 1887, the portion up to Lake Edward to be completed by the 31st of December, 1885; and on the 10th of February, 1886, an agreement was signed covering the third subsidy, namely, that of 1885. For the subsidies granted in 1886 and 1887, no further contracts were required, these subsidies being applicable to works embraced in the previous contracts.

By the Act 51 Vic., ch. 3, a subsidy to the extent of \$96,000, previously granted to the Saguenay and Lake St. John Railway Company, for 30 miles of their railway from Lake St. John towards Chicoutimi, was transferred to this company, and under authority of an Order in Council of the 17th of November, 1888, a contract was made with them on the 5th of December for this work, which starts from Chambord Junction near Lake St. John, on the main line; the work to be completed by the 1st of August, 1890.

By the Act 52 Vic., ch. 3 (1889), a further subsidy of \$64,000 was granted for an additional 20 miles, making the total subsidy for this branch \$160,000. Under date the 17th of October, 1892, a contract was entered with the company for this work.

By the Act 53 Vic., ch. 2 (1890), a subsidy to this company to an extent not exceeding \$30,000 was authorized for a railway bridge over the River St. Charles; also a subsidy limited to \$38,400, for 12 miles of railway from Lorette via Charlesbourg to Quebec. Under date the 2nd of December, 1890, both these subsidies were covered by one contract, the work to be completed by the 1st of October, 1891.

By the Act 54-55 Vic., ch. 8, there was expressly voted the difference, \$5,250, between the \$30,000 mentioned in the above subsidy for the St. Charles bridge and the amount actually paid the company.

By the Act 55-56 Vic., ch. 5, clause 5 (1892), authority was given for the payment of the unpaid balance of the subsidy granted in 1889, and also for the payment of the unpaid balance, \$12,800, of the subsidy granted in 1887. This last, representing 4 miles of railway built towards Roberval, was covered by a contract made on the 17th of October, 1892.

By the Subsidy Act 56 Vic., ch. 2 (1893), the unpaid balance, \$81,040, of the subsidy granted by 51 Vic., ch. 3, was revoked.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), a subsidy was voted to this company for 2 miles of their Chicoutimi branch to deep water at Chicoutimi, also for a further distance of 12 miles from the 52nd mile of that branch to Ha! Ha! Bay, in all \$44,800. A contract was made with the company for the 2 miles extension on the 13th of July, 1895.

During the past fiscal year the sum of \$3,744 was paid. The total payments to the company up to 30th June, 1896, amount to \$1,006,743.50, covering the main line, the 1.17 mile to deep water at Chicoutimi, and 50 miles of the Chicoutimi Branch.

Quebec, Montmorency and Charlevoix Railway Company.

(See Annual Report of 1894-95.)

Shuswap and Okanagan Railway Company.

(See Annual Report of 1894-95.)

Department of Railways and Canals.

South Norfolk Railway Company.

(See Annual Report of 1888-89.)

South Shore Railway Company.

(See No. 365.)

This company, incorporated by chap. 130 of the Statutes of Nova Scotia of 1892, received a Dominion charter by the Act 58-59 Vic., ch. 64 (1895), with powers to construct a line of railway from a point near the harbour of Yarmouth, N.S., passing through the counties of Yarmouth, Shelburne, Queen's, Lunenburg and Halifax to a point in or near the city of Halifax ; also a branch line to Lockeport and Caledonia.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), the grant of a subsidy to this company of \$3,200 a mile, limited to \$112,000, was authorized for 35 miles of railway from Yarmouth towards Shelburne and Lockeport.

Under date the 28th February, 1895, a contract was entered into with the company for the work so subsidized, the time for completion being fixed as the 1st of August, 1897. The location plans for the whole distance have been approved by an Order in Council dated the 14th of February, 1895.

No portion of the subsidy has been paid up to the 30th June, 1896.

St. Catharines and Niagara Central Railway Company.

(See Nos. 96, 176, 190, 265 and 319.)

By the Act 50-51 Vic., ch. 24 (1887), the grant of a subsidy to the extent of \$38,400 to the above company was authorized for 12 miles of their railway from St. Catharines to the bridge over the river Niagara.

The company were admitted to contract on the 5th March, 1888, under an Order in Council of the 12th of April, the location being approved by an Order of the same date.

On the 20th December, 1888, the road having been built and inspected, the company were permitted to open it for traffic. The sum of \$26,640 was paid to the company in the fiscal year 1888-89.

By the Act 52 Vic., ch. 3 (1889), a subsidy for 20 miles of this road was authorized, limited to \$64,000, and on the 1st of August, 1890, the contract was signed, the extension being from their present terminus at St. Catharines towards Hamilton.

By the Act 53 Vic., ch. 7 (1890), a subsidy, limited to \$44,800, was authorized for a distance of 14 miles.

By the Act 50-51 Vic., ch. 5 (1892) in lieu of the subsidies granted in 1889 and 1890, there was granted an annual subsidy for 20 years, calculated on the basis of 3½ per cent of the amount, not to exceed \$108,000, granted for the 34 miles in question ; payment of the first half-yearly instalment to be made 6 months after the date of the Chief Engineer's certificate of completion.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), the grant of a subsidy to this company for 34 miles of their railway from St. Catharines to Hamilton was authorized, the amount not to exceed \$108,800.

During the fiscal year 1890-91, the sum of \$11,760 was paid, covering the distance, 12 miles, between St. Catharines and Niagara River, making a total of \$38,400 paid to this company. No further payments have been made up to the 30th of June, 1896.

St. Clair Frontier Tunnel Company.

(See Annual Reports of 1890-91 and 1891-92.)

St. John Valley and Rivière du Loup Railway Company.

(See Annual Report of 1893-94.)

St. Stephen and Milltown Railway Company.

(See Nos. 202 and 303.)

This company was incorporated by an Act of the Legislature of New Brunswick, 49 Vic., ch. 17 (1886), with power to construct a railway from Milltown to a point on the New Brunswick (now Canadian Pacific) Railway or the Grand Southern (now Shore Line) Railway.

By the Dominion Subsidy Act 56 Vic., ch. 2 (1893) in lieu of a previous subsidy, the grant was authorized of assistance to the company to the limit of \$11,200 for 3½ miles of railway from St. Stephen to Milltown, and the company were admitted to contract for the work on the 5th of August, 1895.

During the past fiscal year the sum of \$9,635.89 has been paid.

Stewiacke Valley and Lansdowne Railway Company.

(See Nos. 87, 232, 254 and 258.)

By the Act 49 Vic., ch. 18 (1886), a subsidy was authorized for a railway from a point on the Intercolonial Railway through the Stewiacke Valley, affording communication with the Iron Mines, Spring Side, Upper Stewiacke and Musquodoboit settlements, 25 miles, the extent of aid not exceeding \$80,000. The Stewiacke Valley and Lansdowne Railway Company having applied for this subsidy, a contract was made with them on the 17th of December, 1886, the line to be completed by the 1st of December, 1889.

By the Act 53 Vic., ch. 2 (1890), the above subsidy was, in effect, revoked, and the old contract having been cancelled, a new contract with this company was entered into on the 30th of August, 1890. Completion was called for by the 1st of September, 1892.

By the Act 55-56 Vic., ch. 5 (1892), the same subsidy was, in effect, revoked.

By the Act 52 Vic., ch. 3 (1889), a subsidy was granted for a railway from Truro or a point between Truro and Stewiacke to Newport or Windsor, 49 miles, the limit being \$156,800. A contract was made with this company on the 30th of August, 1890, for the work; the line to run from Brockville station, on the Intercolonial, to Newport station, on the Windsor Branch Railway; the line to be completed by the first of September, 1893.

Department of Railways and Canals.

By the Act 55-56 Vic., ch. 5 (1892), this subsidy was, in effect, revoked.

The location plans have been approved for this distance.

No portion of any of the above subsidies has been paid up to the 30th of June, 1896.

St. Lawrence and Adirondack Railway Company.

(See Annual Report for 1893-94.)

St. Lawrence, Lower Laurentian and Saguenay Railway Company.

(Name changed to "The Laurentian Railway Company" by Provincial Act 51-52 Vic., ch. 108.)

(See Annual Report for 1891-92.)

St. Louis and Richibucto Railway Company.

(See Annual Report of 1884-85.)

Témiscouata Railway Company—Rivière du Loup to Edmundston.

(See Annual Report for 1892-93.)

Thousand Islands Railway Company.

(See Nos 182 and 269.)

By the Subsidy Act 52 Vic., ch. 3 (1889), the grant of a subsidy to the extent of \$54,400 to the above company, for 4 miles of their railway from a point near the River St. Lawrence, in the village of Gananoque Junction, on the Grand Trunk Railway, and for 13 miles of their railway from Gananoque Junction to a point of junction with the Brockville, Westport and Sault Ste. Marie Railway, was authorized.

A contract was made with the company for this work on the 24th of October, 1889, the 4-mile section to be built by the 1st of July, 1890, and the 13-mile section by the 1st of August, 1893. In the fiscal year 1889-90, the sum of \$10,400 was paid for the section, 3½ miles, from Gananoque to the Grand Trunk Railway, completed.

By the Act 55-56 Vic., ch. 5 (1892), in lieu of the unpaid balance, \$44,000, of the above subsidy, there were granted railway subsidies for the extension of the railway, one, the northern, to connect with the Brockville, Westport and Sault Ste. Marie Railway, the Kingston, Napanee and Western Railway, the Kingston, Smith's Falls and Ottawa Railway, or the waters of the Rideau Canal, for which the limit is \$30,000; the other, the southern, and across the mouth of Gananoque River, for which the limit is \$14,000.

Under date the 30th of November, 1892, a contract was entered into with the company for this work; the date for completion being fixed as the 1st of August, 1896.

During the fiscal year 1893-94 the sum of \$14,000 was paid. No further payment has been made. The total paid up to the 30th of June, 1896, is \$24,400.

Tilsonburg, Lake Erie and Pacific Railway Company.

(See Nos. 280 and 317.)

This company was incorporated by the Dominion Act 53 Vic., ch. 56 (1890) with powers to build a railway from a point on Lake Erie in or near the village of Port Burwell through Tilsonburg to the Canadian Pacific Railway at or near Woodstock.

By the Subsidy Act 57-58 Vic., ch. 4 (1894) authority was given for the grant of a subsidy to this company, limited to \$51,200, for 16 miles of railway from Port Burwell to Tilsonburg (in lieu of a subsidy granted in 1892) and under date the 16th of July, 1895, the company were admitted to contract for this work.

During the past fiscal year the whole amount of this subsidy, \$51,200, has been paid, the road being completed.

Tobique Valley Railway Company.

(See Annual Report for 1893-94.)

Toronto, Grey and Bruce Railway Company.

(See Annual Report for 1887-88.)

United Counties Railway Company.

(See Nos. 297 and 344.)

This company was incorporated by the Quebec Act 46 Vic., ch. 90 (1883), for the construction of a railway from a point on the line of the Montreal, Portland, and Boston Railway, at Richelieu, to a point on the River Richelieu and the River St. Lawrence.

By the Subsidy Act 56 Vic., ch. 2 (1893), a subsidy to the extent of \$102,400 for 32 miles between Iberville and St. Hyacinthe, and beyond towards Sorel, was authorized.

On the 19th of August, 1893, a contract was entered into with the company for this work.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), a subsidy, limited to \$102,400, was authorized for a further distance of 32 miles, and on the 23rd of October, 1894, a contract was made with the company for the work, covering the whole distance from St. Hyacinthe to Sorel.

During the past fiscal year, the sum of \$52,926.85 was paid, making the total payments \$184,628.

Vaudreuil and Prescott Railway Company.(See *Montreal and Ottawa Railway Company.*)**Waterloo Junction Railway Company.**

(See Annual Report for 1891-92.)

Department of Railways and Canals

Western Counties Railway Company.

(Name changed to "**The Yarmouth and Annapolis Railway Company**" by 56 Vic., ch. 63.)

(Name further changed to "**The Dominion Atlantic Railway Company**" by 57-58 Vic., ch. 69.)

(See Annual Report for 1894-95.)

West Ontario Pacific Railway Company.

(Leased to the *Ontario and Quebec Railway Company—C. P. R.*)

(See Annual Report of 1890-91.)

Woodstock and Centreville Railway Company.

(See Nos. 131, 203, 266, 281 and 335.)

By the Act 50-51 Vic., ch. 24 (1887), the grant of a subsidy to the extent of \$64,000 was authorized for a railway from Woodstock towards Centreville, 20 miles.

The above railway company having applied and being approved, a contract was made with them on the 6th of May, 1889, for the distance named; the line to start from Upper Woodstock station, on the New Brunswick Railway; the work to be completed by the 1st October, 1890, the date being subsequently extended to the 1st of October, 1893.

By the Act 53 Vic., ch. 2 (1890), a subsidy, limited to \$19,200, was authorized for a further distance of 6 miles to the International Boundary.

By the Act 55-56 Vic., ch. 5 (1892), the subsidy granted in 1887 was, in effect, revoked.

By the same Act, the subsidy granted in 1890, for the further distance to the boundary was in effect revoked.

A contract, dated the 16th of September, 1892, was made with the company, to construct the 26 miles so subsidized, the date for completion being fixed as the 1st January, 1894.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), the two subsidies granted in 1887 and 1890 were revoked, namely, for 26 miles of railway from Woodstock to the International Boundary, \$83,200.

By an Order in Council of the 24th of July, 1894, the contract time was extended to the 1st of August, 1896.

No portion of the subsidy has been paid up to the 30th of June, 1896.

Yarmouth and Annapolis Railway Company.

(See *Western Counties Railway Company.*)

LAND SUBSIDIES.

The following companies have been aided by subsidies in land, duly authorized by Parliament and granted by the Department of the Interior:—

They are enumerated here because the engineering details have been dealt with by this department, the certificate of whose officer is required prior to handing over to the company concerned any part of the subsidy. (The numbers given refer to the special "Land subsidies" list. See Appendix part III., p. 48.)

Alberta and Athabasca Railway Company.

(Name changed by 52 Vic., ch. 65, to the **North-west Railway Company of Canada,** which see.)

Alberta Railway and Coal Company.

(See Annual Report for 1892-93.)

(See also "North-western Coal and Navigation Company," in Annual Report of 1891-92.)

Brandon and South-western Railway Company.

(See No. 19, Land subsidies.)

By an Order in Council, dated the 23rd of November, 1889, but subject to the approval of Parliament and contingent on their obtaining an Act of incorporation from the Dominion, this company has been granted a subsidy of 6,400 acres per mile in aid of a railway from a point in Township 1, in either Range 23 or 24, west of the 1st Principal Meridian, to Deloraine, Manitoba, about 17 miles. The subsidy was confirmed by the Act 53 Vic., ch. 4. The company was incorporated under a provincial Act, but received a Dominion charter by the Act 53 Vic., ch. 86 (1890). Under the said Order in Council, the subsidized section was to be completed and running by the 1st of May, 1891. Location plans and profiles have been approved by an Order in Council, dated the 19th of February, 1892, showing the proposed line from a point of junction with the Souris Branch of the Canadian Pacific Railway to the Turtle Mountain coal fields. A revised location was approved by an Order in Council of the 3rd of October, 1894.

By the special Act 57-58 Vic., ch. 65, the company's charter was revived.

By the Land Subsidies Act 57-58 Vic., ch. 6 (1894), the subsidy authorized in 1890 was revoked.

Calgary and Edmonton Railway Company.

(See Annual Report for 1892-93.)

Canadian Pacific Railway Company.

(See Annual Report for 1892-93.)

Department of Railways and Canals.

Great North-west Central Railway Company.

(See No. 7, Land Subsidies.)

The construction of a line of railway to extend from Brandon on the Canadian Pacific Railway, to Battleford, in the provisional district of Saskatchewan, a distance of about 450 miles, was contemplated by the North-west Central Railway Company (formerly the Souris and Rocky Mountain Railway Company); and under an Order in Council of the 29th of July, 1885, the privilege of purchasing land at the rate of \$1.06 per acre, to the extent of 6,400 acres per mile, previously accorded, was converted into a free grant of such land (subject to a charge of 10 cents per acre for survey), the grant being contingent on the due completion of the work in stated sections.

This concession did not result in the construction of any section of the road; and difficulties arising, and other applications being put forward for the work, the Act 49 Vic., ch. 11 (1886), granting aid to the extent of 6,400 acres per mile for the same, was made applicable either to the company named or to such other company as might undertake the construction of the road. The Great North-west Central Railway Company was incorporated by an Order in Council of the 22nd of July, 1889, in conformity with the provisions of the Act; a second Order, of the 3rd of August amending such charter, and the whole being confirmed and ratified by the Act 51 Vic., ch. 85 (1888). A section of such charter giving running powers to the Canadian Pacific Railway was repealed by 52 Vic., ch. 67 (1889).

By an Order in Council, also of the 22nd July, 1886, the subsidy referred to was granted to this company, the contract itself being signed on the 12th of September, 1887. Under successive Orders in Council the time for completion has been extended.

On the 3rd of September, 1890, an Order in Council was passed accepting as completed the first 50-mile section.

By an Order in Council, dated the 7th of December, 1891, extension of time was accorded—subject to the condition that the first 50 miles should be effectively operated and maintained on and after the 15th of that month, as follows:—100 miles from the end of the first 50 miles by the 30th November, 1892, and 300 miles further (or whatever distance may be required to complete the road to Battleford) by the 30th of November, 1893.

The company reported the first 50 miles as having been opened for traffic on the 16th of December, 1891.

On the 20th of June, 1892, an Order in Council was passed approving of the proposed location for the second 50-mile section.

By the special Act 58-59 Vic., ch. 48 (1894), the charter time for completing this railway to the Rocky Mountains was extended to the 22nd of May, 1902, provided that before the end of 1897, and each year thereafter, not less than 20 miles be completed. The land subsidy has elapsed.

Lac Seul Railway Company.

(See Annual Report of 1891-92.)

Lake Manitoba Railway and Canal Company.

(See Land Subsidies Nos. 16 and 23.)

This company was originally incorporated by the Dominion Act 52 Vic., ch. 57 (1889). It was reincorporated in 1892 by the Act 55-56 Vic., ch. 41. By this Act powers were given for building a standard gauge railway from Portage la Prairie to the southerly boundary of Lake Manitoba; also from some point on the said line, or from a point on the line of the Manitoba and North-western Railway at or near Gladstone, running west of Lake Dauphin to Lake Winnipegosis at or near Meadow Portage.

This Act was revived by the Act 58-59 Vic., ch. 52, (1895), and additional powers of construction were given allowing the company to begin their line from Arden on the line of the Manitoba and North-western Railway and to extend to Lake Dauphin, and thence to a point not more than 100 miles from Gladstone or Arden. The time for completion was fixed as the 22nd of July, 1900.

Authority having been given by the Land Subsidy Act of 1890, 53 Vic., ch. 4, for the grant to the company of land to the extent of 6,400 acres a mile for a line of railway from Portage la Prairie to Lake Winnipegosis, at or near Meadow Portage, about 125 miles, an Order in Council of the 22nd of July, 1891, granted this aid accordingly. By a further order of the 6th of June, 1892, the lands so reserved were defined by maps. A subsequent order of the 1st of February, 1896, citing the company's special Act of 1895, above mentioned, made the provisions of the Land Subsidy order of the 6th of June, 1892, applicable thereunder.

Under the authority of an Order in Council of the 1st of February, 1896, and in pursuance of the Act 58-59 Vic., ch. 8—providing for the division of the transport subvention originally granted to the Winnipeg and Hudson Bay Railway Company—a transport agreement has been entered into on the 5th of February, 1896, with the Lake Manitoba Building and Land Company for the term of 20 years at \$40,000 a year. The portion of railway covered being that between Portage la Prairie or Gladstone near a point half way to the River Saskatchewan, which the company bind themselves to complete by the 1st of February, 1898.

Manitoba and North-western Railway Company.

(See Land subsidies Nos. 4 and 6, and also Money subsidies No. 358.)

This company was incorporated by the Provincial Act 43 Vic., ch. 35 (1880), under the name of the Westburne and North-western Railway Company, and received a Dominion charter by the Act 45 Vic., ch. 80 (1882). In 1883 its name was changed to the Manitoba and North-western Railway Company. Various Acts followed in subsequent years, defining and extending the company's powers.

In 1893, however, these were all repealed, being consolidated in an Act 56 Vic., ch. 52. This Act gave specific powers for the construction of (a) an extension of the main line from the terminus at Yorkton, to, or near to, Prince Albert: (b) an extension of the Shell River Branch to the northern or western boundary of the province, and other branches from the main line. The company was required to construct not less than 20 miles a year, but by a subsequent Act, chap. 79, of 1894, nine years have been allowed for the completion of the extension authorized, such portion, not exceeding 20 miles a year, to be built each year as may be prescribed by the Governor in Council.

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By the Act 48-49 Vic., ch. 60, authority was given for the grant of aid for a line from Portage la Prairie to the crossing of the south branch of the River Saskatchewan, 20 miles from Prince Albert, about 430 miles, 6,400 acres per mile.

Such grant was made to the company by Order in Council of the 4th October, 1884, cancelling previous Orders. The time for completion was fixed by Order in Council of the 6th of May, 1885, as at a rate of 50 miles a year.

By the 1st of December, 1885, the company had built and equipped 131 miles of road.

By the Act 49 Vic., ch. 11 (1886), authority was given for the grant of aid for a branch of this railway from a point on the main line at or near Todburn to the River Assiniboine, near Shellmouth, about 25 miles, 6,400 acres per mile.

This grant was made to the company by Order in Council of the 24th of May, 1886. Under Orders in Council of the 10th and 21st of September, 1886, the line was permitted to start from Binscarth, the Order first named approving the location to Russell, up to which point the road has been built. This branch, 11½ miles long, is in operation.

By the Subsidy Act of 1894, 57-58 Vic., ch. 4, the grant of a subsidy to this company, limited to \$320,000, was authorized for the construction of 100 miles of an extension of the main line towards Prince Albert, the company relinquishing 3,200 acres per mile of their land grant.

The main line is in operation from Portage la Prairie to Yorkton, 223 miles.

Manitoba and South-eastern Railway Company.

(See Annual Report for 1893-94.)

Manitoba South-western Colonization Railway Company.

(Leased to the Canadian Pacific Railway Company.)

(See Annual Report for 1890-91.)

Medicine Hat Railway and Coal Company.

(See No. 12, Land subsidies.)

By the Act 50-51 Vic., ch. 23 (1887), authority was given for the grant to the above company of Dominion lands to the extent of 6,400 acres per mile, for a railway from a point at or near Medicine Hat, on the line of the Canadian Pacific Railway, to the coal fields in or near Townships Nos. 12 and 13, Range 6, west of the 4th Principal Meridian, a distance of about 8 miles.

By an Order in Council of the 6th of July, 1887, the grant was made to the company accordingly, it being provided that the road should be completed and in operation by the 31st of December, 1888.

By an Order in Council of the 24th of January, 1889, approval was given to a draft of a formal contract with the company, and an extension of time to the 2nd of June, 1890, was granted for completion of the road. A contract was signed on the 14th of February, 1890, for this work.

By the special Act 54-55 Vic., ch. 79 (1891), the charter of the company was revived and its powers were extended, and by the special Act 57-58 Vic., ch. 80, the time limit for completion was further extended to the 1st of January, 1898.

The land subsidy has lapsed.

North-western Coal and Navigation Company.

(Purchased by the Alberta Railway and Coal Company.)

(See Annual Report for 1891-92.)

North-western Railway Company of Canada.

(Formerly the Alberta and Athabasca Railway Company.)

(See Annual Report for 1891-92.)

Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company.

(Leased to the Canadian Pacific Railway Company.)

(See Annual Report for 1891.)

Red Deer Valley Railway and Coal Company.

(See Nos. 14 and 26, Land subsidies).

This company was incorporated by the Act 52 Vic., ch. 52 for the construction of a railway from a point near Calgary, N.W.T., to a point on the Red Deer River, in Township 32, Range 21, west of the 4th Principal Meridian, the route being defined; also from a point at or near Cheadle station, on the Canadian Pacific Railway northerly to a point of junction with the line from Calgary, in or near Township 26, Range 25, west of the 4th Principal Meridian, with other branches indicated.

On the 28th of November, 1888, an Order in Council authorized the grant, subject to approval by Parliament, of a subsidy in land to the extent of 6,400 acres per mile for the line from Cheadle station to a point in or near Township 29, Range 23, west of the 4th Meridian, a distance of about 55 miles. This was confirmed by the Land Subsidy Act, 52 Vic., ch. 4 (1889).

By the Act 54-55 Vic., ch. 9, the above subsidy was cancelled, and in lieu thereof there was granted a subsidy, not exceeding 6,400 acres per mile, for the company's railway from Calgary to a point in or near Township 29, Range 23, west of the 4th Meridian, a distance of about 55 miles.

On the 17th of June, 1893, a contract was entered into with the company for the lines so subsidized, the work to be completed by the 1st of November, 1894.

By an Order in Council of the 28th February, 1894, the time for completion was extended to the 1st of November, 1895.

The land subsidy has lapsed.

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Winnipeg and Hudson Bay Railway and Steamship Company.

Name changed to **Winnipeg Great Northern Railway Company** by the Act 57-58
Vic., ch. 94 (1894).]

(See No. 1, Land subsidies, and Special Act, 54-55 Vic., ch. 81.)

By 47 Vic., ch. 25, clause 7 (1884), authority was given for the grant of aid for a line from some point on the Canadian Pacific Railway to Hudson Bay, viz., for each mile in Manitoba, 6,400 acres, and in the North-west Territories, 12,800 acres.

In the year 1880, by Act 43 Vic., ch. 59, there was incorporated the "Winnipeg and Hudson's Bay Railway and Steamship Company," with powers for the construction of a line from Winnipeg to or near Port Nelson, Hudson's Bay.

In 1884 this Act was amended (by chapter 70), and the company were authorized to commence their line either from Winnipeg or from some point between Selkirk and Portage la Prairie, extending to Port Nelson and Churchill, or some other point on Hudson's Bay; also to construct a branch from any point on their main line to the Canadian Pacific Railway, west of Lake Winnipegosis, construction to be carried on at the rate of at least 50 miles a year.

By the same Act, a previous Act authorizing the amalgamation of this company with the Nelson Valley Railway and Transportation Company was repealed, and authorization was given for the winding up of the company last named, and the transfer to the Winnipeg and Hudson's Bay Company of all its property and interests.

By an Act passed in 1886 (49 Vic., ch. 73), the date for completion was fixed as the 2nd of June, 1890.

By an Order in Council of the 11th of May, 1885, all previous Orders in this connection were cancelled, and there was granted to the Winnipeg and Hudson's Bay Railway and Steamship Company a subsidy in land, as follows:—

	Acres.
Division A.—From the Canadian Pacific Railway to the northern boundary of Manitoba—estimated distance, 225 miles	1,440,000
Division B.—From the boundary to the terminus near the mouth of the Nelson River, Hudson's Bay—estimated distance, 425 miles	5,440,000
Division C.—The Branch, from a point on the main line, near the northern extremity of Lake Winnipeg, to intersection with the Manitoba and North-western Railway—estimated distance not to exceed 250 miles (grant to be subject to approval by Parliament)	1,600,000

The time for completion was fixed by this Order as 50 miles on division A or B by the 19th of April, 1887, and 50 miles a year thereafter until completion of main line; but if the main line was not completed by the 11th of May, 1890, they were to forfeit their right to a grant for their branch line, which must itself be completed by the 11th May, 1893.

In April, 1888, the Chief Engineer of Government Railways reported, showing that 40 miles of road were completed, with the exception of certain station buildings, &c.

By an Order in Council dated the 16th of September, 1891, the dates for the completion of the company's road have been extended as follows :—

From the end of the 40 miles already built to a point on the south shore of the River Saskatchewan, near the western end of Cedar Lake, or between Cedar Lake and Grand Rapids, a distance of about 250 miles, by the 21st of June, 1894 (the limit allowed by their charter as amended by 53 Vic., ch. 80). This Order in Council approved of the draft of a definite agreement to be made with the company for the work, and the agreement was duly signed on the 18th of September, 1891.

By the special Act 54-55 Vic., ch. 81, the entry into a contract with this company was authorized for the conveyance of men, supplies, materials and mails over the portion of this line between Winnipeg and the River Saskatchewan for an annual payment of \$80,000 a year for 20 years. Under authority of an Order in Council, an agreement was made with the company, accordingly, on the 18th of September, 1891.

Under date the 8th of November, 1893, an Order in Council was passed extending the time for the completion of the main line to the River Saskatchewan to the 21st of December, 1896.

By the special Act 57-58 Vic., ch. 24 (1894), the name of the company was changed, as above, and an extension of time to the 31st of December, 1896, was granted for the completion of the main line to the River Saskatchewan. By the special Act 59 Vic., ch. 40 (1896) the time for completion has been extended to the 31st of December, 1898.

By the special Act 58-59 Vic., ch. 8, the transport subsidy Act, 54-55 Vic., ch. 81, was amended to such effect as to enable one-half of the annual subsidy to be paid on completion of one-half of the railway between Winnipeg and the River Saskatchewan, and the balance on completion of the remainder ; amendment of the transport contract of the 18th of September, 1891, accordingly, being authorized. Failing this action, the Governor in Council was authorized to transfer the said one-half of the subsidy to some other company. The transfer has now been carried out, in favour of the Lake Manitoba Railway and Canal Company (which see) who will build up to the half way point between Gladstone or Portage la Prairie and the River Saskatchewan.

By an Order in Council of the 1st of February, 1896, the transport agreement of the 18th of September, 1891, was cancelled accordingly, and under authority of an Order in Council dated the 7th of May, 1896, a new transport agreement was entered into with the company, dated the 12th of that month, to apply to a railway to be built from Lake Dauphin (or a point half way from Portage la Prairie or Gladstone) to the River Saskatchewan : the Government subvention to be \$40,000 a year for 20 years ; the railway to be completed by the 31st of December, 1898.

By the same Order in Council of the 7th of May, 1896, the time for completion fixed by the company's land subsidy contract of the 18th of September, 1891, has also been extended to the 31st of December, 1898.

Wood Mountain and Qu'Appelle Railway Company.

(See No. 8, Land subsidies.)

By the Act 40 Vic., ch. 11 (1886), the grant of aid was authorized for a railway from a point in Township 4, Range 30, west of the 2nd Meridian, passing through Fort
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Qu'Appelle, to the Manitoba and North-western Railway, about 240 miles, 6,500 acres per mile.

A grant was made to the company by Order in Council of the 24th May, 1886, for the portion between Fort Qu'Appelle and the Canadian Pacific Railway: to be completed by the 1st November, 1887, and 50 miles a year thereafter.

This Order was amended by an Order of the 7th of July, 1887, the company being allowed one year from the 1st of January, 1887, for the completion of the first 50-mile section (after completion by the 1st of November, 1887, of the portion between the Canadian Pacific and Fort Qu'Appelle), the rate of construction to be 50 miles each year, subsequently, until completion of the road.

By a further amending Order in Council of the 22nd of November, 1887, the company was granted an extension of time for the completion of the portion between Fort Qu'Appelle and the Canadian Pacific Railway, namely, up to the 31st of July, 1888; 100 miles of the road to be completed and in operation by the 31st of December, 1888, as required by the preceding order.

By the special Act, 52 Vic., ch. 66 (1889), the section of a previous Act giving this company power to construct a railway on the route above indicated was repealed, and they were empowered to construct a line from a point on the International Boundary line, at or near Range 16, west of the 2nd Principal Meridian, in a northerly direction by Qu'Appelle station to Fort Qu'Appelle, thence in a north-easterly direction to a point at or near the North-west corner of Lake Winnipegosis; the portion between the point of intersection with the Canadian Pacific Railway and Fort Qu'Appelle to be completed by the 1st August, 1890, and the whole road by the 16th of April, 1896.

By the Land Subsidy Act of 1889, 52 Vic., ch. 4, the subsidy provided by the Act 49 Vic., ch 11, was made available for this new line.

By the Act 53 Vic., ch. 83 (1890) the statutory time for the construction of the portion of this railway between the Canadian Pacific Railway at Fort Qu'Appelle was extended to the 1st of August, 1892—the balance of the road to be completed at the rate of 50 miles a year thereafter.

This Act was repealed by the Act 55-56 Vic., ch. 63 (1892), and the time for the completion of the railway between the point of intersection with the Canadian Pacific Railway and Fort Qu'Appelle was extended to the 30th of October, 1894, the railway to be completed at the rate of 20 miles each year thereafter.

Powers were given to convey or lease the road to the Canadian Pacific Railway Company, the Manitoba and North-western Railway Company, the Great North-west Central Railway Company, or the Winnipeg and the Hudson Bay Railway Company.

By the special Act of 1894, 57-58 Vic., ch. 96, the time for completion of the section of railway between the Canadian Pacific Railway and Fort Qu'Appelle was extended to the 30th of October, 1896. The remainder of the road was to be completed at the rate of 20 miles a year thereafter.

The land subsidy has lapsed.

CANALS.

The canal systems of the Dominion, under Government control, in connection with lakes and navigable rivers, are as follows :—

1. The River St. Lawrence.
2. The Welland Canal.
3. The Sault Ste. Marie Canal.
4. The Richelieu navigation, from the St. Lawrence to Lake Champlain.
5. The River Ottawa.
6. The Rideau navigation, from Ottawa to Kingston,
7. The Trent navigation.
8. St. Peter's Canal, Cape Breton.

EXPENDITURE ON CANAL WORKS.

The following list shows the total amount charged to capital account, expended by the Government for original construction and enlargement of the canals of the Dominion ; embracing the period prior to Confederation and extending down to the 30th of June, 1896 :—

Lachine Canal.....	\$10,125,972	26
Beauharnois Canal.....	1,611,690	26
Soulanges Canal (under construction).	2,275,908	55
Williamsburg Canals (being enlarged).....	4,228,419	71
Cornwall Canal (being enlarged).....	5,953,662	53
St. Lawrence River and Canals, surveys, &c.....	1,147,132	82
Lake St. Louis.....	54,662	45
Murray Canal.....	1,247,470	26
Welland Canal.....	23,769,353	41
Sault Ste. Marie Canal.....	3,448,011	83
Ste. Anne Canal.....	1,170,215	63
Carillon and Grenville Canals.....	4,029,788	86
Culbute Canal.....	379,494	46
Rideau Canal (including the Perth Branch, or Tay Canal).....	4,560,285	60
Trent Canal.....	1,538,779	97
St. Ours Lock.....	121,537	65
Chambly Canal.....	637,206	76
St. Peter's Canal.....	648,755	64
Baie Verte Canal survey.....	44,387	53
Total charged to capital.....	66,948,348	65

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In addition to the above there has been expended
during the same period on the maintenance,
repairs, and operation of these several works,
but not charged to capital. 13,932,785 89

Making a total expenditure on canals of \$80,881,134 54

The total revenue derived from the canals, including tolls and rentals of lands and water powers of the Dominion during the said period amounted to \$10,917,796.74.

TOTAL EXPENDITURE AND RECEIPTS FOR THE YEAR.

EXPENDITURE.

The total expenditure in connection with construction, maintenance, and operation of the several canals for the fiscal year ended on the 30th of June, 1896, and other expenditure under canal appropriations was as follows :—

Construction (charged to Capital)	\$2,258,778 97
Renewals, (charged to Income)	\$121,908 10
Ordinary repairs (charged to Revenue)	226,328 40
Staff (operating and collecting) do	345,454 47
	693,690 97*
	\$2,952,469 94

REVENUE.

The total revenue for the fiscal year was \$341,503.09, less refunds of canal tolls \$1,964.37, leaving the net revenue \$339,538.72, a decrease compared with the net revenue of the previous year of \$351.77, the net canal tolls amounted to \$268,838.67, a decrease of \$12,297.41, and the rents received to \$51,414.01. an increase of \$10,807.11.

The system of granting refunds on through shipments of grain and other food products was discontinued at the beginning of 1893, the through rate being fixed at ten cents a ton by an Order in Council of the 13th of February, 1893, a rate continued in subsequent years. The refunds above referred to are detailed in the accountant's statement, part II. page 31, and were for over payments, and for material carried for government works.

The total expenditure on staff and maintenance, repairs and renewals, amounted for the year to \$693,690.97, decrease of \$52,085.07 ; and the total net receipts amounting as above to \$339,538.72, the amount of expenditure in excess of receipts was \$354,152.25.

* The above figures are those of the "total on canals" in the accountant's statement part I, p. 3), the last five items of which, though representing expenditure under the canal appropriations, are not directly chargeable to those works : their aggregate amounts to \$30,194.21, charged to "income." They are not included in the statement of the Chief Engineer, Part I, p. 29, which gives the total for maintenance and operation as \$663,496.76.

The following statement shows the amount collected on each canal for canal Revenue proper, and hydraulic rents, etc., during the fiscal year ended on the 30th of June, 1896.

Name of Canal.	Tolls.	Wharfage and Storage.	Fines	Other Receipts.	Hydraulic and other Rents.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Welland.....	142,511 53		130 00	108 03	9,194 51	151,944 07
St. Lawrence.....	60,757 83	3,033 14	80 00	15,422 28	40,963 05	120,256 30
Chambly.....	26,807 01		9 00		190 00	27,006 01
Ottawa.....	32,090 93			10 20	56 00	32,157 13
Rideau.....	5,798 13	51 94		275 70	942 45	7,068 22
St. Peters.....	1,248 38					1,248 38
Murray.....	522 12				4 00	526 12
Trent Valley.....	1,066 11			166 75	54 00	1,286 86.
Sault Ste. Marie.....					10 00	10 00
	270,802 04	3,085 08	219 00	15,982 96	51,414 01	341,503 09
Less Refunds.						1,964 37
						339,538 72

Details relating to the canal revenue and various commercial statistics for the season of navigation of the year 1895 will be found in part V., "Canal Statistics."

The following features of the principal canal traffic during the season of navigation of 1895, will be found of interest :—

On the Welland Canal, 869,595 tons of freight were moved ; of which 489,748 tons were agricultural products, and 121,846 tons produce of the forest, 635,712 tons passed eastward and 233,883 westward : 852,026 tons were through freight, of which 621,926 tons passed eastward through the whole length of the canal.

Canadian vessels carried 290,077 tons of through freight and United States vessels 561,949 tons.

The total freight passed eastward and westward through this canal from United States ports to United States ports was 477,105 tons ; a decrease of 115,162 tons compared with the year 1894.

The quantity of grain passed down this and the St. Lawrence Canals to Montreal was 231,491 tons, a decrease of 42,160 tons compared with the previous year : of this 18,987 tons were transhipped at Ogdensburg, as against 273,651 tons carried down in 1894, of which 23,030 tons were transhipped at Ogdensburg.

On the St. Lawrence Canals a total of 828,228 tons of freight were moved : of which 469,735 were east bound through freight ; and 27,209 tons were west bound through freight : 315,860 tons were agricultural products and 338,793 tons were merchandise.

Four cargoes of corn, aggregating 1,344 tons, were taken down direct to Montreal.

On the Ottawa River Canals the total quantity of freight moved was 541,220 tons, of which 532,084 tons were produce of the forest.

On the Chambly Canal 359,027 tons were moved, of which 226,197 tons were the product of the forest.

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On the Rideau Canal 88,753 tons were carried, 55,563 tons being the product of the forest.

On the St. Peters Canal 9,828 tons were carried, of which 712 tons were the product of the forest.

On the Murray Canal 11,324 tons passed and 4,446 tons of this were the product of the forest.

On the Trent Valley Canal 32,266 tons were moved, of which 30,899 tons were the product of the forest.

On the Sault Ste. Marie Canal (which opened on Sept. 9th, 1895, and closed Dec. 6th, the total movement of freight for the three months was 595,837 tons, being 415,432 tons of east bound and 180,405 tons of west bound.

RIVER ST. LAWRENCE AND LAKES.

The River St. Lawrence, with the system of canals established on its course above Montreal, and the Lakes Ontario, Erie, St. Clair, Huron and Superior, with connecting canals, afford a course of water communication extending from the Straits of Belle Isle to Port Arthur, at the head of Lake Superior, a distance of 2,260 statute miles. The distance to Duluth is 2,384 miles.

From the Straits of Belle Isle at the mouth of the St. Lawrence to Montreal the distance is 986 miles. From Quebec to Montreal the distance is 160 miles. Owing to the shallowness of the waters on a portion of the river between these two places, particularly through Lake St. Peter, vessels drawing more than from ten to twelve feet were formerly barred from passage for the greater part of the season of navigation. In 1826, the question of deepening the channel was first definitely mooted, but it was not until 1844, that any dredging operations were begun. In that year, the deepening of a new straight channel was commenced, but the scheme was abandoned in 1847. In 1851, the deepening of the present channel was begun. At that time the depth of the channel at low water was 10 feet 6 inches. By the year 1869, this depth had been increased to 20 feet, by 1882, to 25 feet, and by the close of 1888 the depth of 27½ feet, at low water, was attained for a distance of 108 miles from Montreal to a point within tidal influence. This work is now being continued by the Government of Canada, who in 1888, under the provisions of the Act 51, Vic., ch. 5 of that year, assumed the indebtedness incurred. The channel has a minimum width of 300 feet, extending to 550 feet at points of curvature. The channel is lighted and buoyed.

Prior to the commencement of the work of deepening the new channel, the size of vessels which could reach Montreal was limited to about 350 tons, and in the year 1853, the port was visited by only three small transatlantic steamers.

During the season of 1896 the number of sea going vessels arriving at this port was 709, having an aggregate tonnage of 1,216,468 tons, some of them being vessels of over 5,000 tons. The impetus to commerce thus given has resulted in the undertaking of very extensive works of harbour improvement at Montreal by which the present accommodation will be greatly increased. Navigation, which is closed by ice during the winter months, opens about the end of April.

Montreal has by this work been placed at the head of ocean navigation, and here the canal systems of the River St. Lawrence begin, overcoming the various rapids by

which the river channel upwards is obstructed, and giving access, through the Welland Canal, the great lakes, and the Sault Ste. Marie Canal, to the head of Lake Superior.

The difference in level between the point on the St. Lawrence near Three Rivers where tidal influence ceases, and Lake Superior, is about 600 feet.

The Dominion canals, constructed between Montreal and Lake Superior, are the Lachine, Beauharnois, Cornwall, Farran's Point, Rapide Plat, Galops, Welland and Sault Ste. Marie. Their aggregate length is 71 miles; total lockage (or height directly overcome by locks) 551 feet. The number of locks through which a vessel would pass in its passage from Montreal, at the head of ocean navigation, to the head of Lake Superior is 51.

Communication between Lakes Huron and Superior is obtained by means of the Canadian Sault Ste. Marie Canal, and also by the St. Mary's Falls Canal, situated on the United States side of the River St. Mary. Both these canals are free of toll.

The American Canal is a little over a mile in length, with a bottom width of 100 feet; with it there are connected two locks—the old lock, of which the dimensions are:—length 515 feet, width 80 feet, gate openings 60 feet wide, with 16 feet of water on the sills, and a lift of about 18 feet, and the new lock, completed in the fall of 1896, of which the dimensions are, length 800 feet, width 100 feet, and 21 feet of water on the sill at medium water level.

The following indicates the main features of the works executed, in progress, and in contemplation in connection with the scheme of canal enlargement on the through line of navigation between tide water and Lake Superior.

The general enlargement scheme comprises locks of the following dimensions:—length, 270 feet between the gates; width, 45 feet; with a navigable depth of 14 feet of water over the sills. The Sault Ste. Marie lock, however, is 900 feet long, 60 feet wide, and with a depth of water more than equivalent to 21 feet in the new American lock.

Lachine Canal.—On the Lachine Canal the foundations of the permanent structures were put down to the full depth for vessels drawing 14 feet, but for about $6\frac{1}{2}$ miles the canal itself has yet to be lowered 2 feet to obtain this depth. All the work is under contract, and over one half has been executed up to the end of the working season of 1896.

Lake St. Louis.—For about four miles above the head of the Lachine Canal, Lake St. Louis is obstructed by numerous shoals, consisting principally of hard material, the removal of which is necessary to form a channel suitable to the enlarged 14 feet navigation. The work of excavating a channel 300 feet wide and 16 feet deep for a distance of about 4 miles is in progress; over one third has been executed up to the end of the working season of 1896.

Soulanges Canal.—Between Lakes St. Louis and St. Francis there is a rise of about 83 feet in the river, which is at present surmounted by the Beauharnois Canal, on the south shore of the St. Lawrence. The enlarged scale canal (the Soulanges), on the north shore of the river, will be about 14 miles in length. It is in course of construction. All works are under contract, and about one half has been executed.

Lake St. Francis.—In Lake St. Francis the obstructions to a 14 feet navigation are of minor importance, and are found chiefly near its upper or western end, where there are some shoals to be removed.

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Cornwall Canal.—The works are so far advanced that they will be completed next season.

Farran's Point Canal.—Nothing has been done towards the enlargement of the canal at Farran's Point beyond the necessary surveys and the preparation of plans, but the prism of the canal has been dredged out to its original dimensions.

Rapide Plat Canal.—At the Rapide Plat the works of enlargement are practically completed.

Between the Cornwall Canal and the Galops Canal the river reaches require to be deepened or improved at certain points.

Galops Canal.—The Galops Canal, $7\frac{5}{8}$ miles in length, passes the Iroquois, the Cardinal and Galops Rapids. Of these, the Iroquois and the Cardinal are very strong currents rather than rapids.

This canal is being enlarged for a distance of about 4,000 feet from the upper entrance to a point below the Galops Rapids, where a new lift-lock and other works, now completed, give access from the river. These enlargement works are practically completed.

From the upper entrance of this canal to the Prescott reach, a distance of about three miles, the present circuitous and, in parts, shallow channel lies across what is known as "Flat Rock" shoal, and runs through American waters. The improvement and utilization of the north or Canadian channel of the river has been suggested as a part of the general scheme of enlargement, but beyond survey and the preparation of plans nothing has yet been done.

Welland Canal.—The enlargement of this canal is completed.

Sault Ste. Marie Canal.—This canal is now open for traffic. The full depth to which the canal and lock are adapted is a 20 feet navigation at the lowest known water level, but the approaches are, so far, only dredged out to a depth of 18 and $18\frac{1}{2}$ feet respectively. This, however, is of no present consequence, as the limit of navigation is fixed by the new United States channel in the river below the falls, which is not yet, in parts, taken out to the full depth contemplated.

LACHINE CANAL.

	Old Line.	New Line.
Length of canal	$8\frac{1}{2}$ statute miles.	$8\frac{1}{2}$ statute miles.
Number of locks	5	5
Dimensions of locks	200 feet by 45 feet.	270 feet by 45 feet.
Total rise, or lockage	45 "	45 "
Depth of water { at two locks..	16 "	18 "
on sills. { at three locks.	9 "	14 "
Mean width of new canal		150 "

The depth of the canal between locks is at present only adapted to vessels of 12 feet draught.

The canal consists of one channel, with two distinct systems of locks, the old and the enlarged. There are two entrances at each end.

The canal extends from the city of Montreal to the town of Lachine, overcoming the St. Louis Rapids, the first of the series of rapids which bars the ascent of the River St. Lawrence. They are 986 miles distant from the Straits of Belle-Isle.

The scheme for the enlargement of this, in common with the other canals of the St. Lawrence, contemplated a navigable depth of 14 feet throughout. The improvement immediately in view, however, was only intended to furnish a navigable depth of 12 feet in the canal proper, and accordingly, on the following reaches, namely, between Lachine and Côte St. Paul, Côte St. Paul, and St. Gabriel, St. Gabriel and Wellington Basin, the channel has been adapted to navigation by vessels of 12 feet draught only. All permanent works on the canal, such as locks, bridges, side walls and culverts, have been built to afford a navigable depth of 14 feet, and on the section adjacent of Montreal their depth is sufficient to accommodate vessels having 20 feet. The works for the further deepening of the canal for the 14 feet navigation are in progress.

The canal was closed on the 30th of November, 1895, and opened on the 3rd of May, 1896.

The navigation of the canal was carried on through the season without interruption.

The report of the superintending engineer gives details of the repairs and new works executed, and shows generally the condition of the canal. (Appendices, Part I., p. 102.)

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$184,998 25
Renewals, chargeable to income	8,193 15
Repairs	24,950 20
Staff.....	58,342 96
Total.....	\$276,484 56

The work of dredging the new channel through certain shoals in Lake St. Louis to meet the requirements of the deepened canal, is making good progress; the expenditure of the past year on this work was \$49,909.31.

BEAUHARNOIS CANAL.

Length of canal.....	11 $\frac{1}{4}$ statute miles.
Number of locks	9
Dimensions of locks.....	200 feet by 45 feet.
Total rise or lockage.....	82 $\frac{1}{2}$ feet.
Depth of water on sills.....	9 “
Breadth of canal at bottom.....	80 “
Breadth of canal at water surface.....	120 “

This canal commences on the south side of the St. Lawrence, 15 $\frac{1}{4}$ miles from the head of the Lachine Canal. It connects Lakes St. Louis and St. Francis, and passes the three rapids known, respectively, as the Cascades, the Cedars and the Coteau.

The canal was closed on the 30th of November, 1895, and was reopened for traffic on the 1st May, 1896.

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During the season navigation was uninterrupted.

Details of repairs, &c., will be found in the Appendices, part I., p. 104.

The expenditure on this canal for the past fiscal year was as follows :—

Construction, chargeable to capital.....	Nil.
Renewals, chargeable to income.....	Nil.
Repairs	\$15,050 85
Staff.....	20,725 47
Total.....	\$35,776 32

CORNWALL CANAL.

Length of canal	11½ statute miles.
Number of locks.....	6
Dimensions of locks	270 by 45 feet.
Total rise or lockage.....	48 feet.
Depth of water on sill.....	14 “
Breadth of canal at bottom (except at three culverts).....*	100 “
Breadth of canal at water surface	150 “

From the head of the Beauharnois to the foot of the Cornwall Canal there is a stretch through Lake St. Francis of 32¾ miles, which is navigable for vessels of the size at present in use.

The Cornwall Canal extends past the Long Sault Rapids from the town of Cornwall to Dickinson's Landing.

This canal was closed on the 7th December, 1895, and reopened on the 30th April, 1896.

During the months of September and October, 1895, the water supply was unusually low, rendering it necessary to shut off the water from manufacturing establishments; and during the period of lowest water, the draught of vessels was restricted to 8 feet.

The lowest water level recorded at the upper guard lock during the season was 7 feet 4 inches, and the highest 9 feet 11 inches. Detailed statements of water levels will be found in part I., p. 134.

Several accidents occurred during the year, lock gates being carried away by vessels, entailing interruption to traffic.

Details of repairs and operation will be found in the Appendices, part I., p. 129, and of enlargement works part I., p. 122.

NEW WORKS.

The work of deepening and enlarging the prism of the canal is approaching completion.

It having been decided to adopt the north channel of the River St. Lawrence between Sheik's Island and the mainland as a part of the canal, the enlargement of the existing canal at this point was abandoned. The work of constructing the necessary

*This is the bottom breadth of the old, 9 feet navigation, canal.

dams across the river channel between Sheik's Island and the mainland which was placed under contract in June, 1893, was completed in the season of 1895, and the gradual filling of the area so formed was commenced in the fall, the water being fully let in by the opening of navigation.

The estimated cost of the enlargement of this canal is \$4,300,000, of which there had been paid up to the 1st of November, 1896, \$4,049,955.

The work of the year is described in detail in the appendices to the present report. (See part I., page 122.)

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$448,408 31
Renewals, chargeable to income.....	2,175 00
Repairs.....	25,259 56
Staff and maintenance.....	15,472 26
Total.....	<u>\$491,315 13</u>

WILLIAMSBURG CANALS.

The Farran's Point, Rapide Plat, and Galops Canals are collectively known as the Williamsburg Canals.

The canals were closed on the 10th of December, 1895, and reopened on the 1st of May, 1896.

One accident occurred during the year, the gates of one of the locks being carried away by collision, causing delay to navigation.

The low state of the water during a portion of the season of 1895 entailed much inconvenience to navigation.

The expenditure on these canals during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$442,021 12
Renewals, chargeable to income.....	8,607 04
Repairs.....	9,036 00
Staff and maintenance.....	9,588 51
Total.....	<u>\$469,252 67</u>

For details of work see the Appendices, part I., page 124 to page 133.

FARRAN'S POINT CANAL.

Length of canal.....	$\frac{3}{4}$ mile.
Number of locks.....	1
Dimensions of lock.....	200 feet by 45 feet
Total rise, or lockage.....	4 feet.
Depth of water on sills at ordinary water level...	9 "
Breadth of canal at bottom.....	50 "
Breadth of canal at water surface.....	90 "

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From the head of the Cornwall Canal to the foot of Farran's Point Canal, the distance on the River St. Lawrence is 5 miles. The latter canal enables vessels ascending the river to avoid, if necessary, the Farran's Point rapid. Descending vessels run the rapids with ease and safety.

The prism of this canal is being restored to its original dimensions, viz., width at bottom 50 feet, depth 10 feet. (See Appendices, part I., page 124.)

RAPIDE PLAT CANAL.

Length of canal	4 miles.
Number of locks	2
Dimensions of locks	270 feet by 45 feet.
Total rise, or lockage	11½ feet.
Depth of water on sills	14 "
Breadth of canal at bottom	50 "
Breadth of canal at surface of water	90 "

From the head of Farran's Point Canal to the foot of Rapide Plat Canal there is a navigable stretch of 10½ miles. This canal was formed to enable vessels ascending the river to pass the rapids at that place. Descending vessels run the rapids safely.

NEW WORKS.

The enlargement works of the Rapide Plat Canal consist of the enlargement of the channel way above, and for some distance below, the present guard-lock at the head of the canal, and the construction of a new guard-lock and a supply weir in connection with the old lock. The bottom of the channel, for a distance of about 1,000 feet below, and out into deep water, above the lock, about 700 feet, has been excavated to an extent sufficient to afford a navigable depth of 14 feet. The new lock was completed in 1888, and is in operation; the other works in that connection are also finished. Contracts for the enlargement of the remaining portion of the canal, including the lock at the lower outlet, were entered into in the month of January, 1891. The works are nearly completed. Up to the 1st of November, 1896, there had been paid a total of \$1,582,713 out of a total estimated cost of \$1,700,000. (See Appendices, part I., page 125.)

GALOPS CANAL.

Length of canal	7½ miles.	
Number of locks	4	
Dimensions of locks	{	
		1 Guard lock 270 ft. by 45 ft
		1 Lift lock 270 ft. by 2 " 200 ft. by 45 ft.
Total rise, or lockage	15½ feet.	
Depth of water on sills	14 "	
Breadth of canal at bottom	50 "	
Breadth of canal at surface of water	90 "	

From the head of Rapide Plat Canal to Iroquois, at the foot of the Galops Canal, the St. Lawrence is navigable for 4½ miles. This canal enables vessels to overcome the rapids at Pointe aux Iroquois, Point Cardinal and the Galops.

NEW WORKS.

The works for the widening and deepening of the upper entrance and for the construction of a lift-lock from the river below the Galops Rapids, about 4,000 feet from the upper entrance, together with a guard-lock and supply weir to the canal adjacent to the point were placed under contract in November, 1888. Both locks are completed, and the water was admitted to them in October, 1894. The balance of the work is in progress. Out of the estimated cost of this enlargement, \$1,650,000, there has been paid up to the 1st November, 1896, the sum of \$1,503,344.

By the use of this new lift-lock, vessels qualified to stem the currents of the Iroquois and Cardinal Rapids can dispense with about 7 miles of canal passage, traversing only the 4,000 feet between the lock and the upper entrance in order to pass the Galops Rapids; and during the season, navigation, which had been hindered by the exceptionally low stage of the water, received the benefit of the work, steps having been taken to utilize it to that end.

In view of the above, nothing has been done towards the enlargement of the 7 miles of the canal east of the lock, beyond the preliminary surveys.

During the season of 1892, a location survey was completed of what is known as the "north channel," from the head of the Galops Canal to the head of Spencer's Island a channel which, if improved, would afford a course shorter by $\frac{2}{3}$ of a mile than the southern channel in American waters now in use. (See Appendices, part I., p. 127.)

MURRAY CANAL.

Length between eastern and western pier heads.....	5 $\frac{1}{2}$ miles
Breadth at bottom.....	80 feet
Depth below lowest known lake level.....	11 "
No locks.	

This canal extends through the Isthmus of Murray, giving connection westward between the head waters of the Bay of Quinté and Lake Ontario, and thus enabling vessels to avoid the open lake navigation.

The works on this canal comprise a cut through the isthmus 4 $\frac{1}{2}$ miles long, and improvements in the way of dredging and other work to the entrance channels at either end, covering a total distance of 9 $\frac{1}{2}$ miles in all. There are no locks. The canal is crossed by four swing bridges.

Its western terminus is near the village of Brighton, in the harbour of Presqu'Île; from which point to Port Dalhousie, the entrance of the Welland Canal, the distance is less than 120 miles.

The canal is 80 feet wide at the bottom, the depth being, at low water, 12 $\frac{1}{2}$ feet.

The entrance from the lake to Presqu'Île Harbour has a width varying from 1,000 feet outside the main light to 200 feet at the entrance of the channel. The maximum depth at the entrance is 16 feet at low water.

The canal was closed on the 4th of December, 1895, and reopened on the 17th of April, 1896.

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The highest water level recorded between May and November, 1895, was 12 feet 5 inches (in May) and the lowest, 12 feet 4 inches (in November) being the lowest high water and the lowest low water for the past five years.

Navigation was maintained without interruption. The canal was used to the extent of 603 passages of vessels. (See Appendices, part I., p. 132.)

The expenditure on the canal, during the past fiscal year, was as follows :—

Construction, chargeable to capital.....	Nil.
Renewals, chargeable to income.....	Nil.
Repairs.....	\$5,410 33
Staff and maintenance.....	5,409 10
Total.....	\$10,819 43

WELLAND CANAL.

MAIN LINE FROM PORT DALHOUSIE, LAKE ONTARIO, TO PORT COLBORNE, LAKE ERIE.

	Old Line.	Enlarged or New Line.
Length of canal.....	27½ miles.	26¾ miles.
Pairs of guard-gates (formerly 3).....	26	2
Number of locks { lift.....	1	lift 25
	1	guard 1
Dimensions.....	1 lock 200 x 45 1 " 200 x 45 1 (tidal) 230 x 45 24 locks 150 x 45	} 270 feet x 45 feet.
Total rise, or lockage.....	326¾ feet.	326¾ feet.
Depth of water on sills.....	10¼ feet.	14 "

WELLAND RIVER BRANCHES.

Length of canal—Port Robinson Cut to River Welland.....	2,622 feet.
“ From the canal at Welland, to the river, via lock at aqueduct.....	300 “
“ Chippawa Cut to River Niagara.....	1,020 “
Number of locks—one at aqueduct and one at Port Robinson.....	2
Dimensions of locks.....	150 by 26½ feet.
Total lockage from the canal at Welland down to River Welland.....	10 feet.
Depth of water on sills.....	9 “ 10 inches.

GRAND RIVER FEEDER.

Length of canal.....	21 miles.
Number of locks.....	2
Dimensions of locks.....	{ 1 of 150 by 26½ feet. 1 of 200 by 45 “
Total rise or lockage.....	7 to 8 feet.
Depth of water on sills.....	9 feet.

PORT MAITLAND BRANCH.

Length of canal.....	1¾ miles.
Number of locks.....	1
Dimensions of locks.....	185 by 45 feet.
Total rise or lockage.....	7½ feet.
Depth of water on sills.....	11 “

The Welland Canal has two entrances from Lake Ontario, at Port Dalhousie, one for the old, the other for the new canal.

From Port Dalhousie to Allanburgh, 11¾ miles, there are two distinct lines of canal in operation, the old line and the enlarged or new line.

From Allanburgh to Port Colborne, a distance of 15 miles, there is only one channel, the old canal having been enlarged.

The canal was opened in 1883 for vessels drawing 12 feet of water, and in May, 1887, for vessels drawing 14 feet.

Navigation closed on the 12th of December, 1895, and reopened on the 28th of April, 1896.

There appears to be nothing in the operations of the year calling for special notice.

Tables will be found in part I., p. 148, showing the highest and lowest depth of water of the new entrance locks at Port Dalhousie and at Port Colborne for each month throughout the past fiscal year. As affecting navigation, it may be observed that, at Port Colborne the highest water was in November, 1895, 18 feet 4 inches, and the lowest, also in November, 12 feet 2 inches.

At Port Dalhousie the highest water was in April and May, 1896, 15 feet 6 inches, and the lowest in October, 1895, 12 feet 4 inches.

Details as to repairs executed will be found in the appendices. (See part I., p. 136.)

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$ 1,677 67
Renewals, chargeable to income.....	18,768 99
Repairs.....	62,542 64
Staff and maintenance.....	87,988 11
Total.....	<u>\$170,977 41</u>

From the head of the Welland Canal there is a deep water navigation through Lake Erie, the Detroit River, Lake St. Clair, the St. Clair River, Lake Huron and River St. Mary to within a short distance of the Sault Canal, a distance of about 394 miles. From the Sault the distance through Lake Superior to Port Arthur is 266 miles, and to Duluth 390 miles.

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SAULT STE. MARIE CANAL.

Length of canal, between the extreme ends of the entrance piers	5,967 feet.
Number of locks	1
Dimensions of lock	900 feet by 60 feet.
Depth of water on sills (at lowest known water level).	20 feet 3 inches.
Total rise or lockage	18 feet.
Breadth of canal at bottom	141 feet 8 inches.
Breadth at surface of water	150 feet.

This canal has been constructed through St. Mary's Island, on the north side of the rapids of the River St. Mary, and, with that river, gives communication on Canadian territory between Lakes Huron and Superior.

At ordinary stages of the river water there is a difference of 18 feet in the levels of the water above and below this island. The length of the canal across the island is 3,500 feet. In addition, approaches have been formed at both entrances. The total length of this canal, together with its excavated channels of approach is about 18,100 feet.

For contract purposes, the work was divided into three sections, and contracts were entered into as follows:—For the lower entrance, on the 30th of January, 1889; for the upper entrance, on the 26th March, 1889, and for the canal and lift-lock on the 20th of November, 1888.

The scheme, as covered by these contracts, contemplated a lock chamber 600 feet long and 85 feet wide, with a depth of water on the sills of 16½ feet at the lowest known water level; the width of the gate entrances to the lock to be 60 feet. This lock was designed to pass two vessels at one lockage. The prism of the canal was to be 18 feet below the lowest known water level of the river above St. Mary's Island.

Representations were, however, made by parties concerned in the navigation of this work, urging that the above dimensions should be increased, and under authority of Orders in Council of 21st of May and 3rd of July, 1891, a supplemental agreement was entered into with the contractors for the canal and lock, Messrs. Hugh Ryan & Co., on the 19th of June, 1891, whereby the following dimensions were to be adopted:—Length of lock chamber, 650 feet, width 100 feet, depth of water on the sills 19 feet; the time for completion being extended from the 10th of May, 1892, to the 10th of May, 1893.

In the session of 1891, however, a discussion took place in Parliament as to the desirability of making the entrance of the lock in a straight line with the walls of the chamber, and on the 24th of December, 1891, and 1st of April, 1892, Orders in Council were passed authorizing further changes with this view. A second supplemental agreement was accordingly made with the contractors on the 5th of April, 1892, the dimensions of the lock to be as follows:—Length of chamber 900 feet, width 60 feet, throughout, with a depth of 20 feet 3 inches of water on the sills at the lowest recorded stage of the water in the river below the lock; the date for completion being fixed as the 31st of December, 1894.

Later on it became desirable that the work should be completed at an earlier date, and under authority of an Order in Council of the 10th of October, 1892, a further agreement was made with the contractors, on the 8th of November, 1892, for the execution, by the 1st July, 1894, of all the works under their contract, including the deepening of the canal prism to a further depth of 4 feet, making it 22 feet below the lowest known river level.

By the scheme, as so modified, accommodation is afforded to three vessels lying in the lock one behind the other, one of the lake type, 320 feet long, and two of the Welland Canal type, 225 feet long, with ready means of entrance and exit on a course through the gates and lock straight with the line of the canal.

The lock and the prism of the canal were completed and ready for traffic by the end of June, 1895, but it was not until the 9th of September that the channels of approach had been sufficiently cleared to admit of regular traffic. On that day, however, the canal was opened and was operated until the close of the season, December 6th. It was opened for the season of 1896 on the 7th of May. The approaches have been dredged out to the depth of 18 feet and 18½ feet respectively. This, however, in no way affects the full use of the canal by the largest class of lake shipping, traffic being dependent on the available depth of the river below, the navigable limit of which is at present governed by certain shoals in the American channel, and at Sailor's Encampment, reducing the depth to 16 feet at mean water level. These are in process of removal.

During the season of 1896, which closed on the 10th of December, 5,136 vessels have been passed through the canal in 3,042 lockages. The aggregate tonnage of the vessels was 4,395,156 tons, carrying 4,577,397 tons of freight. The enormous extent of the traffic passing the Sault, will be seen by reference to the statements below given, in which is summarized information covering the season of 1896, one statement showing the traffic returns of the Canadian canal only, and the other of the Canadian and American canals jointly. From the latter it will be observed that the tendency to rapid increase has again been very marked: over 16,000,000 tons of freight having gone through the two canals, an increase of over a million tons. There was an increase of over 17 million bushels of wheat, and an increase of over 19 million bushels of other grain.

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$189,986 59
Renewals, chargeable to income.....	Nil
Repairs.....	2,650 17
Staff and maintenance.....	16,074 70
	\$208,711 46

The total expenditure on capital account up to the 1st of November, 1896, was \$3,490,207.86. The estimated cost being \$4,000,000.

Details of the works will be found in the appendices. (See Appendices, part I., p. 97.

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COMPARATIVE Statement of Freight and Passenger Traffic to and from Lake Superior for the seasons of 1895 and 1896, including Statistics of the United States and Canadian Canals at Sault Ste. Marie, Michigan and Ontario :—

Items.	Designation.	SEASONS.		INCREASE.		DECREASE.	
		1895.	1896.	Amount.	Per cent.	Amount.	Per cent.
Vessels "A".....	Number	17,956	18,615	659	.04		
Lockages.....	do	7,734	9,466	1,732	.22		
Tonnage, registered.....	Net tons	16,806,781	17,249,418	442,637	.03		
do freight.....	do	15,062,580	16,239,061	1,176,481	.08		
Passengers.....	Number	31,656	37,066	5,410	.17		
Coal, hard.....	Net tons	440,477	397,210			43,267	.10
do soft.....	do	2,133,885	2,626,130	492,245	.23		
Flour.....	Barrels	8,902,302	8,882,858			19,444	.00
Wheat.....	Bushels	46,218,250	63,256,463	17,038,213	.37		
Grain (other than wheat).	do	8,328,694	27,448,071	19,119,377	230		
Manufactured and pig iron.....	Net tons.....	100,337	121,872	21,535	.21		
Salt.....	Barrels	269,919	237,515			32,404	.12
Copper.....	Net tons.....	107,452	116,872	9,420	.09		
Iron ore.....	do	8,062,209	7,909,250			152,959	.02
Lumber.....	M. ft. B. M.	740,700	684,986			55,714	.08
Silver ore.....	Net tons.....	100	240	140	140		
Building stone.....	do	23,876	17,731			6,145	.26
Unclassified freight "B".	do	463,308	520,851	57,543	.12		

NOTE :

"A." Steamers.....	13,404	"B." Included in the item of "Unclassified Freight" are 2,358 tons of wool and 31 tons of hides.
Sails.....	4,391	
Unregistered.....	820	
Total.....	18,615	

The United States canal was open to navigation during season of 1895.....	231 days.
do do	1896..... 232 do
Canadian do	1895..... 87 do
do do	1896..... 218 do

The Canadian canal was first opened to commerce on Sept. 9, 1895.

* In reports of former years, reference has been made to certain excavation and dyke works for the improvement of the southern channel of the river below the Falls, known as the Hay Lake channel, which is in American waters, the navigable depth of which was formerly limited, practically, to vessels of six feet draught. This improved channel will be 300 feet wide and will have a navigable depth of 20 feet. These works, which commenced in 1882, and the estimated cost of which was \$2,659,115, are now so far completed that the only obstruction in the river to vessels of 20 feet draught is at one point, Neebish Island, where at present not more than 17 feet is to be had.

This improved channel leaves the navigable river channel at a point, Sugar Island Rapids, about 2½ miles below the canal and passes through these rapids into Hay Lake; thence, by way of Middle Neebish, rejoining the present navigable channel at the foot of Sugar Island; the saving in distance thus effected being 11 miles (16 miles in place of 27, the distance by the old channel which runs to the north of Sugar Island in Canadian territory).

MONTREAL, OTTAWA AND KINGSTON.

This route extends from the harbour of Montreal to the port of Kingston, passing through the Lachine Canal, the navigation section of the lower River Ottawa, and the Ottawa Canals, to the city of Ottawa ; thence by the River Rideau and the Rideau Canal to Kingston, on Lake Ontario—a total distance of $245\frac{7}{8}$ miles.

After leaving the Lachine Canal the works constructed to overcome difficulties of navigation are :—

The Ste. Anne's Lock	}	Ottawa River Canals.
Carillon Canal		
Grenville Canal		
Rideau Canal		

The total lockage (not including that of the Lachine Canal) is 509 feet—(345 rise, 164 fall)—and the number of locks is 55.

The following table exhibits the intermediate distances from Montreal harbour :

Sections of Navigation.	Intermediate Distances.	Total Distances from Montreal.
	Miles.	Miles.
The Lachine Canal.....	8 $\frac{1}{2}$	
From Lachine to Ste. Anne's Lock.....	15	23 $\frac{1}{2}$
Ste. Anne's Lock and piers.....	$\frac{1}{8}$	23 $\frac{5}{8}$
From Ste. Anne's Lock to Carillon Canal.....	27	50 $\frac{5}{8}$
The Carillon Canal.....	$\frac{3}{4}$	51 $\frac{3}{8}$
From Carillon Canal to Grenville Canal.....	6 $\frac{1}{4}$	57 $\frac{7}{8}$
The Grenville Canal.....	$\frac{3}{4}$	63 $\frac{3}{8}$
From the Grenville Canal to entrance of Rideau navigation.....	56	119 $\frac{3}{8}$
Rideau navigation, ending at Kingston.....	126 $\frac{1}{4}$	245 $\frac{7}{8}$

Department of Railways and Canals

STE. ANNE'S LOCK.

	Old Lock.	New Lock.
Length of canal.....	$\frac{1}{8}$ mile.	$\frac{1}{8}$ mile.
Number of locks.....	1	1
Dimensions of lock.....	190 x 45 feet.	200 x 45 feet.
Total rise, or lockage.....	3 feet.	3 feet.
Depth of water on sill.....	6 "	9 "

This work, with guide piers above and below, surmounts the Ste. Anne's Rapids between Ile Perrot and the head of the Island of Montreal at the outlet of that portion of the River Ottawa which forms the Lake of Two Mountains, $23\frac{1}{2}$ miles from Montreal harbour.

This lock was closed to navigation on the 29th of November, 1895, and reopened on the 26th of April, 1896.

Navigation has been conducted without interruption during the year.

Both the old and the new locks are available. (See Appendices part I., p. 104.

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital.....	Nil.
Renewals, chargeable to income.....	Nil.
Repairs.....	\$4,993 89
Staff and maintenance.....	2,495 54
Total.....	\$7,489 43

THE CARILLON CANAL.

Length of canal.....		$\frac{3}{4}$ mile.
Number of locks.....		2
Dimensions of locks.....		200 by 45 feet.
Total rise, or lockage.....		16 feet
Depth of water on sills.....		9 "
Breadth of canal at bottom.....		100 "
Breadth of canal at water surface.....		110 "

This canal overcomes the Carillon Rapids.

From Ste. Anne's Lock to the foot of the Carillon Canal there is a navigable stretch of 27 miles, through the Lake of Two Mountains and the River Ottawa.

The canal was closed on the 30th of November, 1895, and reopened on the 27th of April, 1896.

By the construction of the Carillon dam across the River Ottawa the water at that point is raised 9 feet, enabling the river above to be used for navigation. (See Appendices, part I., p. 105.)

From the head of the Carillon Canal to the foot of the Grenville Canal there is a navigable stretch of $5\frac{1}{2}$ miles.

GRENVILLE CANAL.

Length of canal.....	5 $\frac{3}{4}$ miles,
Number of locks.....	5
Dimensions of locks.....	200 by 45 feet
Total rise, or lockage.....	43 $\frac{3}{4}$ feet.
Depth of water on sills.....	9 “
Breadth of canal at bottom.....	40 to 50 feet.
Breadth of canal at surface of water.....	50 to 80 “

This canal, by which the Long Sault Rapids are avoided, is about 56 miles below the city of Ottawa.

Preliminary surveys were made for the enlargement of two reaches of the Grenville canal, but no work has been commenced.

The canal was closed on the 30th of November, 1895, and reopened on the 27th of April, 1896. (See Appendices, part I., p. 105.)

The expenditure on these two canals, the Carillon and the Grenville, during the past fiscal year was as follows :—

Construction, chargeable to capital.....	\$ 3,850 31
Renewals, chargeable to income.....	Nil
Repairs.....	12,161 10
Staff and maintainance.....	13,995 69
	<hr/>
Total.....	<u>\$30,007 10</u>

Tables showing the depth of water at the above canals during the past fiscal year will be found in Appendices, part I., p. 110.

RIDEAU NAVIGATION.

The Rideau system connects the River Ottawa, at the city of Ottawa, with the eastern end of Lake Ontario, at Kingston.

Length of navigation waters.....	126 $\frac{1}{4}$ miles.
Number of locks going from Ottawa to Kingston.	{ 35 ascending. 14 descending.
Total lockage..... 446 $\frac{1}{4}$ feet	{ 282 $\frac{1}{4}$ rise and 164 fall. } at high water.
Dimensions of locks.....	134 by 33 feet.
Depth of water on sills, 5 feet ; navigation depth through the several reaches.....	4 $\frac{1}{2}$ feet.
Breadth of canal reaches at bottom.....	{ 60 “ in earth. 54 “ in rock.
Breadth at surface of water.....	80 “ in earth.

Department of Railways and Canals.

Perth Branch.

Length of canal	6 miles.						
Number of locks	2						
Dimensions of locks	134 feet by 32 feet.						
Total rise or lockage	26 “						
Depth of water on sills	5 “ 6 inches.						
Length of dam	200 “						
Breadth of canal at bottom	40 “						
Breadth of canal at surface of water	<table style="display: inline-table; vertical-align: middle; border: none;"> <tr> <td style="font-size: 2em; padding: 0 5px;">{</td> <td style="padding: 0 5px;">40 “</td> <td style="padding: 0 5px;">in rock.</td> </tr> <tr> <td style="font-size: 2em; padding: 0 5px;">}</td> <td style="padding: 0 5px;">60 “</td> <td style="padding: 0 5px;">in clay.</td> </tr> </table>	{	40 “	in rock.	}	60 “	in clay.
{	40 “	in rock.					
}	60 “	in clay.					

The Perth branch on the Rideau Canal affords communication between Beveridge's Bay, on Lake Rideau, and the town of Perth.

By an Order in Council dated the 27th of September, 1890, it was declared to be a part of the Rideau Canal.

The summit level of the Rideau system is at upper Lake Rideau, but several of the descending reaches are also supplied by waters which have been made tributary to them. The following description gives the sources of supply:—

From the summit, the route towards Ottawa follows the Rideau River, and that towards Kingston follows the River Cataraqui. The supply of water for the canal is derived from the reserves given in detail below.

These may be divided into three systems, viz. :—

1. The summit level, supplied by the Wolfe Lake system.
2. The eastern descending level to Ottawa, supplied by the River Tay system, discharging into Lake Rideau.
3. The south-west descending level to Kingston, supplied by the Mud Lake system, formerly known as the Devil Lake system, discharging into Lake Openicon.

Lake Openicon receives the waters of Buck Lake and Rock Lake.

All these waters on the descending level, supplemented by those of Lake Loughboro', flow into Cranberry Lake, which, discharging through Round Tail outlet, forms the River Cataraqui. The river, rendered navigable by dams at various points, affords a line of navigation to Kingston.

The navigation stopped at Ottawa on the 30th of November, 1895, and at Kingston Mills, on the 20th, and recommenced at Ottawa on the 1st of May, 1896, and at Kingston Mills on the same day.

Extremely low water again rendered navigation difficult at certain periods of the season. The spring freshets were exceptionally heavy, but damages caused by them were promptly repaired, and navigation was not affected.

Details of repairs and other works will be found in the appendices. Part I., p. 116.

A statement of water levels will be found in the appendices, Part I., p. 121.

The expenditure on this canal for the past fiscal year was as follows:—

Construction, chargeable to capital	Nil.
Renewals, chargeable to income	\$21,452 29
Repairs	30,196 38
Staff and maintenance	34,052 77
Total	\$85,701 44

RICHELIEU AND LAKE CHAMPLAIN.

This system, commencing at Sorel, at the confluence of the River St. Lawrence and Richelieu, 46 miles below Montreal, extends along the River Richelieu, through the St. Ours Lock to the basin of Chambly, thence by the Chambly Canal to St. Johns and the River Richelieu and Lake Champlain. The distance from Sorel to the boundary line is 81 miles.

At Whitehall, the southern end of Lake Champlain Canal is entered, and connection is obtained with the River Hudson, by which the city of New York is directly reached. From the boundary line to New York, the distance is 330 miles.

The following table shows the distances between Sorel and New York :

Section of Navigation.	Intermediate Distances in Miles.	Total Distances.
Sorel to St. Ours Lock	14	14
St. Ours Lock to Chambly Canal	32	46
Chambly Canal	12	58
Chambly Canal to Boundary line	23	81
Boundary line to Champlain Canal	111	192
Champlain Canal to junction with Erie Canal	66	258
Erie Canal, from junction to Albany	7	265
Albany to New York	146	411

ST. OURS LOCK AND DAM.

Length	$\frac{1}{8}$ mile.
Number of locks	1
Dimensions of lock	200 feet by 45 feet.
Total rise, or lockage	5 "
Depth of water on sills	7 " at low water.
Length of dam in eastern channel	300 "
" " western channel	690 "

At St. Ours, 14 miles from Sorel, the River Richelieu is divided by a small island into two channels. The St. Ours Lock is the eastern channel.

There is a navigable depth in the Richelieu of 7 feet between St. Ours Lock and Chambly Basin, a distance of 32 miles.

Navigation closed on the 29th November, 1895, and reopened on the 29th of April, 1896.

Unusually high water in the spring caused some damages, but navigation was not affected. (See Appendices, part I., page 105.)

The expenditure on this work during the past fiscal year was as follows :

Construction, chargeable to capital	Nil.
Renewals, chargeable to income	Nil.
Repairs, chargeable to revenue	\$. 1,678 49
Staff and maintenance	2,094 91
Total	<u>\$3,773 40</u>

Department of Railways and Canals

CHAMBLY CANAL.

Length of canal.....	12 miles.	
Number of locks.....	9	
Dimensions of locks :—		
Guard Lock, No. 1, at St. John.....	122 feet	}
Lift “ 2.....	124 “	
“ “ 3, 4, 5, 6.....	118 “	
“ “ 7, 8, 9 combined.....	125 “	
Total rise, or lockage.....	74 “	
Depth of water on sills.....	7 “	
Breadth of canal at bottom.....	36 “	
“ “ surface of water.....	60 “	

This canal succeeds the 32 miles of navigable water between St. Ours Lock and Chambly Basin. The canal overcomes the rapids between Chambly and St. Johns.

The canal was closed to navigation on the 30th of November, 1895, and was reopened on the 4th of May, 1896.

Navigation was uninterrupted during the season, and the traffic of the canal showed an increase of 30 per cent.

A description of the several works of repair and improvement executed during the year, and a statement of water levels will be found in the appendices. (See Appendices, part I., pp. 105 and 108.)

The expenditure on this canal during the past fiscal year was as follows :—

Construction chargeable to capital.....	Nil.	
Renewals, chargeable to income.....	\$ 3,694 63	
Repairs, chargeable to revenue.....	11,801 12	
Staff and maintenance.....	19,349 65	
Total.....	\$34,845 40	

TRENT CANAL.

The term “Trent Canal” is applied to a series of water stretches, which do not, however, form a connected system of navigation, and which, in their present condition, are efficient only for local use. By various works, this local use has been extended, and by others now in progress and contemplation, this will become a through route between Lake Ontario and Lake Huron.

The series is composed of a chain of lakes and rivers, extending from Trenton, at the mouth of the River Trent, on the Bay of Quinté, Lake Ontario, to Lake Huron.

Many years ago the utilizing of these waters for the purpose of through water communication between Lake Huron and Lake Ontario was projected.

The course, as originally contemplated and modified is as follows :—

Through the River Trent, Rice Lake, the River Otonabee, and Lakes Clear, Stony, Lovesick, Deer, Buckhorn, Chemong, Pigeon, Sturgeon and Cameron to Lake Balsam, the summit water, about 165 miles from Trenton; from Lake Balsam by a canal and the River Talbot to Lake Simcoe: thence by the River Severn to Georgian

Bay, Lake Huron ; the total distance being about 200 miles, of which only about 15 or 20 miles will be actual canal.

The full execution of the scheme, commenced by the Imperial Government in 1837, was deferred. By certain works, however, below specified, sections of these waters have been made practicable for navigation, and the whole scheme is now being carried out. A branch of the main route, extending from Sturgeon Lake south, affords communication with the town of Lindsay, and, through Lake Scugog, to Port Perry, a distance of 190 miles from Trenton.

The following table gives the distance of navigable and unnavigable reaches :—

	Navigable Miles.	Unnavigable Miles.
From Trenton, Bay of Quinté, to Nine Mile Rapids		9
“ Nine Mile Rapids to Percy Landing	19½	
“ Percy Landing to Heeley’s Fall Dam		14¼
“ Heeley’s Fall Dam to Peterborough	51¾	
“ Peterboro’ to Lakefield		9½
“ Lakefield to a point across Balsam Lake	61	
	132¼	32¾
Total distance, Bay of Quinté to a point across Balsam Lake		165
From Sturgeon Point on Sturgeon Lake, 48¾ miles from Lakefield, the branch through the town of Lindsay to Port Perry at the head of Lake Scugog		27½

The works by which the Trent navigation has been improved comprise canals, with locks and bridges, at Burleigh Rapids, Buckhorn Rapids and Fenelon Falls ; also dams at Lakefield and Young’s Point. By these works there is afforded communication between Lakefield, 9½ miles from Peterborough, and Balsam Lake, the headwaters of the system ; opening up a total of about 160 miles of direct and lateral navigation.

At Lakefield, 9½ miles from Peterboro’, the dam, at the head of the Nine Mile Rapids of the River Otonabee, maintains navigation on Lake Katchiwannoe up to Young’s Point.

At Young’s Point, 5 miles from Lakefield, the dam between Lake Katchiwannoe and Clear Lake controls the water level through Clear and Stony Lakes up to the foot of the Burleigh Canal. The lock here, it should be observed, is controlled by the Provincial Government.

At Burleigh Rapids, 10 miles from Young’s Point, a canal about 2¼ miles in length, passes the Burleigh and Lovesick Rapids, and gives communication between Stony Lake and Deer Bay.

At Buckhorn Rapids, 7 miles from Burleigh Rapids, there is a canal about one fourth of a mile long.

At Bobcaygeon, 15¾ miles from Buckhorn Rapids, a dam, 553 feet long, controls the water level up to Fenelon Falls.

At Fenelon Falls, 15 miles from Bobcaygeon, a canal about one-third of a mile in length connects Sturgeon Lake with Cameron Lake.

Department of Railways and Canals.

The following is a list of the locks, with their dimensions :—

1 lock at Rosedale, (maintained by the Ontario Government)	100' x 30' x 4'	6' to 6' 6" depth water on mitre sill.
2 locks at Fenelon	134' x 33' x 5' 0" to 7' 6"	depth water on mitre sill.
1 do Lindsay	do 5' 0" to 7' 0"	do do
1 do Bobcaygeon	do 5' 8" to 7' 6"	do do
1 do Buckhorn	do 5' 0" to 9' 0"	do do
1 do Lovesick	do 5' 0" to 9' 4"	do do
2 do Burleigh	do 2' 4" to 7' 0"	do do
1 do Young's Point (a Provincial Government work.)	134' x 33" x 5' 0"	to 14' 0" depth water on mitre sill.
1 do Peterborough.	134' x 33" x 5' 0" to 10' 0"	depth water on mitre sill.
1 do Hastings	do 7' 0" to 10' 6"	do do
1 do Chisholms	do 5' 0" to 8' 6"	do do

13

NEW WORKS.

The division between Lakefield and Peterborough, 9½ miles, is divided into two sections. Both are under contract, and work is in progress.

On the division between Lake Balsam and Lake Simcoe, the first section, 5½ miles, is under contract and work is progressing. Surveys and plans of the balance, about 13½ miles, are completed. One feature of the work on this division will be a hydraulic lift-lock with a lift of 50 feet.

Navigation closed on the Central Reach, on the 21st of November, 1895, and reopened on the 20th of April, 1896; on the Lower Reach it closed on the 22nd of November, 1895, and reopened on the 18th of April, 1896.

There was no interruption to navigation, and the water level was satisfactorily maintained.

Details of the several repairs executed, and a statement of water levels will be found in the appendices, part I., pp. 112 and 115.

The expenditure on this canal system during the past fiscal year was as follows :—

Construction, chargeable to capital	\$392,976 08
Renewals, chargeable to income	6,185 75
Repairs	3,329 97
Staff and maintenance	4,349 34
Total	\$406,841 14

ST. PETER'S CANAL, CAPE BRETON.

Length of canal.....	About 2,400 feet.
Breadth at water line.....	55 feet.
Lock.....	One tidal lock, 4 pairs of gates.
Dimensions.....	200 feet by 48 feet.
Depth of water on sills.....	18 " at lowest water.
Depth through canal.....	19 "
Extreme rise and fall of tide in St. Peter's Bay.....	4 "

This canal connects St. Peter's Bay, on the southern side of Cape Breton, Nova Scotia, with the Bras d'Or Lakes. It crosses an isthmus half a mile in width, and gives access from the Atlantic.

Owing to the necessity for the execution of important repairs, this canal remained closed to navigation until the 8th of November, 1895, when traffic was resumed.

The repairs and improvements carried out are described in the appendices (See part I., p. 149.)

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$ 1,455 21
Renewals, chargeable to income.....	16,743 64
Repairs.....	260 90
Staff.....	2,182 04
Total.....	<u>\$20,641 79</u>

SOULANGES CANAL.

This work is being constructed on the north side of the River St. Lawrence in place of enlarging the Beauharnois Canal on the south side. It follows a line extending upwards from Cascades Point to Macdonald's Point, near Coteau Landing. The scheme contemplates a canal on a practically straight line, 14 miles long, comprising four lift-locks, overcoming a total rise of $82\frac{1}{2}$ feet. (The number of locks on the Beauharnois Canal, including the guard-locks, is nine.) The dimensions of the Soulanges locks will be those of the enlarged system, namely, length, 270 feet, width, 45 feet, depth of water on sills, 14 feet. The works of construction of the canal proper, and the bridge and lock works have been placed under contract, and are in progress. The chief engineer estimates that it will be three years before this canal is completed.

Further information as to the nature and progress of the works on the several contracts will be found in the report of the chief engineer, and in that of the engineer in charge. (See Appendices part I., p. 16 and p. 99.)

The total expenditure up to the 1st of November, 1896, was \$2,401,698.88 out of a present estimated cost of \$5,000,000.

Department of Railways and Canals

DEEP WATERWAYS COMMISSION.

In 1895, a resolution was adopted by the United States Congress having in view the appointment of commissioners to confer with commissioners to be appointed by Great Britain and Canada, for the purpose of inquiry and report as to the feasibility of building a system of canals such as to give communication with the Great Lakes for ocean going vessels. Three commissioners were accordingly appointed by the United States Government to serve without salary, and under an Order in Council dated the 30th of November, 1895, three Canadian commissioners, also unpaid, were appointed, namely, Messrs. O. A. Howland, T. C. Keefer, C. E., and T. Monro, C. E., and an appropriation for expenses was voted by Parliament.

Joint meetings have been held, and valuable information bearing on the subject has been elicited, much of which has naturally been furnished from Dominion sources. The United States commissioners presented their first report at the close of the year and it has been printed by order of the committee on interstate and foreign commerce. In view of the importance of the matters dealt with, the main report is reproduced as an appendix hereto, part VII.

From this it will be seen that the commissioners regard the project as entirely feasible; and consider that a navigable depth of not less than 28 feet should be provided; that the first work to be undertaken should be the construction of a ship canal at Niagara (Tonawanda to Olcott) and works for controlling the level of Lake Erie, for which they recommend that complete surveys and examinations be made; also for the development of the Oswego-Oneida-Mohawk route, the St. Lawrence Champlain route, the improvement of the tidal Hudson River, and the improvement of the intermediate channels of the lakes. The cost of these surveys and investigations they estimate as not less than \$600,000, extending over some years.

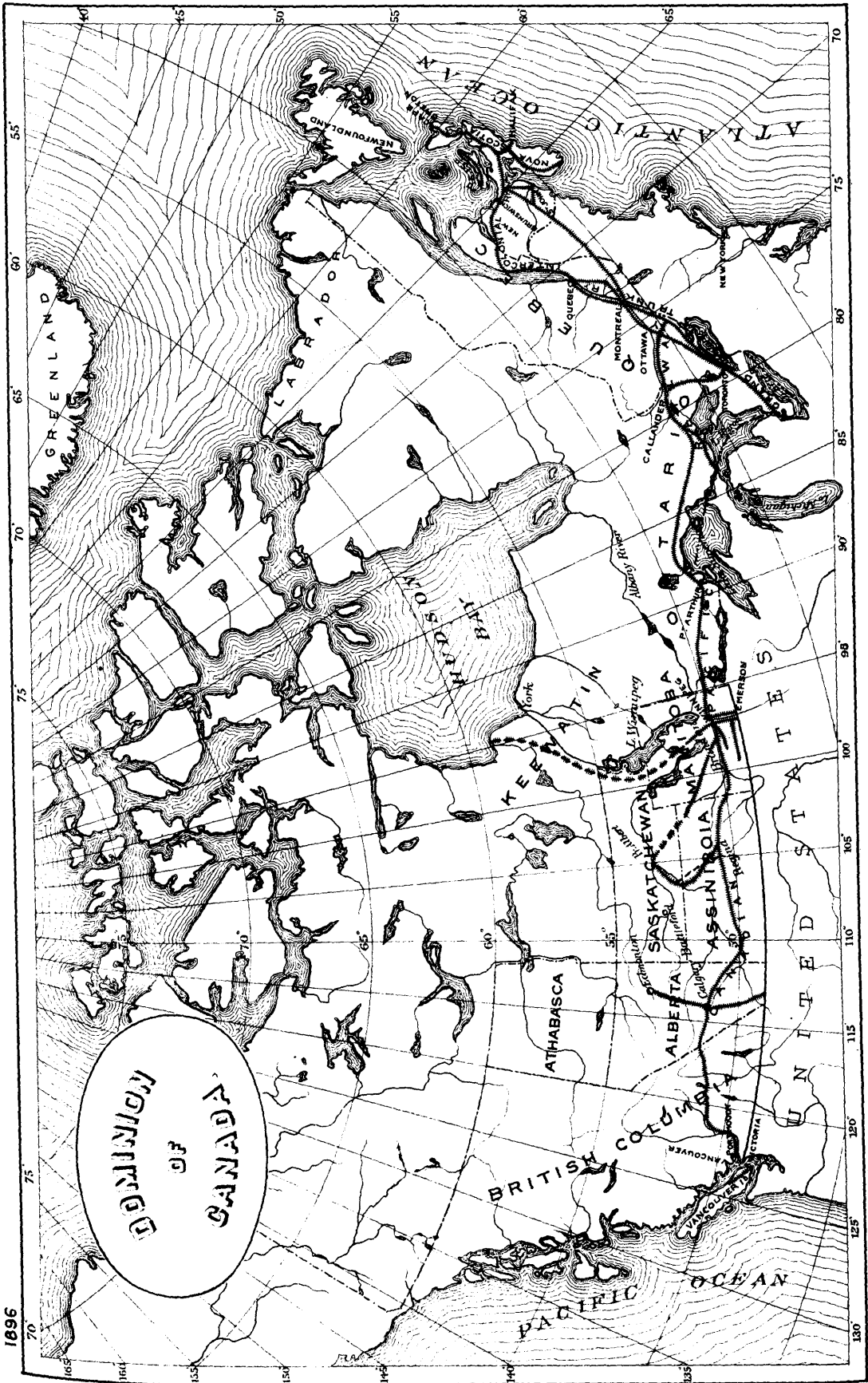
The Canadian commissioners have not yet sent in their report.

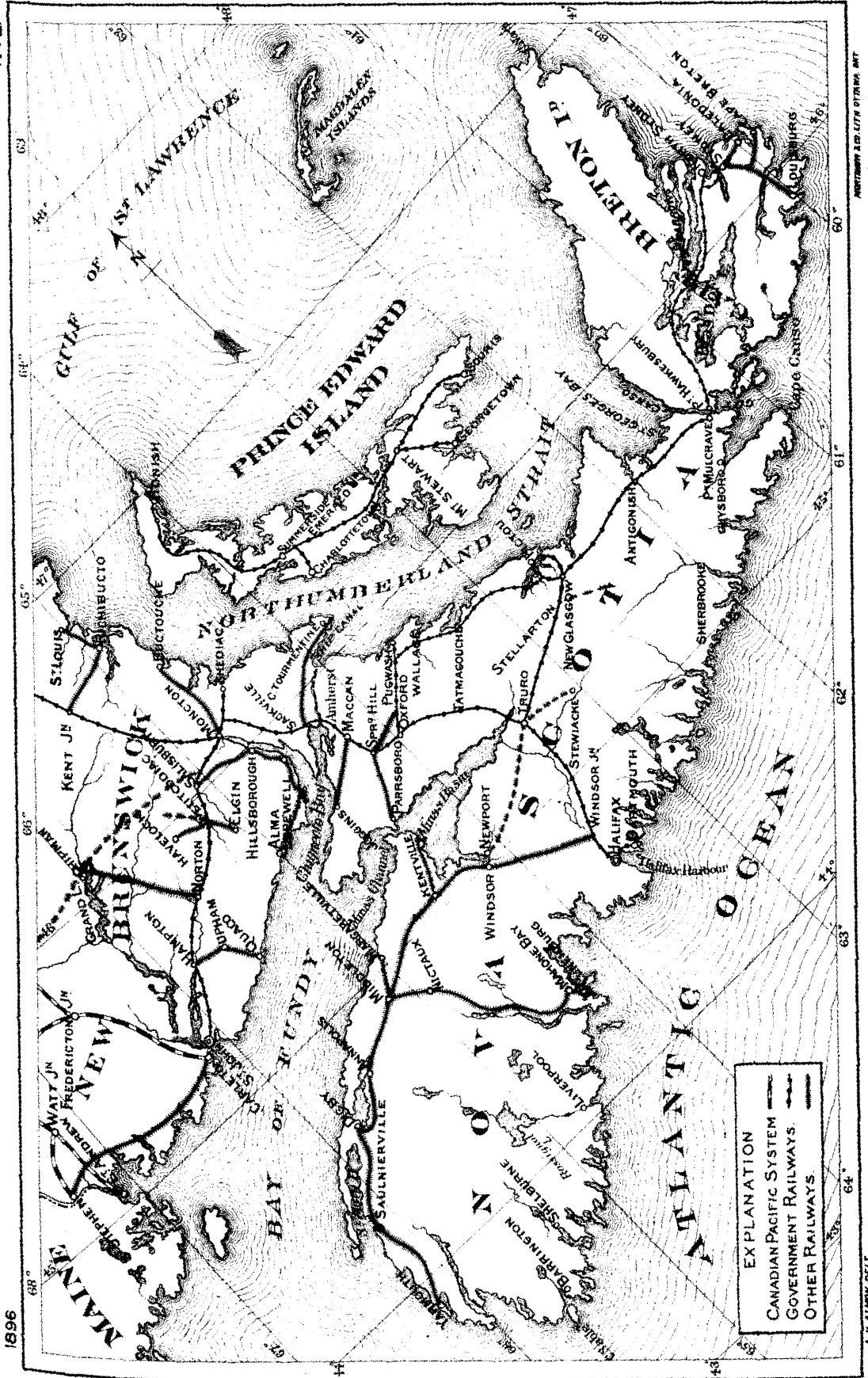
I have the honour to be,

Your Excellency's most obedient servant,

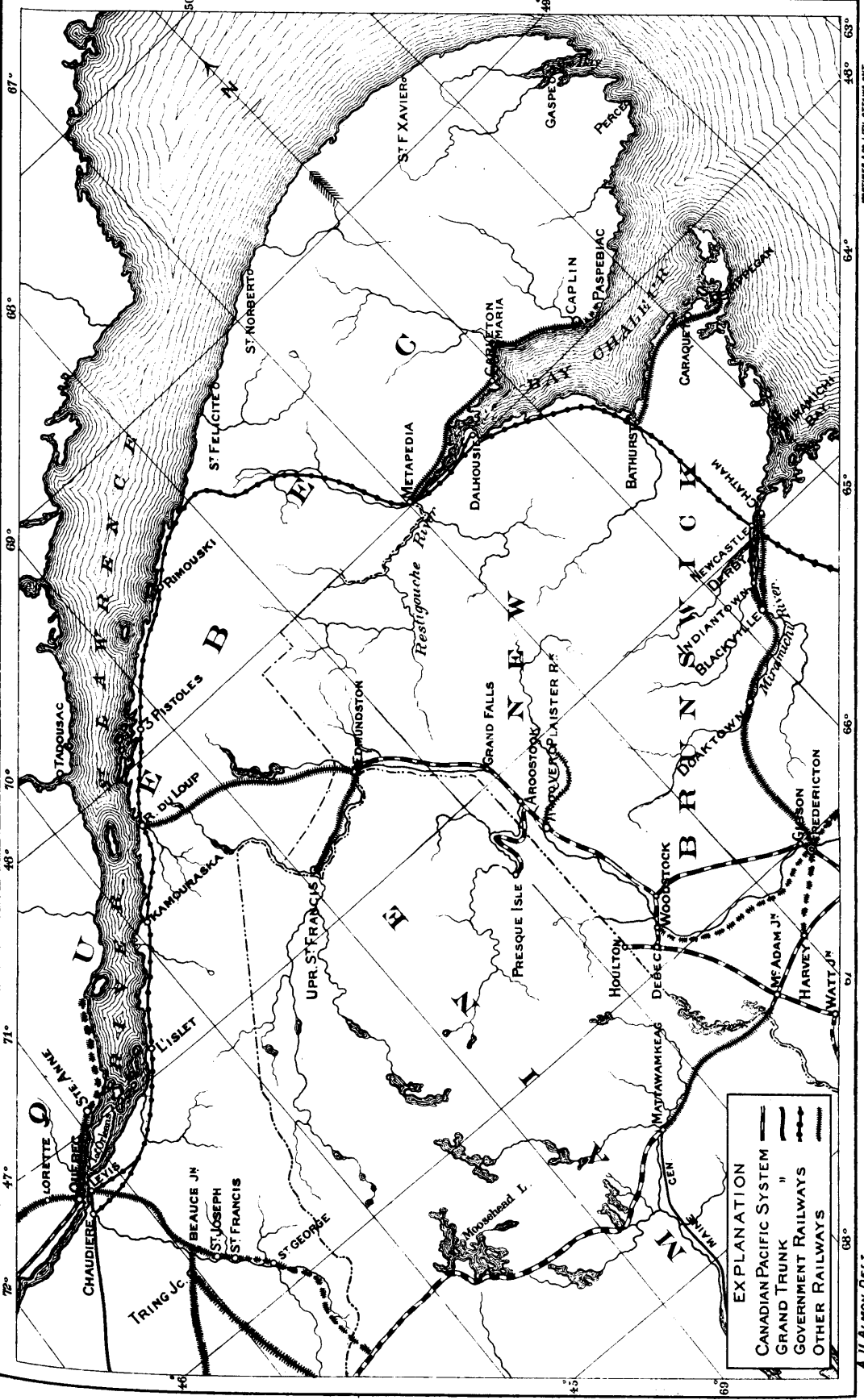
ANDREW G. BLAIR,

Minister of Railways and Canals.





EXPLANATION
 CANADIAN PACIFIC SYSTEM
 GOVERNMENT RAILWAYS
 OTHER RAILWAYS

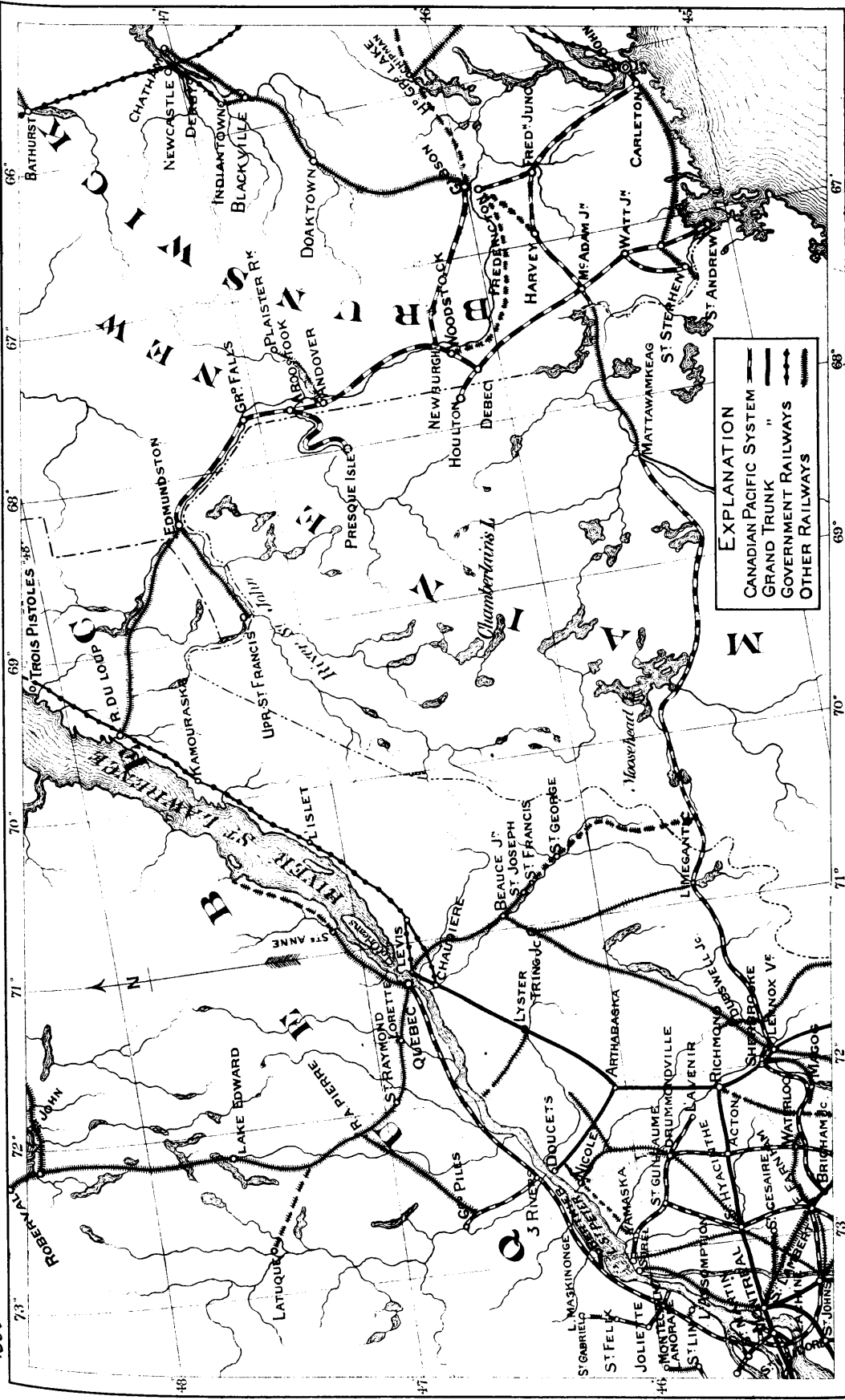


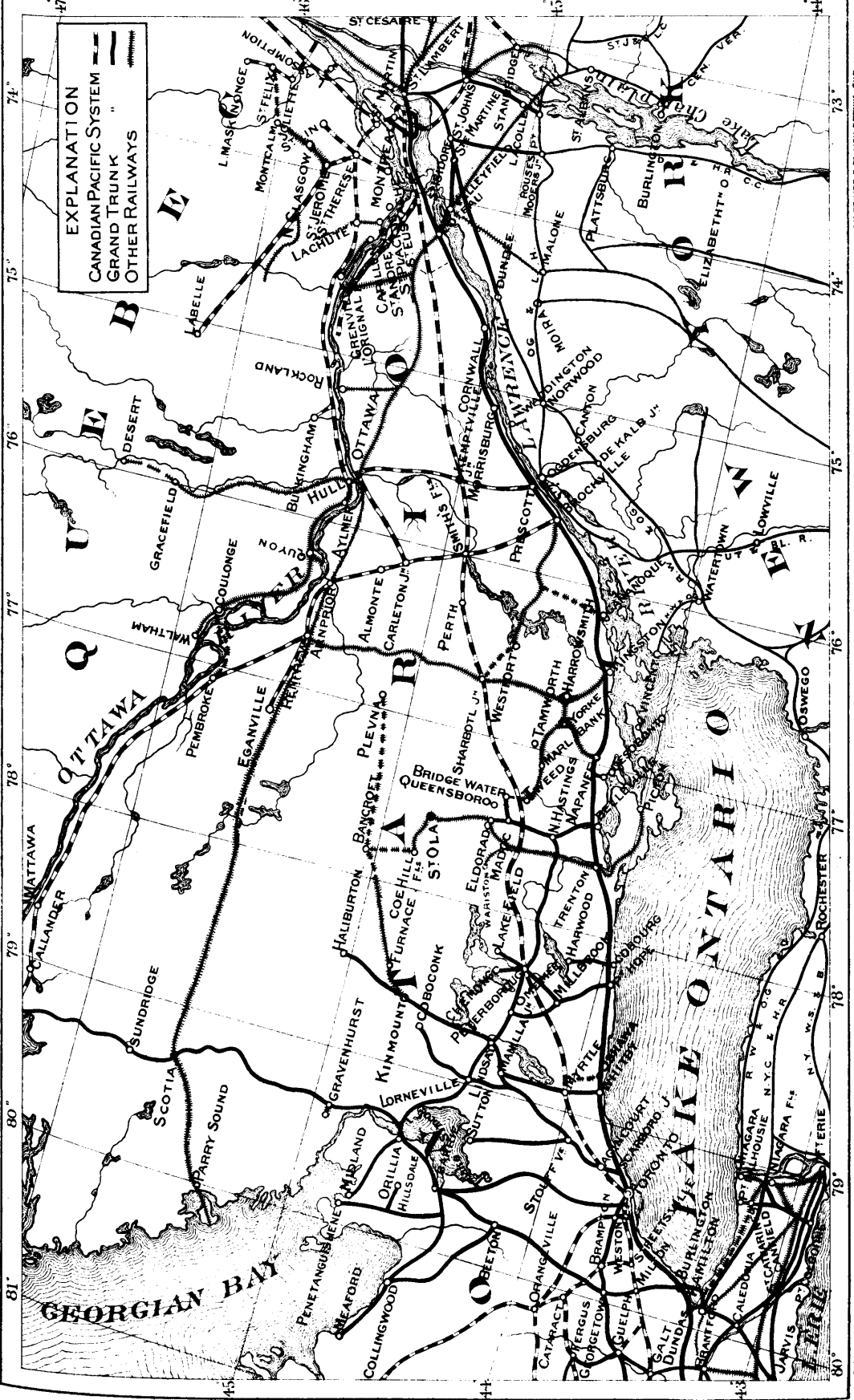
EXPLANATION

- CANADIAN PACIFIC SYSTEM ————
- GRAND TRUNK " ————
- GOVERNMENT RAILWAYS ————
- OTHER RAILWAYS ————

A. U. ALMON. DEL.

HARTNER & CO. LITH. OTTAWA, ONT.



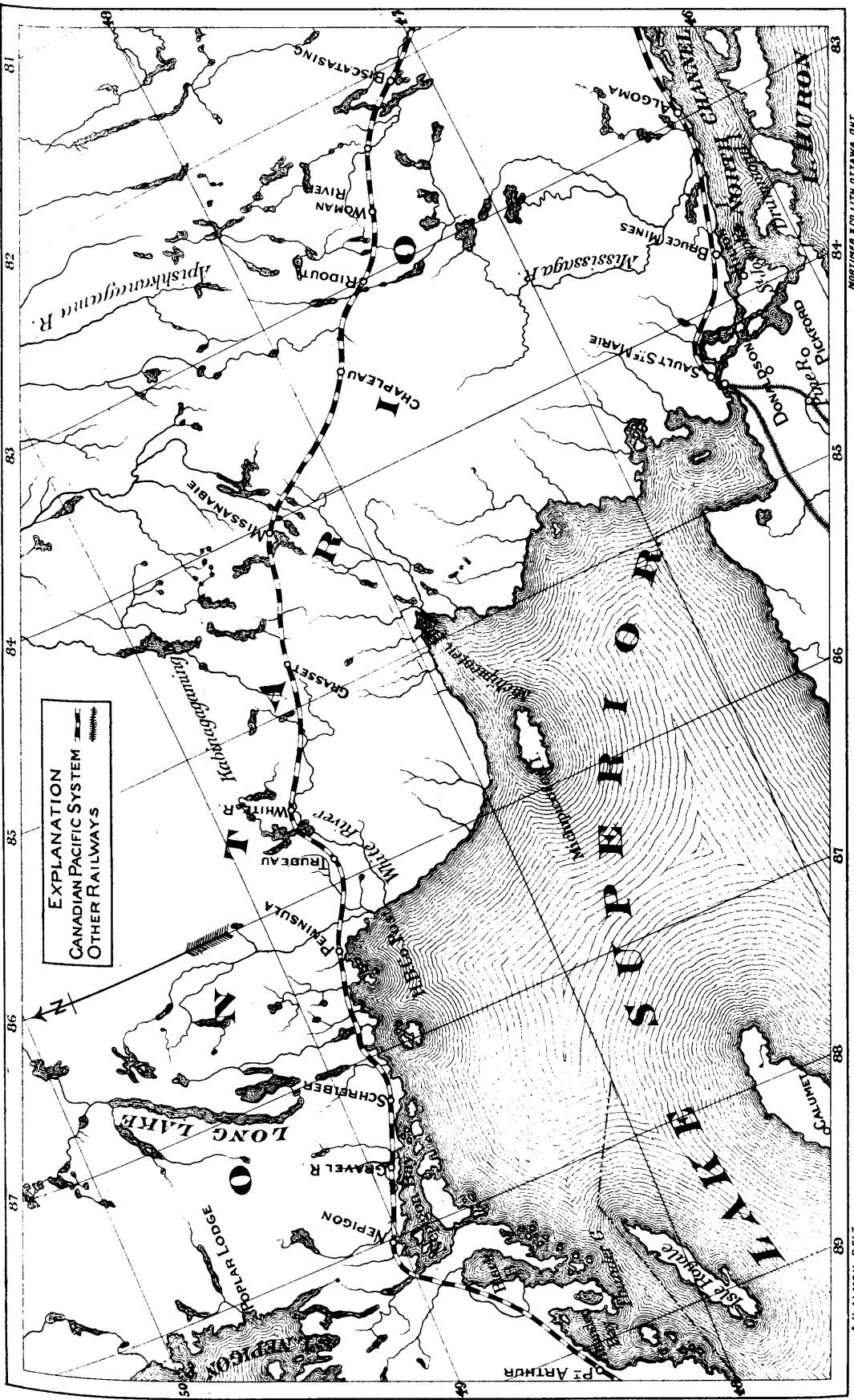


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 GRAND TRUNK —————
 OTHER RAILWAYS —————

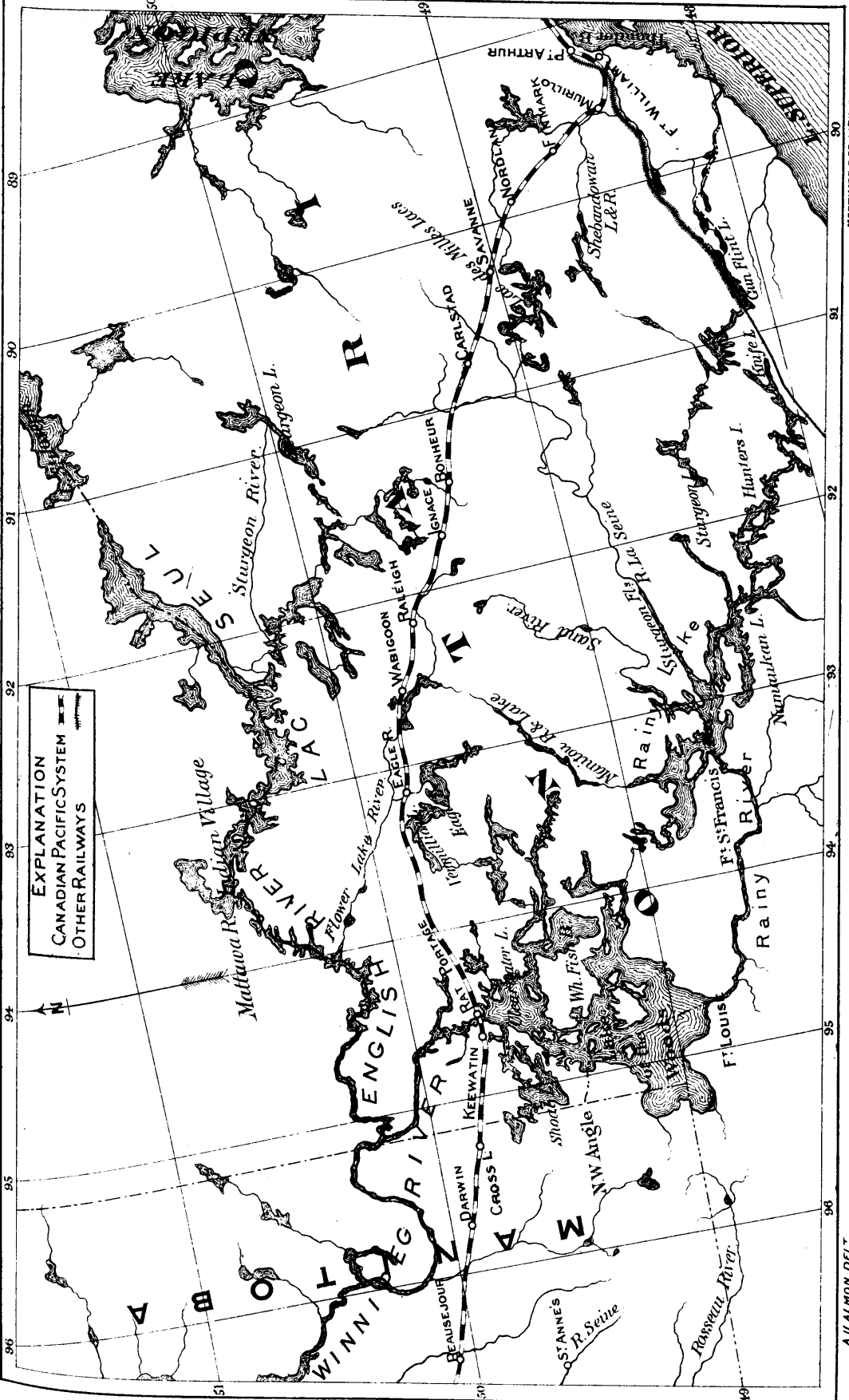
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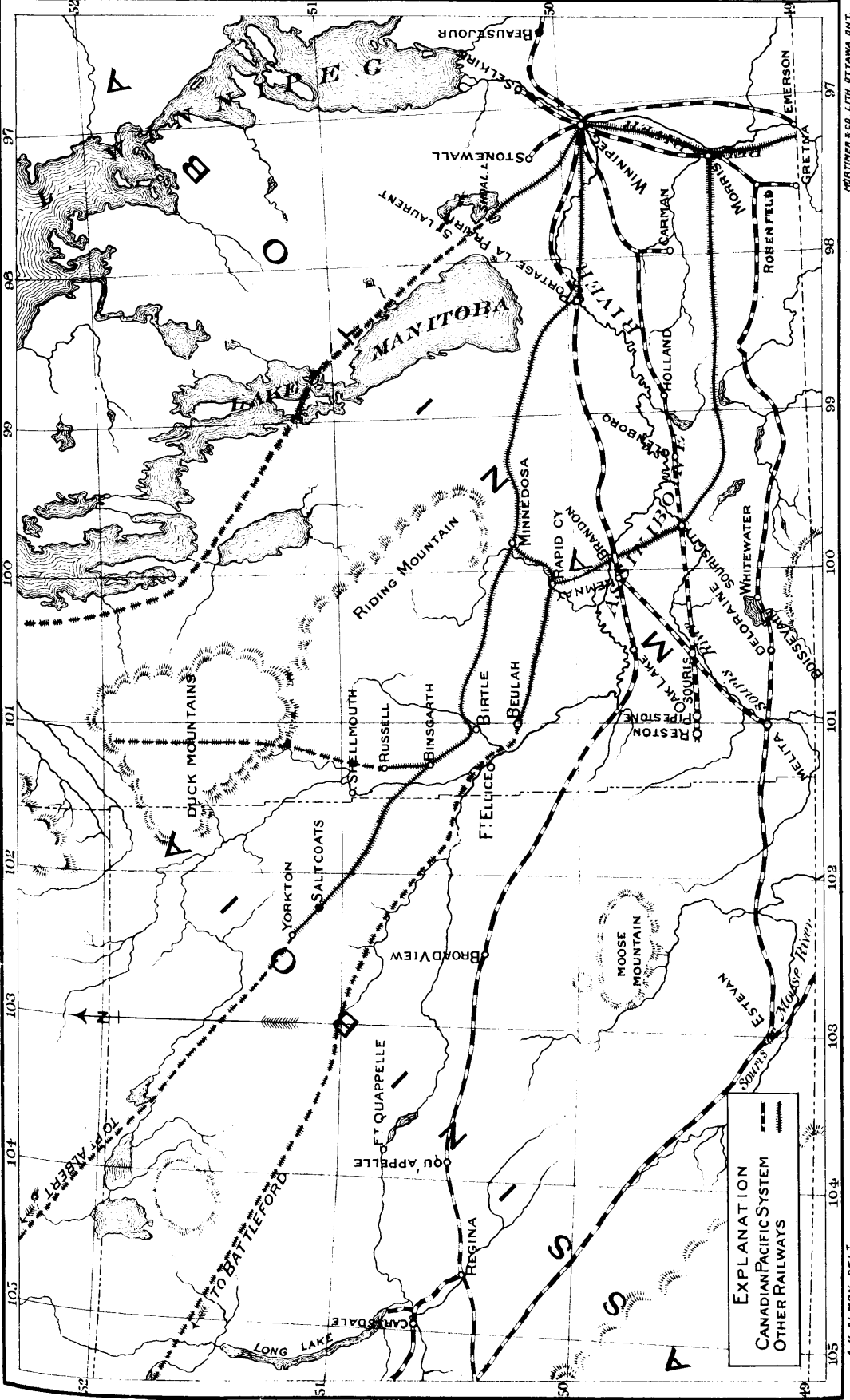
EXPLANATION
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 GRAND TRUNK " ————
 OTHER RAILWAYS ————



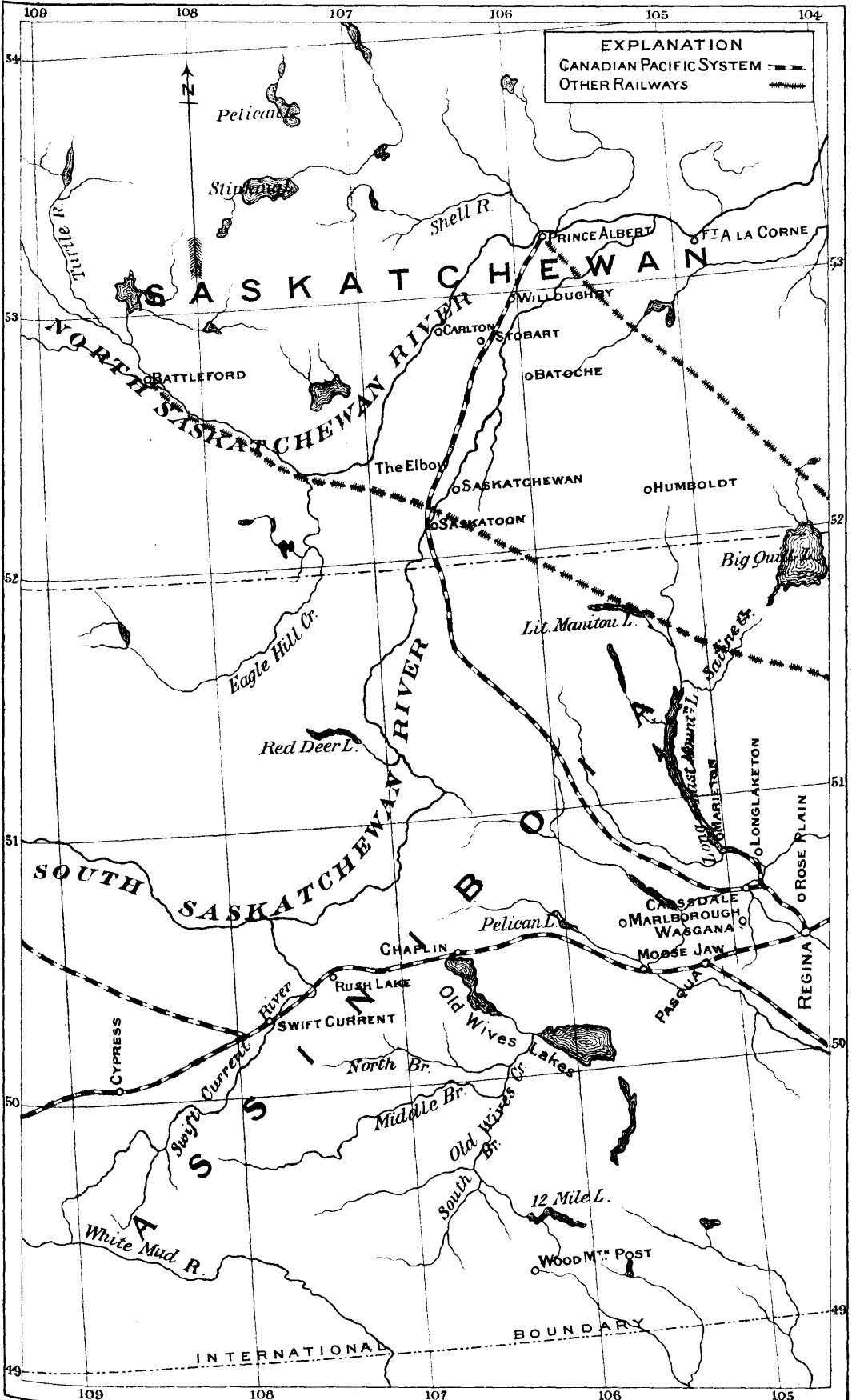
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 CANADIAN PACIFIC SYSTEM
 OTHER RAILWAYS

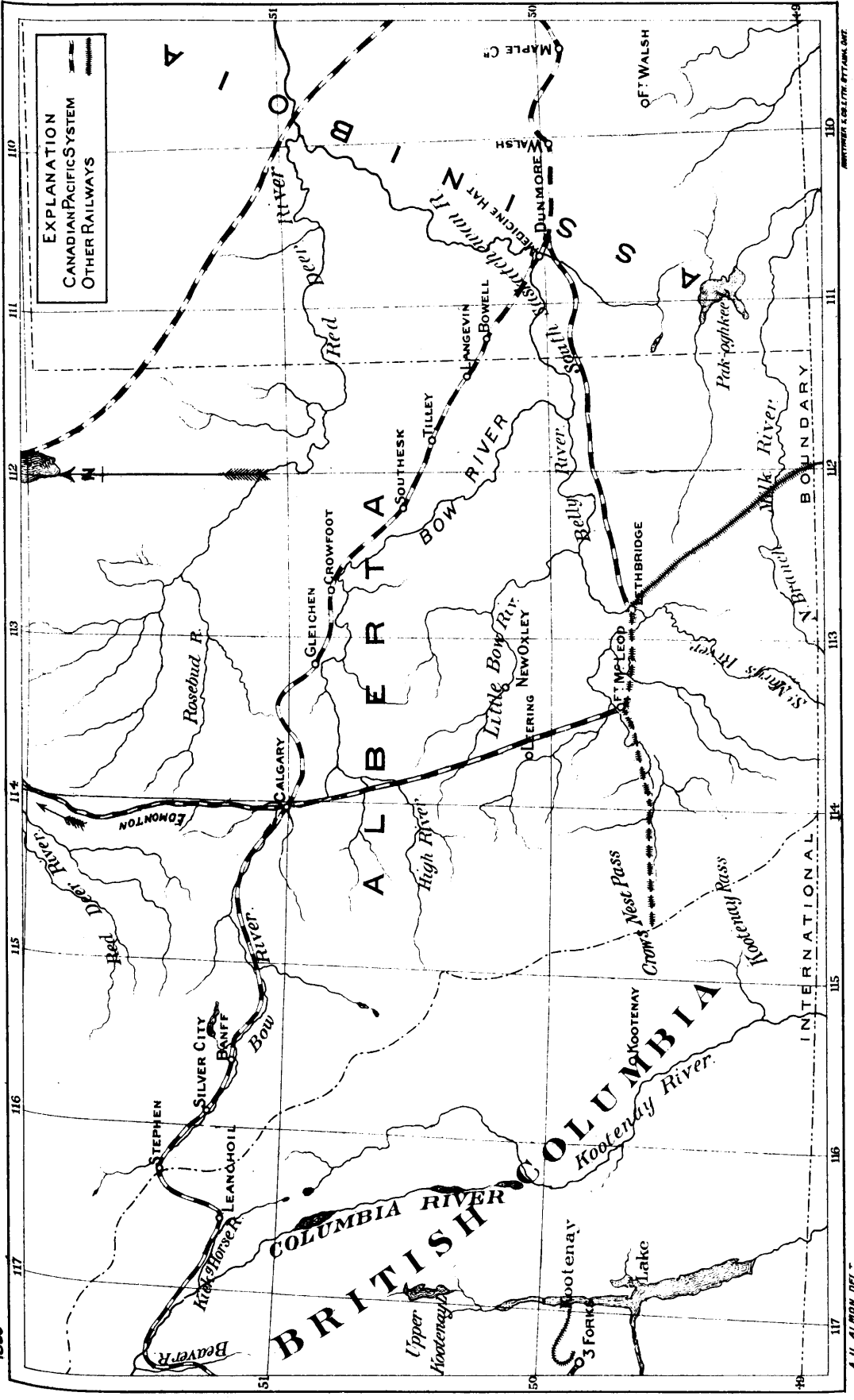


EXPLANATION
 CANADIAN PACIFIC SYSTEM
 OTHER RAILWAYS



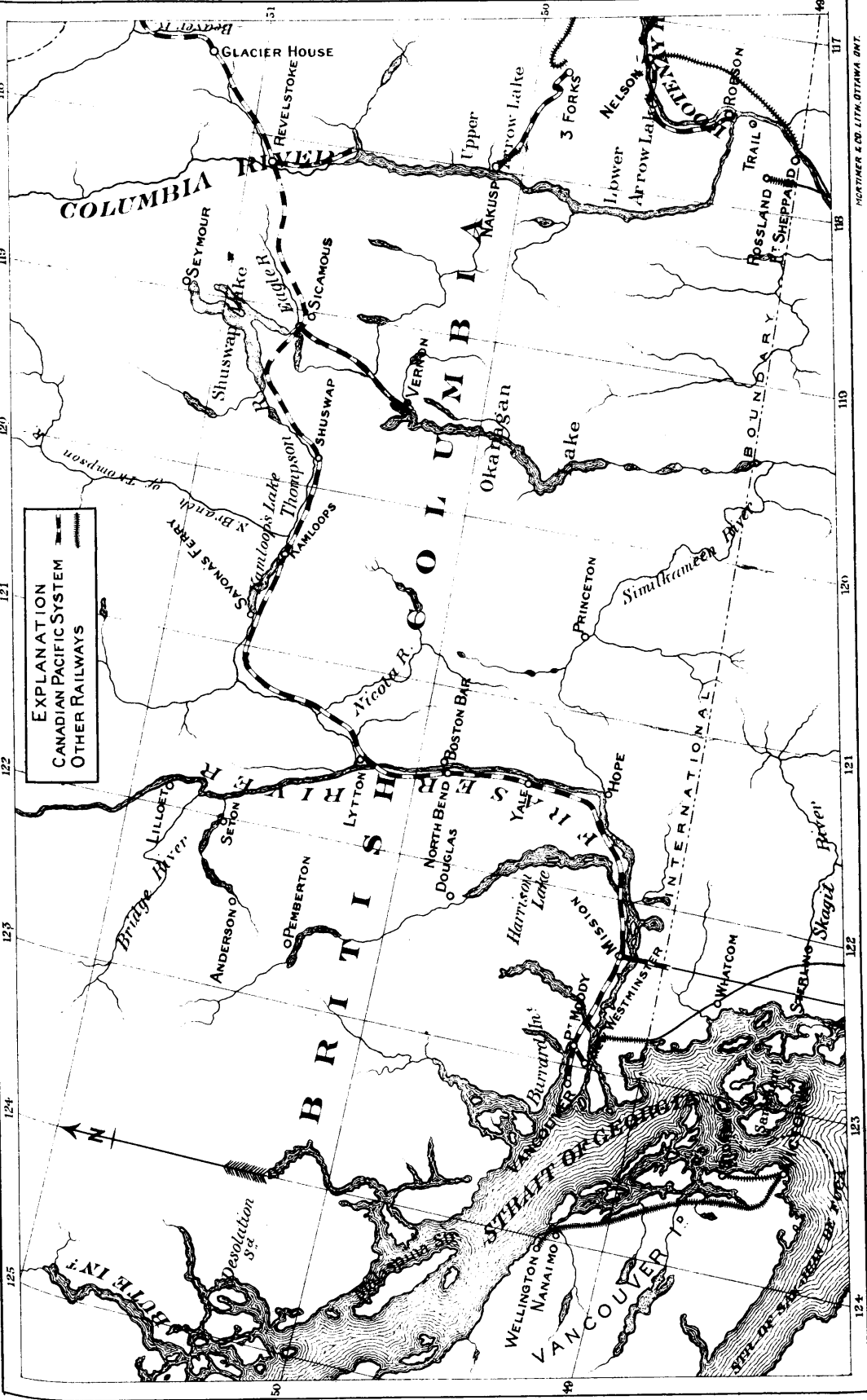
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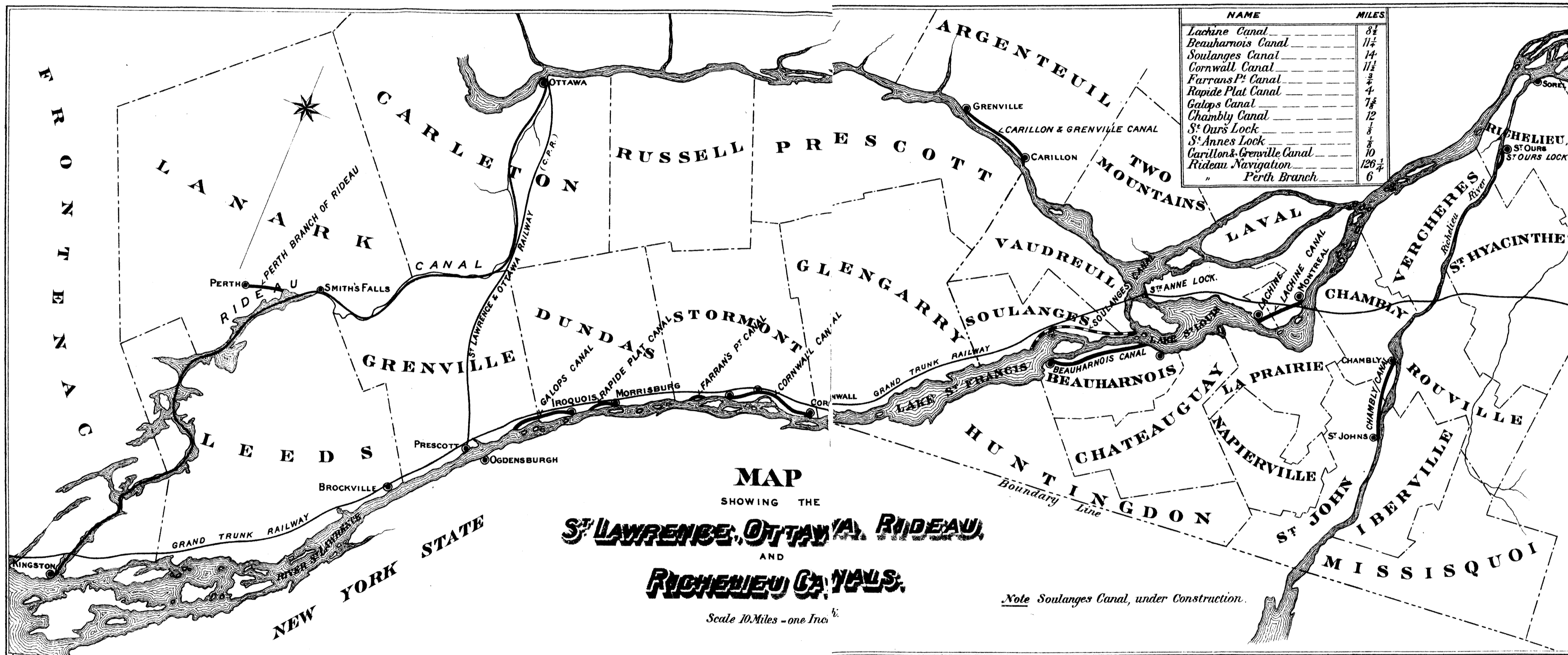




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NAME	MILES
Lachine Canal	8½
Beauharnois Canal	11¾
Soulanges Canal	14
Cornwall Canal	11½
Farrans Pt. Canal	¾
Rapide Plat Canal	4
Galops Canal	7½
Chambly Canal	12
S ^t . Ours Lock	¾
S ^t . Annes Lock	¾
Carillon & Grenville Canal	10
Rideau Navigation	126¼
Perth Branch	6

MAP
 SHOWING THE
ST. LAWRENCE, OTTAWA, RIDEAU,
 AND
RICHELIEU CANALS.

Scale 10 Miles - one Inch

Note Soulanges Canal, under Construction.

FRONTENAC

LAZARUS

CARLETON

RUSSELL

PRESCOTT

ARGENTEUIL
TWO MOUNTAINS

VAUDREUIL

LAVAL

VERCHERES

S^t. HYACINTHE

GRENVILLE

DUNDALE

STORMONT

GLENGARRY

SOULANGES

CHAMBLY

LEEDS

PRESCOTT

OGDENSBURGH

MORRISBURG

FARRANS PT. CANAL

CORNWALL

GRAND TRUNK RAILWAY

LAKE ST. FRANCIS

BEAUHARNOIS

LA PRAIRIE

CHAMBLY

ROUVILLE

HUNTINGDON

CHATEAUGUAY

NAPIERVILLE

ST. JOHN

LIBERVILLE

MISSISQUOI

NEW YORK STATE

KINGSTON

GRAND TRUNK RAILWAY

PERTH

SMITH'S FALLS

GALOPS CANAL

IROQUOIS RAPIDE PLAT

CORNWALL CANAL

ST. ANNE LOCK

LA CARILLON & GRENVILLE CANAL

LACHINE CANAL

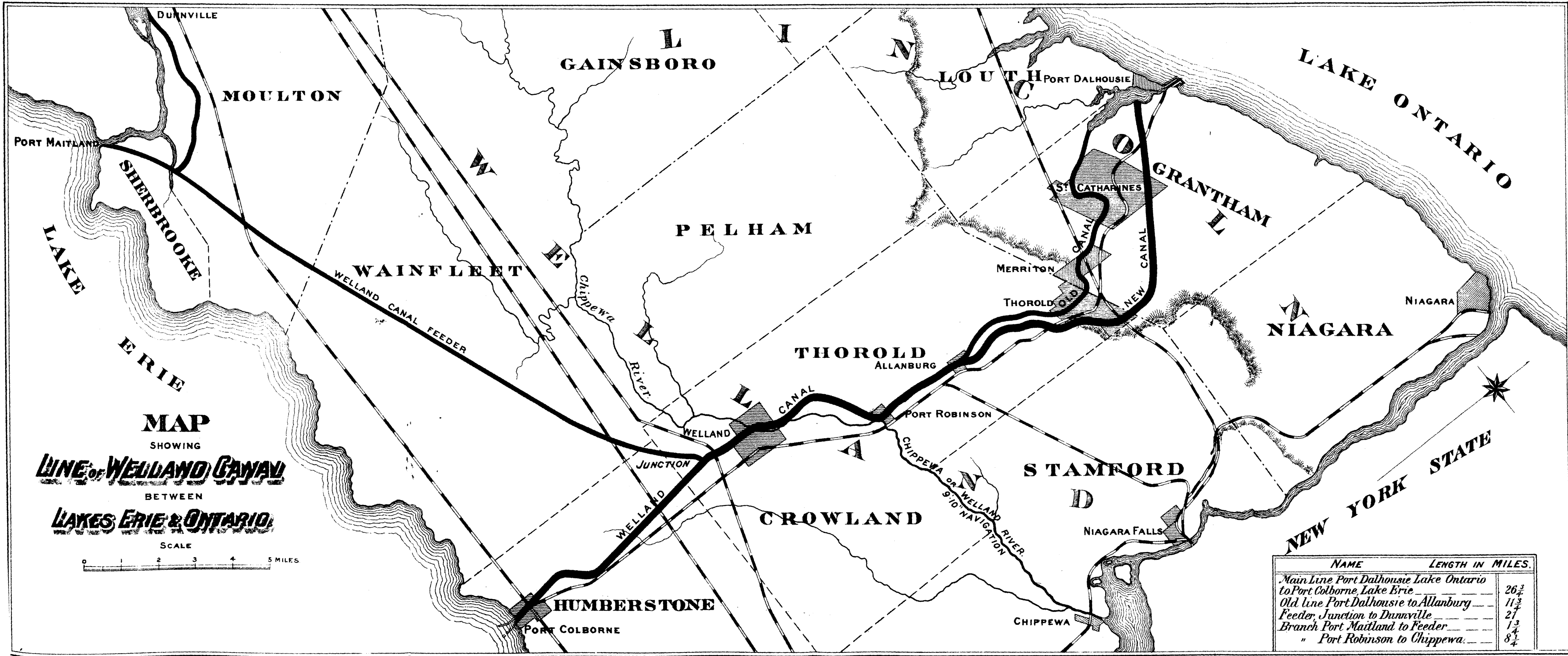
LA CHINE

ST. OURS

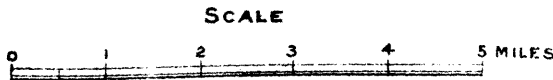
ST. OURS LOCK

SOREL

MORTIMER & CO. LITH. OTTAWA

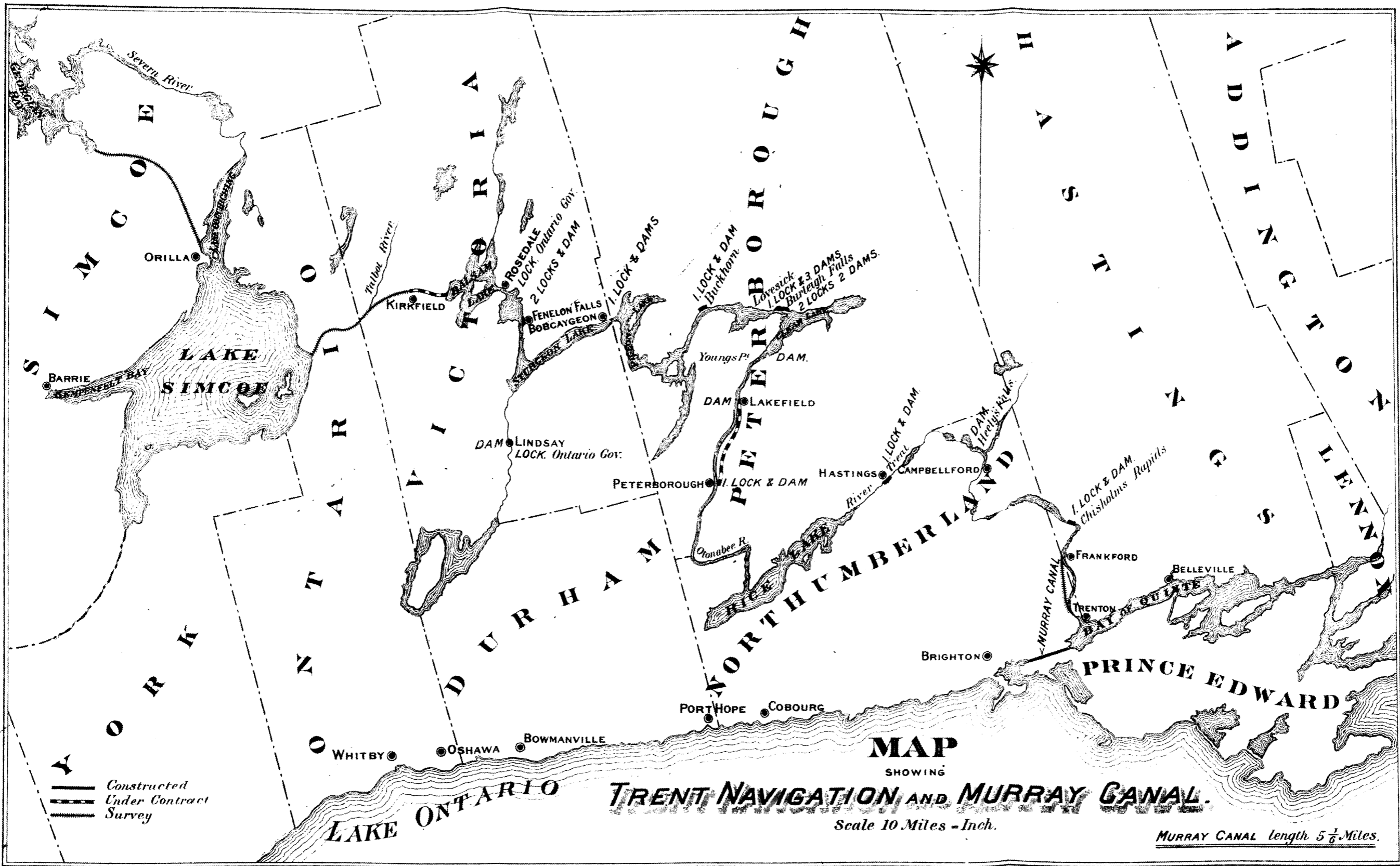


MAP
 SHOWING
LINE OF WELAND CANAL
 BETWEEN
LAKES ERIE & ONTARIO



NAME	LENGTH IN MILES.
Main Line Port Dalhousie Lake Ontario to Port Colborne, Lake Erie	26 ³ / ₄
Old line Port Dalhousie to Allanburg	11 ³ / ₄
Feeder, Junction to Dunnville	21
Branch Port Maitland to Feeder	1 ³ / ₄
" Port Robinson to Chippewa	8 ¹ / ₄

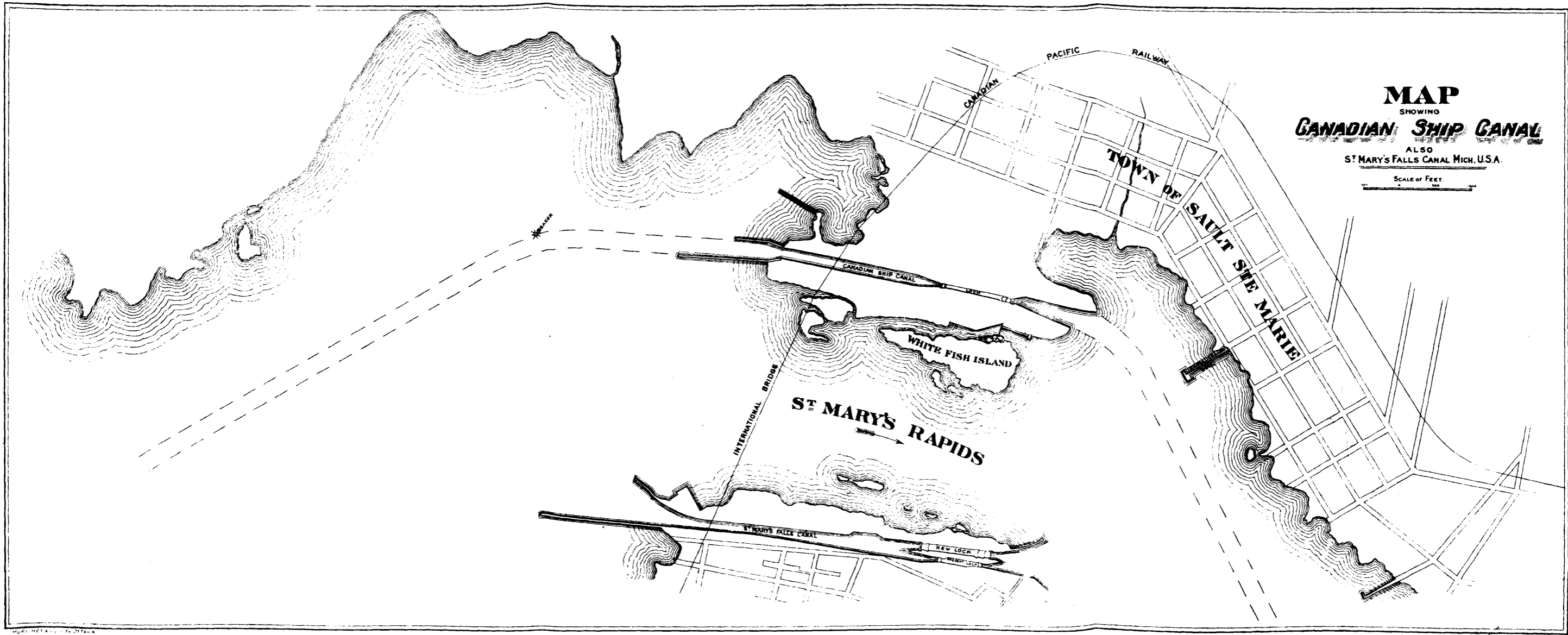
NORTON & CO. LITH. OTTAWA.



||| Constructed
 --- Under Contract
 - - - Survey

MAP
 SHOWING
TRENT NAVIGATION AND MURRAY CANAL.
 Scale 10 Miles - Inch.
 MURRAY CANAL length $5\frac{1}{8}$ Miles.

HORTNER & CO. LITH. OTTAWA.



MAP
SHOWING
CANADIAN SHIP CANAL

ALSO
ST MARY'S FALLS CANAL MICH. U.S.A.

SCALE OF FEET.
0 100 200

PACIFIC RAILWAY

CANADIAN

TOWN OF

SAULT STE MARIE

WHITE FISH ISLAND

ST MARY'S RAPIDS

INTERNATIONAL BRIDGE

CANADIAN SHIP CANAL

ST MARY'S FALLS CANAL

NEW LOCK

RELAY LOCK

PART I

REPORT OF THE CHIEF ENGINEER

COMPRISING REPORTS OF

GENERAL MANAGER OF GOVERNMENT RAILWAYS

AND

SUPERINTENDENTS OF CANALS

Department of Railways and Canals.

CHIEF ENGINEER'S REPORT.

DEPARTMENT OF RAILWAYS AND CANALS,

OFFICE OF THE CHIEF ENGINEER,

OTTAWA, 8th November, 1896.

SIR,—I have the honour to submit my annual report for the fiscal year ended 30th June, 1896, covering, however, works of construction up to the present date; accompanying it are the following:—

First.—The annual report of the General Manager of the Government Railways, attached to which are the reports of the Chief Engineer and Mechanical Superintendent of the Intercolonial Division, and the report of the Superintendent of the Intercolonial Division, and the report of the Superintendent of the Prince Edward Island Division, with statements of accounts prepared by the Accountants of these roads. (Part I.)

Second.—The annual reports of the Superintending Engineers of the several canals, and of the Inspector of Canals Revenue. (Part I.)

Third.—The annual report of the Engineer superintending the work in British Columbia between Savona's and Yale on the Canadian Pacific Railway under the award of the arbitrators.

Fourth.—A statement of the condition of the subsidies granted in aid of the construction of railways: also a list of Railway Subsidy Acts. (Part III.)

Fifth.—Statement of contracts entered into during the year, prepared by Mr. Doull. (Part IV.)

Sixth.—Statement of water powers and other public property leased by the department during the year, prepared by Mr. Doull. (Part IV.)

Seventh.—Statement of property purchased or damaged during the year, prepared by Mr. Doull. (Part IV.)

Eighth.—Agreements respecting subsidies in aid of construction of railways entered into during the year, prepared by Mr. Doull. (Part IV.)

Ninth.—The canal statistics for the season of navigation of 1895, compiled by Mr. Devlin. (Part V.)

Tenth.—The railway statistics for the year ended 30th June, 1896, compiled by Mr. Ridout from returns prepared by the railway companies. (Part VI.)

The following table shows the length of the Government railways in operation on the 30th June, 1896:

INTERCOLONIAL DIVISION.

	Miles.	Total miles.
Chaudière Junction to Halifax	678	
Moncton to St. John	89	
Truro to Sydney	217	
Oxford Junction to Pictou	70	
Chaudière Junction to Lévis	8	
Lévis to St. Charles Junction via Harlaka	14	
Dalhousie Junction to Dalhousie	7	
Derby Junction to Indiantown	14	
Painsec Junction to Indiantown	11	
Pugwash Junction to Pugwash	5	
Stellarton Junction to Brown's Point	12	
North Sydney Junction to North Sydney	5	
New Glasgow to Pictou Landing	7	
Dartmouth Branch	5	
	<hr/>	1,142

FREIGHT BRANCHES.

Rivière du Loup Wharf Branch	4	
Rimouski do	2	
Newcastle do	2	
Dorchester do	1	
Courtney Bay do	1	
Sackville do	$\frac{1}{2}$	
Stewiacke do	1	
Halifax Cotton Factory Branch	1	
	<hr/>	12 $\frac{1}{2}$
Total length of the Intercolonial Railway		<hr/> 1,154 $\frac{1}{2}$

WINDSOR BRANCH.

Windsor Junction to Windsor	32
-----------------------------------	----

PRINCE EDWARD ISLAND DIVISION.

Souris to Tignish	168	
Mount Stewart to Georgetown	24	
Charlottetown to Royalty Junction	5	
Emerald Junction to Cape Traverse	13	
Alberton to Cascumpec Wharf	1	
	<hr/>	211
Total length of Government railways		<hr/> <hr/> 1,397 $\frac{1}{2}$

Department of Railways and Canals

The result of the year's operations of the Government railways may be stated as follows :—

Name of Railway.	Mileage in operation.	—	Amount.	Profit.	Loss.
			\$ cts.	\$ cts.	\$ cts.
Intercolonial Division.....	1,142	Earnings.....	2,957,640 10		
		Working expenses.....	3,012,827 62		55,187 52
Windsor Branch.....	32	Earnings.....	36,561 83		
		Maintenance.....	16,476 46	20,085 37	
Prince Edward Island Division.....	211	Earnings.....	146,476 54		
		Working expenses.....	225,138 56		78,662 02
				20,085 37	133,849 54
Total miles.....	1,385	Deduct profit from loss.....			20,085 37
		Net loss.....			113,764 17

The maintenance of the road and rolling stock has received careful attention, and both road and rolling stock are in efficient condition, and the business of the road has been closely looked after.

The gross earnings of the Government railways for the last two years compare as follows :—

—	1894-95.	1895-96.
	\$ cts.	\$ cts.
Intercolonial Division.....	2,940,717 95	2,957,640 10
Windsor Branch.....	39,077 64	36,561 83
Prince Edward Island Division.....	149,654 78	146,476 54
Total.....	3,129,450 37	3,140,678 47

Showing an increase in the gross earning of \$12,228.10.

The gross working expenses of the Government railways for the last two years compare as follows :—

—	1894-95.	1895-96.
	\$ cts.	\$ cts.
Intercolonial Division.....	2,936,902 74	3,012,827 62
Windsor Branch.....	14,640 07	16,476 46
Prince Edward Island Division.....	232,905 19	225,138 56
Total.....	3,184,448 00	3,254,442 64

Showing an increase in working expenses for the year, compared with the previous year, of \$69,994.64, which is made up of the following :—

	1894-95.	1895-96.	Difference.	
			Increase.	Decrease.
	\$ / cts.	\$ cts.	\$ cts.	\$ cts.
Locomotive power.....	1,108,697 53	1,047,967 27		60,730 26
Car expenses.....	685,164 28	694,810 35	9,646 07	
Maintenance of way and works.....	795,707 76	890,218 71	94,510 95	
Station expenses.....	397,251 45	411,697 50	14,446 05	
General charges.....	197,626 98	209,748 81	12,121 83	
	3,184,448 00	3,254,442 64	130,724 90	60,730 26
Net increase.....			69,994 64	

INTERCOLONIAL DIVISION.

The ocean passenger traffic via the port of Halifax shows a small increase for the winter season of 1895-96 as compared with the previous winter season, whereas its freight shows a decrease of about 33 per cent.

COMPARATIVE STATEMENT of ocean-borne passenger business done at the port of Halifax during the winter seasons of 1894-95 and 1895-96.

Name of Steamer.	1894-95. No. of Passengers.			Name of Steamer.	1895-96. No. of Passengers.		
	1st Class.	2nd Class.	Total.		1st Class.	2nd Class.	Total.
Carthaginian.....	4	45	49	Numidian.....	49	479	528
Oregon.....	41	337	378	Salvador.....	61	491	552
Numidian.....	58	457	515	Mongolian.....	25	297	322
Labrador.....	77	344	421	Vancouver.....	66	293	359
Assyrian.....	10	210	220	Laurentian.....	43	502	545
Mongolian.....	32	168	200	Parisian.....	21	493	514
Vancouver.....	52	458	510	Scotsman.....	37	570	607
Corean.....	Nil.	15	15				
Laurentian.....	25	253	278				
Pomeranian.....	3	69	72				
Parisian.....	12	279	291				
Sarnia.....	18	126	144				
Total.....	332	2,761	3,093	Total.....	302	3,125	3,427

Of the 3,093-passengers in 1894-95, 1,746 travelled via St. John by the Canadian Pacific Railway and 1,347 travelled via Chaudière by the Grand Trunk Railway.

Of the 3,563 passengers in 1895-96, 2,197 travelled via St. John by the Canadian Pacific Railway, and 1,366 travelled via Chaudière by the Grand Trunk Railway.

Department of Railways and Canals

COMPARATIVE STATEMENT of ocean-borne freight traffic during the winter seasons of
1894-95 and 1895-96.

Name of Line of Steamers.	Winter of 1894-95.			Name of Line of Steamers.	Winter of 1895-96.		
	Measure-ment tons.	Weight tons.	Total tons.		Measure-ment tons.	Weight tons.	Total tons.
Allan Line from Liverpool.....	1,903	1,997	3,900	Allan Line from Liverpool.....	1,121	1,499	2,620
Dominion Line from Liverpool.....	547	348	895	Dominion Line from Liverpool.....	362	401	763
Canada & Newfoundland from Liverpool.....	82	223	305	Canada & Newfoundland from Liverpool.....	115	1,138	1,253
Furness Line from London.....	1,022	457	1,479	Furness Line from London.....	601	717	1,318
Donaldson Line from Glasgow.....	1,252	1,836	3,088	Donaldson Line from Glasgow.....	155	347	502
Hansa Line from Antwerp.....	Nil.	Nil.	Nil.	Hansa Line from Antwerp.....	Nil.	Nil.	Nil.
Beaver Line from Liverpool.....	Nil.	Nil.	Nil.	Beaver Line from Liverpool.....	Nil.	Nil.	Nil.
Société Columba Belge de Navigation.....	12	243	255	Société Columba Belge de Navigation.....	Nil.	Nil.	Nil.
Total.....	4,818	5,104	9,922	Total.....	2,354	4,102	6,456

The above statement shows a decrease of 3,466 tons of ocean-borne freight traffic for the winter season of 1895-96 as compared with the winter season of 1894-95.

The following is a statement of the quantity and classes of the rolling stock purchased on capital account up to the 30th June, 1896 :—

	Engines.	Passenger Car Stock.						Conductors' Vans.	Box and Cattle Cars.	Platform Cars.	Coal Cars of three several kinds.	Snow Ploughs.	Wing Ploughs.	Flangers.	Rotary Snow Ploughs.
		1st Class Sleeping and Parlour.	1st Class.	2nd Class Sleeping.	2nd Class.	Baggage and Mail.	2nd Class.								
	204	15	92	7	94	24	99	2,071	2,209	999	44	10	21	2	
	.....	5	.....	.....	.....	39	.....	103	.....	413	.....	.....	.....	.....
Total.....	204	20	92	7	94	63	99	2,174	2,209	2,185	44	10	21	2	

The following is a statement of the quantity and classes of rolling stock which have been rebuilt during the year ended 30th June, 1896, at the cost of revenue to maintain the stock :—

	Engines.	Passenger Car Stock.						Conductors' Vans.	Box and Cattle Cars.	Platform Cars.	Coal Cars of three several kinds.	Snow Ploughs.	Wing Ploughs.	Flangers.	Rotary Snow Ploughs.
		1st Class Sleeping and Parlour.	1st Class.	2nd Class Sleeping.	2nd Class.	Baggage and Mail.	2nd Class.								
	9	90	135	168	2	1	

The following table shows the working expenses, gross earnings, the tonnage of freight and number of passengers carried each year since 1st July, 1876, when the road was first opened as a through line to the west :—

Year.	Average Miles in Operation.	Working Expenses.		Gross Earnings.		Profit.		Loss.		Tons of Freight carried.	No. of Passengers carried.
		\$	cts.	\$	cts.	\$	cts.	\$	cts.		
1876-77.....	714	1,661,673	55	1,154,445	33			507,228	22	421,327	613,420
1877-78.....	714	1,816,273	56	1,378,946	78			432,326	78	522,710	618,957
1878-79.....	714	2,010,183	22	1,294,009	69			716,083	53	510,861	640,101
1879-80.....	829	1,603,429	71	1,506,298	48			97,131	23	561,924	581,483
1880-81.....	840	1,759,851	27	1,760,393	92		542 65			725,777	631,245
1881-82.....	840	2,069,057	48	2,079,262	66		9,605 18			838,956	779,994
1882-83.....	840	2,360,373	27	2,370,910	10		10,547 83			970,961	873,600
1883-84.....	887	2,377,433	62	2,384,414	92		6,981 30			1,009,237	944,636
1884-85.....	941	2,519,751	56	2,441,203	66			78,547 90		989,936	957,228
1885-86.....	946	2,583,999	67	2,450,093	88			133,905 79		1,023,788	932,880
1886-87.....	966	2,922,369	62	2,660,116	93			262,252 69		1,143,020	942,784
1887-88.....	971	3,366,781	74	2,983,336	05			383,445 69		1,288,823	1,040,163
1888-89.....	971	3,244,647	73	2,967,801	00			276,846 73		1,218,877	1,136,272
1889-90.....	971	3,560,575	74	3,012,739	87			547,835 87		1,368,819	1,219,233
1890-91.....	1,094	3,662,341	94	2,977,395	38			684,946 56		1,304,534	1,298,304
1891-92.....	1,142	3,439,377	00	2,945,441	97			493,935 03		1,264,575	1,297,732
1892-93.....	1,142	3,045,317	50	3,065,499	09		20,181 59			1,388,080	1,292,878
1893-94.....	1,142	2,981,671	98	2,987,510	27		5,838 29			1,342,710	1,301,062
1894-95.....	1,142	2,936,902	74	2,940,717	95		3,815 21			1,267,816	1,352,667
1895-96.....	1,142	3,012,827	62	2,957,640	10			55,187 52		1,379,618	1,471,866

The following table shows the number of tons of coal carried over the Intercolonial Railway from the Nova Scotia collieries to Chaudière Junction and St. John for points west thereof, and to local stations in each year since the commencement of the trade in 1878-79 :—

Year.	For the West.		To Local Stations.	Total.
	Via Chaudière.	Via St. John.		
1876-77.....			103,420	103,420
1877-78.....			97,043	97,043
1878-79.....	300		112,232	112,532
1879-80.....	1,097		135,369	136,466
1880-81.....	6,102	4,022	174,483	184,607
1881-82.....	18,015	11,779	218,364	248,158
1882-83.....	12,837	22,206	227,380	262,423
1883-84.....	22,014	19,534	262,014	293,562
1884-85.....	133,440	1,773	213,791	349,004
1885-86.....	171,170	21,150	215,272	407,592
1886-87.....	192,871	27,536	233,178	453,585
1887-88.....	183,704	36,228	309,727	529,659
1888-89.....	160,026	27,923	338,538	526,487
1889-90.....	164,453	25,126	366,967	556,546
1890-91.....	113,996	39,213	344,829	498,038
1891-92.....	35,447	5,918	392,441	433,806
1892-93.....	136,868	3,775	402,653	543,296
1893-94.....	102,273	8,028	367,390	478,691
1894-95.....	67,082	7,865	310,253	385,200
1895-96.....	53,134	9,681	369,708	432,513

It thus appears that the largest tonnage of coal carried over the road for the west was in the year 1886-87, when it reached 220,407, since which the through coal traffic for points west of the Intercolonial Railway has been on the decline.

Department of Railways and Canals.

TABLE showing the number of bushels of grain carried during each year for shipment at Halifax since the road was opened as a through line to the west.

Year.	Bushels.		Total.	Year.	Bushels.		Total.
	Via Chaudière.	Via St. John.			Via Chaudière.	Via St. John.	
				Brought forward	794,423		794,423
1876-77				1886-87	575,880		575,880
1877-78				1887-88	69,021		69,021
1878-79				1888-89	129,725		129,725
1879-80				1889-90	502,012		502,012
1880-81				1890-91	148,803	69,534	218,337
1881-82				1891-92	745,997	519,500	1,265,497
1882-83	31,011		31,011	1892-93	155,306	197,669	352,975
1883-84	73,389		73,389	1893-94	Nil.	8,026	8,026
1884-85	300,901		300,901	1894-95	Nil.	Nil.	Nil.
1885-86	389,122		389,122	1895-96	Nil.	Nil.	Nil.
Carried forward.	794,423		794,423	Total	3,121,167	794,729	3,915,896

TABLE showing the number of barrels of flour carried during each year since the road was first opened as a through line to the west.

Year.	Barrels.	Year.	Barrels.
1876-77	254,710	1886-87	763,894
1877-78	657,778	1887-88	871,838
1878-79	630,329	1888-89	948,514
1879-80	533,248	1889-90	1,116,050
1880-81	672,310	1890-91	1,013,129
1881-82	692,095	1891-92	954,015
1882-83	983,916	1892-93	856,913
1883-84	817,134	1893-94	944,967
1884-85	935,977	1894-95	938,351
1885-86	761,127	1895-96	822,097

TABLE showing the number of bushels of grain carried during each year since the road was first opened as a through line to the west.

Year.	Bushels.	Year.	Bushels.
1876-77	292,352	1886-87	1,018,395
1877-78	331,170	1887-88	1,219,035
1878-79	302,921	1888-89	1,526,158
1879-80	534,021	1889-90	2,610,202
1880-81	565,678	1890-91	2,890,921
1881-82	560,253	1891-92	3,776,677
1882-83	1,195,601	1892-93	1,514,619
1883-84	654,673	1893-94	1,304,684
1884-85	734,902	1894-95	1,036,384
1885-86	849,800	1895-96	1,064,385

TABLE showing the quantity of lumber in feet carried during each year over the road since it was first opened for traffic as a through line to the west.

Year.	Feet.	Year.	Feet.
1876-77	58,096,474	1886-87	161,801,763
1877-78	56,626,547	1887-88	197,755,272
1878-79	55,626,696	1888-89	199,507,777
1879-80	55,462,654	1889-90	210,886,071
1880-81	72,841,388	1890-91	184,188,324
1881-82	78,356,418	1891-92	175,474,340
1882-83	104,633,417	1892-93	181,211,013
1883-84	131,120,948	1893-94	200,507,949
1884-85	138,493,675	1894-95	202,247,269
1885-86	117,186,512	1895-96	226,332,715

TABLE showing the number of live stock carried during each year over the road since it was first opened for traffic as a through line to the west.

Year.	Number.	Year.	Number.
1876-77	34,414	1886-87	82,896
1877-78	46,498	1887-88	98,302
1878-79	47,584	1888-89	85,960
1879-80	70,990	1889-90	86,771
1880-81	61,574	1890-91	95,529
1881-82	73,479	1891-92	87,889
1882-83	68,338	1892-93	93,369
1883-84	60,090	1893-94	79,203
1884-85	70,785	1894-95	72,106
1885-86	74,498	1895-96	64,051

TABLE showing the number of tons of ocean-borne goods to and from Europe, via the port of Halifax, carried over the road during each year since it was first opened for traffic as a through line.

Year.	Via Chau- dière to and from the West.	Via St. John to and from the West.	To and from local Stations.	Total.
	Tons.	Tons.	Tons.	Tons.
1876-77				
1877-78	14,949		3,405	18,354
1878-79	21,628		2,643	24,271
1879-80	21,073		4,952	26,025
1880-81	15,454		3,334	18,788
1881-82	21,607		4,168	25,775
1882-83	24,875		7,911	32,786
1883-84	19,696		6,533	26,229
1884-85	22,787		8,405	31,192
1885-86	13,464		8,216	21,680
1886-87	16,923		9,811	26,734
1887-88	41,864		8,878	50,742
1888-89	17,340		11,481	28,821
1889-90	9,895		11,730	21,625
1890-91	9,923		10,764	20,687
1891-92	9,719	17	23,335	33,571
1892-93	7,295	100	12,319	19,714
1893-94	3,023	204	13,455	16,682
1894-95	6,749	213	10,399	17,361
1895-96	3,767	314	16,748	20,829

The above statement does not include deals.

Department of Railways and Canals

TABLE showing the number of tons of raw and refined sugar carried over the road during each year since it was first opened as a through line.

Year.	Raw Sugar.				Refined Sugar.			
	To Chaudière for the West.	To St. John for the West.	To Local Stations.	Total.	To Chaudière for the West.	To St. John for the West.	To Local Stations.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1876-77	340			340				
1877-78	186			186				
1878-79	1,041			1,041				
1879-80	12,220			12,220				
1880-81	13,872			13,872	4,022		2,902	6,924
1881-82	14,256		1,290	15,546	7,146		3,607	10,753
1882-83	9,465		508	9,973	11,126		5,497	16,623
1883-84	13,778		3,068	16,846	14,543		7,265	21,808
1884-85	10,381		3,661	14,042	18,024		8,445	26,469
1885-86	4,394		3,998	8,392	7,660		5,858	13,518
1886-87	20,450		8,500	28,950	15,044		8,395	23,439
1887-88	14,320		14,085	28,405	21,641		7,133	28,774
1888-89	24,358		7,160	31,518	12,955		11,120	24,075
1889-90	7,390		8,913	16,303	6,778		6,125	12,903
1890-91	5,088	4,670	8,215	17,973	10,130	468	5,996	16,594
1891-92	7,142	3,960	10,535	21,637	12,633	7,674	12,414	32,721
1892-93	Nil.	Nil.	10,137	10,137	8,327	6,456	7,840	22,623
1893-94	Nil.	Nil.	6,775	6,775	17,729	6,967	8,885	33,581
1894-95	Nil.	Nil.	10,342	10,342	13,351	15,819	4,695	33,865
1895-96	Nil.	Nil.	9,824	9,824	15,138	13,734	11,309	40,181

TABLE showing the number of tons of fresh and salt fish carried over the road during each year since it was opened as a through line.

Year.	Fresh Fish.				Salt Fish.			
	To Chaudière for the West.	To St. John for the West.	To Local Stations.	Total.	To Chaudière for the West.	To St. John for the West.	To Local Stations.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1876-77	530	921	527	1,978	551	1,848	802	3,201
1877-78	596	1,015	474	2,085	898	1,644	805	3,347
1878-79	471	1,336	817	2,624	988	1,038	1,048	2,974
1879-80	519	1,362	453	2,334	1,612	2,238	959	4,809
1880-81	498	1,879	920	3,297	2,418	937	1,051	4,406
1881-82	475	1,619	957	3,051	4,031	1,066	2,487	7,584
1882-83	542	384	393	1,319	3,299	759	1,354	5,412
1883-84	838	1,682	412	2,932	1,322	1,143	1,224	3,689
1884-85	1,062	1,885	484	3,431	3,563	3,600	1,596	8,759
1885-86	1,669	1,645	902	4,216	1,680	2,047	3,376	7,103
1886-87	1,278	1,572	2,008	4,858	3,236	569	1,747	5,552
1887-88	1,533	1,477	1,031	4,041	2,617	476	1,039	4,193
1888-89	2,474	2,000	1,870	6,344	3,070	7,746	2,994	13,810
1889-90	2,235	1,787	2,111	6,223	2,449	847	3,288	6,584
1890-91	2,029	2,788	1,848	6,665	1,953	1,917	3,236	7,106
1891-92	1,367	1,746	547	3,660	1,946	928	1,889	4,763
1892-93	1,683	1,875	3,340	6,898	3,262	1,811	2,176	7,249
1893-94	1,959	2,192	2,224	6,375	2,921	1,814	2,962	7,697
1894-95	2,006	3,726	1,160	6,892	2,075	1,849	5,285	10,209
1895-96	1,966	3,059	1,319	6,344	1,863	1,087	2,791	5,741

Forty-five miles of the 56-lb. steel rails have been lifted and replaced at the cost of revenue by 4,728 tons of 67-lb. steel rails, and 411,083 ties have been renewed.

CAPITAL ACCOUNT.

Total cost of road and equipment up to 30th June, 1896 :—

Road, &c.....	\$47,469,426 82
Rolling stock.....	7,807,607 81
Total.....	<u>\$55,277,034 63</u>

The Dartmouth Branch connected with the Trunk Line at Windsor Junction, a distance of 11½ miles, is nearly completed.

The freight yard and warehouse accommodation at Halifax being too limited for the local traffic, and being at an inconveniently long distance from the centre of the city, increased yard and warehouse accommodation has been provided on the east side of Water street at deep water terminus.

Both the road and rolling stock are in a high state of efficiency.

WINDSOR BRANCH.

This road is continued to be operated by the Dominion Atlantic Railway Company, formerly the Windsor and Annapolis Railway Company, the company receiving two-thirds of the gross earnings for working the traffic, and the Government one-third of the gross earnings for maintaining the way and works.

Two miles of old iron rails have been lifted and replaced by steel rails of 56 lbs. to the yard.

The road has been maintained in efficient condition.

TABLE showing the earnings and its division between the Windsor Branch and the Main Line of the Intercolonial Railway between Windsor and Halifax, the maintenance expenses and net earnings of the Windsor Branch for each year since 1880.

Year.	Miles in Operation.	One-third Gross Earnings.	Proportion of one-third Gross Earnings credited to Line Windsor Junction to Halifax.	Proportion of one-third Gross Earnings credited to the Windsor Branch.	Maintenance Expenses.	Profit.	Loss.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1880-81..	32	28,434 29	7,217 76	21,216 53	20,502 26	714 27	.....
1881-82..	32	28,461 07	7,407 88	21,053 19	13,099 55	7,953 64	.....
1882-83..	32	32,199 77	8,085 88	24,113 89	23,103 93	1,009 96	.....
1883-84..	32	30,428 39	7,409 46	23,018 93	22,140 86	878 07	.....
1884-85..	32	32,246 30	7,794 95	24,451 35	18,751 96	5,699 39	.....
1885-86..	32	31,185 63	7,527 52	23,658 11	19,229 49	4,428 62	.....
1886-87..	32	33,564 58	8,237 00	25,327 58	26,042 33	.....	714 75
1887-88..	32	32,242 85	7,689 30	24,553 55	24,040 33	513 22	.....
1888-89..	32	37,313 43	8,941 32	28,372 11	20,856 50	7,515 61	.....
1889-90..	32	39,544 19	9,381 73	30,162 46	18,982 82	11,179 64	.....
1890-91..	32	39,519 56	9,284 43	30,235 13	28,931 71	1,303 42	.....
1891-92..	32	42,891 23	9,382 38	33,508 85	19,514 37	13,994 48	.....
1892-93..	32	43,901 28	9,585 17	34,316 11	16,889 95	17,426 16	.....
1893-94..	32	41,834 70	8,859 23	32,975 47	17,645 09	15,330 38	.....
1894-95..	32	50,703 84	11,626 20	39,077 64	14,640 07	24,437 57	.....
1895-96..	32	47,456 74	10,894 91	36,561 83	16,476 46	20,085 37	.....

Department of Railways and Canals.

PRINCE EDWARD ISLAND RAILWAY.

CAPITAL ACCOUNT.

Total cost of road and rolling stock up to the 30th June, 1896 :—

Road, &c.....	\$3,291,836 38
Rolling stock.....	458,729 00

Total..... \$3,750,565 38

The rolling stock provided on capital account consists of :—

Engines.	Passenger Car Stock.				Box and Cattle Car.	Platform Cars.	Conductors' Vans.	Pay Cars.	Snow Ploughs	Flangers
	1st. Class Car.	2nd Class Cars.	Baggage and Smoking Cars.	Official Cars.						
21	17	16	3	1	175	125	3	1	8	7

Statement of rolling stock rebuilt during the year—1 postal and baggage car, 1 snow plough, 1 flanger.

The following table shows the working expenses, the gross and net earnings, the tons of freight and number of persons carried each year since the 30th June, 1875, when the road was first opened for traffic :—

Year.	Miles in operation.	Working Expenses.		Gross Earnings.		Loss.	Tons of Freight carried.	No. of Passengers carried.
		\$	cts.	\$	cts.			
1875-76.....	199	214,930	43	118,060	96	96,869 47	28,358	93,964
1876-77.....	199	228,595	25	130,664	92	97,930 33	41,039	93,478
1877-78.....	199	221,599	49	135,899	60	85,699 89	38,923	111,428
1878-79.....	199	223,313	12	125,855	99	97,457 21	38,668	105,046
1879-80.....	199	164,640	55	113,851	11	50,789 44	37,208	90,533
1880-81.....	199	203,122	88	131,131	43	71,991 45	45,336	102,937
1881-82.....	199	228,259	97	137,267	54	90,922 43	48,315	118,436
1882-83.....	199	252,808	41	146,170	42	106,637 99	51,920	117,162
1883-84.....	199	236,428	13	144,504	12	91,924 01	51,841	118,988
1884-85.....	211	211,207	01	158,588	06	52,618 95	57,346	130,423
1885-86.....	211	216,744	34	155,584	36	61,159 98	57,913	120,374
1886-87.....	211	204,237	37	155,903	37	48,934 00	53,589	103,067
1887-88.....	211	229,639	95	158,363	62	71,276 33	59,603	131,246
1888-89.....	211	247,559	44	171,369	56	76,189 89	55,682	152,780
1889-90.....	211	266,485	85	160,971	78	105,514 07	51,604	133,099
1890-91.....	211	257,990	08	174,258	05	83,732 03	59,511	145,508
1891-92.....	211	259,706	38	157,442	69	132,263 69	51,065	139,389
1892-93.....	211	226,422	17	162,690	42	63,731 75	56,718	132,111
1893-94.....	211	226,891	06	158,533	83	68,357 23	53,577	123,727
1894-95.....	211	232,905	19	149,654	71	83,250 41	48,325	125,089
1895-96.....	211	225,138	56	146,476	54	78,662 02	46,395	122,586

Twelve and three-quarter miles of old iron track were renewed with steel rails weighing 50 lbs. to the yard, so that the track now stands :—

Steel rails (50 lbs. to yard)	126½ Miles.
Iron rails (40 lbs. to yard).....	84½
Total length of road.....	<u>211</u>

One thousand tons of 50-lb. steel rails were used for renewing the 12¾ miles of track. The road and rolling stock are in good running condition.

CAPITAL ACCOUNT.

CANADIAN PACIFIC RAILWAY.

I have recently made a trip over the Canadian Pacific Railway from Ottawa to North Bend, and examined the work done and in course of execution under the arbitrators' award.

On the division between Savona's Ferry and Emory's Bar, the award work is nearly completed, which has given permanency to the character of the road, and the alignment of the road has been greatly improved, the amount of the award having been faithfully and profitably employed.

The total award of the arbitrators in favour of the Canadian Pacific Railway Company was.....		\$579,255 20
The following statement shows the progress made with the work from time to time:—		
Amount of work done previous to date of award, July, 1891.....	\$202,675 20	
Amount of work since done:		
From July, 1891, to February, 1892.....	11,966 69	
In February, 1892.....	188 15	
March.....	9,160 77	
April.....	16,674 16	
May.....	16,010 86	
June.....	21,696 89	
July.....	21,907 10	
August.....	19,477 77	
September.....	21,182 75	
October.....	22,278 71	
November.....	12,349 29	
December.....	4,772 04	
January, 1893.....	6,183 40	
February.....	3,873 20	
March.....	4,014 85	
April.....	10,815 33	
May.....	10,445 76	
June.....	8,329 18	
July.....	6,269 49	
August.....	7,889 02	
September.....	11,954 28	
October.....	9,398 85	
November.....	1,920 40	
December.....	Nil	
January, 1894.....	Nil	
February.....	84 37	
March.....	2,026 64	
April.....	6,108 73	
May.....	8,455 57	
June.....	615 20	
July.....	4,702 91	
August.....	8,919 75	
September.....	6,352 62	
October.....	4,932 97	
November.....	282 18	
December.....	212	
January, 1895.....	Nil	
February.....	Nil	
March.....	Nil	
April.....	390 56	
May.....	1,397 77	
June.....	4,357 23	
July.....	4,689 27	
August.....	7,615 10	
September.....	8,885 20	
October.....	10,832 50	
November.....	3,237 63	
December.....	777 70	
January, 1896.....	Nil	
February.....	Nil	
March.....	860 04	
April.....	1,800 84	
May.....	4,983 97	
Carried forward.....	\$553,954 13	

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Amount of work since done:—*Concluded.*

		Brought forward.....	\$553,954 13	\$579,255 20
In June,	1896.....		4,141 20	
July	“.....		3,553 80	
August	“.....		3,183 96	
September	“.....		3,173 06	
				568,006 15
		Balance		\$ 11,249 05

GENERAL REMARKS.

In addition to substituting solid embankments and steel bridges for a very large number of wooden trestle and truss bridges the company have equipped 3,501 freight cars, with self couplers, and 1,052 freight cars with automatic air brakes, indicating a disposition on the part of the management to meet the requirements of a transcontinental railway, in making their road bed and permanent way substantial and solid, while keeping pace with the times, by the adoption of useful modern improvements in the equipment of their rolling stock.

The following are the traffic operations of the Canadian Pacific Railway for each year ended 30th June, since the road first opened through to the Pacific Coast, for traffic, in June, 1886 :

	1886-87. Miles, 4,274.	1887-88. Miles, 4,662.	1888-89. Miles, 4,974.	1889-90. Miles, 5,086.	1890-91. Miles, 5,537.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Earnings.....	10,650,254 08	12,711,010 01	13,016,611 81	15,572,985 62	18,672,174 04
Working expenses.....	7,299,045 16	9,034,360 27	8,997,312 05	9,424,166 45	11,538,133 53
Net revenue.....	\$3,351,208 82	\$3,676,649 74	\$4,019,299 76	\$6,148,819 17	\$7,134,040 51
No. Passengers carried.....	1,949,215	2,135,735	2,457,306	2,685,730	2,971,774
Tons Freight carried.....	2,118,319	2,321,957	2,636,121	3,006,684	3,675,113
	1891-92. Miles, 5,537.	1892-93. Miles, 5,782.	1893-94. Miles, 6,094.	1894-95. Miles, 6,159.	1895-96. Miles, 6,211
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Earnings.....	20,789,104 17	20,795,304 66	19,357,098 05	17,912,273 60	20,175,384 99
Working expenses.....	12,441,126 28	12,665,587 12	12,447,808 03	11,282,506 00	12,202,360 50
Net revenue.....	\$8,347,977 89	\$8,129,717 54	\$6,909,290 02	\$6,629,767 60	\$7,973,024 49
No. Passengers carried.....	3,150,684	3,335,598	3,153,340	2,892,995	3,036,619
Tons Freight carried.....	4,058,575	4,266,348	4,014,915	3,720,567	4,576,632

CAPITAL ACCOUNT—CANALS.

SAULT STE. MARIE CANAL.

Construction.

The construction of this canal may now be said to have been completed, and is equipped except as to the completion of the stone residence for the superintendent and the providing of a few tools, etc., for the workshops. It may, however, be found advisable to extend the crib piers at each entrance, but the necessity for this can only be determined after some further experience in operating the canal. No doubt the appearance of the canal grounds would be much improved by having the spoil banks levelled down, and it may possibly at some future day be considered desirable to have the work undertaken.

The final estimates of the completed contracts have been prepared, with the exception of the contract for the lift-lock and prism at which the engineers are still engaged.

The lock is 900 feet long, 60 feet wide, with 20 feet 4 inches of water on the mitre sill. The entrance channels have a depth of 18 feet of water.

Probable cost of construction and equipment, including deepening approaches to 20 feet in depth of water	\$4,000,000 00
Amount paid up to 30th June, 1896...	\$3,448,011 83
Amount paid up from 30th June to 1st November, 1896.....	42,196 03
	3,490,207 86
Balance	<u>\$ 509,792 14</u>

SOULANGES CANAL.

Very slow progress has been made with the work on this canal during the year and up to date. The three 10-foot iron cylindrical culverts carrying the Rouge, Delisle and La Graisse Rivers under the canal have been completed, and appearances indicate that the work on Sections Nos. 3, 8, 9, 10 and 11 will be finished next summer, and that Section No. 13 will be completed during the season of 1898. The work on Section No. 12 has not been touched since 1893, and as there are about 95,000 cubic yards of rock to be shifted, it is important that necessary measures should be taken to ensure the work being prosecuted with vigour next spring. Little progress has been made with the work on Sections Nos. 4, 5, 6 and 7 during the last past season, and as there remains to be done a large amount of masonry and excavation besides other classes of work, it is indispensable to the completion of these sections within the next two or three years that steps be taken to have this work pushed forward next season with energy to completion. The cause of the delay in prosecuting this work has been largely due to the contractor failing to give effect to the orders of the engineer to form the rear of the canal banks with blue clay, which it is necessary to haul a long distance, he contending it was impossible to form the embankments of such material, whereas I am of opinion the material is of a character suitable for the purpose, and that to waste it and borrow other material with which to make up the embankments would materially

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enhance the cost of the work without a corresponding benefit, and I suggest that the necessary action be taken to have the work done as required by the engineers. The advancement with the lock masonry on sections Nos. 1 and 2 is such that if greater progress is not made in the future with this work, it will be very many years before the canal can be utilized. I however must admit the fault does not altogether rest with the contractor, as he has been ready to proceed with the building of the masonry with stone from a quarry which I had approved, and authorized him to work, viz, the Rockland quarry, which produces a dark gray limestone of good quality, suitable for lock work, which opinion is not shared in by the superintending engineer, who states that it is not the stone he had in his mind when the specification was being prepared, and for that reason he refused to allow the work to be proceeded with, and hence the delay in its prosecution. The stone, however, is good, and is of equal quality to the stone used generally in the locks on the other Government canals, and will, I am satisfied, be used in this work. However, there should be no unnecessary time lost in settling the matter, as it is very important that no further delay in prosecuting this work should arise. If upon the opening of the working season of 1897 the works on this canal are properly handled, with a reasonable degree of energy and are carried through to completion with spirit, I am of opinion that the canal may be completed and in running order within three years, a result much to be desired.

In compliance with instructions from the Honourable Minister, I am arranging for a reduction of the staff employed upon this canal, at the close of the present month, the condition of the work being such as to call for such reduction.

The following statement will give a general idea of the progress made with the work up to 1st October, 1896.

Sections Nos. 1 and 2.—Archibald Stewart, contractor.

Approximate value of work under contract	\$ 818,400 00
Amount of progress estimates up to 1st Oct., 1896.	449,441 55
Balance	<u>\$ 368,958 45</u>

Section No. 3.—O'Leary Bros., contractors.

Approximate value of work under contract	\$ 230,000 00
Gross amount of progress estimates up to 1st Oct., 1896	174,747 76
Balance	<u>\$ 55,252 24</u>

Sections Nos. 4, 5, 6 and 7.—George Goodwin, contractor.

Approximate value of work under contract	\$ 890,000 00
Gross amount of progress estimates up to 1st Oct., '96	309,623 40
Balance	<u>\$ 580,376 60</u>

Section No. 8.—Charles Raynor, contractor.

Approximate value of work under contract	\$ 250,000 00
Gross amount of progress estimates up to 1st Oct., '96	202,439 18
Balance	<u>\$ 47,560 82</u>

Section No. 9.—Randolph McDonald, contractor.

Approximate value of work under contract	\$ 130,000 00
Gross amount of progress estimates up to 1st Oct., '96	102,754 50
	<hr/>
Balance	\$ 27,245 50
	<hr/> <hr/>

Section No. 10.—Messrs. Rogers & Taylor, contractors.

Approximate value of work under contract	\$ 270,000 00
Gross amount of progress estimates up to 1st Oct., '96.	216,489 43
	<hr/>
Balance	\$ 53,510 57
	<hr/> <hr/>

Section No. 11.—Messrs. Poupore, Fraser & Co., contractors.

Approximate value of work under contract	\$ 310,000 00
Gross amount of progress estimates up to 1st Oct., '96.	221,413 95
	<hr/>
Balance	\$ 88,586 05
	<hr/> <hr/>

Section No. 12.—George Goodwin, contractor.

Approximate value of work under contract	\$ 270,000 00
Gross amount of progress estimates up to 1st Oct., '96.	36,617 00
	<hr/>
Balance	\$ 233,383 00
	<hr/> <hr/>

Section No. 13.—Randolph McDonald, contractor.

Approximate value of work under contract	\$ 530,000 00
Gross amount of progress estimates up to 1st Oct., '96	347,448 70
	<hr/>
Balance	\$ 182,551 30
	<hr/> <hr/>

Bridge over Canal—Dominion Bridge Company, contractors.

Value of work under contract	\$10,267 00
Final estimate	10,267 00
	<hr/>
Balance	Nil.
	<hr/> <hr/>

Cement—C. J. De Sola & Francis Hyde, contractors.

Value of cement under contract	\$39,655 55
Final certificate	39,655 55
	<hr/>
Balance	Nil.
	<hr/> <hr/>

Cement—Bellhouse, Dillon & Co., contractors.

Value of cement under contract	\$49,750 00
Gross amount of progress estimates up to 1st Oct., '96...	40,243 77
	<hr/>
Balance	\$ 9,506 23
	<hr/> <hr/>

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Summary.

Approximate value of work under contract\$3,798,072 55
Amount of estimates of work done up to 1st Oct. '96 2,151,141 79

Balance\$1,646,930 76

Based on the above named contracts, the canal is
estimated to cost, including land and damages...\$5,000,000 00

Total payments up to 1st November, 1896..... 2,401,698 88

Balance\$2,598,301 12

At the lower entrance to this canal on sections 1 and 2 it is proposed to construct three locks with a lift of 23 ft. 4in. for each lock ; they are to be constructed of massive masonry face work, backed up with concrete.

LACHINE CANAL.

CONSTRUCTION AND ENLARGEMENT.

The works being carried on under the above heading are :

1. Dredging between the lower entrance to the Lachine Canal and St. Gabriel Basin for 22 feet of water.

2. The deepening of the prism of the Lachine Canal between St. Gabriel and Lachine to a depth of 16 feet.

The dredging between the lower entrance and St. Gabriel is being executed by days' labour with the Government dredge No. 2, the work is progressing favourably.

The deepening of the prism of the canal between St. Gabriel and Lachine is under contract with Messrs. McNamee & Mann. They have been working both by day and night, and are making favourable progress with the work.

The widening of the Lachine Canal on the south side between Wellington Bridge and St. Gabriel and the building of cribwork for a wharf are completed.

For full particulars of the operations up to 30th June, 1896, I refer you to the report of the Superintending Engineer.

LAKE ST. LOUIS.

The cutting of a straight channel 300 feet wide with a depth of 16 feet of water for a distance of about four miles is being executed by the Weddell Dredging Co. They have three dredges at work, all of which are doing good service; they have executed work to the value of \$86,570.54 up to the 1st November, 1896.

TRENT VALLEY CANAL.

CONSTRUCTION.

The Peterborough-Lakefield Division, extending from Lakefield towards Peterborough, is under contract, 6½ miles with Messrs. Brown, Love & Aylmer, and 3½ miles with Messrs. Laverdure & Corry, fair progress has been made with the works.

This division is estimated to cost \$780,000.

A contract was entered into with Mr. Andrew Onderdonk for the first section of $6\frac{1}{2}$ miles of the Balsam-Simcoe Lake Division, extending from Balsam Lake towards Lake Simcoe, the cost of which is estimated at \$600,000. The gross amount of the progress estimates up to 1st November, 1896, is \$300,035.

The surveys and plans for the balance of the division, about $17\frac{1}{2}$ miles, are completed. On this section there is a lift lock with a lift of about 60 feet; the lift is to be made by an hydraulic ram.

The locks on this canal are to be 134 feet long, 33 feet wide, with 5 feet of water on the mitre sills, and the prism of the canal will be 50 feet wide at bottom, and 53 feet wide at water level in rock and 74 feet wide at water level in earth cutting.

MURRAY CANAL,

EQUIPMENT.

No work has yet been done towards building lockmasters' houses, store or wharf, &c., for which provision was made by Parliament.

CORNWALL CANAL.

CONSTRUCTION AND ENLARGEMENT.

These works are fast drawing to a close, and the Sheiks Island Dam section of the canal is completed,

The estimated cost of the enlargement is.....	\$	4,300,000
Amount paid up to 1st November, 1896.....		4,049,955
		<hr/>
Balance.....	\$	250,045

The contractors have been paid the following amounts up to 1st November, 1896 :—

Section 2, William Davis & Sons.....	\$	847,037	52
do 3 do		496,489	71
do 4 do		593,503	76
do 5, E. Gilbert & Sons		111,033	13
Sheiks Island Dams, Wm. Davis & Sons		388,320	00
Section 6, E. Gilbert & Sons.....		47,721	37
do 7 do		96,832	88
do 8 do		205,743	45
do 10, Jocks, DeLorimier & Co.....		439,854	60
		<hr/>	
Total.....	\$	3,226,536	42

FARRAN'S POINT CANAL.

CONSTRUCTION.

No work has yet been placed under contract for its enlargement, but the surveys are completed and plans prepared for the work. The work of dredging out the prism of the canal to its original dimensions has been completed.

Department of Railways and Canals.

RAPIDE PLAT CANAL.

ENLARGEMENT.

The work on section No. 1 of this canal has made favourable progress, the lock masonry of the lock at Morrisburg being far advanced towards completion, the contractors having completely mastered the difficulties which they had encountered, and which were referred to in my report of 1894. The work of widening and deepening the canal on sections 1 and 3 is making fair progress; the work on section No. 2, which was under contract with the Weddell Dredging Company, is completed.

The estimated cost of the enlargement is.....	\$ 1,700,000
Amount paid up to 1st November, 1896	1,582,713
	\$ 117,287
	\$ 117,287

The following is a list of the names of the contractors, showing the amounts paid to each up to 1st November, 1896 :—

Section No. 1, Poupore & Fraser & Co.....	\$	733,148 00
do 2, Weddell Dredging Co.....		223,419 80
do 3, Poupore, Fraser & Co.....		207,700 00
do 4, Wm. Broder ...		271,141 02
		\$ 1,435,408 82
		\$ 1,435,408 82

GALOPS CANAL.

ENLARGEMENT.

Messrs. Murray & Cleveland, the contractors for the work on the first 1½ miles at the upper entrance of the canal, embracing the building of two locks, a weir and the deepening and widening of the prism, are the only persons carrying on works of enlargement on this canal, at the present time.

The work under this contract is not fully completed. The lift lock, guard lock and the weir are completed, but there remains some work in dredging to be done.

The estimated cost of this section of the enlargement is.	\$ 1,650,000
Amount paid up to 1st November, 1896.....	1,503,344
	\$ 146,656
	\$ 146,656

The contractors' names and the amounts paid them up to 1st November, 1896, are as follows, viz. :—

William Allan.....	\$	193,652
Murray & Cleveland		1,212,410
		\$1,406,062
		\$1,406,062

GALOPS RAPID IMPROVEMENTS.

These works remain untouched since my report of last year.

Names of contractors who performed the work and amounts paid up to 1st November, 1896:—

Wm. Davis & Sons.....	\$ 22,000
E. Gilbert & Sons.....	607,629
Total.....	<u>\$629,629</u>

There remain from 2,000 to 3,000 cubic yards of rock in the channel which require moving to give a clear navigation for 14 feet draught or 17 feet depth of water.

NORTH CHANNEL.

No work has yet been done towards straightening and deepening this channel, but the plans are prepared and in readiness to exhibit to intending contractors.

ST. PETER'S CANAL.

No work on capital account has been undertaken on this canal during the year ended 30th June, 1896.

CANALS.

OPERATION AND MAINTENANCE—GENERAL.

The canals have been operated throughout the year without any serious delay to traffic, and the necessary repairs have been executed to maintain them in efficient working condition.

STATEMENT showing the dates of closing and opening of canals.

	Closed.	Opened.
Lachine	30th November, 1895....	3rd May, 1896.
Beauharnois.....	30th November, 1895 ..	1st May, 1896.
Cornwall.....	7th December, 1895	30th April, 1896.
Williamsburg.....	10th December, 1895	1st May, 1896.
Welland... { Old.....	14th December, 1895	27th April, 1896.
{ New.....	12th December, 1895	28th April, 1896.
Chambly.....	30th November, 1895....	4th May, 1896.
St. Ours.....	29th November, 1895....	29th April, 1896.
St. Anne's.....	29th November, 1895....	26th April, 1896.
Carillon and Grenville.....	30th November, 1895....	27th April, 1896.
Rideau... { at Kingston.....	20th November, 1895....	1st May, 1896.
{ at Ottawa.....	30th November, 1895....	1st May, 1896.
Trent... { on Central Reach	21st November, 1895....	20th April, 1896.
{ on Lower Reach.....	22nd November, 1895....	18th April, 1896.
Murray	4th December, 1895....	17th April, 1896.
St. Peter's.....	5th January, 1896	30th March, 1896.

Department of Railways and Canals.

STATEMENT showing the dimensions of the locks of the canals.

	Existing System.				Under Construction.			
	No. of Locks.	Length.	Width.	Depth of water on mitre sill.	No. of Locks.	Length.	Width.	Depth of water on mitre sill.
		Feet.	Ft. & in.	Ft. & in.		Feet.	Ft. & in.	Ft. & in.
Lachine	5	270	45	14				
Beauharnois	9	200	45	9				
Chambly	9	118-125	22'6-24	7				
St. Ours	1	200	45	7				
St. Annes' (New)	1	200	45	9				
Carillon and Grenville	7	200	45	9				
Culbute (Abandoned)								
Trent	13	134	33	5				
Rideau	49	134	33	5				
Rideau, Perth Branch	2	134	32	5'6				
Murray (no locks)				11				
Cornwall (Old)	6	200	55	9				
Cornwall (New)	5	270	45	14				
{ 1	1	270	45	Guard.				
Farran's Point (Old)	1	200	45	9				
Rapide Plat (Old)	1	200	45	9				
Rapide Plat (New)	1	270	45	14				
{ 1	1	270	45	Guard.				
Galops (Old)	2	200	45	9				
Galops (New)	1	270	45	14				
{ 1	1	270	45	Guard.				
Welland (New)	26	270	45	14				
{ 24	24	150	45	10'3				
Welland (Old)	2	200	45	10'3				
{ 1	1	230	45	10'3				
{ 1	1	150	26'6	9				
Welland Feeder	1	200	45	9				
Welland, Port Robinson Branch	2	150	26'6	9				
Welland, Maitland Branch	1	185	45	11				
Sault Ste. Marie	1	900	60	20'3				
Soulanges					4	270	45	14
St. Peter's	1	200	48	18				

LACHINE CANAL.

OPERATION.

The traffic on this canal was conducted satisfactorily during the year, and without interruption to traffic.

MAINTENANCE.

For particulars of the repairs during the year, I refer you to the Superintending Engineer's report.

The cost of these repairs for the year 1895-96 amounts to as follows:—

Ordinary repairs under head of staff and repairs \$24,950 30

Special repairs under head of income:—

Enlargement of electric light stores,

Montreal \$4,904 37

Repairs to wharfs around St. Gabriel 3,288 78

8,193 15

Total \$33,143 35

BEAUHARNOIS CANAL.

OPERATION.

No accident occurred on this canal during the year and the traffic was uninterrupted.

MAINTENANCE.

The necessary repairs have been executed during the year, of which the following is a statement :—

The cost of repairs for the year 1895-96 amounted to as follows :—

Ordinary repairs under head of staff and repairs	\$15,050 85
Special repairs under head of income :—	
No special repairs were made	
Total	<u>\$15,050 85</u>

CHAMBLY CANAL.

OPERATION.

The traffic during the year was very active and satisfactorily conducted.

MAINTENANCE.

The canal works have received the necessary attention as regards their maintenance during the year.

The cost of the repairs executed during the year 1895-96 is as follows, viz. :—

Ordinary repairs under head of staff and repairs	\$11,801 12
Special repairs under head of income :—	
Building rubble masonry wall along high-	
way	\$2,494 63
One spare arc lamp dynamo	1,200 00
	<u>3,694 63</u>
Total	<u>\$15,495 75</u>

ST. OURS LOCK.

OPERATION.

No damage to lock or delay to navigation occurred during the year.

MAINTENANCE.

The necessary repairs have been executed. The cost of the work during the year was as follows, viz. :—

Ordinary repairs under head of staff and repairs, \$1,678.49.
There were no special repairs required to be done.

Department of Railways and Canals.

ST. ANNE'S LOCK.

OPERATION.

The navigation through this lock has not been interrupted during the year.

MAINTENANCE.

The lock has been maintained in good working condition. The cost of the work during the year is as follows, viz. :—

Ordinary repairs under head of staff and repairs \$4,993 89

There were no special repairs under head of income.

Total \$4,993 89

CARILLON AND GRENVILLE CANALS.

OPERATION.

The navigation has been interrupted for thirteen hours only during the year, which was caused by the displacement of one of the lock gates; the canal works have received the necessary repairs.

MAINTENANCE.

The following is a statement of the works of repairs executed during the year :

The cost of the repairs amounted to as follows, viz. :—

Ordinary repairs under head of staff and repairs \$12,161 10

There were no special repairs under head of income

Total \$12,161 10

CULBUTE CANAL.

OPERATION.

This canal was closed and abandoned on the 2nd November, 1894, and the services of the employees dispensed with; the Grand Calumet Dam was partially removed to give a freer flow to the water.

The following is a statement of the expenditure on this canal during the year :—

Staff and repairs Nil

Special under head of income Nil

Total Nil

TRENT CANAL.

OPERATION.

There was no interruption to navigation during the year. The canal works were well maintained.

MAINTENANCE.

The cost of the works of repairs for the year was as follows, viz.:—

Ordinary repairs under the head of staff and repairs.....	\$3,329 97
Special work under head of income:	
Dredging channel and building glance pier.....	\$ 487 35
do at mouth of Emily Creek.....	496 89
Sluiceway in Hastings Dam.....	1,974 62
Constructing two dump and one deck scow.....	3,226 89
	6,185 75
Total.....	\$ 9,515 72

RIDEAU CANAL.

OPERATION.

Owing to the extremely low water, the navigating of this canal with the larger craft has been attended with some difficulty, especially through the cut leading from the lake to Newboro' lock.

MAINTENANCE.

The canal has been maintained in efficient state of repair.

The cost of the repairs was as follows, viz.:—

Ordinary repairs under head of staff and repairs.....	\$30,196 38
Special repairs under head of income:	
Deepening canal at Newboro' and Merrickville.....	\$ 7,986 79
Final estimate of A. Weddell.....	2,275 00
Payment to James Cain for wages.....	42 00
Paid for land damages.....	11,148 50
	21,452 29
Total.....	\$51,648 67

MURRAY CANAL.

OPERATION.

This canal was operated during the year without interruption, and 603 vessels passed through.

Department of Railways and Canals.

MAINTENANCE.

The canal works have been maintained in efficient condition.

The cost of repairs was as follows :—

Ordinary repairs under head of staff and repairs.	\$5,410 33
Special repairs under head of income.	Nil
	\$5,410 33

CORNWALL CANAL.

OPERATION.

Navigation was interrupted on the 28th November, 1895, to enable a dredge sunk in the canal to be raised, and again on 29th June, 1896, the grain laden barge "Bismark" was sunk near Sheiks Island interfering with navigation for a few days; with these exceptions navigation was fairly well maintained.

MAINTENANCE.

The necessary repairs to the canal works have received due attention.

The cost of repairs during the year was as follows, viz. :—

Ordinary repairs under head of staff and repairs.	\$25,259 56
Special repairs under head of income	Nil
Total	\$25,259 56

WILLIAMSBURG CANALS.

OPERATION.

On 13th June, 1896, steamer "Spartan" struck gates on lock 23, delaying navigation for thirty-six hours, no other interruption to navigation during the year occurred, and the traffic has been conducted in a fairly satisfactory manner, considering the lowness of the water in the river and notwithstanding the works of enlargement in progress.

MAINTENANCE.

The canal works have been maintained in a good state of repair. The cost of repairs during the year has been as follows, viz. :—

Ordinary repairs under head of staff and repairs.	\$9,036 00
Special repairs under head of income :—	
Dredging and renewing piers.	8,607 04
Total	\$17,643 04

WELLAND CANAL.

OPERATION.

No accident of any importance occurred during the year. The canal has been worked during the year in a satisfactory manner.

MAINTENANCE.

The canal works have been maintained in an efficient state of repair.

The cost of repairs during the year has been as follows, viz. :—

Ordinary repairs under head of staff and repairs.....	\$62,542 64
Special repairs under head of income :—	
Rebuilding in concrete superstructure Dal-	
housie pier.....	\$13,917 92
Cleaning out and deepening back ditch	
south side of feeder.....	1,762 75
Taking down and rebuilding Marshville and	
Stromness Road bridges.....	3,088 32
	18,768 99
Total	\$81,311 63

ST. PETER'S CANAL.

OPERATION.

Upon the completion of the heavy repairs the canal was opened for traffic on the 8th November, 1895.

MAINTENANCE.

The repairs of this canal were very heavy and costly, as owing to the ravages of the sea-worm, it became necessary to renew the timber floor and the lock gates, which work necessitated the formation of a dam at each end of the canal; the work was being executed under contract with Mr. Sylvester O'Donaghue, but owing to unforeseen difficulties arising in unwatering the canal, he intimated his inability to complete the work under his contract, and it was carried on by the Government.

The cost of repairs during the year has been as follows, viz. :—

Ordinary repairs under head of staff and repairs.....	\$ 260 90
Special repairs under head of income :—	
Renewing mitre sills, floor and lock gates.....	16,743 64
	17,004 54
Total	\$17,004 54

Department of Railways and Canals.

GENERAL OBSERVATIONS RESPECTING GOVERNMENT CANALS.

The supplies and materials have, as a rule, been purchased by tender and contract, and are only issued upon requisition of the authorized officer, and books are kept of the receiving of the goods, and their issue, and of the articles in the storehouse.

Cost of maintenance and operation of the canal system	
for 1895-96	\$663,496 76
Net revenue of canals after deducting refunds.....	339,538 72
	<hr/>
Excess cost of maintenance and operation over	
revenue	\$323,958 04
	<hr/>

RAILWAY SUBSIDIES.

I submit herewith a statement showing the amount of cash subsidy granted per mile available, and amount paid up to the 30th June, 1896 ; also the number of miles of railway on which subsidy granted per mile was available on 1st July, 1896, and the number of miles of railway for which cash subsidy per mile was granted, built up to 30th June, 1896. There will also be found the amount of subsidy paid up to 1st of November, 1896.

There also appears a statement of the cash subsidy per annum available and also paid up to 30th June, 1896, with number of miles built, also a statement showing the railways which have been granted aid in land.

Amount of cash subsidy per mile paid 30th June, 1896	\$ 14,232,976 83
Amount of cash subsidy per mile available 30th June, 1896.....	779,221 00
	<hr/>
Total paid and available.....	\$15,012,197 83
	<hr/>

Number of miles of railway on which cash subsidy per mile was available up to 30th June, 1896..	223
Number of miles of railway on which cash subsidy per mile was paid up to 1st June, 1896.....	3,226
Amount of subsidy paid up to 1st November, 1896.	\$14,249,486 34
Cash subsidy per annum available on 30th June, 1896	\$ 363,474 00
Cash subsidy per annum paid to 30th June, 1896..	1,306,200 00
Number of miles built on cash subsidy per annum up to 30th June, 1896.....	252
Number of miles of railway to which aid in land has been authorized	4,463
Number of acres of land the grant of which in aid of railways has been authorized.....	32,257,200
	<hr/>

The foregoing statements do not include the grants in cash and land to the Canadian Pacific Railway, the Canada Central Railway and the Esquimalt and Nanaimo Railway.

These roads received in cash as follows:—

Canadian Pacific Railway	\$25,000,000
Canada Central Railway	1,525,250
Esquimalt and Nanaimo Railway	750,000
	\$27,275,250

In land as follows:—

	Acres.
Canadian Pacific Railway	25,000,000
Esquimalt and Nanaimo Railway	1,900,000
Total	26,900,000

CANAL STATISTICS.

These statistics were compiled by Mr. R. Devlin, the clerk temporarily in charge; they are for the season of navigation 1895 and contain the usual interesting information.

TABLE showing the tons of freight passing through each canal, the tolls collected, the number of trips of vessels passing through each canal, for the year ended 31st December, 1895.

Name of Canal.	Tons of Traffic passing through.	Tolls collected.	Number of trips of vessels passing through.
		\$ cts.	
Lachine	828,228	61,143 66	8,746
Beauharnois			
Cornwall			
Williamsburg			
Welland	869,595	138,713 64	2,222
Chambly	359,027	25,929 67	3,262
St. Anne's	541,420	31,959 29	2,195
Carillon			
Grenville			
Rideau	88,753	5,679 26	2,375
Murray	11,324	527 94	565
Trent	32,266	1,042 08	1,947
St. Peter's	9,828	426 63	248
* Sault Ste. Marie	595,337	Free.	1,192

* This canal was opened for traffic on 9th September, 1895.

Department of Railways and Canals.

RAILWAY STATISTICS.

The hopes and expectations expressed in past years that the railway companies would in future send in their statistical returns on or before the 1st October in each year, have not been realized, for whilst the great trunk lines and many others forwarded their returns with promptness, there are a large number who are delinquents as regards the despatching of the reports.

TABLE showing the growth of the Railways from year to year, since the opening of the first line in 1836.

Year.	Miles in Operation.	Year.	Miles in Operation.
1835.....	0	1866.....	2,278
1836.....	16	1867.....	2,278
1837.....	16	1868.....	2,278
1838.....	16	1869.....	2,524
1839.....	16	1870.....	2,617
1840.....	16	1871.....	2,695
1841.....	16	1872.....	2,899
1842.....	16	1873.....	3,613
1843.....	16	1874.....	3,832
1844.....	16	1875.....	4,331
1845.....	16	1876.....	4,804
1846.....	16	1877.....	5,218
1847.....	54	1878.....	5,782
1848.....	54	1879.....	6,128
1849.....	54	1880.....	6,858
1850.....	66	1881.....	7,194
1851.....	159	1882.....	7,331
1852.....	205	1883.....	8,697
1853.....	506	1884.....	9,577
1854.....	764	1885.....	10,273
1855.....	877	1886.....	10,773
1856.....	1,414	1887.....	11,793
1857.....	1,444	1888.....	12,184
1858.....	1,863	1889.....	12,585
1859.....	1,994	1890.....	13,151
1860.....	2,065	1891.....	13,838
1861.....	2,146	1892.....	14,564
1862.....	2,189	1893.....	15,005
1863.....	2,189	1894.....	15,627
1864.....	2,189	1895.....	15,977
1865.....	2,240	1896.....	16,270

FATAL ACCIDENTS for Year ended 30th June, 1896.

	Passengers Killed.	Employees Killed.	Others Killed.	Total Killed.
Falling from cars or engines.....	6	12	5	23
Getting on or off trains in motion.....	4	6	9	19
At work making up trains.....				
Putting heads or arms out of windows.....		1		1
Coupling cars.....		14		14
Collisions and derailments.....		2		2
Striking bridges.....				
Walking or being on track.....	1	6	68	75
Explosions.....				
Other causes.....		5	22	27
Total.....	11	46	104	161

The summary of tables for the years ended 30th June, 1895, and 30th June, 1896, is as follows, viz. :—

	Comparative Statement.	
	30th June, 1895	30th June, 1896
Miles of railway completed (track laid).....	16,091	16,387
do sidings.....	2,054	2,106
do iron rails in main line.....	346	250
do steel do.....	15,745	16,137
do do do double track.....	533	537
Capital paid (including the four following items).....	\$894,640,559	\$899,817,900
Government (Dominion and Provincial) bonuses paid.....	*\$158,621,646	*\$157,600,100
do do loans paid.....	\$21,569,149	\$21,569,149
do (Provincial only) subscription to shares paid.....	\$300,000	\$300,000
Municipal aid paid.....	\$14,180,686	\$14,494,757
Miles in operation.....	15,977	16,270
Gross earnings.....	\$46,785,487	\$50,545,569
Working expenses.....	\$32,749,669	\$35,042,655
Net earnings.....	\$14,035,818	\$15,502,914
Passengers carried.....	13,987,580	14,810,407
Freight carried (tons).....	21,524,421	24,266,825
Train mileage.....	40,661,890	44,500,602
Passengers killed.....	9	11
Number of elevators.....	53	72
do guarded level crossings—public roads.....	151	166
do unguarded do do.....	10,430	11,000
do overhead bridges.....	398	413
do level crossings of other railways.....	218	235
do junctions with other railways.....	316	326
do do branch lines.....	232	235
do engines owned.....	1,948	1,980
do do hired.....	75	64
do sleeper and parlour cars owned.....	156	178
do do do hired.....	60	26
do first class cars owned.....	1,011	998
do do hired.....	65	44
do second class and immigrant cars owned.....	694	646
do do do hired.....	8	2
do baggage, mail and express cars owned.....	†1,129	†625
do do do hired.....	25	25
do cattle and box freight cars owned.....	33,577	‡35,302
do do do hired.....	2,783	1,489
do platform cars owned.....	15,441	15,192
do do hired.....	317	401
do coal and dump cars owned.....	4,841	4,810
do do do hired.....	4	2

It will be observed that the increase of mileage of road built is very small for the year ended 30th June, 1896, this I assume to be attributable to the general stringency in the money market, and also to the fact that the more pressing needs of the country in respect of railway communication have been largely met by the construction of the lines now built.

I have the honour to be, sir, your obedient servant,

COLLINGWOOD SCHREIBER,

Deputy Minister and Chief Engineer of Railways and Canals.

The Honourable A. G. BLAIR, Minister of Railways and Canals.

* In explanation of the fact that the total of bonuses shown as paid up to the 30th June, 1896, is less than the total for the previous year, notwithstanding the payment during the year of additional bonuses, it has to be noted that the sum of \$2,394,000, interest on which has been allowed the Province of Quebec as an annual subsidy on account of the railway between Ottawa and Quebec (the capital not being paid) has now, as is shown by the public accounts, been treated as a liability, and placed as an item of the public debt. (See public accounts 1895-96, page X.) It consequently now disappears from the list of paid bonuses.

† Conductors' vans transferred this year from this item to that of box cars.

‡ Comprising 34,138 box freight cars, 244 refrigerator cars, 845 conductors' vans and 75 tool cars.

Department of Railways and Canals.

No. 1.

RAILWAYS.

INTERCOLONIAL RAILWAY OF CANADA,
OFFICE OF THE GENERAL MANAGER,
MONCTON, N.B., 28th September, 1896.

SIR,—I have the honour to submit the following report on the working of the Intercolonial Railway during the fiscal year ended 30th June, 1896.

I inclose the reports of the Chief Engineer and the Mechanical Superintendent, and the following statements prepared by the Chief Accountant and Treasurer :—

- No. 1. Capital account.
2. Revenue account.
3. Locomotive power.
4. Car expenses.
5. Maintenance of way and works.
6. Station expenses.
7. General charges.
8. General stores account.
9. General balance
10. Comparative statement of averages.

The mileage of railway in operation during the year was the same as stated in last year's report, 1,142 miles.

CAPITAL ACCOUNT.

The total cost of road and equipment on the 30th June, 1895, by last report was

\$55,007,939 40

The additions during the year were as follows :—

Increased accommodation at Halifax . . .	\$124,910 03
do do at Moncton . . .	1,000 00
do do at Sydney . . .	11,374 41
Construction	1,948 35
St. Charles Branch	1,271 96
Indian Town Branch	1,436 10
Dartmouth Branch	107,402 17
Rolling stock	10,000 00
Oxford and New Glasgow Railway	80 40

259,423 42

\$55,267,362 82

Less refund previous year's expenditure

318 19

Making the total cost on the 30th June, 1896 \$55,267,044 63

Increased accommodation at Halifax.—This expenditure was made on the land along Water Street purchased for increased freight accommodation.

A retaining wall of timber cribwork filled with stone was built along the harbour front of the property for a distance of one thousand feet. This cribwork is thirty-five feet wide and of an average height of thirty feet, and a considerable additional area of land for tracks was made by filling in behind it.

Along the Water Street front of the property a large warehouse was built for the local freight business of the city. It is of brick with an iron framed roof covered with slates. It is seven hundred and sixty-two feet long and of an average width of fifty-five feet, and contains in one end the local freight offices. It is fitted throughout for electric lighting.

In front of the building on its Water Street side along its whole length a granite pavement thirty-five feet wide was laid.

The ground between this building and the retaining wall along the harbour front was laid out as a railway freight yard with the necessary tracks for cars, and roads for hauling freight to and from them. A scale for weighing car loads, and cranes for lifting heavy articles were also provided. The building as soon as it was completed was opened for business on February 4th, 1896, and it has proved to be very commodious.

Increased accommodation at Moncton.—This was for the construction of a brick building for the heating boilers of the engine houses.

Increased accommodation at Sydney.—The greater part of this expenditure was in payment for land at North Sydney, the balance was for improvements in connection with the freight business at Sydney station.

Construction.—This was for the payment of claims in connection with the original construction of the railway and for the legal expenses of settling them.

St. Charles Branch.—This amount was paid for land under a judgment of the Exchequer Court.

Indian Town Branch.—This amount was paid for land and damages and for legal expenses in connection with the construction of the branch.

Dartmouth Branch.—This branch forms the connection between the town of Dartmouth and the main line of the Intercolonial Railway at Windsor Junction. The expenditure was for grading, track laying, ballasting and other construction work. It was so far completed that it was opened for traffic on the 22nd June last.

Rolling Stock.—This was for the Westinghouse automatic air brake for freight cars. It was applied to one hundred and seventy-five platform cars and seventy-five box cars. The total number of freight cars now equipped with this brake is one thousand two hundred and twenty-one.

Oxford and New Glasgow Railway.—This was a small balance paid at Ottawa under a judgment of the Exchequer Court.

REVENUE ACCOUNT.

The gross earnings and working expenses for the year compare as follows :—

Working expenses.....	\$3,012,827 62
Gross earnings.....	2,957,640 10
	<hr/>
	\$ 55,187 52

The gross earnings compare as follows with those of the previous year :—

In 1895-96.....	\$2,957,640 10
In 1894-95.....	2,940,717 95
	<hr/>
	\$ 16,922 15

The earnings from passenger traffic compare as follows :—

In 1895-96.....	\$ 971,426 26
In 1894-95.....	963,914 44
	<hr/>
	\$ 7,511 82

Department of Railways and Canals

The earnings from freight traffic compare as follows :—

In 1895-96	\$1,788,813 18
In 1894-95	1,782,608 54
	\$ 6,204 64

The earnings from the carriage of mails and express freight compare as follows :—

In 1895-96	\$197,400 66
In 1894-95	194,194 97
	\$ 3,205 69

The earnings per mile of railway compare as follows :—

In 1895-96	\$ 2,589 88
In 1894-95	2,575 06
	\$ 14 82

The earnings per train mile compare as follows :—

	Cents.
In 1895-96	76·97
In 1894-95	73·53

It will be seen from the foregoing comparisons that there was an increase in the earnings from both passenger and freight traffic.

The number of passengers carried compares as follows :—

In 1895-96	1,471,866
In 1894-95	1,352,667
	119,199

There was an increase of 114,519 in the number of local passengers and an increase of 4,680 in the number of through passengers.

The weight of freight carried compares as follows :—

	Tons.
In 1895-96	1,379,618
In 1894-95	1,267,816
	111,802

This increase was in both through and local freight: 1,947 tons being in through freight and 109,855 in local freight.

The following is a comparative statement of a few of the chief articles of freight, showing the quantity carried in this and in the previous year :—

Articles.	1894-95.	1895-96.	Increase.	Decrease.
Barrels of flour	938,351	822,097		116,254
Bushels of grain	1,036,384	1,064,385	28,001	
Lumber in superficial feet	202,247,269	226,332,715	24,085,446	
Head of live stock	72,106	64,051		8,055
Coal in tons	385,200	432,513	47,313	
Manufactured goods in tons	350,056	345,829		4,227
All other articles in tons	155,477	207,368	51,891	

There was an increase in the quantity of the following articles carried: iron ore, building stone, lime and cement, bricks, hay and straw, butter and cheese, eggs, meat, both salted and fresh, fresh fish, and refined sugar, and a decrease in the quantity of the following: pickled, dried and canned fish, leather, raw sugar, potatoes, turnips and other roots.

WORKING EXPENSES.

The working expenses compare as follows with the previous year:

In 1895-96.....	\$3,012,827 62
In 1894-95.....	2,936,902 74
	\$ 75,924 88

The averages compare with those of last year as follows:—

Per mile run by engines—

	Cents.
In 1895-96.....	63·90
In 1894-95.....	60·16

Per mile run by trains—

In 1895-96.....	78·41
In 1894-95.....	73·43

Expenditure per mile of railway.—

In 1895-96.....	\$2,638 20
In 1894-95.....	2,571 71

The permanent way and structures and all the works of the railway received necessary repairs and are in good order.

The number of ties renewed was 411,803. One hundred and fifty miles of the track were re-ballasted. The relaying of the track with new and heavier steel rails was continued, and for a distance of forty-five miles the fifty-six pound rails were taken up and replaced with new rails weighing sixty-seven pounds to the yard. New sidings were laid at various places amounting in total length to over three miles.

The bridges on all parts of the line received necessary repairs, and on the part between New Glasgow and Mulgrave two new steel bridges were put in to replace wooden structures, one of these was one hundred and sixty feet long and the other was forty feet long. One iron bridge was taken out and a heavier and stronger new one of steel was put in its place, and other iron bridges were strengthened and improved.

The fences received necessary repairs, and forty-eight miles of new fences were erected.

The snow sheds and snow fences were repaired; 27,967 lineal feet of snow fences were rebuilt, and 10,147 lineal feet of snow fences were built at places where none had been provided before.

The wharfs at various places received necessary repairs, and an addition was made to the wharf at Dalhousie. The work of rebuilding the wharfs at Halifax and at Richmond, which were destroyed by the fires of February 27th and May 19th, 1895, was continued during the whole year, and the expenditure was necessarily very large as the work was done in a substantial manner with creosoted piles and southern pitch pine timber.

The buildings on all parts of the line received necessary repairs, and a new station house with agent's dwelling was built to replace a smaller one destroyed by fire. At Halifax the rebuilding of the premises destroyed by the fire of February 27th, 1895, was continued, and a warehouse four hundred and eighty-five feet long and forty-six feet broad, containing suitable offices, was constructed on one of the wharfs above referred to.

Department of Railways and Canals.

The rolling stock received necessary repairs and is in good order.

Nine locomotives were rebuilt during the year, and in doing so they were made much more powerful than the engines which they replaced.

Considerable improvements were made to the sleeping and other passenger cars, so as to make them more comfortable for travellers and more attractive to the public.

The freight cars received necessary repairs, and to maintain the stock three hundred and ninety-three new cars were provided. Of these three hundred were built by contract, and ninety-three were built in the railway shops. In the case of the box and the platform cars the carrying capacity of the new cars was increased to double that of the cars which they replaced.

Two new snow ploughs were purchased and one new wing plough was built in the railway shops to take the place of an equal number removed from service.

The water service was efficiently maintained, and three new tanks of fifty thousand gallons capacity each were built to take the place of smaller ones.

STORES.

The value of stores purchased was	\$1,040,807 42
The value of stores used was	1,310,704 59
The value of old material sold was	83,164 67

The value of stores on hand at the end of the year was :—

Ordinary stores, including fuel.....	\$ 388,029 26
Iron and steel rails and fastenings.....	265,113 13
Old material for sale.....	112,706 50
Total.....	\$ 765,848 89

There is a considerable quantity of old material on hand for sale, which has been accumulating in consequence of the low prices prevailing for some time.

GENERAL.

The winter of 1895-96 was not as severe as the previous one, the cost of clearing snow and ice being \$42,454.17 which is about ten thousand dollars below the average.

In April, 1896, freshets damaged the bridge at Etchemin, and also the cribwork protection of the bridges at Montmagny.

On the 24th July, 1895, Beaver Brook station house was accidentally destroyed by fire and was rebuilt during the year.

I have the honour to be, sir,

Your obedient servant,

D. POTTINGER,

General Manager, Government Railways.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Railways and Canals.

INTERCOLONIAL RAILWAY OF CANADA,

OFFICE OF THE CHIEF ENGINEER,

MONCTON, N. B., 16th Sept., 1896.

SIR,—I have the honour to submit my report of the Engineering Department, for the year ended 30th June, 1896.

Track.

During the year 45 miles of old 4-inch and $4\frac{1}{2}$ -inch steel rails weighing 56 lbs. to the yard have been taken up and replaced with new $4\frac{1}{2}$ -inch rails, weighing 67 lbs. to the yard.

Ties.

During the year 411,803 ordinary ties and 141 sets of switch ties were renewed.

Ballasting.

Ballasting has been carried on on all divisions of the line except between Oxford Junction and New Glasgow. About 90,000 cubic yards have been distributed on 150 miles of track.

Semaphores.

New standard semaphore signals have been erected at Enfield, Brookfield, West River, Salisbury, Shediac, Point du Chêne, Petitcodiac, Calhouns, Bathurst, Dalhousie Junction and St. Moise. An electric semaphore was erected at St. Charles.

New telegraph signals were placed at Beaver Brook and Bartibogue.

All other semaphore and station telegraph signals were overhauled, repaired and painted at a large cost. It is found necessary to paint these semaphores and signals every two or three years, as the targets become dingy from the smoke of locomotives.

Sidings.

During the past year, $4\frac{3}{4}$ miles of additional siding accommodation were provided. Of this, $1\frac{3}{4}$ miles was put in in connection with the Deep Water Terminus and at the Cotton Factory, Halifax.

Fencing.

47.91 miles of new barbed wire and woven wire fence were erected during the past year throughout the line, to replace old pole fence and post and board fence, and to protect the line at points where no fence had previously been erected. Large repairs were made to the old fences.

Snow Sheds and Fences.

During the year 615 rods of new snow fence were built on the Oxford and New Glasgow Division, and on the Northern Divisions. 1,695 rods were renewed, and large repairs were made to snow sheds and fences on Northern Divisions from 1 to 5.

Wharfs and Trestles.

At the Deep Water Terminus, Halifax, the renewal of the ocean steamship pier referred to in my last annual report was completed about the 31st December last.

Department of Railways and Canals.

A coal drop was provided on the west side of the long or coal wharf referred to in my report of last year. This coal wharf has been widened on the south side 50 feet, to make room for another freight shed and track which it is proposed to build this season.

Extensive repairs were made on the north wharf at this place.

At Richmond, the work of rebuilding the wharf destroyed by fire on the 19th of May, 1895, referred to in last year's report, was completed.

The "Curved," or "Sugar Wharf" at Richmond, was practically rebuilt. The old hemlock piles having been in use 16 years, were rotten and eaten with worms, so that they were of no use. They were replaced with creosoted pine piles capped with pitched pine, and covered with 3-inch deals.

A solid cribwork approach built of round hemlock, filled with ballast, 200 feet long, 32 feet wide, and 15 feet high, was built to connect this wharf with the shore, in place of the old pile approach.

At Truro, a new coal shed and trestle was erected near the engine-house, at the east end of the yard, to replace the high level shed and trestle at the west end of the yard, which had become rotten and unfit for service.

At Pictou Landing, heavy repairs were made to the east wharf for the accommodation of the Nova Scotia Steel Company handling ore received from Newfoundland.

At Pictou, the east wharf was overhauled, and repairs made where necessary.

At Pirate Harbour, the sills and floors of coal shed were renewed.

An elevated trestle was erected at the rear end of this shed so that coal can now be delivered on a level with the top of tenders. A large saving in labour and expense has been effected by this improvement.

At Mulgrave, the wharf was overhauled and repaired, and five new fenders placed at the north corner of wharf.

At Point Tupper, necessary repairs were made to the wharfs where damaged by steamer.

At Amherst and Spring Hill, the coal trestles were overhauled and repaired.

Some necessary repairs were made to the wharfs at Sackville.

At St. John, the ballast wharf received necessary repairs.

At Newcastle, the whole top of the Deep Water Terminus Wharf was renewed, and a portion of the face.

At Dalhousie, a timber crib, about 180 feet long and 15 feet wide, was built between the present railway wharf and the breakwater erected by the Public Works Department. This admits of the track now being laid to connect our present sidings with the face of the breakwater, and the railway wharf, thus increasing the accommodation for loading ships.

The wharf at this place was somewhat damaged by the heavy run of ice in the spring. Eight new fenders were provided, and the damage caused by the ice made good.

At Rimouski and Rivière du Loup, the approaches to the deep water wharfs were overhauled, and repaired at a considerable expense. Necessary repairs were made to the coal shed and trestle at the latter place. The coal shed on the west side of the river will require heavy repairs, if not renewal next year.

At St. Charles, large repairs were made to the coal shed and approach. This shed is now 17 years old, and will require to be renewed soon.

At Lévis, large repairs were made to the cribwork carrying the track along the river, between Lévis and Point Lévis.

Buildings and Platforms.

At the Deep Water Terminus, Halifax, the large brick freight shed, referred to in my annual report of last year was completed at the end of the calendar year, and has been occupied for the Halifax business since that date.

The timber cribwork across the whole face of the Deep Water Terminus, from the Marine and Fisheries wharf, referred to in my report of last year, has been completed. A portion of the space at the rear of this cribwork remains to be filled. A road-way in

front of, and at either end of, the new freight shed has been paved with granite blocks, at a cost of about \$8,000. A loading platform fitted up with a 7-ton crane has been erected at the east end of the new freight shed. At the end of this loading platform, an iron gantry with the necessary hoisting gear has been provided for the purpose of handling heavy machinery and other loads too heavy for the crane on the loading platform. A new 66-ton track scale has been provided at a cost of about \$1,200.

A crib block, 156 feet long and 20 feet wide was built between the Marine and Fisheries Wharf and boat landing for the Admiralty. This was built in the shape of an L, in an average depth of water of about 15 feet. The space at the rear of this crib has been filled up, to low water, with material dredged from the approaches to the boat landings, and which the department was obliged to remove under an agreement with the naval authorities. When the space at the rear of the cribwork is filled up, to the general level of the yard, an additional area of about 4,000 square feet will be available for general purposes.

A store and tool-house, 40 by 17 feet, was put up at the Deep Water Terminus.

At North Street, necessary repairs were made to the flooring and skylights of train shed. The loading platform at the freight shed recently vacated by the department, and now occupied by the Dominion and Atlantic Railway, was renewed.

At Richmond, necessary repairs were made to the slate roof, and floor of machine shop, also to roof and flooring of roundhouse and engine shed. Five iron smokestacks were renewed in roundhouse.

The cattle shed was overhauled and repaired.

The roof of blacksmith's shop was recovered with shingles, and two ventilating shafts were provided. Two cabins for the shunters were provided at Deep Water Terminus and Richmond.

At Rockingham, the roof of station was recovered with shingles, and hardwood floors were laid in the office and waiting rooms.

At Lake View, a flag station was provided to meet the increased passenger traffic at this place.

At Grand Lake, the passenger platform, 100 feet long, was renewed, and the roof of flag station recovered with shingles.

At Sandy Cove, the loading platform, 200 feet long, was renewed.

At Enfield, a new cattle pen was provided.

At Shubenacadie, the old loading platform 250 feet long, by about 25 feet wide, was replaced with a solid ramp, having the face work built of cedar.

At Alton, new sills were placed under the tank-house, and the station overhauled and repaired.

At Truro, the roof of oil store was recovered with shingles. A new floor was laid in the blacksmith shop, and necessary repairs made to the floor in roundhouse. New sills were placed under one side of the freight shed. The freight platform on south side was removed, and a hard pine curbing substituted and filled with cinders in its place. An extension of 100 feet was made to the passenger platform at the east end. Necessary repairs were made to the restaurant and dwelling apartments at this station. Two new hoods were placed on the roof of roundhouse.

At Valley, the floor of waiting room was renewed.

At Riversdale, the loading platform 200 feet long, was renewed.

At Lansdowne, the floor of the kitchen of dwelling apartments was renewed.

At Glengarry, the station platform was renewed.

At Eureka, a flag station was erected, and the platform extended to meet the increased traffic at this place.

At Stellarton, the passenger platform, 396 feet by 12 feet, was renewed. The old platform was taken from the rear and ends of the station, and the space filled in with coal cinders. The roof of the freight shed was repaired. Necessary repairs were made to the doors and roof of engine shed, and also to the doors and windows of tenement house at this station.

At New Glasgow, the doors and window sashes of station were painted, the doors of freight shed repaired, and the roof of freight shed and track store painted. The cattle pen was removed to a more convenient site at the west end of the freight shed.

Department of Railways and Canals

Necessary repairs were made to the passenger platform, and the freight shed platform on the west side of the yard was renewed.

At Trenton, where the traffic is increasing rapidly, the room in the station used as a kitchen was converted into a ladies' waiting room. The partitions were rearranged and the accommodation greatly improved.

At Pictou Landing, necessary repairs were made to the roof of engine shed.

At Pictou, the freight sheds were overhauled, repaired and painted. The station platform was renewed.

At Meadowville, a kitchen 16 feet by 12 feet was erected for the accommodation of an agent recently appointed.

At Scotsburn, the interior partitions of station were rearranged to give additional room for the agent. The interior of the station was also painted.

At Westville, the passenger and loading platforms were wholly renewed.

At Fountain Road, a new loading platform was provided.

Two new cattle guards were provided on the Oxford and New Glasgow Division, one at Westville, to keep cattle coming up the Drummond Mines track, and one north of Oxford, where a new road was opened.

At Avondale, the doors of station were overhauled, repaired and fitted with new locks.

At Barney's River, Marshy Hope, Tracadie and Harbour Bouche, the battens of outside walls were removed, the walls covered with paper, and shingled, which will make them much more comfortable in winter. The shingles on the roofs of these stations were also renewed.

At Antigonish, the doors and windows were overhauled and repaired. A new sink and connections was put in the dwelling apartments. Sixty feet of the passenger platform, and 73 feet of the freight platform were renewed. One-half of the freight shed roof was recovered with steel shingles, and the roof painted.

At Mulgrave, the verandah was overhauled and repaired, also the doors of station and freight shed. Necessary repairs were made to the roof of engine shed, and three old iron stacks were replaced with terra-cotta stacks eighteen inches in diameter. An old box car body was fitted up as a shed for storing hard coal for passenger cars.

At Point Tupper, an extension was made to the passenger platform.

New loading platforms were provided at Christmas Island, Beaver Cove and Sydney River, to meet the increasing traffic.

At Iona, the station building was overhauled and repaired.

At Leitches Creek the exterior walls of station were overhauled and repaired.

At Debert, hardwood floors were laid in the waiting room and office.

At East Mines, the walls and ceiling of kitchen were sheathed.

At Wentworth, the roofs of station and dwelling apartments were recovered with shingles.

At Greenville, one side of the roof of kitchen was recovered with shingles.

At Thomson, the walls of station master's office were sheathed.

At Oxford Junction, the roof of oil shed was re-shingled, and a new smokestack placed on engine-house.

At Spring Hill, the passenger platform was extended 40 feet.

At Maccan, the roof of freight shed and porch of dwelling apartments were recovered with shingles.

At Amherst, the roofs of station building and restaurant were recovered with shingles. Necessary repairs were made to the blacksmith shop and store room, the roofs recovered with metallic shingles, and the buildings painted. The roof of freight shed was also painted.

At Rockland, a hardwood floor was laid in the waiting room.

At Memramcook, the exterior walls of station and freight shed were overhauled, repaired and painted. The wood work of the agent's office, and waiting room was also painted.

At Painsec Junction, the station building was overhauled, repaired and painted, both inside and out. The freight shed, coal shed and store room were also painted.

Necessary repairs were made to the platforms at the following stations : Debert, Londonderry, Westchester, Thomson, Oxford Junction, Spring Hill, Nappan, Amherst, Sackville, Dorchester and College Bridge.

At Shediac, the station building and freight house were overhauled, repaired and painted.

At Humphrey's Mills, the loading platform was renewed, and repairs made to the station platform.

At Moncton, a fire-proof brick boiler-house was erected between the two round-houses, into which have been moved the boilers formerly used in temporary building adjoining old roundhouse, and also boiler in machine shop. Under this arrangement, the buildings are all heated from one point, and one man's time is saved, and the risk from fire is lessened.

The brick walls of one section of the old roundhouse were renewed, and large repairs was made to the walls of other pits. A new hardwood floor was laid in the office of stores building. The old floor on the ground flat of store building, which had become very rotten, was taken out, and a cinder foundation put in for asphalt; when sufficiently solidified, this will be covered with a coating of asphalt. A heavy hail storm destroyed 3,200 panes in the sky-lights of the machine shop, paint and repair shops, these were made good. The freight house was overhauled and repaired, and a portion of the roof painted. The government cottages were overhauled, repaired and painted where necessary.

At Salisbury, the station building was overhauled, repaired and painted inside and outside.

At Petitcodiac, Anagance and Apohaqui, the loading platforms were renewed.

At Penobscuis, a hardwood floor was laid in kitchen of dwelling apartments.

At Sussex, a 1½ inch galvanized iron pipeline 1,000 feet long was put in to furnish a supply of water to the station. Modern flush closets with necessary ventilating shafts, &c., were provided in the waiting room and dwelling apartments of the agent.

At Quispansis, the station platform was repaired.

At St. John, necessary repairs were made to the station building, train shed, baggage room and freight shed; also the shed on the ballast wharf. The coal shed at this station received extensive repairs.

The road crossings and sign boards between Shediac and St. John were painted and re-lettered where found necessary.

At Berry's Mills, a hardwood floor was laid in the agent's office, and the interior of station building painted.

At Coal Branch, the roof of station building was recovered with shingles, the walls and ceilings of waiting room and office sheathed, and the woodwork of interior of station painted.

At Harcourt, hardwood floors were laid in two rooms and hall of agent's dwelling, and the interior of station painted.

At Chatham Junction, necessary repairs were made to the floors of freight shed.

At Indiantown, the combined passenger and freight platform was renewed.

At Newcastle, the floors of roundhouse were overhauled and repaired, and a water closet provided for the fuel men.

At Beaver Brook, a new station was erected to replace the one destroyed by fire, at a cost of \$880. A new platform was also erected.

At Red Pine, a hardwood floor was laid in the waiting room of the station and a new door provided.

At Bartibogue, the roof was recovered with shingles.

At Culligan's Siding, a shelter was provided for the increased passenger accommodation at that place.

At Petite Roche, the roof of freight house was recovered with shingles.

At Nash's Creek and New Mills, necessary repairs were made to the station buildings.

At Charlo, a hardwood floor was laid in agent's office and the doors and windows repaired.

Department of Railways and Canals.

At Dalhousie Junction, the freight house and trimmings of station building were painted. New seats with iron arm partitions were placed in both the waiting rooms. A modern flush closet was also provided for the ladies' waiting room.

At Bartibogue, Bathurst, Petit Rocher, Belledune, and Jacquet River, the platforms were repaired and partially renewed.

At Nash's Creek, a loading platform was provided to accommodate the heavy shingle trade at that point. A similar loading platform was provided at Hamilton's Siding, for the same purpose.

At Dalhousie and Dalhousie Junction, the platforms were partially renewed.

Twenty pairs of timber cattle guards between Newcastle and Campbellton were renewed.

At Campbellton, 250 feet of the coal shed were overhauled and repaired. Necessary repairs were also made to the floors and engine pits of roundhouse, boiler room, superintendent's dwelling and passenger platform.

At Moffatt's, the platform, 200 feet long, was renewed.

At Metapedia, the walls of agent's office were sheathed and painted, the freight shed and platform repaired, and the cattle pen renewed.

At Amqui, the freight shed was repaired, the walls of waiting room and one room of agent's dwelling apartments were sheathed. All the sashes of this station which were bad (15) were renewed. Storm sashes were also provided.

At Cedar Hall, a new loading platform, 90 feet long, was provided, for the accommodation of the shingle shippers.

At Sayabec, the loading platform, was renewed.

At St. Moise, hardwood floors were laid in the station master's office and waiting room, and 287 feet of the platform was renewed.

At Little Metis, the stone foundation walls of cellar under dwelling apartments were overhauled, repaired and pointed. The old tank-house at this station was taken down.

At Ste. Flavie, the interior of station was overhauled and repaired. Necessary repairs were also made to the station platform and floors of roundhouse.

At Ste. Luce, the interior of station was repaired, and four storm sashes provided.

At Rimouski, the station platform and building were overhauled and repaired.

At Bic, the station platform was lengthened 50 feet.

At St. Fabien and St. Simon, new doors were provided for the stations.

At St. Arsène, a new floor was laid in the freight shed.

At Rivière du Loup, the brick walls of six engine pits in the roundhouse were overhauled and repaired. The stone ash pit outside of the roundhouse was rebuilt, and a box drain leading from the ash pit provided.

At Old Lake Road, a new cattle pen was provided, and the platform renewed.

At St. Alexandre, the station platform was renewed.

At St. Charles, a new hardwood floor was laid in the station.

At St. Henri Junction, the station platform was renewed.

At Etchemin, the platform was renewed.

Bridges and Culverts.

A new floor was laid on the overhead bridge at the junction of Campbell Road and Water Street, Halifax.

At Shubenacadie, one of the old piers under the long span box girder bridge, was taken down and replaced with a pier built of first-class ashlar masonry, at a cost of about \$1,200. The masonry of this bridge was of a very inferior quality, and will all require to be renewed before it is satisfactory.

At Stewiacke, an old broken-down culvert, 60 feet long, was renewed with iron pipe 24 inches in diameter, set in a suitable bed of concrete, and provided with necessary wing walls to retain the embankment at either end.

Between Truro and Valley, two broken down stone culverts, one 40 feet and the other 24 feet long, were replaced with 12-inch and 24-inch iron pipes, set in concrete, and provided with suitable retaining walls at either end.

A gang of masons was engaged about 5 weeks in general repairs to culverts and bridges on the eastern division, between Halifax and Stellarton.

At New Glasgow, the ties of an iron plate girder bridge were renewed.

At Pine Tree Creek, east of New Glasgow, three new pile bents were put in to replace those cut out and destroyed by the sea worms. It will be necessary to wholly renew this structure next year at a cost of between three and four thousand dollars.

The ties and floor timbers of the new through steel span at Sutherland's River were painted.

The steel spans at Merigomish, Dewar's Mills and James River, were all scraped and painted.

Necessary repairs were made to the short spans at Murphy's Mills and Grant's Brook.

At Sutherland's River, the old 160-foot Howe truss was taken out and replaced with a through steel Pratt truss, of 160-foot clear span, at a cost of \$9,718. The necessary ashlar masonry was built on the old abutments to accommodate the new span, at a further cost of \$500. This new span was provided with a standard top and iron guard rails.

A trestle bridge near Pomquet, damaged by fire on the 20th of June, was almost wholly renewed.

At Pomquet River, new pile bents were put in to replace those cut out and damaged by the ice.

At Monastery, an old wooden Howe truss was replaced by a 40 feet steel deck girder, covered with a standard hard pine top and iron guard rails, chocks, etc.

At Pirate Harbour, a box drain 120 feet long was put in to avoid damages caused to the public road adjoining, and to private property.

A cedar box culvert, 3 by 6 feet and 24 feet long, was put in near Forty-Mile Post, and another of the same kind 24 feet long, at 31-Mile Post.

Three pairs of hemlock timber cattle guards between New Glasgow and Antigonish, were renewed with heavy flatted cedar.

Four steel spans of the Grand Narrows bridge, over the Bras d'Or, were thoroughly overhauled, scraped and painted. This work was done by the day, the department furnishing the materials, as it was found that the contractors could not be relied upon to paint it by the yard. In heavy storms, the salt water spray flies over it, and it is with great difficulty that paint can be kept on the lower members of it. The timber foundation of the east abutment was badly eaten by sea worms, and a facing of creosoted piles was driven to protect it; these were afterwards covered with a body of rip-rap to protect them from the ice.

Heavy repairs were made to a stone culvert west of Iona, rendered necessary on account of the foundation, which is of plaster, dissolving, and allowing the masonry to settle.

The trestle bridge at Brown's Point, near Pictou, was thoroughly overhauled and repaired. 400 ties 6 by 8 inches, 12 feet long, and 28 ties 6 by 8 inches, 28 feet long, were renewed. The bents thrown out of line by the action of the ice last winter were hauled back into place. The piles of the structure, which are of creosoted pine, have, as far as can be ascertained, not been attacked by worms. Test pieces of timber similar to the piles, have been placed at four different points along the bridge. These are hauled out annually, and examined carefully, but to date show no indications of being attacked by the worms.

At Debert River, three iron spans of 103 feet each, were carefully gone over by a gang of rivetters and some considerable repairs made.

At Folly, one span of 100 feet was provided with a system of lateral bracing, and a new standard top of pitch pine, fitted with iron guard rails.

A gang of masons was engaged about three weeks overhauling culvert and bridge masonry between Truro and Painsec Junction.

Seven sets of hemlock timber cattle guards were renewed with cedar, between Truro and Painsec Junction.

A new cedar culvert was put in near Sackville, to take the water from the east side, and thus avoid maintaining long side ditches.

Department of Railways and Canals.

On the Western Division, a broken down culvert on the Shediac branch was rebuilt. Three other arch culverts on section 41, were overhauled, repaired and pointed. A new standard floor was put on Jardine's Bridge, near St. John. Necessary repairs were made to the swing-bridge at the ballast wharf, and to the over-head bridge at the foot of Dorchester Street, St. John.

On Northern Division No. I, two cedar box culverts were put in, one on section 63, and the other on section 64. The former was 150 feet long, and the latter 70 feet long.

A wing wall of Barnaby River bridge, thrown down by the frost, was rebuilt. Six pairs of hemlock timber cattle guards were renewed with cedar.

At Red Pine, two 44 feet iron plate girders were replaced with heavy steel plate girders fitted with standard bridge floors and iron guard rails. These old girders had become too light for the heavy rolling stock now in use. The light girders were shipped to the Prince Edward Island Railway, for which they will be heavy enough.

The floors of the two over-head bridges near Bathurst were renewed.

The masonry of the bridges between Jacquet River and Dalhousie were thoroughly overhauled and pointed where necessary.

New cedar culverts were put in at Flat Lands, Cedar Hall and Little Metis.

At Trois Pistoles, the cedar retaining walls at the foot of the embankment were overhauled and partially renewed, the timbers being seriously damaged by the action of the ice. Additional stone filling was put in this cribwork.

At River du Loup, cedar cribwork was built between the railway and the public street, to prevent ashes from the roundhouse obstructing the street.

A gang of masons and labourers was engaged in overhauling and rebuilding the masonry on the division between River du Loup and Lévis, for about three months.

A careful examination of the stresses of the tubular bridge at Etchemin (of 156 feet clear span), showed that its members were strained to a greater degree than was prudent, and offers were invited for strengthening it. These offers showed that it would be much cheaper to put in an intermediate pier between the abutments to support the tube at the centre, and this was provided at a cost of about \$3,000. A very heavy freshet last April damaged this pier, but the repairs have been made without the necessity of taking it down. A large body of riprap has been placed about the pier to prevent a repetition of such an accident.

The following bridges were overhauled, scraped and painted during the past year :

Morrison's River Bridge	1 span	28 feet.
McKinnon's Harbour "	1 "	60 "
French River	1 "	85 "
James River	1 "	87 "
Dewar's Mill	1 "	84 "
Dewar's Trestle	5 "	20 "
"	1 "	28 "
"	1 "	23 "
Sutherland's River	1 "	165 "
Black River	1 "	101 "
Plate Girder Bridge at Union	1 "	54 "
Truro over-head Bridge and approaches.	2 "	106 "
" " "	1 "	92 "
McManus Brook	1 "	56 "
Memramcock River	1 "	64 "
Rimouski	5 "	87 "
Etchemin Over-head	1 "	36 "

Miscellaneous.

The road crossings and sign boards between Shediac and St. John were repainted and relettered where found necessary.

A large quantity of filling has been deposited between the new brick freight shed and the cribwork at the Deep Water Terminus, Halifax.

Four 6-ton Gurney scales were provided for the new freight shed, Halifax.

A stone retaining wall, 119 feet long and 5 feet high, was erected between the railway and Cunard's boundary, at the south end of the railway property. A retaining wall 65 feet long, and 6 feet wide, and 6 feet high, was also built to keep back the earth slope from one of the warehouses of the Marine and Fisheries Department.

A first class water supply, both for domestic and fire purposes, has been provided at the Deep Water Terminus. Stand pipes with hose attached, on swinging racks, have been fitted up and placed at three different points in the new brick freight shed for fire protection.

A close board fence (1,856 feet long), extending from the Deep Water Terminus to North Street, and inclosing that portion of Water Street given by the city for railway traffic, was wholly renewed.

Under an agreement with the Admiralty authorities, made when the land was acquired, the department was to provide and maintain suitable landing stages and platforms, at a place set apart for that purpose at the Deep Water Terminus, Halifax. Large repairs and renewals have been made to these stages and platforms to make them satisfactory to the naval authorities.

It was also necessary to dredge out the dock at this place, which has been filled in by the discharge from the city sewer.

At Stellarton engine-house, a 9-inch terra-cotta pipe, 180 feet long, was put in to drain the engine pits and turn-table, and take the waste water from the shed and yard, in place of a small 4-inch pipe that was constantly being blocked up with ashes from the engine pits.

Between New Glasgow and Mulgrave, 16 sets of new standard switch gear, fitted with Hopper's patent safety locking bar, were put in to replace the old fashioned gear that had been in use since this division was taken over from the Nova Scotia Government.

On the Oxford and New Glasgow, and Cape Breton Divisions, working trains were engaged about four weeks cleaning out cuttings, and widening embankments which had settled down by the action of the frost in the spring of the year. This work cost about \$6,000. It will be some years yet before the cuttings on these divisions reach their natural slopes.

A working train was engaged between Truro and Amherst, cleaning cuttings, about three weeks.

Dartmouth Branch.

This branch extends from Windsor Junction to a connection of the old line at Tuft's Cove, a distance of 10½ miles, thence by the old line through Dartmouth to the Woodside Sugar Refinery, a further distance of four miles.

The contracts for grading, let early in 1895, were completed on the 15th of November of the same year. There was not suitable material for making the embankments between Waverley and Tuft's Cove, and it was found necessary to haul it by train, from Windsor Junction. This work was done by the department by day's labour. It was started before the completion of the contractors' work.

A deep bog hole near Waverley and two heavy embankments across arms of Lake William, had to be made up before any work could be done at the lower end with a train. When these were got over, the season was too far advanced to finish the work. The winter set in, and it was consequently shut down until about the first of April. At this date, the work was put in hand again, and sufficiently advanced to open the branch for traffic, on the first of June. Some of the embankments had not been made up to full height, nor had more than one-half of the ballasting been done. Since that date there have been no funds available, and there has been practically nothing done.

In connection with this branch, a **Y** was built to connect with the Windsor Branch.

At Windsor Junction, the passenger station and freight shed were both enlarged to meet the expected increase of traffic on the branch. A water supply was carried

Department of Railways and Canals.

from the tank to the station, and modern water-closets fitted up in the ladies' waiting room. A one-stall engine-house, for the accommodation of the engine, was built at this place.

At Waverley, a first-class station and freight house 50 feet long, and 25 feet wide, were erected at a cost of \$3,595. A long siding and loading platform were also provided at this place, from which a large business is expected from the Acadia Powder Company.

At Dartmouth, additional land was acquired to enlarge the station ground and make room for a new freight shed, and afford a site for an engine-house and turn-table. The freight shed and engine-house have been completed, and the turn-table is under contract.

The old station was enlarged by converting the freight-house at the east end into a general waiting-room and baggage-room, and the former general waiting-room into a ladies' waiting room. A verandah 7 feet wide was put up on the front and south sides of the station. Hardwood floors were laid in the office and waiting room.

It was necessary to excavate about 4,000 yards of solid rock to make room for the new freight shed and the approaches thereto. This material was deposited in the embankment on the west side, and made up the site on which the engine-house was built.

A six-inch water pipe line, connecting with their service, has been laid by the town authorities to the rear of the station for which it is proposed to supply the station and also the locomotives on the branch.

Some heavy repairs and renewals have been made to the pile trestles and cribwork on the old line, between Tuft's Cove and Woodside.

A cribwork 200 feet long, 20 feet wide, and 14 feet high, was erected on the property recently acquired from Messrs. Oland for enlarging the station ground. This was necessary to protect the embankment which was exposed to heavy seas at this point.

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

P. S. ARCHIBALD,
Chief Engineer.

D. POTTINGER, Esq.,
General Manager, Government Railways,
Moncton, N.B.

No. 1.—INTERCOLONIAL RAILWAY.

CAPITAL ACCOUNT, Year ended 30th June, 1896.

C.R.

DR.

1895.		\$	cts.	\$	cts.	1896.		\$	cts.
June 30.	To Cost of Intercolonial Railway to date.....	47,752,440	92			June 30.	By Dominion of Canada	55,007,939	40
	do Eastern Extension Railway to date.....	1,324,042	81						
	do Oxford and New Glasgow Railway to date.....	1,950,740	20						
	do Cape Breton Railway to date.....	3,864,010	94						
	do Cape Breton and Oxford and New Glasgow to date.	53,241	50						
	do Train Ferry at Strait of Causo.....	63,463	03						
1896.	Expenditure for current year:—			55,007,939	40				
June 30.	Intercolonial Railway:—								
	Increased accommodation, Halifax.....	124,910	68						
	do do Moncton.....	1,000	00						
	do do Sydneys	11,374	41						
	Rolling stock.....	10,000	00						
	Construction (original).....	1,948	35						
	St. Charles Branch.....	1,271	96						
	Indiantown Branch.....	1,436	10						
	Branch from or near Bedford to Dartmouth.....	107,402	17						
	Oxford and New Glasgow Section.....	259,343	02						
		80	40						
	Less refund previous year's expenditure.....	259,423	42			1896.	By Dominion of Canada	259,105	23
		318	19			June 30.		55,267,044	63

E. & O. E.

T. WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1896.

Department of Railways and Canals

No. 2.—INTERCOLONIAL RAILWAY.

DR. REVENUE ACCOUNT, Year ending 30th June, 1896. CR.

Previous Year.	Expenditure.	Year ended 30th June, 1896.	Previous Year.	Earnings.	Year ended 30th June 1896.
\$ cts.		\$ cts.	\$ cts.		\$ cts.
1,043,656 57	Locomotive power, abstract 1	993,801 39	963,914 44	Passenger traffic.	971,426 26
651,031 19	Car expenses, " 2	659,525 46	1,782,608 54	Freight traffic.	1,788,813 18
679,468 39	Maintenance way & works " 3	774,556 25	194,194 97	Mails and sundries	197,400 66
370,702 74	Station expenses " 4	383,895 37			
184,488 43	General charges " 5	199,985 80			
3,555 42	Car mileage.	1,063 35			
2,936,902 74	Total working expenses.	3,012,827 62	2,940,717 95		2,957,640 10
3,815 21	Balance.			Balance	55,187 52
2,940,717 95		3,012,827 62	2,940,717 95		3,012,827 62

E. & O. E. T. WILLIAMS,
MONCTON, N. B., 39th June, 1896. *Chief Accountant and Treasurer.*

No. 3.—INTERCOLONIAL RAILWAY.

LOCOMOTIVE POWER—(Abstract No. 1.)

Previous Year.		Year ended 30th June 1896.
\$ cts.		\$ cts.
11,692 18	Mechanical superintendent's salary, clerks, office and travelling expenses.	11,573 95
266,207 80	Wages : drivers, firemen and cleaners.	264,604 16
427,404 50	Fuel.	408,861 78
31,216 63	Oil, tallow, waste and small stores.	28,224 41
250,521 48	Repairs to engines, tenders and engine tools.	230,257 00
37,458 65	Water, including pump and tank repairs.	31,694 62
19,155 33	Miscellaneous	18,585 47
1,043,656 57		993,801 39

E. & O. E. T. WILLIAMS,
MONCTON, N. B., 30th June, 1896. *Chief Accountant and Treasurer.*

No. 4.—INTERCOLONIAL RAILWAY.

CAR EXPENSES—(Abstract No. 2.)

Previous year.		Year ending 30th June, 1896.
\$ cts.		\$ cts.
68,610 40	Repairs to passenger cars.	65,534 61
22,743 41	Repairs to postal, express and baggage cars.	19,133 07
183,153 70	Repairs to freight cars and vans.	205,191 64
8,923 27	Repairs to snow ploughs and flangers.	6,176 41
253,802 78	Wages of conductors, train baggage-masters and brakemen.	255,412 68
18,883 41	Oil and waste for packing.	15,098 59
64,333 06	Small stores and fuel.	62,477 04
30,581 16	Miscellaneous	30,501 42
651,031 19		659,525 46

E. & O. E. T. WILLIAMS,
MONCTON, N. B., 30th June, 1896. *Chief Accountant and Treasurer.*

No. 5.—INTERCOLONIAL RAILWAY.

MAINTENANCE OF WAY AND WORKS—(Abstract No. 3.)

Previous Year.	—	Year ending 30th June, 1896.
\$ cts.		\$ cts.
6,193 93	Chief and assistant engineers' salaries, clerks, office and travelling expenses	5,858 79
339,826 48	Wages, repairing roadway, fences, semaphores, including new sidings laid in	353,687 70
46,868 81	Rails and fastenings, including new sidings laid in	54,041 94
38,815 00	Ties	87,920 23
102,834 65	Timber, lumber, &c., for repairs to bridges, cattle guards, snow fences, &c...	82,451 79
7,824 78	Repairs to wharfs	72,080 28
62,816 50	Repairs to buildings and platforms, including extensions of additions to same	62,272 71
8,343 53	Repairs to tools	8,245 32
64,122 81	Clearing snow and ice	42,454 17
1,821 00	Miscellaneous	5,543 32
679,468 39		774,556 25

E. & O. E.

MONCTON, N. B., 30th June, 1896.

T. WILLIAMS,

Chief Accountant and Treasurer.

No. 6.—INTERCOLONIAL RAILWAY.

STATION EXPENSES—(Abstract No. 4.)

Previous Year.	—	Year ending 30th June, 1896.
\$ cts.		\$ cts.
292,104 34	Salaries and wages of station masters, agents, clerks and telegraph operators, station baggage masters, yard masters, switchmen and labourers..	303,796 20
78,598 40	Fuel, oil and light, stationery, tickets and other incidental expenses	80,099 17
	Miscellaneous	
370,702 74		383,895 37

E. & O. E.

MONCTON, N. B., 30th June, 1896.

T. WILLIAMS,

Chief Accountant and Treasurer.

No. 7.—INTERCOLONIAL RAILWAY.

GENERAL CHARGES—(Abstract No. 5.)

Previous Year.	—	Year ending 30th June, 1896.
\$ cts.		\$ cts.
78,022 30	General manager's, district superintendents', train despatchers', general freight agent's, general passenger agent's salaries, clerks, offices and travelling expenses	82,844 16
26,985 66	Chief accountant and treasurer's, traffic auditor's, paymaster's and cashier's salaries, clerks, offices and travelling expenses	27,932 94
5,909 58	Damages to men, animals and goods	12,386 72
35,236 97	Ferry service	25,959 04
1,475 23	Telegraph expenses, not including pay to operators	2,732 10
24,561 66	Miscellaneous, printing, advertising, &c.	30,438 81
16,297 03	Agency expenses	17,692 03
188,488 43		199,985 80

E. & O. E.

MONCTON, N. B., 30th June, 1896.

T. WILLIAMS,

Chief Accountant and Treasurer.

Department of Railways and Canals.

No. 8.—INTERCOLONIAL RAILWAY.

GENERAL STORES ACCOUNT, Year ending 30th June, 1896.

Dr.

Cr.

	\$	cts.		\$	cts.
1895.					
June 30.....			1896. June 30....		
To Balance				691,347	30
To Purchases during year.....	1,040,807	42			
Charges from other departments...	392,476	68			
Labour, &c.....	50,189	16			
Staff pay rolls.	14,667	96		1,498,141	22
				2,189,488	52
				388,029	26
				265,113	13
				112,706	50
				765,848	89
				2,189,488	52
				1,310,704	59
				29,770	37
				88,164	67
				1,423,639	63

E. & O. E.

MONCTON, N.B., 30th June, 1896.

T. WILLIAMS,

Chief Accountant and Treasurer.

No. 9.—INTERCOLONIAL RAILWAY.
GENERAL BALANCE, Year ended 30th June, 1896.

Dr.

Cr.

	\$	cts.		\$	cts.
To Cash.....	372	35	By Dominion of Canada.....	997,081	72
Stations.....	45,685	53	Suspense.....	3,513	50
General Stores—			Chatham Railway.....	0	07
Ordinary stores including fuel.....	\$388,029	26	Grand Trunk Railway—general.....	1,085	59
Iron and steel rails and fastenings.....	265,113	13	do —traffic.....	0	03
Old material for sale.....	112,706	50			
Department accounts—			Temisconata Railway.....	1,085	62
Marine and Fisheries.....	\$	2 26	Salisbury and Harvey Railway.....	89	99
Militia and Defence.....	2,596	33	Central Railway of New Brunswick.....	52	74
Post Office.....	85,947	00	Cumberland Railway and Coal Company.....	247	19
Agriculture.....	132	00	Canada in Pacific Railway, New Brunswick Div —traffic account.....	2	00
Public Works.....	1,131	75	Portland Rolling Mills Company.....	0	02
C. P. R. rolling stock.....					431 38
Quebec Central Railway.....					
Canada Eastern Railway—traffic.....	\$	5,891 00			
do —general.....	4,651	98			
Dominion Atlantic Railway—general.....					
New Brunswick and Prince Edward Island Railway.....					
Caraqueet Railway.....					
Kent Northern Railway.....					
Prince Edward Island Railway.....					
Canadian Pacific Railway—general account.....	\$	13,644 74			
do —do N. R. Division.....	7,456	15			
Buctouche and Moncton Railway.....					
Bay Chaleur Railway.....					
Elgin and Havelock Railway.....					
Boston and Maine Railway.....					
New York and New England Railway.....					
New York, New Haven and Hartford Railway.....					
Michigan Central Railway.....					
Cincinnati, Hamilton and Dayton Railway.....					
Central Vermont Railway.....					
St. John Street Railway.....					
Western Counties Railway—general.....	\$	15,893 35			
do —traffic.....	64	57			
Springhill and Parrsboro' Railway.....					
Halifax and Cape Breton Railway.....					
Elgin Branch Railway.....					
Maine Central Railway.....					
Tobique Valley Railway.....					

Department of Railways and Canals.

To	Moncton Street Railway	25 11	
	Rents	2,556 93	
	Canadian Express Company	3,963 52	
	Allan S.S. Line	1,892 13	
	International S.S. Company	4 80	
	SS. "Admiral"	1,611 94	
	SS. "Contest"	2,270 00	
	Great Eastern Freight Line	29 21	
	Acadia Coal Company	907 72	
	Intercolonial Coal Company	14 00	
	Canada Coal and Railway Company	25 00	
	Halifax Cotton Company Siding	6,356 97	
	W. U. Telegraph Company	51 82	
	Car "Victoria"	770 13	
	I.C.R. Employees R. and Insurance Association	175 98	
	Canadian Locomotive and Engine Company	320 00	
	Union Fearing Company	928 18	
	Poulson Iron Works	273 25	
	Ontario Car and Foundry Company	1,276 00	
	Town of Dartmouth	3,200 00	
	Coldbrook Rolling Mills	1,967 41	
	Londonderry Iron Company	0 58	
	Remittances destroyed	788 81	
	Schooner "Mary Jane"	71 30	
	Surveys and inspection	773 67	
	Stations—		
	Nauwigewauk	3 00	
	Glengarry	5 00	
	Bloomfield	25 21	
	Coal Branch	65 84	
	Weldford	55 00	
	Ste. Luce	80 00	
	Bic.	22 00	
	St. Arsène	107 12	
	Valley	6 65	
	Iona	72 71	
	Nappan	40 00	
	Kent Junction	28 38	
	Derby Junction	231 04	
	Gloucester Junction	78 87	
	Dalhousie Station	19 69	
	Campbellton (freight)	25 00	
	Isle Verte	25 00	
	Pullman Palace Car Company	890 51	
	Individual accounts	368 85	
		8,548 45	
	Total	1,002,504 23	
	Total	1,002,504 23	

T. WILLIAMS,
Chief Accountant and Treasurer.

E. & O. E.
MONCTON, N.B., 30th June, 1896.

No. 10.—INTERCOLONIAL RAILWAY.

COMPARATIVE STATEMENT of Averages, Year ended 30th June, 1896.

	1896.	1895.
Mileage of railway.....	1,142	1,142
Engine mileage.....	4,714,661	4,879,981
Train mileage.....	3,842,502	3,999,242
Car mileage.....	43,005,684	45,277,909
Receipts per engine mile..... Cents.	62.73	60.24
Receipts per mile of railway..... Dollars.	2,589.88	2,575.06
Percentage of passenger earnings to gross earnings.....	32.85	32.77
do freight do.....	60.48	60.63
do other do.....	6.67	6.60
Expenses per engine mile:—		
Drivers, firemen and cleaners' wages..... Cents.	5.61	5.46
Fuel..... do	8.67	8.76
Oil, tallow, waste, and small stores..... do	.60	.64
Repairs to engines..... do	4.88	5.13
Water and tank repairs..... do	.67	.77
Miscellaneous..... do	.40	.39
Total.....	20.83	21.15
Mechanical superintendent's salary, office and travelling expenses.....	.25	.24
Total.....	21.08	21.39
Locomotive power per engine mile..... Cents.	21.08	21.39
Car expenses per engine mile..... do	13.99	13.54
Maintenance way and works per engine mile..... do	16.43	13.92
Station expenses..... do	8.14	7.60
General charges..... do	4.24	3.84
Car mileage..... do	.02	.07
Total per engine mile.....	63.90	60.16
Locomotive power per train mile..... Cents.	25.86	26.09
Car expenses..... do	17.16	16.28
Maintenance way and works per train mile..... do	20.16	16.99
Station expenses per train mile..... do	9.99	9.27
General charges..... do	5.21	4.71
Car mileage..... do	.03	.09
Total per train mile.....	78.41	73.43
Working expenses per mile of railway..... Dollars.	2,638.20	2,571.71

E. & O. E.

T. WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1896.

Department of Railways and Canals.

INTERCOLONIAL RAILWAY OF CANADA,
OFFICE OF THE MECHANICAL SUPERINTENDENT,
MONCTON, N.B., 10th August, 1896.

SIR,—I beg to submit for your information the following statements :—

A.—Statement showing the number of locomotives and of the various classes of cars.

B.—Statement showing the locomotive and car mileage, and the number of passenger and freight cars hauled per mile run by engines.

C.—Abstract of locomotive returns.

D.—Statement of the cost of locomotive power for each month during the year.

E.—General statement of the expenses of the mechanical department during the year.

Eighty-seven box cars, 195 platform cars, 101 hopper cars, 3 refrigerator cars, 7 large coal cars, and 3 snow ploughs were taken out of service, and replaced by the same number of new ones.

The following is a summary of the principal work done :

DRAWING OFFICE.

New extended wagon top boiler designed for B 7 class, also new framings for B 7 and 11 classes, new cabs for B 9 and 14 classes.

Drawings made of standard 3,500 gallons tender tank, standard piston crossheads and springs for various classes.

General drawings made for new refrigerator cars, new 6-ton hopper cars, and new snow ploughs.

Detail drawings made for locomotive repairs, swing crane, traveller, hand power drilling machine, foundation and shafting for Moncton stationary engine, arrangement of boilers and house for heating Moncton roundhouses, floor plans and internal fittings of various cars.

Registers of locomotive repairs, and water service kept. New materials supplied on specifications, tested and reported on.

MONCTON LOCOMOTIVE SHOPS.

Five passenger locomotives, Nos. 148, 152, 153, 163 and 164 were "rebuilt" at a cost of \$6,540 each, with new boilers complete. All boiler mountings and injectors new. Frames strengthened up. New cylinders, crossheads, and guides complete. New driving wheels, tires, axles, crank pins, and axle boxes. New underhung driving springs and gear. New fluted side rods. New cabs, heavy C. I. foot plates, and C. I. running boards. New engine trucks complete. New improved Westinghouse air brake complete.

Two passenger locomotives Nos. 55 and 66 were "rebuilt" at a cost of \$5,500 each, with new boilers complete. All boiler mountings and injectors new. New front and back ends on frames. New cylinders, crossheads and guides complete. New driving tires, axles and crank pins. New springs and gear. New fluted side rods. New cabs, foot plates, and running boards. Westinghouse brake improved.

Two freight locomotives, Nos. 109 and 111, have been "rebuilt" at a cost of \$5,900 each, with new boilers complete. All boiler mountings and injectors new. New ends on front frames. Back frames strengthened up. New cylinders, crossheads and guides complete. New driving tires, axles, crank pins and axle boxes. New springs and gear. New fluted side rods. New cabs, foot plates, and running boards. Westinghouse brake improved.

One passenger locomotive No. 130 repaired at a cost of \$4,280 with large second hand repaired boiler. New set boiler tubes. New smoke box and stack. Frames cut,

lengthened, and strengthened up. 1 new injector. New driving tires. New fluted side rods. Westinghouse brake improved.

Forty-six locomotives received heavy repairs and 56 had specific repairs, the following new parts being supplied:—2 new inside fire boxes, 1 new tube sheet, 6 new fire box half side sheets, 1,075 new tubes, 1 new cylinder, 8 new driving wheels, 70 new driving tires, 3 new driving axles, 7 new engine truck axles, 8 new main rods, 34 new fluted side rods, 68 new crank pins, 2 new cabs. 19 new pilots, 2 new piston crossheads.

Fifty-six locomotive boilers were tested, 31 fire boxes were patched, 5,084 tubes were pieced.

Five locomotives were equipped with steam heaters.

One hundred and fourteen pair driving tires were turned, 57 truck wheels were re-tired, and 14 truck tires bored out.

Fifty engines and tenders were repainted and varnished, 6 engines and tenders were renovated and varnished.

One new boiler built complete for water service.

One new tube sheet, and new set of tubes put in water service boiler.

Two old locomotive boilers patched and repaired for heating Campbellton round-house.

One old locomotive boiler patched and repaired for Moncton shop boiler-house.

MONCTON BRASS FOUNDRY.

58,264 lbs. brass castings.

131,830 " " bearings.

MONCTON CAR SHOPS.

Three refrigerator cars were built of Douglass fir complete, and equipped with Westinghouse air brake, "Moore" burglar proof doors, and automatic couplers.

Ninety freight cars were "rebuilt" and 1 wing plough.

The following received heavy repairs:—Governor General's car "Victoria," official car "Ottawa," 10 sleepers, 4 parlours, 3 second-class sleepers, 32 first-class cars, 34 second-class cars, 17 postal cars, 24 baggage cars, 12 vans, 582 freight cars.

The following received medium repairs:—1 first class car, 4 second-class cars, 1 postal car, 1 baggage car, 9 snow ploughs, 5 flangers.

The following received light repairs:—2 sleepers, 8 second-class sleepers, 46 first-class cars, 61 second-class cars, 12 postal cars, 6 baggage cars, 41 vans, 12 snow ploughs, 4 flangers, 3,602 freight cars.

The following were repainted or stained, and varnished:—Governor General's car "Victoria," 2 sleepers, 2 second-class sleepers, 19 first-class cars, 24 second-class cars, 7 postal cars, 14 baggage cars.

The following were renovated and varnished:—Official car "Ottawa," 8 sleepers, 4 parlours, 1 second-class sleeper, 13 first-class cars, 11 second-class cars, 9 postal cars, 11 baggage cars.

595 freight cars, 14 vans, 8 snow ploughs, and 2 flangers were repainted.

Special work was done as follows:

Sleeper "Halifax."—Lavatory and water-closet added to the state-room. New fittings of white Ajax metal. All windows fitted with new "Acme" blinds.

Sleeper "Amherst."—State room converted into a smoking-room, and fitted with side doors. Gentlemen's toilet arrangements and W. C. altered and rearranged.

Sleeper "Metapedia."—All seats fitted with new high backs and re-upholstered throughout with new plush. All lamps and fittings replated. Windows all fitted with new "Acme" blinds. Lavatory and W. C. added to the state-room. New fittings of white Ajax metal.

Sleeper "Miramichi."—Lavatory and W. C. added to the state room. New fittings of white Ajax metal. All lamps and fittings replated. Windows all fitted with new "Acme" blinds.

Department of Railways and Canals.

Sleepers "Restigouche" and "St. John."—Lavatory added to state-room. Men's lavatory altered to open out of smoking room. All lavatory fittings new throughout of white Ajax metal. All hoppers renewed with flushing water-closets.

Two hundred and nineteen freight car trucks were built.

Three hundred and fifty-six pair steel tired wheels were turned.

One hundred and forty-two new axles were turned.

One thousand four hundred and thirty-three old axles were trued up.

Two thousand eight hundred and thirty-two new wheels were pressed on axles.

One thousand four hundred and twelve second-hand chilled wheels were pressed on axles.

Three hundred and twenty-eight second hand steel wheels were pressed on axles.

Three freight cars were equipped with the Westinghouse air brake.

A large amount of work was done to freight and baggage trucks, chairs, safes, ticket cases, footboards, and other articles for out stations.

RIVIÈRE DU LOUP SHOPS.

Seventeen locomotives received heavy repairs, and 22 had specific repairs, the following new parts being supplied :—

One new driving wheel, 16 new driving tires, 3 new driving axles, 4 new crank pins, 15 new driving boxes and brasses, 2 new pistons, 3 new crossheads, 2 new cylinder saddles, 2 new heavy footplates, 2 new extension smoke boxes, 5 new smoke stacks, 1,281 new tubes, 5 new pilots, 2 new tender trucks, 2 new tender frames.

Sixteen locomotive boilers were tested ; 10 fire boxes were patched.

Thirty-three pair of driving tires were turned.

Sixteen engines and tenders were repainted and varnished, and 1 engine and tender renovated and varnished.

RICHMOND SHOPS.

Eight locomotives received heavy repairs, and 40 had specific repairs, the following new parts being supplied :—

One new smokebox with extension, 120 new tubes, 4 new smoke stacks, 6 new driving boxes, 2 C.I. running boards, 12 new crank pins, 4 new slide valves, 2 new valve rods, 2 new pilots, 1 new tender frame, 6 new tender trucks, 1 new injector.

Seven locomotive boilers were tested, 7 fire boxes were patched.

Sixteen pair of driving tires were turned, 8 engines and tenders were repainted and varnished, and 1 engine and tender was renovated and varnished.

PLANT AND MACHINERY.

"Corliss" stationary engine 17x42 from Halifax elevator, rebuilt throughout at Moncton, and placed in Moncton machine shop, fixed with new shaft and driving pulley, new plummer block, brasses, and W. I. cap. New steam pipes and connections. Engine painted and railing fitted round it.

One new section of shafting with new pulley erected over stationary engine.

Overhead travelling crane built out of old rails, and erected in boiler shop for use of boiler rolls and punches.

Large new driving wheel lathe made by the London Tool Co. repaired.

Belt trip hammer in blacksmith's shop given a general repair.

Bolt heading machine in blacksmith's shop thoroughly overhauled and repaired.

One new pneumatic hammer purchased for boilermakers, for beading and caulking tubes, etc.

Three second-hand boilers from the car shops at Moncton repaired, and bricked up in new boiler-house, to heat both roundhouses and to hoist coal.

TURNABLE REPAIRS.

Newcastle.—Broken arm repaired with 4 heavy 1-in. W. I. plates. Remaining 3 arms strengthened with W. I. plates.

Mulgrave.—One wheel and tin supplied.

St. John.—One second hand girder complete supplied.

Stellarion.—Two new wheels bored and fitted.

Pictou.—One new heavy centre bolt 3-in. diameter put in with new nuts.

Richmond.—Defective end girder removed and replaced with spare one. New heavier centre bolts.

Hadlow.—New set centre bolts 1½-in. diameter. Centre case of roller bearings repaired.

WATER SERVICE.

Richmond.—New 50,000 gall. tank with stone foundations built complete. 120 ft. 6-in. cast-iron pipe laid. Old tanks in engine house removed.

Truro.—New 50,000 gall. tank with stone foundations built complete. 300 ft. 4-in. cast-iron pipe laid. Old tanks in round house removed.

Rimouski.—New 50,000 gall. tank with stone foundations built complete.

Amherst.—New 6-in. water gate in crane. New crane pipe.

Antigonish.—New trestle under tank. Hoops cut and shortened. Tank repainted.

Assametquaghan.—Reservoir cleaned and repaired.

Bathurst.—Steam pump repaired. Boiler changed. New smoke pipe. Reservoir cleaned and repaired.

Bayfield Road.—New trestle under tank. Hoops cut and shortened. Tank repainted. New stove.

Boisdale.—Twelve new sails in windmill.

Canaan.—Boiler repaired. New smoke pipe.

Campbellton.—Reservoir and pipe repaired. Fire hydrant repaired.

Chaudière.—Pump repaired.

Dalhousie.—Reservoir cleaned and repaired. Crane repaired.

Dalhousie Junction.—Tank pipe repaired. Reservoir cleaned and repaired.

Hadlow.—Steam pump repaired.

Jacquet River.—Reservoir cleaned and repaired. Pipes repaired.

L'Islet.—Boiler tested. New boiler mountings. Furnace repaired. New smoke stack.

Metapedia.—Reservoir cleaned and repaired.

Millerton.—New trestle under tank. Reservoir cleaned.

Millstream.—Repaired and cleaned reservoir. New smoke pipe.

Moncton.—New fire hydrant opposite passenger station.

Mulgrave.—New tank trestle. Hoops cut and shortened. Repainted tank. Cleaned out reservoir.

North Sydney.—4 new sails in windmill.

Oxford Junction.—Steam pump repaired.

Piedmont.—New trestle under tank. Hoops cut and shortened. Tank repainted. Reservoir cleaned out and repaired. New stove.

Point Tupper.—Ditch from spring to windmill cleaned out a distance of 500 feet.

Pugwash.—Windmill tower removed. Casing and piping removed from bore hole.

Pugwash Junction.—Temporary boiler put in during dry season.

Portage Ballast Pit.—New hand pump and tank pipe.

River John.—Windmill and pump repaired.

Rogersville.—Pump and tank pipes repaired.

Rivière du Loup.—Reservoir cleaned out. Station water pipes repaired.

Sacré Cœur.—New crane pipe. Reservoir cleaned and repaired.

Sussex.—Station water pipes connected to tank. New smoke pipe.

Springhill Junction.—Boiler changed. New smoke and tank pipes.

St. Fabien.—New trestle under tank. Hoops cut and shortened. Tank repainted. Steam pump repaired. New smoke pipe. Boiler feed pipes and gauge repaired.

Department of Railways and Canals.

St. Valier.—Steam pump repaired.

St. Luce.—Windmill pump repaired.

St. Pierre.—New smoke pipe. Boiler feed pipes and stove repaired.

St. Flavie.—New trestle under tank. Hoops cut and shortened. Tank repainted. Put in 24 feet 6-in. cast iron pipe and 6-in. water gate. Steam pump repaired.

St. Paschal.—Crane repaired.

St. Charles.—New tank pipe. Boiler feed and exhaust pipes repaired.

Sydney.—Took down and stored windmill tower. Tank repaired.

Trois Pistoles.—Reservoir cleaned. New smoke pipe in tank.

Westbay Road.—Windmill repaired.

I hereby certify the rolling stock to be in good condition.

I have the honour to be, sir,

Your obedient servant,

FRANCIS R. F. BROWN,

Mechanical Superintendent.

D. POTTINGER, Esq.,
General Manager, Government Railways,
Moncton, N.B.

A.—INTERCOLONIAL RAILWAY.

STATEMENT showing the number of Locomotives and of the various classes of Cars on the 1st July, 1895, and on the 30th of June, 1896.

	The Various Classes of Cars.														Total							
	Locomotives.	First-Class Sleepers.	Second-Class Sleepers.	Parlour.	First-Class Passenger.	Second-Class Passenger.	Postal and Smoking.	Express and Baggage.	Box.	Platform, 10 and 20 tons.	Hoppers, 6 tons.	Gondolas, 20 tons.	Coal Cars, 20 tons.	Cattle.		Vans.	Total.	Snow Ploughs.	Wing Ploughs.	Flangers.	Steam Ploughs.	Total.
On hand serviceable,	204	15	7	5	92	94	24	39	2,024	2,112	965	392	749	99	99	6,716	44	10	21	2	77	
do condemned, July, 1895.					47					97	34	26	19	4		227						
Total	204	15	7	5	92	94	24	39	2,071	2,209	999	418	768	103	99	6,943	44	10	21	2	77	
Changed from gondolas to 20-ton platform do coal cars to platform										41	*41		*19									
Total	204	15	7	5	92	94	24	39	2,071	2,269	999	377	749	103	99	6,943	44	10	21	2	77	
Condemned, July 1st, 1895									47	97	34	26	19	4		227						
do during the year	9								63	128	90	63	17	3		364		2	1			
Less rebuilt	9								90	225	124	89	36	7		591		2	1			
To be rebuilt										135	101	41	26			393		2	1			
Add serviceable and repairing	204	15	7	5	92	94	24	39	2,051	2,179	976	329	739	96	99	6,745	44	10	21	2	77	
Total	204	15	7	5	92	94	24	39	2,071	2,269	999	377	749	103	99	6,943	44	10	21	2	77	

* Deduct.

JOHN SUTTON,
Mechanical Accountant.

Moncton, 30th June, 1896.

Department of Railways and Canals

B.—INTERCOLONIAL RAILWAY.

STATEMENT of Locomotive and Car Mileage year ended 30th June, 1896.

MONTHS.	LOCOMOTIVE MILEAGE.		CAR MILEAGE.				Snow Ploughs.	Average Passenger.	Average Freight.
	Passenger.	Freight.	Passenger.	Express, Postal and Baggage.	Freight.	Total.			
1895—July	123,777	196,459	594,642	284,052	2,630,902	3,509,596	851	7·01	13·39
August	126,152	186,470	589,772	276,371	2,506,095	3,372,238	78	6·87	13·44
September	106,471	200,323	509,418	258,334	2,731,004	3,498,756	.....	7·21	13·63
October	107,028	229,578	477,517	261,263	3,148,277	3,887,087	262	6·90	13·70
November	101,327	225,790	431,174	247,413	3,314,559	3,993,146	2,616	6·69	14·69
December	102,070	226,898	447,546	248,965	3,136,825	3,833,386	2,177	6·72	13·82
1896—January	109,054	207,751	441,449	242,341	2,753,273	3,437,063	7,235	6·27	13·25
February	101,184	211,910	410,961	232,775	2,690,506	3,325,242	26,375	6·27	12·69
March	106,833	214,418	428,246	239,294	2,770,231	3,437,771	23,795	6·24	12·92
April	106,610	228,338	455,384	244,211	3,193,295	3,892,890	4,221	6·56	13·63
May	103,461	212,553	437,397	235,784	2,843,020	3,516,111	184	6·50	13·37
June	110,690	197,357	478,623	254,278	2,569,547	3,302,448	.....	6·62	13·02
	1,304,657	2,537,845	5,702,039	3,016,111	34,287,534	43,005,684	67,794	6·68	13·51

JOHN SUTTON,
Mechanical Accountant.

MONCTON, N. B., 30th June, 1896.

C.—INTERCOLONIAL RAILWAY.

ABSTRACT of Locomotive Returns for Year ended 30th June, 1896.

Months.	Hours in Steam.	Locomotive Mileage.	Consumption.				Average Consumption per 100 Miles.			
			Tons of Coal.	Pints of Oil.	Pints of Valve Oil and Tallow.	Pounds of Waste.	Miles Run to 1 hour in Steam.	Pounds of Coal.	Pints of Oil, etc.	Pints of Valve Oil and Tallow.	Pounds of Waste.
1895—July	37,126	395,568	11,573	24,520	23,035	9,640	10.65	6.553	5.82	2.43
August	36,228	387,009	11,271	23,915	21,737	9,487	10.68	6,524	5.61	2.45
September	34,668	375,340	11,382	22,768	19,384	9,163	10.82	6,793	5.16	2.44
October	38,265	410,177	13,215	24,344	19,495	10,271	10.72	7,313	4.75	2.50
November	37,088	397,711	13,194	24,464	19,493	9,997	10.72	7,430	4.90	2.51
December	37,275	400,235	13,542	25,260	19,754	10,009	10.73	7,578	4.93	2.50
1896—January	35,914	386,444	13,197	25,077	19,178	9,950	10.76	7,649	6.96	2.57
February	36,770	386,201	13,364	26,815	19,582	9,936	10.50	7,751	6.94	2.52
March	37,520	394,737	13,601	27,853	20,872	9,811	10.54	7,713	7.06	2.49
April	38,366	408,900	13,087	28,120	21,056	10,238	10.65	7,169	6.88	2.50
May	36,397	389,573	11,445	24,819	19,406	9,748	10.70	6,580	6.37	2.50
June	35,971	382,766	10,936	23,801	20,086	9,639	10.64	6,399	6.22	2.52
Totals	441,588	4,714,661	149,807	301,759	243,078	117,919	10.67	7,118	6.40	2.50

JOHN SUTTON,
Mechanical Accountant.

MONCTON, N.B., 30th June, 1896.

D.—INTERCOLONIAL RAILWAY.

STATEMENT of the cost of Locomotive Power for each month from 1st July, 1895, to 30th June, 1896.

Months.	Miles run by Engines.	Mechanical Supt.'s Salary, Clerks and Office Expenses.	Engine-men's Wages.	Fuel.	Oil, Tallow and Waste.	Repairs to Engines, Tenders and Tools.	Water.	Engine-houses and Turntables.	Total.	Average per 100 miles.						
										Mechanical Supt.'s Wages.	Fuel.	Oil, Tallow and Waste.	Repairs.	Water.	Eng. Houses & Turntbl.	Total.
1895— July..	395,568	\$ 1,043 70	\$ 22,542 78	\$ 32,123 11	\$ 2,912 85	\$ 27,506 67	\$ 2,507 72	\$ 979 60	\$ 89,616 43	\$ 26 5	\$ 70 8	\$ 12 7	\$ 74 6	\$ 95 63	\$ 25 2	\$ 22 65
Aug..	387,009	938 68	21,927 54	30,750 63	2,755 71	25,617 95	2,371 44	1,743 19	86,105 14	25 5	67 7	92	71 6	62	45	22 24
Sept..	375,340	967 03	20,985 74	30,906 88	2,584 69	22,800 20	5,438 38	1,786 83	85,469 75	26 5	59 8	23	69 6	07 1	45	48 22 77
Oct..	410,157	923 01	22,456 39	36,085 15	2,858 66	26,832 56	2,930 39	1,797 79	93,883 95	23 5	47 8	80	70 6	54 71	44	22 89
Nov..	397,711	891 46	21,751 36	36,246 90	2,875 09	21,609 54	3,912 28	2,686 14	89,972 77	22 5	46 9	10	72 5	43 98	67	22 58
Dec..	400,255	924 86	23,631 16	35,920 90	2,732 50	18,540 69	4,809 74	2,530 30	89,090 15	23 5	90 8	98	68 4	63 1	20	64 22 26
1896—Jan..	386,444	1,001 57	21,288 86	35,986 38	2,827 19	25,261 01	2,776 01	2,451 71	91,592 73	26 5	51 9	31	73 6	54 72	63	23 70
Feb..	386,201	939 81	20,975 08	36,685 01	2,903 64	16,054 45	3,638 28	2,161 51	83,357 78	24 5	43 9	30	75 4	16 94	56	21 58
Mar..	394,737	939 53	22,454 39	37,895 32	1,022 73	10,810 21	720 01	762 98	74,605 17	23 5	69 9	60	26 2	74 18	19	18 89
April.	408,900	914 83	22,377 35	35,558 53	1,936 14	11,115 34	1,075 17	1,241 19	74,218 55	22 5	48 8	70	47 2	72 26	30	18 15
May..	389,573	979 49	22,117 50	30,889 45	1,657 16	10,796 72	1,062 59	59 51	67,562 42	25 5	63 7	92	43 2	77 27	02	17 34
June..	382,766	1,109 98	22,096 01	29,813 52	1,158 05	13,311 66	452 61	384 72	68,326 55	29 5	77 7	79	30 3	48 12	10	17 85
Totals..	4,714,661	11,573 95	264,604 16	408,861 78	28,224 41	230,257 00	31,694 62	18,585 47	993,801 39	25 5	62 8	68	59 4	88 67	39	21 08

JOHN SUTTON,

Mechanical Accountant.

MONCTON, N.B., 30th June, 1896.

E.—INTERCOLONIAL RAILWAY.

GENERAL STATEMENT of the Expenses of the Mechanical Department, for the Year ended 30th June, 1896.

The miles run by trains were.....	3,842,502
do engines.....	4,714,661
do cars.....	43,005,684
do snow ploughs.....	67,794
	\$ cts.
Cost of locomotive power.....	993,801 39
	\$ cts.
Cost of car repairs :	
Repairs to passenger cars.....	65,534 61
do postal, express and baggage.....	19,133 07
do freight cars and vans.....	205,191 64
do snow ploughs and flangers.....	6,176 41
Oil and waste for packing.....	15,098 59
	311,134 32
	\$ cts.
The cost of locomotive power per 100 miles run by trains.....	25 86
do do do engines.....	21 08
do do do cars.....	2 31
	\$ cts.
The cost of repairs to cars and ploughs per 100 miles run by trains.....	7 70
do do do engines.....	6 28
do do do cars and ploughs.....	0 69
	\$ cts.
The cost of oil and waste for packing per 100 miles run by trains.....	0 39
do do do engines.....	0 32
do do do cars and ploughs.....	0 03
	\$ cts.
The cost of repairs to cars per 100 miles run by them :	
Passenger.....	1 14
Postal, express and baggage.....	0 63
Freight cars and vans.....	0 59
Ploughs and flangers.....	9 11

JOHN SUTTON,
Mechanical Accountant.

MONCTON, N.B., 30th June, 1896.

RETURN OF ACCIDENTS AND CASUALTIES

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada on the

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1895.						
July 2..						
do 5..	11.00	Special..	Working	W. F. Fergusson	E. Kean	114
do 6..	16.30	do	Freight	E. Herrett	P. Fraser	19
do 9..	8.00	16	do	J. B. Pollock	Geo. Feetham	78
do 9..	17.05	22	Accommodation	D. McIntosh	J. H. Campbell	41
do 10..	7.00	Special..	Freight	Alph. Gamache	W. F. Duncan	176
do 11..	22.25	43	do	R. W. Orchard	E. B. Price	30
do 12..	16.30	Special..	Working	E. Crowe	T. Hennessy	124
do 17..	12.10	25	Express	C. J. Rhodes	Geo. Kentley	161
do 18..	10.00	24	Freight	Geo. C. Keys	P. Peterson	40
do 26..	2.15	Special..	do	J. R. Fisher	F. H. Moore	205
Aug. 1..	19.05		Light engine		J. J. Fergusson	112
do 2..	24.30					
do 7..	8.05	83	Accommodation	John Berry	Jas. McAuley	56
do 7..						
do 8..	22.15		Shunting		W. A. Lovitt	93
do 28..	5.20	Special..	Freight	B. McLellan	W. Appleton	110
do 30..	6.10	do	Working	C. A. Atkinson	W. F. Smallwood	178
Sept. 2..	14.10	Special..	do	B. McLellan	J. Stockall	43
do 10..	10.00		Shunting		H. Como	191
do 11..	20.15	Special..	Freight	J. R. Fisher	J. McLellan	40
do 12..	17.35	98	Express "D. A. Ry"	D. Muir	J. Leitch	12
do 13..	20.00		Shunting		J. Phinney	166
do 26..	16.10	Special..	Working	C. A. Atkinson	W. F. Smallwood	80
Oct. 3..	11.17	33	Express	Is. Couturier	Ed. Parsons	125
do 4..	8.00	Special..	Working	C. A. Atkinson	W. F. Smallwood	80
do 6..	3.25	39	Freight	H. Barreau	W. H. Anderson	141
do 18..	13.30		Shunting		A. McDonald	19
do 22..	18.35	48	Accommodation	M. Marchessault	Geo. Findley	193

Department of Railways and Canals

RAILWAY.

line of the Intercolonial Railway during the year ended the 30th June, 1896.

Place of Accident.	Name of person injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
SS. "St. Pierre," Strait of Canso Ferry.	Barclay	Passenger ..	After shock on steamer giving way.	Slightly injured.	
Bartibogue	Jos. Arsenault ..	Employee ..	While loading ties	Hand injured ..	
Conn's Mill's ..	Chas. Whooten..	do ..	Slipped and fell while stepping from engine.	Face injured ..	
Stewiacke	P. Sutherland ..	do ..	Slipped while coupling cars	Ankle injured..	
Near New Glasgow.	Alln. McEachran	Neither.....	Walking on track	Fatal	Accidental.
St. Octave.....	Alph. Gamache..	Employee ..	While shunting	Leg injured.....	
Mill Stream	Jos. Tynan, "Indian".	Neither.....	Fell off top of box car while stealing a ride.	Considerably injured.	
Bible Hill	Thos. Crockett..	Employee ..	While coupling cars.....	Hand injured. ..	
Near Dorchester.	A. Stiles.....	do ..	While standing alongside of track No. 25 train struck a claw-bar, which hit him	Considerably injured	
Sackville.....	J. V. McDonald.	do ..	While unloading iron.....	Toe injured.....	
Windsor Junct'n	J. Halliday.....	do ..	Tank of gasolene exploding.	Face and hands burned.	
Near New Glasgow.	Chas. Muse, "Indian".	Neither.....	Lying on track	Fatal	do
Little Métis	Jos. Nadeau.....	do	Fell into a culvert.....	do	do
Sackville.....	W. R. Edwards.	Employee ..	While uncoupling engine and cars.	Thumb injured..	
Truro	E. Johnston	do ..	While handling freight...	Foot injured....	
Richmond.....	J. Currie.....	do ..	Thrown off car by hopper running off track	Back and shoulders injured.	
Windsor Junct'n	R. McDonald..	do ..	Fell while shunting.....	Hand injured..	
Big River Ballast Pit.	Wm. Ford.....	do ..	While loading ballast, carth caved in.	Considerably injured.	
Ballast Pit, Windsor Jtn.	Geo. Sullivan. ..	do ..	While coupling cars.....	Hand injured ..	
St. John.....	J. Budd	do ..	do	do do ..	
Near West River	Hy. Morrison... ..	Neither.....	Fell off train while stealing a ride.	Fatal.....	do
Prince's Lodge, Halifax.	L. Foote.....	Passenger ..	Fell out of baggage car door	Leg broken.	
Truro	Len. Murray....	Employee ..	While turning switch..	Hand injured. ..	
1½ m. W. of New Castle.	Thos. Murphy..	do ..	While loading stone.	Finger injured..	
Harlaka Junct'n	Pierre Dorion... ..	Neither... ..	Attempting to jump on train in motion.	Fatal.....	do
2 miles E. of Red Pine.	J. P. Lavigne... ..	Employee ..	While loading timber.....	Back and chest injured.	
New Castle.	J. Black	do ..	Struck by a coupling link which the driver attempted to throw on tender.	Head slightly injured.	
Pictou	C. E. Graham ..	do ..	While coupling cars.	Hand injured. ..	
St. Valier.....	Laurent Bosse..	Passenger ..	Fell off train in motion ..	Fatal.....	do

INTERCOLONIAL

RETURN of Accidents and Casualties which occurred in Canada on the

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1895.						
Nov. 4..	7.00	Special..	Freight	H. D. Fraser.....	M. White.....	135
do 5..	10.17	3	Express	D. McQuarry.....	R. Carr.....	61
do 7..	14.00	24	Freight	J. Buchanan.....	R. Wilson.....	180
do 7..	15.00		.....	.....	.....	.....
do 8..	3.40	Special..	Freight	L. Bélanger.....	A. Matthews.....	183
do 14..	17.30		Light engine.....	.....	W. F. Duncan.....	209
do 16..	9.20	5	Freight	R. A. Rainnie.....	J. J. Irvine.....	115
do 18..	8.55	Special..	do	H. D. Fraser.....	L. Starratt.....	146
do 20..	15.00	do ..	do	J. Buchanan.....	L. Starratt.....	146
do 22..	9.00	do ..	do	do	P. O. Toole.....	135
do 30..	16.00		.....	.....	.....	.....
Dec. 5..	15.30	Special..	Freight	J. Buchanan.....	J. McLellan.....	114
do 20..	12.00	6	do	R. A. Rainnie.....	J. J. Irvine.....	115
do 25..	1.50	Special..	do	J. L. Chisholm.....	J. Dean.....	9
1896.						
Jan. 10..	9.45	do ..	do	G. C. Keys.....	P. Peterson.....	79
do 16..	6.00		Shunting.....	.....	F. Cloutier.....	120
do 25..	15.40	Special..	Freight.....	H. McDorman.....	H. Stewart.....	7
Feb. 8..	14.40	do ..	do	S. Bernier.....	T. Matheson.....	176
do 17..	7.20		Shunting .....	.....	T. O'Brien.....	127
do 21..	11.13	59	Accommodation	E. S. Vye.....	A. McCabe.....	60
do 26..	13.00	Special..	Freight.....	J. Buchanan.....	J. McLellan.....	9
do 28..	10.30	do ..	do	T. C. Ayer.....	{ D. Taylor..... P. McKenna.....	{ 182 25 }
Mar. 13..	13.50		Shunting.....	.....	Jas. Cole.....	127
do 14..	24.30	Special..	Freight.....	J. Paradis.....	G. Lamothe.....	38
do 18..	11.50	do ..	do	J. Pollock.....	P. Peterson.....	79
do 26..	16.30		Shunting.....	.....	Geo. Currie.....	121
do 27..	16.40	33	Express	M. Letarte.....	{ E. Parsons..... C. E. Sawyer.....	{ 157 36 }
April 5..	9.40	Special..	Mail.....	Thos. Guinan.....	Wm. Lovitt.....	130
do 11..	15.46	25	Express	Jas. Millican.....	H. Tait	164
do 13..	7.30	56	Freight.....	J. Holmes.....	A. Dunbar.....	107
do 16..	14.40	35	Accommodation	J. T. McGinn.....	A. Donald.....	139
do 22..	15.10	Special..	Working.....	W. Power.....	N. McMullen.....	144
do 27..	18.00	do ..	Freight	J. Buchanan.....	A. McDonald.....	115
May 6..	10.10		Light engine.....	.....	A. Probert.....	35
do 6..	19.50	Special..	Freight.....	J. R. Fisher.....	J. G. McDonald.....	128

Department of Railways and Canals.

RAILWAY.

line of the Intercolonial Railway during the year ended the 30th June, 1896.

Place of Accident.	Name of person injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of injury.	Verdict of Coroner's Jury.
Spring Hill Jtn.	E. Mattatal.	Employee . .	Fell through hatch of coal trestle while attempting to get on car.	Back and chest injured.	
Torryburn.	L. E. Deforrest.	Passenger . .	Attempting to get on train in motion.	Leg broken	
Oxford Junction.	R. Doyle.	Employee . .	While unloading freight.	Foot injured.	
Red Pine Edge {	Thos. Sefton.	do }	While loading bridge girder on car.	do do	
St. Moise.	E. Steeves.	do }		Arm broken	
St. Flavie.	A. Deschamplain	do	While uncoupling cars.	Finger injured.	
Petitcodiac.	Alfd. Malcomber	do	While taking coal.	do do	
1 m. W. of Greenville.	Wm. McManus.	do	While coupling cars.	Hand do	
	F. Fowlie.	do	While opening brake valve between cars.	Leg do	
Deep Water Terminal, Halifax	E. Crowe.	do	While coupling engine and car draw bar fell on his foot	Toe injured.	
Richmond	S. Thomas	do	Fell off car in motion.	Wrist sprained.	
Moncton	J. Strong	do	While lighting semaphore lamp the post gave way.	Shoulder injured	
Spring Hill Junc	J. D. McDonald.	do	While coupling eng. and car	Hand injured.	
Rothesay.	Geo. Boyce.	do	Jumped off train in motion.	Leg injured.	
Bedford.	C. Doyle.	do	While coupling engine to car slipped from pilot of engine	Considerably injured.	
Ferrona Junc'n	J. D. McDonald	do	While coupling cars.	Thumb injured.	
Chaudière	H. Camiré	do	do do	Arm injured.	
New Glasgow. {	Mr. Douglass.	Neither.	While driving in a sleigh, ran into rear car of train which was going into New Glasgow.	Slightly injured.	
George Street Crossing.	Miss McGregor.				
Amqui.	H. Ouellette.	Employee . .	Attempting to get on train in motion.	Fatal.	Accidental.
North St., H'fax	Jno. Morley	do	While coupling cars.	Chest injured.	
Newcastle	P. Bannister.	do	While turning the switch the lamp fell on his head.	Head cut.	
Ferrona Junc.	Jno. McLellan.	do	Attempting to jump on train in motion.	Head and back injured.	
Campbellton.	Geo. Crowser.	do	While coupling engines.	Foot injured.	
Moncton.	Wm. Lochart.	do	Assisting to put car on track.	Hand crushed	
Rimouski.	Alph. Roy	do	Train started while he was oiling snow plough.	Fatal	do
Stellarton.	Angus Chisholm	do	While coupling cars.	Finger injured.	
Cotton Factory Siding, Halifax.	Thos. Hinch.	do	While shunting fell off top of box car.	Fatal	No inquest.
1½ mile E. of Levis.	Xavier Dumas.	Neither	Walking on track.	do	Accidental.
Truro	Pierre Ruel.	do	do do	Considerably injured.	
	Graham Logan, deaf and dumb.	do	do do	Fatal	do
Near Cold Brook. {	J. Stephenson	do	Crossing track in team.	do	do
	Robt. Carson.	do	do do	do	do
	Allan Carson.	do	do do	Considerably injured.	
Antigonish	McDonald	do	Walking on track.	Shoulder injured	
Chatham Junc.	F. Dickson	Employee . .	While loading baggage	Foot injured.	
West Bay Road.	Rory McNeil.	do	While loading ties.	Arm injured.	
Near Glengarry.	B. Ripley.	do	Fell while attempting to get on train in motion.	Face and wrist injured.	
Near Loch Broom	John Sark (Ind.)	Neither.	Walking on track.	Fatal	do
Stellarton	Mrs. Daley.	do	Crossing track in yard.	do	do

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada on the

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1895.						
May 9..	9 18	25	Express.....	J. Millican.....	S. Trider.....	199
do 12..	9 00	Special..	Freight.....	M. C. Daley.....	J. Stewart, jr.	146
do 12..						
do 14..	12 20	27	Express.....	W. Foster.....	A. Sutherland.....	7
do 27..	21 15	Special..	Freight.....	Jno. Henderson.....	E. Rushton.....	135
do 28..	5 00		Shunting.....	J. Caudle.....	J. H. Phinney.....	122
do 29..	18 00	23	Freight.....	T. W. Johnson.....	R. Kennedy.....	180
June 1..	10 00	Special..	do.....	J. Pollock.....	P. Peterson.....	115
do 4..	23 40	48	Accommodation.....	L. Proulx.....	Geo. Cameron.....	2
do 12..	8 37	46	do.....	B. Walker.....	A. Shickle.....	104
do 16..	9 40	29	do.....	J. McFadzer.....	J. H. Moore.....	21
do 23..	16 39	45	Express.....	A. Bouchard.....	H. A. Turner.....	151
do 27..	10 45	Pilot...	Freight.....	T. Laliberté.....	L. Dutil.....	116

Department of Railways and Canals

RAILWAY.

line of the Intercolonial Railway during the year ended the 30th June, 1896.

Place of Accident.	Name of person injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Debert	McCully	Neither	Crossing track in team	Very slightly injured.	
Spring Hill Junc	McCully	do	do do	do do ..	
Near Rimouski..	J. Stockford	Employee ..	While uncoupling engine from cars.	Hand injured. ..	
Pictou	Jos. Pratte	Neither. ...	Found unconscious along-side of track.	Face bruised....	
Spring Hill Junc	Jno. McKinnon.	Employee ..	While coupling cars.....	Hand injured...	
Bible Hill Bal-	Chas. Green	do ..	do do	do ..	
last Pit.	J. H. Phinney..	do ..	While shunting, run into by No. 16 train.	Head injured ..	
Painsec Junction	H. Murray.	do ..	Jumped off train in motion	Ankle sprained.	
Stellarton.....	F. Fowlie.	do ..	While coupling cars	Hand injured...	
Near Old Lake Road.	C. Lemieux.....	Neither.....	Attempting to get on train in motion.	Fatal	No inquest.
St. Charles Junc	Alph. Dionne...	Employee... ..	While shunting.....	Foot injured....	
Dorchester Road	John Casey.....	Passenger... ..	Struck by train while sitting on edge of platform.	Head injured ..	
St. Arsène	H. C. Kennedy.	Neither.....	Crossing track in team	Fatal	do
Levis, "Beau-lieu's Wharf.	H. Bernier.	Employee... ..	Fell while uncoupling cars.	Leg crushed....	

WINDSOR BRANCH RAILWAY.

OFFICE OF THE GENERAL MANAGER OF GOVERNMENT RAILWAYS,
MONCTON, N. B., 28th September, 1896.

SIR,—I have the honour to submit the following statements showing the results of the working of the Windsor Branch Railway for the year ended the 30th June, 1896 :—

- No. 1. Revenue account.
2. Maintenance of way and works.
3. General balance.
4. Statement of earnings.

I also send you the report of the Chief Engineer on the condition of the permanent way and works.

This line, 32 miles in length, was operated during the year by the Windsor and Annapolis Railway Company, now called the Dominion Atlantic Railway Company, on the same terms as last year, the company being allowed to retain two-thirds of the gross earnings, the balance, one-third, being paid over to the Government, the latter maintaining the line.

There was a decrease in the earnings accruing to the Government when compared with last year, as follows :—

Earnings in 1894-95.....	\$39,077 64
“ 1895-96.....	36,561 83
	<hr/>
	\$ 2,515 81

The earnings from passenger traffic decreased seven hundred dollars, and from freight traffic eighteen hundred dollars.

There was an increase in the expense of maintenance as follows :—

In 1895-96.....	\$16,476 46
1894-95.....	14,640 07
	<hr/>
	\$ 1,836 39

This was caused by the relaying of a portion of the track with new steel rails.

The earnings and expenses compare as follows :—

Earnings.....	\$36,561 83
Expenses..	16,476 46
	<hr/>
Net earnings.....	\$20,085 37

The necessary repairs and renewals were made, and the permanent way and works are in good order.

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

D. POTTINGER,
General Manager, Government Railways.

COLLINGWOOD SCHREIBER, Esq., C. M. G.,
Deputy Minister and Chief Engineer,
Railways and Canals.

Department of Railways and Canals.

INTERCOLONIAL RAILWAY OF CANADA,
OFFICE OF THE CHIEF ENGINEER,
MONCTON, N.B., 16th September, 1896.

SIR,—I have the honour to submit my report of the maintenance of the Windsor Branch for the year ending 30th of June, 1896.

TRACK.

Two miles of old worn 4 inch steel rails were taken up and replaced with new $4\frac{1}{4}$ inch 56 pound rails. 2,000 feet of these steel rails were laid in Windsor yard in the place of a similar quantity of old iron rails taken up.

Two new steel frogs were also provided, one in Windsor yard, and the other at Windsor Junction.

TIES.

During the year, 13,212 ordinary hemlock ties, and three sets of switch ties have been renewed.

FENCING.

Two hundred and seventy-six rods of new barbed and woven wire fence were erected at points where no fence existed before. Large repairs were made to existing fences.

WHARFS AND TRESTLES.

Large repairs were made to the wharf at Windsor which had been damaged by the ice, and which required to be in first class shape to accommodate the large shipment of plaster now being made at this place.

BUILDINGS AND PLATFORMS.

At Windsor, general repairs were made to the station and freight house.

Platforms were built at Stillwater, Three Mile Plains and St. Croix.

At Newport, the platform was partially renewed.

At Beaver Bank, the freight platform was renewed.

BRIDGES AND CULVERTS.

The masonry of Sackville and Jordans Bridges, was thoroughly overhauled, repaired and pointed.

Two sets of cattle guards were renewed.

GENERAL.

All the freight houses, tool houses, cattle pens and approaches to public crossings were overhauled, repaired and whitewashed.

At Newport, it was found necessary to enlarge the water supply, and for this purpose 1,000 feet of 4-inch cast iron pipe were put in to connect the old and new services. The old reservoir was cleaned out and repaired, and a full supply is now available.

At Mount Uniacke, the old tank was raised 16 inches, and the tub put in repair. The track on this branch, is in good order throughout its whole length.

I have the honour to be, sir,

Your obedient servant.

P. S. ARCHIBALD,

Chief Engineer.

D. POTTINGER, Esq.,

General Manager, Government Railways,
Moncton.

No. 1.—WINDSOR BRANCH RAILWAY.

REVENUE ACCOUNT for year ended 30th June, 1896.

Previous Year.	Expenditure.	Year ended 30th June, 1896.	Previous Year.	Earnings.	Year ended 30th June, 1896.
\$ cts.		\$ cts.	\$ cts.		\$ cts.
14,640 97	Maintenance way and works.	16,476 46	13,581 18	Passenger traffic.....	12,878 28
24,437 57	Balance.....	20,085 37	24,348 30	Freight traffic.....	22,528 03
			1,148 16	Mails.....	1,155 52
39,077 64		36,561 83	39,077 64		36,561 83

E. & O. E.

THOS. WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1896.

No. 2.—WINDSOR BRANCH RAILWAY.

MAINTENANCE of Way and Works—(Abstract No. 1).

Previous Year.	Particulars.	Year ending 30th June, 1896.
\$ cts.		\$ cts.
7,823 83	Repairs of track.....	7,396 05
1,139 28	Rails and fastenings.....	3,869 15
2,848 80	Ties.....	2,696 20
64 46	Bridges.....	47 20
79 83	Signals.....	28 07
1 20	Switch locks.....	
35 40	Culverts and cattle guards.....	3 58
35 50	Wharf at Windsor.....	541 61
640 60	Buildings and platforms.....	543 30
72 46	Hand cars and trollies.....	5 12
439 66	Removing snow and ice.....	346 81
212 37	Tools and repairs of same.....	145 13
320 76	Fencing.....	433 13
912 41	Accountant's office and expenses.....	408 95
13 51	Miscellaneous.....	12 16
14,640 07		16,476 46

E. & O. E.

THOS. WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1896.

Department of Railways and Canals.

No. 3.—WINDSOR BRANCH RAILWAY.

DR.

GENERAL BALANCE, year ended 30th June, 1896.

CR.

1896.		\$ cts.	1896.	.	\$ cts.
June 30..	To old rails.....	10,729 88	June 30..	By Dominion account...	11,640 53
	Stores department.....	910 65			
		11,640 53			11,640 53

E. & O. E.

THOS. WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1896.

No. 4.—WINDSOR BRANCH RAILWAY.

MONTHLY STATEMENT OF RECEIPTS—One-third Earnings.

Month.	Passenger Traffic.	Mails.	Freight Traffic.	Totals.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1895—July	1,608 82	96 91	1,557 24	3,262 97
August	2,052 32	96 91	1,799 97	3,949 20
September	1,654 22	96 90	2,250 26	4,001 38
October	1,147 81	96 91	2,800 20	4,044 92
November	888 92	96 91	2,726 60	3,712 43
December	898 02	96 90	1,994 52	2,989 44
1896—January	615 78	95 68	1,868 41	2,579 87
February	554 67	95 68	1,642 95	2,293 30
March	660 69	95 68	1,445 93	2,202 30
April	737 15	95 68	1,451 90	2,284 73
May	874 47	95 68	1,586 53	2,556 68
June	1,185 41	95 68	1,403 52	2,684 61
	12,878 28	1,155 52	22,528 03	36,561 83

E. & O. E.

THOS. WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1896.

PRINCE EDWARD ISLAND RAILWAY.

OFFICE OF THE GENERAL MANAGER OF GOVERNMENT RAILWAYS,
MONCTON, N.B., 28th September, 1896.

SIR,—I have the honour to submit the following report on the working of the Prince Edward Island Railway, for the fiscal year ended 30th June, 1896.

I inclose the report of the superintendent including statements of the various accounts.

The mileage of railway in operation was the same as last year, 210 miles.

There was no expenditure on capital account during the year, the total cost of the railway on the 30th June, 1896 being \$3,750,565.38.

The working expenses for the year were	\$225,138 56
The gross earnings were	146,476 54
	\$ 78,662 02

In comparison with the previous year, there was a decrease in the working expenses of \$7,766.63, and a decrease of earnings of \$3,178.24.

The decrease of earnings was chiefly in freight traffic, which fell off \$2,669.19.

The weight of freight carried decreased 1,930 tons, and this decrease was in potatoes and other roots.

The earnings from passenger traffic increased \$118.75, although the number of passengers carried decreased 2,503.

The work of relaying the track with steel rails was continued, and twelve and three-quarter miles of track were relaid; the iron rails weighing forty pounds to the yard were replaced with new steel rails weighing fifty pounds to the yard.

A wooden bridge of forty-four feet span was taken out of the track and a steel one was put in its place.

A track scale for weighing cars was put in.

All these improvements were charged to working expenses.

The necessary repairs and renewals were made, and the railway and rolling stock are in a state of efficiency.

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

D. POTTINGER,
General Manager Government Railways.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer
Railways and Canals.

Department of Railways and Canals.

PRINCE EDWARD ISLAND RAILWAY,
SUPERINTENDENT'S OFFICE.

CHARLOTTETOWN, P.E.I., 22nd September, 1896.

SIR,—I have the honour to submit the following report on the working of the Prince Edward Island Railway for the fiscal year ended 30th June, 1896.

I also inclose the following statements prepared by the Accountant, Auditor and Mechanical Accountant :—

1. Capital account.
2. Revenue account.
3. Locomotive power (abstract No. 1).
4. Car expenses (abstract No. 2).
5. Maintenance of way and works (abstract No. 3).
6. Station expenses (abstract No. 4).
7. General charges (abstract No. 5).
8. General stores account.
9. General balance.
10. Comparative statement of averages.
 - A. Monthly statement of the cost of locomotive power.
 - B. Statement of performance and consumption of locomotives.
 - C. Monthly statement of car mileage.
 - D. Statement showing number of locomotives, cars, snow ploughs and flangers.
 - E. Comparative statement of expenses of the mechanical department.

The mileage of railway in operation during the year was the same as stated in last year's report—210 miles.

CAPITAL ACCOUNT.

The total expenditure on capital account to 30th June, 1895, was.....	\$3,750,565 38
No additions being made during the year, the total expenditure to 30th June, 1896, was the same as the previous year.....	3,750,565 38
	3,750,565 38

REVENUE ACCOUNT.

Freight traffic during the year has not been satisfactory. There was practically no market for potatoes, and but little demand for oats. The rapid extension of the dairy industry throughout the province is calculated to lessen the exportation of field products, and thus affect our traffic prejudicially.

The gross earnings and working expenses for the year compare as follows :—

Gross earnings.....	\$146,476 54
Working expenses.....	225,138 56
	\$ 78,662 02

The gross earnings compare as follows with the previous year :—

In 1895-96.....	\$146,476 54
1894-95.....	149,654 78
	<u>\$ 3,178 24</u>

The earnings from passenger traffic compare as follows :—

In 1895-96.....	\$ 62,358 12
1894-95.....	62,239 37
	<u>\$ 118 75</u>

The earnings from freight traffic compare as follows :—

In 1895-96.....	\$ 65,391 92
1894-95.....	68,061 11
	<u>\$ 2,669 19</u>

The earnings from mails and sundries compare as follows :—

In 1895-96.....	\$ 18,726 50
1894-95.....	19,354 30
	<u>\$ 627 80</u>

The number of passengers carried compare as follows :—

In 1895-96.....	122,586
1894-95.....	125,089
	<u>2,503</u>

The weight of freight carried compares as follows :—

	Tons.
In 1895-96.....	46,395
1894-95.....	48,325
	<u>1,930</u>

WORKING EXPENSES.

The working expenses are less by \$7,766.63 than in the preceding year.

The working expenses compare as follows with the previous year :—

In 1895-96.....	\$225,138 56
1894-95.....	232,905 19
	<u>\$ 7,766 63</u>

Department of Railways and Canals.

The averages compare with the previous year as follows:—

Per mile run by engines:—

	Cents.
In 1895-96	59·38
1894-95	70·43

Per mile run by trains:—

In 1895-96	91·60
1894-95	95·35

Per mile of railway:—

In 1895-96	\$1,072 09
1894-95	1,109 07

TRACK.

Twelve and three quarter miles of track were relaid by steel rails, during the year, 1,000 tons having been used for this purpose. One mile of the new rails was laid at Mount Stewart and $11\frac{3}{4}$ miles between Coleman and Piusville. At the end of the year $126\frac{1}{2}$ miles of track had been relaid with steel rails.

A new track scale was put down at Alberton, and the foundation of track scale at Charlottetown was rebuilt.

TIES.

Seventy-three thousand ordinary ties were renewed during the year, and 2,500 culled ties were used in yards and sidings; 34 sets switch ties and 30 head-blocks and frames were renewed.

BALLASTING.

12,212 cubic yards of ballast were distributed during the year.

FENCING.

37,123 feet of woven wire and 26,200 feet barbed wire fence were built during the year, replacing 12 miles of old fence.

10,385 feet snow fence were rebuilt and 1,129 feet repaired. 100 old farm gates were replaced by woven wire gates.

BRIDGES AND CULVERTS.

A pile bent was put under centre span of bridge at Peakes; also a new top.

The old wooden bridge at St. Peter's was replaced by a 44 foot steel girder, with new standard top.

Two new stringers were put in bridge west of Bradalbane, and new standard deck put on.

Sixteen new floor beams were put in Midgell and Marie bridges.

One of the two arches in the breastwork at Charlottetown was closed up, and two new stringers put in the other, also a standard deck laid.

Several other bridges have had necessary repairs.

Thirty cattle guards and 8 timber culverts were rebuilt.

Stone culvert on Cape Traverse Branch, carried away by a spring freshet, was rebuilt.

Thirty-five stone culverts were re-pointed with cement.

BUILDINGS AND PLATFORMS.

O'Leary station was raised three feet, and timber foundation put under it. The platform was renewed; new floors laid in office and waiting room; the interior of station painted, and roof reshingled.

Cattle pen at O'Leary was rebuilt.

The coal shed at Tignish was extended 40 feet.

Station and platform at Harper's were rebuilt.

Station and platform at DeBlois rebuilt.

At St. Louis station and platform were rebuilt.

Station and platform rebuilt at Alma.

At Alberton platform was renewed.

Platform was renewed at Northam.

Platform renewed at Hunter River.

At Cardigan platform was renewed.

At Cemetery platform was renewed.

One side of roof of Port Hill station was reshingled.

One side of freight shed at Summerside was reshingled.

A new pitch and gravel roof was put on freight house at Bradalbane, and necessary repairs made to dwelling, which was also painted inside.

The iron house at Charlottetown was raised, the foundation renewed and other necessary repairs made to the building.

The roof of blacksmith shop was reshingled.

A new plank floor was laid in the carpenter's shop.

The roof of warehouse on Georgetown wharf was reshingled, 45 M. shingles being used for this purpose.

At St. Peter's roof of coal shed was reshingled.

A new plank floor was put in warehouse on Souris wharf. The office in same building was sheathed, and new floor laid.

Roof of coal shed at Mount Stewart was reshingled.

WHARFS.

One hundred tons hemlock timber, 30,000 feet hemlock plank, 100 tons stone, 10 piles 40 feet long, 25 cars ballast and 6 cars brush were used in repairing Summerside wharf.

In repairing wharf at Charlottetown 3,000 feet hemlock plank, 10 tons timber and 25 tons stone were used.

Two hundred tons stone, 15 tons timber and 10 cars ballast were used in repairing Souris wharf.

Georgetown wharf received necessary repairs, 25 tons stone and 2 cars brush being used.

ROLLING STOCK.

Following is a summary of the principal work done in the shops during the year:—

Locomotive repairs.

Nine engines received general repairs, and six received specific repairs, the following new parts being supplied: 1 driving axle, 12 tires, 4 crank pins, 2 pistons, 4 guides, 3 quadrants, 3 reversing levers, 1 sight feed lubricator, 1 set cast-iron running boards, 2 cabs, 250 tubes, 3 tender frames, 6 tender trucks, 6 pilots and 6 smoke stacks.

Fifteen boilers were tested, five fire boxes patched, 200 tubes pieced, 5 water tanks patched, and the capacity of three tender tanks increased.

Department of Railways and Canals

Car repairs.

One combined baggage and postal car, one snow plough and one flanger car were rebuilt.

Four first-class cars received a thorough overhauling. In three of these new heaters were placed, new seat ends were supplied and seats re-upholstered.

Two first-class cars received general repairs, new standard trucks were put under them, and the seats re-upholstered.

Six second-class cars received general repairs, new standard trucks being put under two of them.

Eleven box and 20 platform cars received general repairs; 6 box car roofs were renewed, and 20 freight car trucks were rebuilt.

Considerable work was done for the road and transportation departments.

Paint shop.

Eight locomotives, 3 first-class cars, 1 second-class car and three postal cars were painted and varnished.

Two locomotives, 4 first-class cars, 7 second-class cars and 2 postal cars were cleaned and varnished.

Eleven box cars and 20 box car roofs were painted.

Fifty-four platform cars, 2 snow ploughs and 2 flangers were painted; also 10 switch frames.

Blacksmith's shop.

All iron work in connection with the repairs of engines, and the rebuilding and repairing of cars, snow ploughs and flangers, besides a large amount of work for the road and traffic departments, was done in this shop.

Brass foundry.

Output for the year: 2,750 lbs. bearings, 2,266 lbs. brass castings, and 200 battery zincs.

All passenger cars have been equipped with a new vacuum hose coupling, made under the direction of the mechanical foreman, who reports that it has given entire satisfaction.

STORES.

On the 30th June, 1896, the value of stores on hand was:—

General stores.....	\$ 43,287 31
Fuel.....	7,111 44
Rails and fastenings.....	61,467 14
Old material serviceable.....	3,362 14
Total.....	<u>\$115,228 03</u>

Stores to the value of \$89,159.04 were purchased during the year.

GENERAL.

The rolling stock, roadbed and buildings have been maintained in a state of efficiency.

I inclose a return of accidents and casualties which have occurred on the railway during the year.

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

D. POTTINGER, Esq.,
General Manager Government Railways,
Moncton, N.B.

A. McDONALD,
Superintendent.

No. 1.—PRINCE EDWARD ISLAND RAILWAY.

DR.		CAPITAL ACCOUNT.		CR.		
1895.		\$	cts.	1895.	\$	cts.
June 30.	To cost of road and equipment to date.	3,750,565	38	June 30.	By Dominion of Canada....	3,750,565 38
1896.				1896.		
June 30.	To expenditure, year ended 30th June, 1896			June 30.	do do	
		3,750,565	38			3,750,565 38

W. T. HUGGAN,

CHARLOTTETOWN, P.E.I., 30th June, 1896.

Accountant and Auditor.

No. 2.—PRINCE EDWARD ISLAND RAILWAY.

DR.		REVENUE ACCOUNT for year ended 30th June, 1896.		CR.	
Previous Year.	Expenditure.	Year ended 30th June, 1896.	Previous Year.	Receipts.	Year ended 30th June, 1896.
\$		\$	\$		\$
cts.		cts.	cts.		cts.
61,485 54	Locomotive power.	54,165 88	62,239 37	Passenger traffic.	62,358 12
34,133 09	Car expenses.	34,221 54	68,061 11	Freight traffic.	65,391 92
101,599 30	Maintenance of way and works.	99,186 00	19,354 30	Mails and sundries.	18,726 50
26,548 71	Station expenses.	27,802 13	149,654 78	..... Total receipts.	146,476 54
9,138 55	General charges.	9,763 01	83,250 41	..... Balance.	78,662 02
232,905 19	..... Totals.	225,138 56	232,905 19	..... Totals.	225,138 56

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1896.

Department of Railways and Canals

No. 3.—PRINCE EDWARD ISLAND RAILWAY.

LOCOMOTIVE POWER—(Abstract No. 1).

Previous Year.	Details.	Year ended 30th June, 1896.
\$ cts.		\$ cts.
845 63	Mechanical superintendent's salary, clerks, office and travelling expenses . . .	754 36
16,515 30	Wages of drivers, firemen and cleaners	16,768 09
17,697 77	Fuel	13,355 93
2,436 64	Oil, tallow, waste and small stores	2,203 22
21,442 08	Repairs to engines, tenders and engine tools	19,329 96
1,294 37	Water, including pump and tank repairs	617 62
1,253 75	Miscellaneous	1,136 70
61,485 54	Totals	54,165 88

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1896.

No. 4.—PRINCE EDWARD ISLAND RAILWAY.

CAR EXPENSES—(Abstract No. 2).

Previous Year.	Details.	Year ended 30th June, 1896.
\$ cts.		\$ cts.
6,959 55	Repairs to passenger cars	9,397 04
2,734 28	do postal and baggage cars	2,436 17
4,841 80	do freight cars and vans	3,858 18
2,481 96	do snow ploughs and flangers	863 63
13,419 46	Wages of conductors, train baggage-masters and brakemen	14,076 57
537 84	Oil and waste for packing	517 61
2,409 21	Small stores and fuel	2,368 04
748 99	Miscellaneous	704 30
34,133 09	Totals	34,221 54

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1896.

No. 5.—PRINCE EDWARD ISLAND RAILWAY.

MAINTENANCE OF WAY AND WORKS—(Abstract No. 3).

Previous Year.	Details.	Year ended 30th June, 1896.
\$ cts.		\$ cts.
293 27	Engineer's salary, clerks, office and travelling expenses.....	296 84
30,843 88	Wages in repairing roadway, fences and semaphores.....	36,593 80
19,353 64	Rails, chairs and spikes.....	17,671 86
19,028 67	Ties.....	24,540 34
7,217 67	Timber and lumber for repairs to bridges, cattle-guards, fences, &c.....	8,109 78
2,216 91	Repairs to wharfs.....	1,904 31
8,199 10	Repairs to buildings and platforms.....	7,078 24
877 49	Repairs to tools.....	1,099 07
13,568 67	Clearing ice and snow.....	2,491 76
101,599 30	Totals.....	99,186 00

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1896.

No. 6.—PRINCE EDWARD ISLAND RAILWAY.

STATION EXPENSES—(Abstract No. 4).

Previous Year.	Details.	Year ended 30th June, 1896.
\$ cts.		\$ cts.
19,636 02	Salaries and wages of station-masters, agents, clerks, telegraph operators, station baggage-masters, yard-masters, switchmen, watchmen, and labourers.....	20,999 74
6,912 69	Fuel, oil, light, stationery and other incidental expenses.....	6,802 39
26,548 71	Totals.....	27,802 13

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1896.

Department of Railways and Canals.

No. 7.—PRINCE EDWARD ISLAND RAILWAY.

GENERAL CHARGES—(Abstract No. 5).

Previous Year.	Details.	Year ended 30th June, 1896.
\$ cts.		\$ cts.
3,497 25	Superintendent's and train despatchers' salaries, clerks, office and travelling expenses	3,836 86
4,553 49	Accountant and auditor's, paymaster's and cashier's salaries, clerks, office and travelling expenses	4,765 63
627 23	Advertising	301 50
71 23	Damages to men, animals and goods	295 02
339 96	Telegraph expenses (not including pay to operators)	319 16
49 39	Miscellaneous	244 84
9,138 55	Totals	9,763 01

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1896.

No. 8.—PRINCE EDWARD ISLAND RAILWAY.

STATEMENT of General Stores Account, year ended 30th June, 1896.

1895.	DR.	\$ cts.	\$ cts.								
June 30...	To Balance brought forward		106,791 62								
1896.											
June 30...	To Purchase during the year, including rails	89,159 04									
	Charges from other departments	16,770 09									
	Pay-rolls	1,946 96	107,876 09								
1896.	CR.		214,667 71								
June 30...	By Issues during the year		99,439 68								
	Balance	<table style="border: none;"> <tr> <td style="border: none;">{ Ordinary stores</td> <td style="border: none; text-align: right;">\$43,287 31</td> </tr> <tr> <td style="border: none;">{ Fuel</td> <td style="border: none; text-align: right;">7,111 44</td> </tr> <tr> <td style="border: none;">{ Rails and fastenings on hand</td> <td style="border: none; text-align: right;">61,467 14</td> </tr> <tr> <td style="border: none;">{ Old material, serviceable</td> <td style="border: none; text-align: right;">3,362 14</td> </tr> </table>	{ Ordinary stores	\$43,287 31	{ Fuel	7,111 44	{ Rails and fastenings on hand	61,467 14	{ Old material, serviceable	3,362 14	115,228 03
{ Ordinary stores	\$43,287 31										
{ Fuel	7,111 44										
{ Rails and fastenings on hand	61,467 14										
{ Old material, serviceable	3,362 14										

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1896.

No. 9.—PRINCE EDWARD ISLAND RAILWAY.

DR.	GENERAL BALANCE.		CR.		
	\$	cts.	\$	cts.	
General stores	115,228	03	Dominion account.	114,814	37
Cash	1,914	81	Accident insurance.	3,000	33
Post Office Department.	4,153	50	Through ticket ledger.	5,637	36
Stations	9	6			
Militia Department	58	24			
Anglo-American Telegraph Co.	46	43			
Judge Weatherbie.	30	00			
Sidney Grey.	25	00			
Railway extension, Charlottetown.	812	83			
Belfast Branch Railway	187	19			
Total	123,452	06		123,452	06

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1896.

Department of Railways and Canals

No. 10.—PRINCE EDWARD ISLAND RAILWAY.

COMPARATIVE STATEMENT of Averages, for Years ended 30th June, 1895 and 1896.

Details.	1896.	1895.
Mileage of railway open	210	210
Engine mileage	324,522	330,661
Train do	245,766	244,249
Car do	1,225,772	1,197,529
Receipts per engine mile..... Cents.	45·14	45·26
do mile of railway..... Dollars.	697 51	712 64
Percentage of passenger earnings to gross receipts.....	42·57	41·59
do freight do do	44·64	45·47
do other do do	12·79	12·94
Expenses per engine mile—		
Drivers, firemen and cleaners' wages.....	5·16	4·99
Fuel	4 12	5 36
Oil, tallow, waste and small stores.....	0·68	0 74
Repairs to engines	5·96	6·48
Water and tank repairs.....	0·19	0·39
Miscellaneous.....	0·35	0·37
	16·46	18·33
Mechanical superintendent's salary, office and travelling expenses.....	0·23	0·26
Total..... Cents.	16·69	18·59
Locomotive power per engine mile.....	16·69	18·59
Car expenses do	10·54	10 33
Maintenance of way and works do	30·57	30·72
Station expenses do	8·57	8 03
General charges do	3·01	2·76
Total per engine mile..... Cents.	69·38	70·43
Locomotive power per train mile.....	22·04	25 17
Car expenses do	13·92	13 97
Maintenance of ways and works per train mile.....	40·36	41 59
Station expenses	11·31	10 87
General charges	3·97	3 75
Total per train mile..... Cents.	91·60	95 35
Working expenses per mile of railway..... Dollars.	1,072 09	1,109 07

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1896.

A.—PRINCE EDWARD

MECHANICAL

STATEMENT of Cost of Locomotive Power

Months.	Miles run by Engines, less Ballasting.	Cost of				
		Enginemens' Wages.	Fuel.	Oil, Tallow, Waste, &c.	Repairs.	Water, including Tank and Pump Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1895—July.. .. .	33,664	1,326 13	1,495 28	205 12	1,635 68	22 50
August.. .. .	31,572	1,378 11	1,224 28	211 79	1,378 21	41 27
September.. .. .	30,238	1,305 27	1,224 53	182 96	1,336 32	82 21
October.. .. .	30,331	1,309 67	1,187 72	502 69	1,405 69	2 53
November.. .. .	30,147	1,204 65	1,265 86	198 94	1,696 92	47 87
December.. .. .	20,912	1,227 40	1,032 89	161 69	1,787 23	219 45
1896—January.. .. .	22,827	1,373 56	1,119 10	173 97	1,690 51	13 55
February.. .. .	24,796	1,860 84	1,271 60	195 69	1,972 10	13 76
March.. .. .	25,689	1,627 33	1,163 70	213 69	2,033 93	5 84
April.. .. .	21,635	1,393 63	691 73	125 42	1,505 90	13 80
May.. .. .	22,294	1,258 73	648 50	119 12	1,171 61	2 00
June.. .. .	30,417	1,502 77	1,030 74	212 14	1,710 86	152 84
Totals.. .. .	324,522	16,768 09	13,355 93	2,203 22	19,329 96	617 62

Department of Railways and Canals.

ISLAND RAILWAY.

DEPARTMENT.

for the year ended 30th June, 1896.

		Average per Mile run.							Total.
		Engine-men.	Fuel.	Oil, Tallow, &c.	Repairs.	Water.	Miscellaneous.		
Miscellaneous, including Office and Engine House.	Total.								
\$ cts.	\$ cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
123 74	4,808 45	3·94	4·44	0·60	4·86	0·07	0·37	14·28	
99 72	4,333 38	4·36	3·88	0·67	4·36	0·13	0·32	13·72	
109 98	4,241 27	4·32	4·05	0·60	4·42	0·27	0·36	14·02	
199 63	4,307 93	4·32	3·92	0·67	4·63	.....	0·66	14·20
111 67	4,525 91	3·99	4·19	0·66	5·63	0·16	0·38	15·01	
181 81	4,610 47	5·86	4·94	0·78	8·54	1·05	0·87	22·04	
159 29	4,529 98	6·01	4·90	0·77	7·40	0·06	0·70	19·84	
206 82	5,520 81	7·50	5·13	0·79	7·95	0·06	0·83	22·26	
186 84	5,236 33	6·33	4·52	0·84	7·94	0·03	0·72	20·38	
154 14	3,884 62	6·44	3·19	0·58	6·96	0·06	0·71	17·94	
184 28	3,384 24	5·65	2·90	0·53	5·26	.....	0·83	15·17
173 14	4,782 49	4·94	3·39	0·69	5·63	0·50	0·57	15·72	
1,891 06	54,165 88	5·16	4·12	0·68	5·96	0·19	0·58	16·69	

J. J. CHAPPELL,
Mechanical Accountant.

B.—PRINCE EDWARD

MECHANICAL

STATEMENT of the Performance and Consumption

Month.	Hours in steam.	Train Mileage.				Mileage by Engines.			
		Passenger.	Freight and Mixed.	Ballasting.	Piloting.	With train.	Light.	Shunting.	Total.
1895—July	3,976	13,483	12,109	229	369	26,200	117	7,586	33,903
August	3,949	12,691	11,566	2,524	.....	26,781	113	7,387	34,281
September.....	3,710	11,964	11,068	3,348	234	26,614	184	6,873	33,671
October.....	3,855	11,567	11,892	3,420	32	26,911	17	6,823	33,751
November	3,223	10,207	12,914	321	.....	23,442	.....	7,056	30,498
December	2,818	1,841	13,577	72	44	15,534	192	5,258	20,984
1896—January	3,123	2,218	14,454	.....	22	16,694	16	6,117	22,827
February	3,389	2,653	12,936	.....	2,978	18,607	216	5,973	24,796
March.....	3,546	3,431	14,171	.....	1,976	19,578	282	5,829	25,689
April.....	2,839	1,650	13,733	132	117	15,632	86	6,049	21,767
May.....	3,379	2,706	13,361	3,698	83	19,848	329	5,855	26,032
June.....	3,535	10,825	12,377	2,334	467	26,003	168	6,635	32,806
Totals	41,342	85,276	154,158	16,078	6,322	261,844	1,720	77,441	341,005

Department of Railways and Canals.

ISLAND RAILWAY.

DEPARTMENT.

of Locomotives for the year ended 30th June, 1896.

Total Mileage.		Average Mileage.			Consumption.				Consumption per 100 miles run by Engines.			
Cars.	Snow Ploughs.	Average of cars per Mile run with train.	Miles to one hour in Steam.	Of cars to one of Engine.	Bushels of Coal.	Pints of Oil.	Pounds of Tallow.	Pounds of Waste.	Bushels of Coal.	Pints of Oil.	Pounds of Tallow.	Pounds of Waste.
133,161	.....	5·15	18·52	3·92	14,136	2,564	275	634	41·69	7·56	·81	1·87
137,661	.....	5·14	8·68	4·15	14,116	2,760	337	650	41·00	7·48	·80	1·84
136,836	.....	5·18	9·07	4·06	14,072	2,444	247	625	42·08	7·26	·73	1·88
136,687	.....	5·08	8·75	4·03	14,226	2,706	234	729	42·00	8·01	·69	2·16
119,976	.....	5·11	10·47	3·93	13,949	2,404	231	601	45·70	7·88	·75	1·97
84,200	408	5·43	7·44	4·01	10,402	1,676	174	484	49·56	7·98	·83	2·30
77,347	3,308	4·60	7·31	3·39	11,208	1,956	169	594	49·05	8·56	·74	2·60
74,470	12,856	4·77	7·31	3·00	12,744	2,356	207	486	51·39	9·50	·83	1·96
94,167	2,848	5·35	7·21	3·66	11,651	2,534	267	544	45·35	9·74	1·04	2·12
87,078	.....	5·61	7·67	4·00	8,325	1,820	194	451	38·70	11·17	·89	2·07
121,407	.....	6·24	7·70	4·79	10,930	2,204	276	530	41·98	8·22	·88	2·03
128,841	.....	5·04	9·23	3·92	12,306	2,696	349	642	37·51	8·21	1·06	1·65
1,334,831	19,420	5·22	8·24	3·91	148,065	28,120	3,060	6,970	43·42	8·24	·91	2·04

J. J. CHAPPELL,
Mechanical Accountant.

C.—PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

MONTHLY STATEMENT of Car Mileage for year ended 30th June, 1896.

Month.	First Class.	Second Class and Baggage.	Postal and Smoking.	Box and Stock.	Platform.	Total.
1895—July.	31,690	24,397	22,706	37,578	16,790	133,161
August.	27,556	22,789	23,099	35,521	28,696	137,661
September.	27,938	21,929	21,737	35,396	29,836	136,836
October.	23,831	22,667	21,573	39,448	29,168	136,687
November.	21,415	20,892	18,820	46,871	11,978	119,976
December.	16,406	15,026	14,211	31,990	6,567	84,200
1896—January.	17,282	15,804	13,468	24,854	5,939	77,347
February.	15,579	12,220	13,507	24,474	8,690	74,470
March.	17,298	15,904	13,094	31,928	15,943	94,167
April.	16,035	14,265	14,420	36,379	8,979	87,078
May.	16,656	16,343	16,062	44,589	30,757	124,407
June.	24,637	21,440	23,157	35,697	23,910	128,841
Total.	256,323	223,676	213,854	424,725	217,253	1,334,831
Less ballasting.			13,109	700	85,250	99,059
Balance.	256,323	223,676	199,745	424,025	132,003	1,235,772

J. J. CHAPPELL,
Mechanical Accountant.

D.—PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

STATEMENT showing the number of Locomotives, and of the various classes of Cars and other Rolling stock, on the 30th June, 1896.

	Locomotives.	Classification of Cars.											Snow Ploughs.	Flangers.	Total.		
		First Class.	Second Class.	Combined, First, Second and Baggage.	Combined, Second & Baggage.	Postal & Smoking.	Combined, Postal & Baggage.	Pay Car.	Vans.	Box Freight.	Stock.	Platform.				Total.	
On record, 30th June, 1895, serviceable	20	16	6	1	6	1	3	2	1	3	165	10	125	339	8	5	13
do do condemned	1														2	2	2
Total.	21	16	6	1	6	1	3	2	1	3	165	10	125	339	8	7	15
Condemned on hand, 1st July, 1895.	1															2	2
do during the year.							1						6	7	1	1	2
Less rebuilt.	1						1						6	7	1	3	4
do do during the year.							1							1	1	1	2
Add serviceable and repairing.	1												6	6		2	2
do do during the year.	20	16	6	1	6	1	3	2	1	3	165	10	119	333	8	5	13
Total on record, 30th June, 1896.	21	16	6	1	6	1	3	2	1	3	165	10	125	339	8	7	15

J. J. CHAPPELL,
Mechanical Accountant.

Department of Railways and Canals.

E.—PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

COMPARATIVE STATEMENT of the Expenses of the Mechanical Department for the year ended 30th June, 1896.

	1896.	1895.
The miles run by trains were	245,766	244,249
do do engines were	324,522	330,661
do do cars were	1,235,772	1,197,529
do do snow ploughs were	19,420	21,158
	\$ cts.	\$ cts.
The cost of locomotive power was	54,165 88	61,485 54
do repairs to cars was	15,641 39	14,535 63
do do passenger cars was	9,397 04	6,959 55
do do postal and smoking cars was	2,436 17	2,734 28
do do freight cars and vans was	3,858 18	4,841 80
do labour, oil and waste for packing was	517 61	537 84
do repairs to snow ploughs and flangers was	863 63	2,481 96
	\$ cts.	\$ cts.
The cost of locomotive power per 100 miles run by train was	22 04	25 17
do do do engines was	16 69	18 59
do do do cars was	4 38	5 13
	\$ cts.	\$ cts.
The cost of repairs to cars per 100 miles run by trains was	6 38	5 95
do do do engines was	4 83	4 39
do do do cars was	1 27	1 21
	\$ cts.	\$ cts.
The cost of labour, oil and water for packing per 100 miles run by trains was	0 21	0 21
do do do engines was	0 16	0 16
do do do cars was	0 04	0 04
	\$ cts.	\$ cts.
Repairs to passenger cars per 100 miles run by train were	3 82	2 84
do postal and smoking cars were	0 99	1 11
do freight cars and vans were	1 57	1 98

J. J. CHAPPELL,
Mechanical Accountant.

PRINCE EDWARD ISLAND RAILWAY.

RETURN of Accidents and Casualties which have occurred in Canada on the line of the Prince Edward Island Railway during the year ended 30th June, 1896.

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.	Place of Accident.	Name of Person injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
1895. Nov. 19					McArthur	2	South Side	F. McDonald	Employee	Jammed between engine and coach while in act of coupling.	Breast bruised and internally injured	
1896. Mar. 5	7.18 a.m.	6	Accommodation.	Stanley	Good	16	Albany	J. Sweeney	do	Put arm in between spokes of driving wheel to feel excen- tric. Engine started and arm was badly smashed.	Arm broken and smashed. Had to be amputated near shoulder.	
1895. Oct. 24	2.30 p.m.	7	Accommodation.	McKee	Armour	21	Coleman	J. McAuslan	do	While descending from top of box car fell and injured hip on draw-bar.	Hip injured.	
Nov. 13	5.40 p.m.	9	Accommodation.	Stanley	Good	16	Emerald	J. Mulligan	do	While unloading cash box it fell on foot.	Toe broken	
Dec. 13	4.30 p.m.	1	Accommodation.	Kelly	Hunter	7	Alberton	P. Happenny	do	Car door closed on hand.	Hand injured.	

Department of Railways and Canals.

No. 2.

CANADIAN PACIFIC RAILWAY.

NORTH BEND, B.C., 31st Oct., 1896.

SIR,—I have the honour to report on the work done by the Canadian Pacific Railway Co. between Emory and Savonas under the award of the Hon. John A. Boyd and Thos. C. Keefer, Esq., during the fiscal year 1895-96 and up to the 30th September, 1896.

The amount of the award unexpended on July 1st, 1895, was \$68,992.35; during the year 1895-96 the expenditure was \$47,823.45 leaving a balance of \$21,168.90 on the 30th June, 1896.

This expenditure was divided among the four contracts as shown below :

No. of Contract.	Amount of Award.	AMOUNT EXPENDED			Balance unexpended June 30th, 1896.
		To June 30th, 1895.	From June 30th, 1895 to June 30th, 1896.	Total to June 30th, 1896.	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
60	39,389 00	37,639 92	941 48	38,581 40	807 60
61	190,889 00	179,835 45	8 127 86	187,963 31	2,925 69
62	94,331 00	77,510 67	13,475 62	90,986 29	3,344 71
63	51,971 00	121,601 61	25,278 49	37,880 10	14,090 90
Total.	376,580 00	307,587 65	47,823 45	355,411 10	21,168 90

From July 1st to September 30th, 1896, the amount expended was \$9,910.85, leaving an unexpended balance on October 1st of \$11,258.05.

This expenditure was as follows :

No. of Contract.	Amount of Award.	AMOUNT EXPENDED			Balance unexpended October 1st, 1896.
		To July 1st, 1896.	From July 1st to September 30th, 1896.	Total to September 30th, 1896.	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
60	39,389 00	38,581 40	678 58	39,259 98	129 02
61	190,889 00	187,963 31	2,679 42	190,642 73	246 27
62	94,331 00	90,986 29	2,267 33	93,253 62	1,077 38
63	51,971 00	37,880 10	4,285 52	42,165 62	9,805 38
Total.	376,580 00	355,411 10	9,910 85	365,321 95	11,258 05

Work last season was continued till the middle of December, the steam shovels closing down about the 15th of November and a few sloping gangs working till the later date.

This spring work began about the middle of March, the steam shovels beginning work at the end of the month.

During this season 4 steam shovels worked within the limits of the award. Two of these were moved to the Selkirk section about the middle of the summer. The number of men employed averaged about 200. About one-half of this force was generally employed on award work, the other half being employed on improvements to the line which were charged to company appropriations.

Much less work was done on this section this year than the preceding years. This was largely due to the fact that the company did a good deal of work on the Selkirk section this year and for this purpose took some of their plant from this section.

The principal work done during this year was as follows :—

CONTRACT 60.

The award work on this contract consisted of a little slope trimming and of a stream diversion at structure 340, the stream being taken through a track culvert with a cover of steel rails.

The filling of structure 350 was completed this year.

At White's Creek, structure 327, work is in progress on the first of the masonry piers to replace the wooden towers and support the steel spans erected last year.

CONTRACT 61.

The principal award work on this contract was a heavy shovel cut at Kanaka Bar, station 1089-1110, where shovel 3975 worked four months reducing the slope ; there was also some trimming of slopes by hand on this contract.

At structure 371 a culvert was built 4 feet by 2½ feet, and the trestle was partly filled. Structures 372, 423 and 438 were filled. At Quoi Eek Creek, structure 405, the 25 foot arch culvert was completed, and the structure was filled from the award at Kanaka Bar. Two small pipe culverts were put in the banks five miles west of Lytton.

Work at the hydraulic fill at structure 374 was continued this year, but the fill is not yet completed.

The alignment was straightened at a couple of points on this contract.

CONTRACT 62.

The award work on this contract consisted of a shovel cut at station 916-932, a couple of changes of alignment and some trimming of slopes.

At structure 512 the part of the culvert which was washed out in 1894 was rebuilt and the structure refilled. At structure 542 a culvert 4 feet by 2½ feet was built, and the structure filled. Structure 488 was also filled and structure 594 was half filled.

CONTRACT 63.

Several shovel cuts were taken on the award, on this contract, generally for the purpose of improving the alignment. A large crib was built at station 854 to hold a crumbling bank and a number of slopes were trimmed.

At structure 658 a vitrified pipe culvert was built, and at structure 669 a cedar box culvert was put in. Structures 657, 656, 658, 667, and 668 were filled, and structure 647 was half filled.

The Black Cañon slide gave a good deal of trouble this year. During July, August and September the track had to be lifted constantly.

There is not much work now left to be done on the award, and the work still to be done this season will still further reduce it. By the end of the season the award on contract 60 will all be spent, and contract 61 will probably also be finished. On contract 62 a few hundred dollars will be left over, and contract 63 is the only one on which any large award will remain unexpended. The total amount remaining for next year will probably not exceed \$7,000.

I have the honour to be, sir,

Your obedient servant,

G. J. DESBARATS,
Inspecting Engineer.

COLLINWOOD SCHREIBER, Esq., C. M. G.,
Chief Engineer Dept. Railways & Canals,
Ottawa.

Department of Railways and Canals

No. 3.

CANALS.

SAULT STE. MARIE CANAL.

SAULT STE. MARIE, 22nd July, 1896.

SIR,—I beg to submit the first annual report upon the operation of the Sault Ste. Marie Canal since its opening for traffic on the 9th September of last season.

I entered upon the duties of superintendent of the canal in June, 1895, but as the machinery for operating the gates and valves was not quite completed and ready to put in motion I did not engage the staff.

On the first of July, however, I ordered part of the operating staff to report for duty and employed them in cleaning up the machinery and fixing up about the power-house, &c.

About the first of August I put these men to work operating the machinery which is all done by electricity and as they were all green hands it required a good deal of instruction to teach them their duties. It was time well spent as is shown by no accidents of any amount having occurred from the operating of the machinery.

On the first of September the balance of the operating staff were engaged, and on Saturday the seventh day of September, 1895, the canal was appropriately opened by passing through the new Canadian passenger steamer "Majestic" under the command of Captain Peter M. Campbell, commodore of the Great Northern Transit Line, with some seven hundred passengers aboard.

On the following Monday morning (9th September, 1895), at seven o'clock, the canal was formally opened for public business, the first lockage consisting of the American steamers "Uganda" and "City of London" with a tonnage of 3,383 tons, loaded with 146,000 bushels of wheat on a draught of water of fourteen feet four inches.

The first day's work of nine hours was the passing through the lock of forty-one vessels, with a combined tonnage of 44,469 tons with green hands and without a mishap.

By the opening of this canal the congested state of the traffic on the St. Marys River was relieved, previously to this vessels had been obliged in some cases to wait from twelve to thirty-six hours for their turn to lock through the American canal. Such protracted delays are now unheard of and the delay of an hour is now considered to be a great hardship.

Up to the close of navigation on the sixth day of December, 1895, the canal was operated during the day only, as the range lights at the entrances had not been erected.

The canal was opened up this spring on the seventh of May, since which it has been in operation night and day.

The buoying of the channels at the entrances is under the charge of the Marine Department, whose officer placed the buoys out this spring, but probably from want of a sufficient knowledge of the channels, some of them were misplaced, and as a consequence several vessels have gone aground, but as the attention of the Marine Department has been directed to the matter, the danger will no doubt be obviated in the future. The current cutting across the upper end of the piers at the western end is considered by vessel men as a great hindrance to the use of the canal by vessels with tows, as the current is liable to drag them down on the rocky edge of the channel, or they may strike the end of the pier, as did the schooner "Nelson" hitting so hard that she sunk immediately. This current could be done away with in a great measure by extending the pier out some 800 feet, or the difficulty could also be overcome by taking out the pier standing in the centre of the canal to support the end of the Canadian Pacific Railway swing bridge, thus allowing vessels to come right in with enough headway to hold their tows well up against the cross current, while with the bridge pier as it now is, they are forced to slow down so much that they cannot keep sufficient headway to prevent the current from carrying them down on and around the pier; with a north or

north-west wind it is hard work for a light vessel to work past this bridge pier and coming in vessels are very liable to strike it. Some very close calls have already occurred, and it has been and is now a cause of great complaint of vessel men using the canal, and by reason of its being there we lose the use of the entire south side of the canal at the upper end, as captains will not land on that side and then work around the bridge pier, and as I said before, if a north or north-west wind is blowing it would be almost impossible to do so without the assistance of a tug. In going out one day the schooner " Helvetia " hit the end of this pier and sheered in and went on and struck and nearly carried away the steel girder carrying the railway track from the pier to the shore. I would strongly recommend the removal of this pier and the erection of a bridge swinging clear across the canal.

Several minor accidents and cases of damages to the piers by vessels striking them have occurred, all of which have been reported to the department. The largest amount of damage done was by the schooner " Aurania " to the north pier at the lower entrance. These damages have been paid for and the amounts duly deposited to the credit of the Receiver General.

The occupation of the new offices about the end of May has greatly facilitated the work of the clerical staff.

The canal grounds require to be trimmed down and levelled off, which service will require a considerable expenditure of money so as to give them a neat and tidy appearance. Around the offices a small portion has been levelled and grass seed sown.

Up to the end of the year ending 30th June, 1896, we had made 1,640 lockages, passing through 2,938 vessels, with an average time of twenty minutes to a lockage. The registered tonnage of vessels passing through the canal for the year was 2,398,715 tons, and of this about 12½ per cent was Canadian.

The operating staff as a whole were new to the work and so far they have done as well as could be expected considering their inexperience at such work.

Necessary repairs, such as painting the gates, fixing the floats, piers, machinery, &c., &c., have been done, and also some levelling up of the grounds.

At the lower or eastern entrance it would be a manifest improvement if the elbow in front of the south pier was dredged off so as to widen the channel where vessels make the turn in going out and coming in to the canal. It would also be an advantage if the south pier was extended out about 500 feet when the dredging referred to is done, as it now stands there is not sufficient room for vessels to lie at the piers while waiting to take their turn to enter the locks or at night after locking down and waiting for day light or good weather to go on down the river.

I would also recommend the purchase of a small upright boiler on wheels to be used in connection with the steam hoist we now have and it could also be used for hoisting and lowering the heavy wickets on the movable dam. It would be a most useful article on the canal.

The long narrow lock has proved to be a great success, the work of passing vessels through it is done with much greater dispatch than could be the case with a wider one, and the correctness of the views of those who changed the plan from the old to the new form of lock is fully demonstrated. There is no time lost in placing vessels alongside of each other as would be in case of a shorter and wider lock, and the use of a tug for that purpose is reduced to a minimum, and no damage can possibly arise to vessels in surging across the lock and hitting the opposite side. In this long and narrow lock a steam barge enters with her consorts without the assistance of a tug as was exemplified in one case this season where a barge brought in four schooners without the assistance from a tug.

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

J. BOYD,
Superintendent

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer
Railways and Canals,

Department of Railways and Canals

SOULANGES CANAL.

ENGINEER'S OFFICE, COTEAU LANDING, P.Q., 28th Sept., 1896.

SIR,—I have the honour to report as follows:—

The total value of work let on this canal is, at contract rates, about \$3,500,000.

The subjoined list gives the names of the contractors and the dates of the various contracts :

Sections Nos. 1 & 2, Archibald Stewart, 24th Sept., 1892.

Section No. 3, J. & M. O'Leary, 27th March, 1893.

Sections Nos. 4, 5, 6 & 7, George Goodwin, 9th May, 1893.

Section No. 8, Charles Raynor, 29th December, 1892.

Section No. 9, Randolph Macdonald, 30th January, 1893.

Section No. 10, Rogers & Taylor, 24th December, 1892.

Section No. 11, George Goodwin, J. Feeney, Poupore and Fraser, 11th May, 1892.

Section No. 12, O'Brien & Son, George Goodwin, 9th May, 1893.

Section No. 13, Randolph Macdonald, 24th September, 1892.

The above contracts do not include the cost of cement, superstructure of bridges, the lock gates and their machinery, or the power-house and electrical apparatus for operating the canal.

For a description of the line under construction, see my reports dated 5th November, 1892, 4th October, 1893, 18th August, 1894 and 23rd August, 1895.

The condition of the works on the 30th June last may be briefly described as follows :

Sections Nos. 1 and 2.—Work was begun on these sections in 1892. Up to the end of the fiscal year about 258,400 cubic yards of earth and 53,400 cubic yards of rock were taken out. At the Rockland quarry about 16,500 cubic yards of cut stone and 25,000 of backing were piled up. Nothing of consequence was, however, done up to the end of the fiscal year, towards the delivery of this material. In January, 1895, I submitted a proposal to the Hon. the Minister to reduce the number of locks at the Cascades end from four to three—the lifts to be 23½ feet each. This change was approved and an agreement entered into with the contractor for its execution. It is presumed that this arrangement will be carried out, but unless a wholly different management of affairs be established on this contract, it is impossible to conjecture when the work will be completed.

It will be observed that out of the amount of the progress estimate to the 30th June, 1896, viz., \$443,881.90, there is an advance on materials delivered or prepared of \$266,065.

Section No. 3. The earthwork of this section is well advanced. A large part of the stone lining is in place. But the St. Antoine Road bridge masonry will not probably be completed until next season. The work has however been carried on in a quite satisfactory manner.

Sections Nos. 4, 5, 6 and 7. These sections were grouped into one contract for the reasons stated in my annual report of 1894. Over a million of cubic yards of earth were moved up to the end of that year. This consisted of the top part of the excavation, which was easily moved by wheeled scrapers to form the sides. The contractor has practically abandoned the earthwork after doing by far the easiest part of it, for which he was allowed full contract prices. No stone whatever has been delivered on the ground or prepared for Section No. 4, where a lift lock, guard gates, regulating weir, &c. (in all about 40,000 cubic yards of masonry) are to be built.

As will be seen, the contract is dated 9th May, 1893. The work was to have been completed by the 1st October, 1894. Its total value at contract rates is about \$850,000. Up to the 30th June, 1895, the progress estimate was \$279,752.35. At the same date this year the figures are \$298,535.25. Value of work done during fiscal year ending

30th June, 1896, \$18,780.90. Comment is unnecessary on such a condition of matters on an important public work.

Section No. 8.—A considerable portion of the earth work of this section is done. The culvert at Rivière à la Graisse is completed and in use. The concrete masonry of the St. Emmanuel Road bridge has been begun, but its progress was interrupted by heavy slides in the blue clay, which attains its greatest depth on the line of the canal at the western end of section 8. This blue clay has been extensively used in the formation of the rear portion of the embankments. A large part of it was, however, wasted into the St. Lawrence River. The work of this section has progressed satisfactorily as usual.

Section No. 9. Earth work nearly finished. Dredging operations have ceased. The work can be easily completed next season. The protection lining of the canal is in progress.

Section No. 10.—The excavation is well advanced. The Rouge culvert and diversion channel are completed and in successful operation. The old bed of the river is being carefully filled up—the banks across its valley consist chiefly of water tight materials. The foundations of the bridge at the Rouge Road have not yet been begun—but there is no reason why the work on this section cannot be easily finished next year.

Section No. 11.—The main portion of the culvert at the Delisle River (4 tubes of 10 feet diameter) is completed, together with the new channel for the stream. A bridge to carry the macadamized road which will run along the whole line of the canal between Coteau Landing and Cascades Point, is being built over the north end of this culvert. A large amount of rock (72,000 cubic yards) is now excavated. The work can be easily completed next year.

Section No. 12.—Nothing has been done here since the fall of 1893, when the work was abandoned by Goodwin. There are from 80,000 to 100,000 cubic yards of rock on the section.

Section No. 13.—The entrance to the canal from Lake St. Francis has been advanced somewhat. Dredging continues east of the Canada Atlantic Railway bridge where a steam shovel has also been employed. Generally, the work proceeds slowly, but the excavation is very hard, being largely interspersed with boulders. Arrangements should be made to go on with the construction of the Guard Lock at the head of the canal, which is indispensable to the safety of the navigation.

Out of a total of say $6\frac{1}{4}$ millions cubic yards of earth, about 4,400,000 were taken out to the 30th June last. 128,465 cubic yards of rock were also excavated. Of the masonry and concrete, amounting to about 200,000 cubic yards, only 25,652 were done.

The quantities of rock and earth on each contract are approximately as follows :

	Rock.	Earth.
Sections Nos. 1 and 2	53,400	258,400
do No. 3 . . . . .	.....	513,800
do Nos. 4, 5, 6 and 7. . . . .	.....	1,113,322
do No. 8 . . . . .	.....	608,618
do No. 9 . . . . .	.....	470,000
do No. 10	3,050	426,500
do No. 11	71,940	265,944
do No. 12 . . . . .	.....	152,987
do No. 13	75	592,000
	<u>128,465</u>	<u>4,401,571</u>

Department of Railways and Canals.

A summary of the progress estimates of each section for work done and materials delivered (or prepared) up to the 30th June, 1896, is as follows :

	Wall.	Materials.	Total.
	\$ cts.	\$ cts.	\$ cts.
Sections Nos. 1 and 2.....	177,816 90	266,065 00	443,881 90
do No. 3.....	131,681 76	26,275 00	157,956 76
do Nos. 4, 5, 6 and 7.....	295,771 25	2,764 00	298,535 25
do No. 8.....	181,324 87	7,670 50	188,995 37
do “ 9.....	90,488 00	8,732 50	99,220 50
do “ 10.....	185,246 93	13,182 50	198,429 43
do “ 11.....	196,858 70	4,729 00	201,587 70
do “ 12.....	37,973 02	238 50	38,211 52
do “ 13.....	268,875 24	54,902 73	323,777 97
Totals.....	1,566,036 67	384,559 73	1,950,596 40

NOTE.—The advance given on materials, sections 1 and 2, is one and a half times greater than the total value of work done.

The system of short tests established here has been continued; so that a fair knowledge is obtained of the quality of all the cement before it is permitted to go into the work. The results have proved quite satisfactory. The contracts let, so far, are as follows :

	Barrels.
1. Francis Hyde & Co., Montreal.....	5,092
2. C. I. de Sola, Montreal.....	15,000
3. Bellhouse, Dillon & Co., Montreal.....	25,000

The brands are “White Bros.,” “Josson” and “Coinder.” The two last are Belgium Portlands of excellent quality.

The superstructure of the Canada Atlantic Railway bridge over the canal is erected and in use. Contracts have been let for all the road bridge superstructures of which there are seven.

The foregoing brief statement shows clearly that as a whole the work has so far progressed very slowly. The reasons for this are obvious. On section No. 12 operations have been at a standstill since the fall of 1893, although there are about 100,000 cubic yards of rock to be excavated there. On sections Nos. 4, 5, 6 and 7 matters are in a most deplorable condition, whilst on sections Nos. 1, 2 and 4 where there about 140,000 cubic yards of masonry of all kinds to be done—not a yard was laid up to the end of the fiscal year which closed on the 30th June, 1896.

I am, sir, your obedient servant,

THOMAS MONRO, M.I.C.E.,

Engineer, Soulanges Canal.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Railways and Canals.

MONTREAL DIVISION.

DEPARTMENT OF RAILWAYS AND CANALS,
MONTREAL DIVISION,
SUPERINTENDENT ENGINEER'S OFFICE,
MONTREAL, 30th September, 1896.

SIR,—I have the honour to submit my annual report on the canals under my charge for the fiscal year ended the 30th June, 1896.

I am pleased to say that the traffic, although considerably heavier than during the previous years, has been conducted without any serious accidents or detentions.

The various canals have been closed and opened as shown in the following table :—

	Closing.	Opening.
Lachine Canal.....	30th Nov., 1895	3rd May, 1896
Beauharnois Canal.....	do do	1st do 1896
Ste. Anne Lock.....	29th do	26th April, 1896
Carillon and Grenville Canal..	30th do	27th do 1896
Chambly Canal.....	do do	4th May, 1896
St. Ours Lock.....	29th do	29th April, 1896

Following is a synopsis of the various works done on each canal under the head of repairs, income and capital.

LACHINE CANAL.

REPAIRS.

The various structures in connection with the canal, viz., buildings, wharfs, piers, fences, &c., were kept in good repair throughout the year. The old building in Mill Street yard, occupied by two of the permanent foremen and which had become uninhabitable was renovated and somewhat enlarged, and sheds built in connection with it.

The negotiations for the transfer of Mill Street to the city of Montreal having fallen through, the road bed on that street had to be maintained during the summer out of the general appropriation for repairs. But instead of broken stone, iron dross was used. This stuff is cheaper than and fully as good as stone. It is the intention to use it in lieu of the latter whenever practicable.

The drains and ditches connected with the canal have been kept clean as well as River St. Pierre. Complaints having been made that the syphon culvert carrying this stream under the canal was obstructed, I had it examined by a diver in May last. It was found to be perfectly clean.

In the spring of 1895 a portion of the wall protecting the new pier at the Lachine entrance was damaged by the ice. This was repaired at low water during September.

The electric lighting as well as the telephone service were all that could be desired throughout the year.

An amount has been put down in the estimates for 1896-97, for the extension of the electric lighting from St. Gabriel to Côte St. Paul and for the substitution of electricity to gas on the north side of the canal below Wellington bridge. This work will be performed when the new power house is completed next spring, and we will then be enabled to terminate an old obsolete (1858) contract with the Montreal Gas Co., and provide our own lighting at a much reduced cost and with greater efficiency.

Department of Railways and Canals.

INCOME.

Electric Station.—The work undertaken last year for the purpose of converting the old Tate's mill into a power house and electric station has been pursued. The iron framing was completed: the inlet which is of cut stone rebuilt and its area increased, and the head race renewed.

The foundations and penstocks for the new wheels have yet to be built, the turbines put in place and the electric plant moved from the old building into the new one.

This work is done under the supervision of Mr. L. G. Papineau.

Wharfs at St. Gabriel Basin.—An amount of \$3,500 has been expended in repairing a portion of the wharfs around basins Nos. 1 and 2, St. Gabriel. Those at basin No. 1 are now completed, but a good deal of work still remains to be done in basin No. 2.

CAPITAL.

Deepening in the Lachine Canal between St. Gabriel and Lachine.—This work has been under contract since 1894. The contractors have added to and perfected their plant during the year, their fleet now consisting of two drill scows, each carrying five steam drills, two dredges, a number of dumping scows and two tugs, together with a floating repair shop.

The work is carried on night and day, the drill scows and dredges being provided with electric lighting machinery.

The work was stopped on the 24th November, 1895, and resumed in May, 1896.

From the beginning of operations on the 10th May, 1895, up to the 30th of June last the quantities of excavation were as follows:

Rock.....	50,128 cub. yds.
Earth.....	48,420 " "

which is slightly in excess of one-fourth of the total estimated quantities.

Mr. L. G. Papineau has charge of the above work.

Wharf above Wellington Bridge.—This work is done in connection with the deepening of the lower section of the canal and will provide wharfage accommodation on the south side of the channel for vessels drawing 20 feet of water. A section 360 feet long has been built during last year under the supervision of Mr. Papineau. The necessary excavation was done by the canal dredge, and the cribwork built under contract by Messrs. Gaherty & Shearer. The wharf consists of three cribs, each 100 feet, and a fourth one 60 feet long, the width and depth being 21 feet, with a superstructure 4 feet high and 11 feet wide. The filling behind the cribwork was done partly with clay dredged out of the canal and partly with materials from cellar diggings furnished free of charge by private parties.

Dredging for 22 feet navigation between Locks Nos. 2 and 3.—This work was continued during the last fiscal year with the canal plant, consisting of one steam dredge, one steam derrick, nine flat scows and a hired tug.

The new channel between Wellington Bridge and Montmorency Street is now about one hundred and ten feet in width.

The total quantity of excavation done during the year amounted to 52,130 cubic yards.

LAKE ST. LOUIS CHANNEL.

The contractors are making good progress with this work. They employed two dredges from July to the end of the season of 1895, and, in July last, added a third one to their fleet. The quantity of excavation done during the year was 52,350 cubic yards.

The canal dredging and the forming of the new channel in Lake St. Louis are under the charge of Mr. L. S. Pariseau.

Repairs to Vessels.—During the winter the dredge No. 2 was thoroughly overhauled, the deck was completely renewed and the sides partly so. The engine cylinder rebored

and the old swinging gear replaced by a pair of independent swinging engines furnished under contract by Messrs. Carrier & Lainé, of Lévis.

As reported at the time, the cabin of the steam derrick had been burned down in November last. It had to be entirely rebuilt, all the steam connections were renewed and the boiler and machinery overhauled.

The balance of the appropriation was used in the usual repairs to the dredging fleet before resuming operations in the spring.

BEAUHARNOIS CANAL.

REPAIRS.

The canal has been kept in good repair during the year. The various structures, such as lock gates, lock machinery, bridges, buildings, piers, scows, fences, &c., having received the customary attention.

A large quantity of stone was broken for macadamizing the canal towpaths, and most of it used for this purpose.

A pair of gates has been built for lock No. 12 and put in place. The old gates will be repaired and can be used again in case of emergency. All the locks except two are now provided with spare gates. The two mooring piers which were carried away by the ice in May, 1895, were rebuilt during the fall, and a quantity of stone deposited behind them.

The house occupied by the superintendent was renovated, the walls were re-tinted, some painting done, and the iron roof repaired. All the watch houses on the various locks have also received a coat of paint.

A new repair scow has been built to replace the old one which was worn out.

INCOME.

Lowering sill and bottom of Lock No. 6.—In consequence of the unusually low water in the St. Lawrence last year, the depth of water on the river sill of the lower lock came down from 9 feet to 8 feet 4 inches during the fall of 1895, causing a great deal of inconvenience to navigation. In order to restore the draught of 9 feet at this point, some important work was done during the winter months. The lock chamber was deepened some 20 inches, and the river sill and platform lowered about 6 inches, the flooring being renewed and the gates altered to suit the altered depth. This work has increased the available draught of water in the lock about 15 inches. To give the full benefit of this improvement, the lower entrance to the lock will have to be cleared of some heavy blocks of stone presumably deposited there by the ice during the spring floods. The works here were done under the supervision of Mr. L. S. Pariseau.

STE. ANNE LOCK.

A large share of the appropriation for this lock was expended on repairs to the pier between the new and old locks, a portion of which had to be completely renewed. The planking on top of it was removed, the top of the stone filling covered with broken stone and clay, and the tamarack sheeting renewed. An additional length of the north pier in the south channel was also rebuilt. The timber for the balance of it, some 300 feet in length, has been purchased and the work will be done this year.

The public wharf was also extensively repaired, the planking, mooring and bumping posts, the oak waling pieces and sheeting being renewed, and a small pier built to replace the bridge, connecting it with the shore.

Besides the above works, the various structures on the canal were kept in good repair during the year.

Department of Railways and Canals.

ST. OURS LOCK.

REPAIRS.

During the unusually high water here last spring the lower gates of the lock, although heavily loaded with stone, were raised from their pivots and thrown down, the fences around the Government property were partly carried away and some damage done to the superintendent's house, but everything was put in working order for the opening of navigation.

Pier No. 1 above the lock, which had been carried away by the ice in the spring of 1895, was rebuilt at low water; and a ferry scow provided to replace the old one which was going to pieces.

Besides this nothing but the customary repairs to keep the lock and appurtenances in good order was done.

CARILLON AND GRENVILLE CANALS.

REPAIRS.

A slight accident occurred at lock No. 5 on the 19th August, 1895, by which traffic was interrupted for 13 hours. It was caused by the steamer "Maud" running against the upper gates and displacing them. The bill of damage, amounting to \$60, was paid by the owners of the boat.

The locks, lock-gates, buildings and fences have received the necessary attention; the tow-path along the Grenville canal has been considerably improved during the year; a new watch house was built at lock No. 5 to replace the old stone house which had become uninhabitable; two new tow-path bridges were built and put in position at lock No. 6, and a piece of dry wall 50 feet long renewed at the same point; a dangerous leak about half a mile above lock No. 5, was successfully stopped by means of a puddle trench built into the bank, on a length of 215 feet. Two of the boom piers, at the head of the Carillon canal, having been carried away by the ice during last spring floods, some of the booms could not be put in place, but I am pleased to say that this has caused no inconvenience to navigation. The piers will be rebuilt during the coming winter.

CAPITAL.

Grenville Canal Enlargement.—The preliminary survey for the enlargement of two reaches in the Grenville canal was commenced by Mr. H. G. Stanton in August, and completed in the month of October, 1895. During the winter, specifications, plans and cross-sections of the proposed work were prepared and tenders invited in April, but withdrawn before the date appointed for receiving them. The staff was discharged at the beginning of July last.

CHAMBLY CANAL.

REPAIRS.

The traffic on the St. Ours and Chambly canal was very active during the year, the results being fully 30 per cent higher than in ordinary seasons. I have pleasure in stating that it was conducted without accidents of any kind.

On the 25th and 26th November last, the snow which had fallen a few days before happening to thaw suddenly under a heavy rain the water in the canal overflowed the

bank and at one time threatened to cause serious washouts in two places. Fortunately the coating of gravel on the towpath acted as a protection, and the damage done was repaired in time to allow ten boats which had been caught in the ice at Chambly the day before, to be locked through.

The water in the Richelieu River was unusually high last spring, as will be shown by the statement accompanying this report, but happily caused no serious damage to the canal.

The annual repairs to the various structures on the canal, the canal prism, tow-paths, &c., were performed during the year. Besides these two pairs of gates were built, one for lock No. 8 and the other for lock No. 9; the upper sill of lock No. 3 was renewed, a swing bridge, built during the winter of 1894, was put together and placed in position, the surface weir below lock No. 6 was altered so as to provide a bottom valve to be used for emptying the reach for repairs. The frame for this valve has been built and put in position and the valve itself will be prepared during the coming winter.

A small pile driver for driving piles at any desired angle was built during the winter and found very useful for the spring repairs.

Over 700 cubic yards of clay were dredged out of the shallow parts of the canal for use at the sites of culverts and waste weirs. Various improvements were made to the machinery in the canal shops by which time and labour is saved. All the tubes in the boiler connected with these shops, had to be renewed during the year, owing to heavy incrustations due to the use of highly calcareous well water.

To remedy this, a line of iron pipes 110 feet long has been laid for the purpose of bringing the feeding water from the canal.

The electric lighting and telephone service have been all that could be desired throughout the year except for an interruption of eight days in the electric lighting due to the burning of one of the fields of the arc dynamo.

A spare dynamo having been added to the plant during the year such interruptions will be avoided in future.

INCOME.

The amount voted for a retaining wall along portions of the canal in the upper reach has been expended for the purpose mentioned. Some 6,400 lineal feet of new wall were built, and, for a distance of 300 feet, where the old wall had collapsed, piles were driven ten feet apart and capped with a piece of hemlock timber upon which the wall was started.

A spare dynamo with the necessary appliances was added to the electric plant at the estimated cost of \$1,200, and a Worthington pump and boiler from the stock of the Lachine Canal purchased for use here.

Inclosed I beg to hand you statements showing the heights of extreme high and low water at both ends of the various canals under my charge during the year.

I have the honour to be, sir,

Your obedient servant,

ERNEST MARCEAU,

Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,

Deputy Minister and Chief Engineer,

Railways and Canals.

Department of Railways and Canals.

LACHINE CANAL.

STATEMENT showing the depth of the River Water on Mitre Sills of Old Lock No. 1, at Lower Entrance, and Lock No. 5, at Upper Entrance, during the fiscal year ended 30th June, 1896.

Months.	Old Lock No. 1, Lower Sill.		Old Lock No. 5, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1895.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July	17 2	15 2	10 8	9 4
August	15 9	15 1	9 10	9 4
September	15 1	14 0	9 4	8 8
October	14 4	13 3	9 2	8 4
November	15 6	13 3	9 4	8 1
December	29 3	15 0	11 9	8 10
1896.				
January	33 9	18 9	12 4	9 7
February	29 6	26 3	11 10	10 4
March	27 9	24 5	10 5	8 9
April	37 6	25 7	15 0	10 1
May	23 0	18 6	13 8	11 11
June	18 11	16 10	12 0	10 11

LACHINE CANAL.

STATEMENT showing the depth of the River Water on Mitre Sills of New Lock No. 1, at Lower Entrance, and New Lock No. 5, at Upper Entrance, during the fiscal year ended 30th June, 1896.

Months.	New Lock No. 1, Lower Sill.		New Lock No. 5, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1895.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July	19 4	17 4	14 10	13 6
August	17 11	17 3	14 0	13 6
September	17 3	16 2	13 7	12 10
October	16 6	15 5	14 2	13 4
November	17 8	15 5	14 4	13 1
December	31 5	17 0	16 9	13 9
1896.				
January	35 11	20 11	17 4	14 7
February	31 8	28 4	16 10	15 4
March	29 11	26 5	15 4	13 9
April	39 8	25 9	20 0	15 1
May	25 2	20 8	18 8	16 11
June	21 1	19 0	17 0	15 11

BEAUHARNOIS CANAL.

STATEMENT showing the depth of the River Water on Mitre Sills of Lock No. 6, at Lower Entrance, and Lock No. 14, at Upper Entrance, during the fiscal year ended 30th June, 1896.

Months.	Lock No. 6, Lower Sill.		Lock No. 14, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1895.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July.....	10 1	9 4	11 7	10 8
August.....	9 4	8 11	11 6	10 8
September.....	8 11	8 4	10 10	10 4
October.....	8 11	8 2	10 8	10 2
November.....	9 6	8 0	10 8	9 6
December.....	11 10	8 11	12 2	10 0
1896.				
January.....	15 10	11 4	11 8	10 4
February.....	17 6	15 0	11 10	10 8
March.....	18 0	13 8	11 4	10 0
April.....	15 7	13 6	12 10	11 3
May.....	14 5	12 6	11 10	11 4
June.....	12 6	11 0	11 8	11 3

CHAMBLY CANAL.

STATEMENT showing the depth of River Water on Mitre Sills of Lock No. 9, at Lower Entrance, and Lock No. 1, at Upper Entrance, during the fiscal year ended 30th June, 1896.

Months.	Lock No. 9, Lower Sill.		Lock No. 1, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1895.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July.....	10 9	8 7	8 7	7 8
August.....	10 0	8 0	8 5	7 5
September.....	9 0	8 1	8 2	7 3
October.....	8 6	7 2	8 6	6 8
November.....	15 1	7 2	9 0	6 8
December.....	13 5	10 11	10 1	8 8
1896.				
January.....	13 11	12 1	9 10	9 0
February.....	17 9	13 8	9 2	8 6
March.....	18 6	16 5	10 2	9 2
April.....	24 2	17 0	13 3	10 6
May.....	19 0	13 0	12 5	10 0
June.....	12 9	10 9	9 10	8 8

Department of Railways and Canals.

ST. OURS LOCK.

STATEMENT showing the depth of River Water on Mitre Sills of St. Ours Lock during the Fiscal Year ended 30th June, 1896.

Months.	Lock No. 1, Lower Sill.		Lock No. 1, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1895.				
	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July	9 8	7 0	9 2	8 0
August	8 5	6 11	8 10	8 0
September	7 2	5 11	8 4	7 11
October	6 6	5 0	8 4	7 7
November	11 4	5 2	12 1	7 5
December	13 3	9 4	11 7	8 10
1896.				
January	13 7	9 5	11 3	9 5
February	12 6	10 0	9 10	8 11
March	14 6	12 10	11 5	10 0
April	26 9	14 2	22 9	11 3
May	18 3	11 11	15 0	11 1
June	11 10	9 0	10 10	9 6

ST. ANNE'S LOCK.

STATEMENT showing the depth of River Water on Mitre Sills of Ste. Anne's Lock, during the fiscal year ended 30th June, 1896.

Months.	Lock No. 1, Lower Sill.		Lock No. 1, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1895.				
	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July	10 8	9 3	13 2	11 3
August	11 5	9 4	11 5	11 0
September	9 3	8 10	11 3	10 5
October	8 10	8 6	10 5	10 1
November	9 6	8 3	11 1	10 1
December	11 2	9 2	13 7	10 7
1896.				
January	13 2	11 5	13 10	12 1
February	12 3	11 3	12 3	11 6
March	11 7	9 8	11 11	11 1
April	15 0	10 1	13 8	11 5
May	13 10	11 2	17 2	14 2
June	11 9	10 9	14 4	12 7

CARILLON CANAL.

STATEMENT showing the depth of River Water on the Mitre Sills of Locks Nos. 1 and 2, Carillon Canal, during the Fiscal Year ended 30th June, 1896.

Months.	Lock No. 1, Lower Sill.		Lock No. 2, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1895.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July	14 8	12 2	14 10	12 2
August	12 6	12 1	12 6	12 1
September	12 5	11 7	12 6	11 5
October	11 8	11 3	11 4	11 0
November	12 4	11 5	12 2	11 0
December	15 5	12 1	15 3	12 6
1896.				
January	17 1	14 0	19 6	16 0
February	14 6	13 7	18 2	15 0
March	13 9	12 10	15 3	12 0
April	20 5	12 10	21 6	11 9
May	19 4	15 9	20 1	16 4
June	16 1	13 10	16 9	14 1

GRENVILLE CANAL.

STATEMENT showing the depth of the River Water on the Mitre Sills of Locks Nos. 3 and 7, Grenville Canal, during the Fiscal Year ended 30th June, 1896.

Months.	Lock No. 3, Lower Sill.		Lock No. 7, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1895.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July	17 9	14 8	15 8	11 10
August	14 11	14 5	12 4	11 9
September	14 10	13 7	12 0	10 6
October	13 6	13 3	10 7	10 2
November	14 8	13 3	12 0	10 2
December	18 6	14 6	16 6	11 10
1896.				
January	25 0	18 0	16 6	14 0
February	25 6	23 0	14 0	13 2
March	24 6	18 0	13 4	12 0
April	25 10	17 0	22 3	11 8
May	24 7	20 0	16 4	21 0
June	20 4	17 2	17 0	14 4

Department of Railways and Canals.

LACHINE CANAL.

STATEMENT of Fines and Damages collected during the Fiscal Year ending
30th June, 1896.

Date.	Name of Vessels.	Name of Owners.	Fines.	Damages.	Total.
1895.			\$ cts.	\$ cts.	\$ cts.
July 18...	Barge "Sultan".....	D. Anderson.....	4 00		4 00
Sept. 11...	Steamer "Shickluna".....	Doré & Co.....	20 00		20 00
Nov. 6....	Scow "Phillippe".....	N. Paul.....	4 00		4 00
Dec. 13...	Barge "Michigan".....	D. Anderson.....	4 00		4 00
do	do "Erie".....	do	4 00		4 00
do	do "Arab".....	do	4 00		4 00
1896.					
June 4....	Schooner "Arlina".....	J. Frenette.....		5 00	5 00
					45 00

J. O'NEILL,
Collector.

CHAMBLY CANAL.

STATEMENT of Fines and Damages collected during the Fiscal Year ending
30th June, 1896.

Date.	Name of Vessels.	Name of Owners.	Fines.	Damages.	Total.
1895.			\$ cts.	\$ cts.	\$ cts.
Aug. 21...	Boat "S. M. Weed".....	D. Surprenant.....	5 00		5 00
Sept. 7....	do "Nettie".....	J. Mylott.....		5 00	5 00
Nov. 4....	Barge "Negociant".....	U. Laroche.....		1 50	1 50
do 9....	do "T. Cormier".....	B. Cormier.....		10 00	10 00
do 15....	do "Nationale".....	Wm. Charland.....	2 00	8 00	10 00
					31 50

M. D. S. MARTEL,
Collector.

CARILLON AND GRENVILLE CANALS.

STATEMENT of Damages collected during the Fiscal Year ending 30th June,
1896.

Date.	Name of Vessel.	Name of Owners.	Fines.	Damages.	Total.
1895.			\$ cts.	\$ cts.	\$ cts.
Aug. 10...	Steamer "Maud".....	Ottawa River Navigation Co.....		60 00	60 00
					60 00

TRENT CANAL.

SUPERINTENDING ENGINEER'S OFFICE,
PETERBORO', 4th July, 1896.

SIR,—I have the honour to submit herewith the annual report on the works under my charge for the fiscal year ending 30th June, 1896. The Trent Canal is a term applied to a series of water stretches between Bay of Quinté on Lake Ontario and Georgian Bay on Lake Huron which, however, in their present condition do not form continuous navigation. This project was first commenced by the Imperial Government about the year 1835, and the money for the completion of the scheme was voted by them, but was afterwards taken to quell the rebellion in the year 1837. A considerable amount of work was done, and the water stretches then made navigable have ever since been utilized. The distance between Georgian Bay and Lake Ontario by the proposed line of navigation is about 200 miles, only about 15 to 20 miles of which will be actual canal, the balance being made up of lakes and canalized rivers. When the two divisions at present under construction are completed it will render navigable a stretch of about 160 miles of direct navigation, besides about the same distance of lateral navigation, between Heeley's Falls on the River Trent and the ports on Lake Simcoe.

MAINTENANCE.

Navigation closed on the central reach 21st November, 1895, and opened again 20th April, 1896. On the lower reach navigation closed on the 22nd November, 1895, and opened again April 18th, 1896. No interruption took place to navigation during the season. The water was maintained at good navigable height on the reaches. The total number of lockages was 3,743. This does not, however, fairly represent the traffic on this canal, as on some of the longer stretches the regular routes do not pass through any lock, so no record of these is kept. There are 25 steamers on the central reach between Lakefield and Balsam Lake and seven on the lower reach between Peterborough and Heeley's Falls.

REPAIRS.

The following repairs were executed :

Peterborough.

The whole of the side dam was rebuilt and well gravelled, so that there is now no trouble in holding the water at the proper navigation level. The lock walls were pointed and the gates received a coat of paint. New platforms were also built at the lower end of the lock for those operating the gates to walk upon. The opening and closing gearing of the gates was also overhauled.

Buckhorn.

The dam at this station was thoroughly grave'lled.

Fenelon Falls.

The road was constructed at the rear of the lock in order to give access to the wharf from Colborne Street.

Minor repairs were also done at the following stations : Bobcaygeon, Lovesick, Burleigh, Young's Point and Hastings.

Department of Railways and Canals.

INCOME.

Two dump scows and one deck scow were built at Lakesfield under contract by H. Walters, Lindsay.

Hastings.

A new sluiceway was constructed in the dam with an opening of 26 feet and 7 feet in depth. This has been a great help in getting rid of the water during the spring freshet which otherwise would flood the farm lands on the shores till late in the season, when it was too late to sow them. Further escape for the spring freshet is necessary.

Emily Creek.

The creek was deepened and straightened in order to allow barges to go further up into the township for the shipping of grain, &c.

Bobcaygeon.

The lower entrance to the lock was dredged and a glance pier built. This has very much improved the entrance.

SURVEYS.

The survey and location of Sections No. 2, on both the Peterborough-Lakefield and Simcoe-Balsam Lake Divisions were completed and the land plans made. The necessary right of way on both these sections has been purchased and paid for with a few exceptions.

In accordance with your instructions surveys of the Trenton-Frankford Division also of the Couchiching-Georgian Bay Division were proceeded with and at the end of the year were still in progress.

CAPITAL.

Rosedale.

Between Balsam and Cameron Lake a shoal in the river has not more than three feet and a half in depth of water, the bottom being rock. A channel 4,600 feet long and ninety feet wide with a depth of seven feet is being made. The rock is being drilled by means of drill scows, and when blasted the material will be dredged. About 14,000 holes are required to be drilled, of which 13,000 are now drilled. Without this work navigation between Balsam Lake and the lower lakes is cut off.

CONSTRUCTION.

Section No. 1, Simcoe-Balsam Division.

Work on Section No. 1, Simcoe-Balsam Lake Division, was commenced by the contractor, Andrew Onderdonk, on 22nd April, 1895, and was continuously carried on till the end of the present fiscal year. About half the rock work (200,000 cubic yards) and two-thirds of the earth work (160,000 cubic yards) have been excavated.

The amount of this contract at schedule rates is about \$475,000. No work outside the excavation, except the raising of roads and bridges, has been done. A small quantity of timber required for the structures has been delivered. The following structures are yet to be built—two entrance piers, two guard gates, two regulating weirs, concrete piers for one highway swing bridge, one highway high level bridge and one railway bridge. The work on this section has been carried on most satisfactorily.

Section No. 1, Peterborough-Lakefield Division.

The contract on this section was awarded to Messrs. Brown, Love & Aylmer. They commenced work on the 19th August, 1895, since which date work has been proceeded with continuously. During the winter rock excavation was taken out. Up to the end of the year 13,000 cubic yards of rock and 42,000 cubic yards of earthwork were taken out. No other work has been done outside the building of road culverts and road deviations. The pit for lock No. 4 has been prepared to receive the concrete for the lock. The plant for preparing and distributing the concrete is being placed in position. The following structures are yet to be built, viz. : five concrete locks, with gates complete, four sluice dams, one guard gate, two entrance piers and abutments for one bridge at Lakefield.

The work is proceeding very satisfactorily on this section.

Section No. 2, Peterborough-Lakefield Division.

The contract for this section was awarded to Corry & Laverdure. They commenced work on 21st May. By the end of the year they had excavated 43,000 cubic yards of earth. The only other work done by the end of the year was the building of road culverts and the widening of the Canadian Pacific Railway track at the approaches to the swing bridge.

The structures yet to be constructed are as follows : one lock, with gates complete, the piers, abutments and guards for three highway swing bridges, one high level bridge, one pipe culvert, one sluice dam, and the concrete in connection with one hydraulic lift lock.

The superstructures for all the bridges and the cement for concrete are not included in any of the contracts.

PLANT.

Dredge "Otonabee."

The dredge "Otonabee" was in constant use throughout the year except during the winter months. The channel in front of the wharf at Lakefield was cleared out, the upper and lower entrances to the Bobcaygeon locks were deepened and widened, the channel of Emily Creek was straightened, and in October the dredge was taken to Rose-dale, where it was engaged till the end of the year in excavating the channel between Balsam and Cameron Lake.

Two new dump scows and one deck scow, which were much needed, were added to dredge plant.

Tug "Empire."

The tug "Empire" has been fully employed during the year in attending the dredge "Otonabee," in buoing out the navigation channel, delivery of timber for the different works of repair, hauling gravel for the staunching of dams, &c.

I have the honour to be, sir,

Your obedient servant,

RICHD. B. ROGERS,
Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Chief Engineer, Railways and Canals,
Ottawa.

Department of Railways and Canals.

STATEMENT showing the highest and lowest Water Level at each Lock on the Trent Canal for the Fiscal Year ended 30th June, 1896.

Station.	1895.											
	July.		August.		September.		October.		November.		December.	
	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
Hastings.....	7 3	6 11	7 1	6 11	7 2	6 10	7 2	7 0	7 0	6 6	7 5	6 4
Peterborough.....	7 5	6 10	7 8	6 10	7 3	6 6	7 6	6 5	7 10	6 7	7 5	6 2
Lakefield.....	6 1	5 3	6 3	5 9	5 11	5 7	6 1	5 8	5 11	5 7	6 7	5 9
Young's Point.....	6 8	6 0	6 10	6 6	6 6	5 9	5 9	5 6	5 4	5 3	7 0	5 0
Burleigh Falls.....	5 6	5 5	5 2	5 2	5 5	5 0	5 5	5 1	5 8	5 0		
Lovesick.....	6 1	5 9	5 9	5 6	5 5	5 3	5 4	5 0	5 4	5 0		
Buckhorn.....	6 5	6 1	6 1	6 0	5 10	5 9	5 9	5 6	5 2	5 1	6 8	5 3
Bobcaygeon.....	6 10	6 6	6 9	6 7	6 5	6 0	6 1	5 8	6 3	6 0	6 10	5 4
Fenelon Falls.....	6 1	5 10	6 4	5 8	5 2	5 0	5 3	5 1	5 0	4 7	5 9	5 5

Station.	1896.											
	January.		February.		March.		April.		May.		June.	
	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
Hastings.....	7 2	7 1	7 0	6 11	7 1	6 6	9 11	6 8	9 10	7 5	7 0	6 4 ¹ / ₂
Peterborough.....	8 9	6 1	6 1	5 5	7 3	5 0	9 9	6 2	9 8	7 2	8 0	7 1
Lakefield.....	7 7	5 7	5 8 ¹ / ₂	5 0	5 2	5 0	8 9	5 3	8 1	5 8	6 0	5 9
Young's Point.....	8 1	6 6	6 5 ¹ / ₂	5 6	5 4	4 8	10 5	4 10	10 3	6 7	6 9	6 2
Burleigh Falls.....	5 8	5 5	5 3	5 0	4 10	4 8	6 5	5 6	6 2	5 6	5 9	5 4
Lovesick.....	7 0	6 2					9 9	6 6	9 0	6 5	6 8	5 11
Buckhorn.....	6 9	6 2	6 1 ¹ / ₂	5 6	5 4	5 1	9 6	5 0	8 8 ¹ / ₂	6 5	6 9 ¹ / ₂	6 4
Bobcaygeon.....	6 6	5 6	5 8	5 7	5 8	5 0	7 6	5 3	6 11	6 9	6 11	6 8
Fenelon Falls.....	5 5	5 3	5 3	5 2	5 7	5 4	8 2	5 3	6 6	5 9	6 1	5 10

RICHARD B. ROGERS,
Superintending Engineer.

RIDEAU CANAL.

SUPERINTENDENT ENGINEER'S OFFICE,

OTTAWA, 2nd July, 1896.

SIR,—I have the honour to submit herewith my annual report on the works performed on the Rideau Canal, under my charge, during the fiscal year ending 30th June, 1896.

Navigation closed at Ottawa, 30th November, 1895.

do Kingston Mills, 20th November, 1895.

Navigation opened at Ottawa, 1st May, 1896.

do Kingston Mills, 1st May, 1896.

On all the levels ascending from Ottawa to the summit level (Upper Rideau Lake), the water was maintained, throughout the whole season of navigation, so as to give continually the required depth on the lock sills.

The summit level, however, owing to the long drought of last summer, fell so low that towards the latter end of the season, only the smaller class of steamboats, and lightly laden barges could go through the cut leading from the lake to Newboro' lock.

Lake Ontario also fell so low, that at the close of navigation, the six mile run from the lower entrance of the canal at Kingston Mills lock station, to the city of Kingston, was almost impassable for boats, particularly at a point known as the "Basket" shoal, about half a mile below the locks.

The spring freshet this year was particularly violent, the water rising higher than has been known for the last 25 years; but I am glad to be able to report that, although damage was done by ice and water at various points along the canal, temporary repairs were promptly made, and navigation was not delayed at all.

Permanent repairs will be made where required next winter, everything being safe for the present season of navigation.

The principal repairs and works performed at the various lock stations and bridges along the line of navigation, are as follows:—

OTTAWA.

The East Basin having been leased to the Ottawa, Arnprior and Parry Sound Railway Company, who have laid their tracks across it, has been closed to canal traffic. The West Basin from Maria Street Bridge to the head of the cut leading to the locks has been cleaned out, and new wharfs have been built round it by the Ottawa, Arnprior and Parry Sound Railway Company at their own expense, and from the last mentioned point to Bate & Co.'s warehouse, a new wharf was built by the department under my direction, and as the basin now stands, although its actual area is diminished, yet boats have greatly increased accommodation for landing freight, and the appearance of the whole locality is very much improved. One pair of lock gates were rebuilt and sluice frames repaired. Four new chain blocks were placed on the locks. A new base burner stove was purchased for the lock-house last winter, the old one having burnt out. A sidewalk was built from the upper side of Sappers Bridge to the end of the new wharf at Bate's warehouse, to serve as a towing path for boatmen. Several small repairs were also made to the station.

OTTAWA EAST SWING BRIDGE.

The flooring of this bridge was relaid throughout with 3-inch white pine plank.

BANK STREET SWING BRIDGE.

The hand railing on both sides of the approaches was rebuilt. A branch was laid from the city water main to the bridge tender's house, and a sink and waste pipe placed therein.

Department of Railways and Canals.

HARTWELL'S LOCKS.

Two pairs of lock gates rebuilt, and 12 new chain blocks supplied. Lock labourer's house was repaired, and together with the lockmaster's house supplied with winter sash. The posts for a new fence have been planted in front of one of the labourer's houses along the road, but the wire has not as yet been stretched on them. The tow path road above the St. Lawrence and Ottawa Railway crossing was widened for about 200 yards. The protection boom in Dow's Lake was replaced in position, the anchors having dragged from their proper positions.

HOGSBACK LOCKS.

The swing bridge across the locks was replanked with 3-inch pine plank. A triple boom of timbers varying in size from 17 x 17 inches to 12 x 12 inches was placed between the ice breakers above the waste weirs. This boom was broken by the freshet this spring; but not until after it had served its purpose, and held back the field ice until it had become broken up, and subsequently passed through the weirs in small pieces. The up stream rest pier of the swing bridge had four courses of timber lifted off by the ice, but the damage was promptly repaired. A quantity of clay was placed on the long dam to check leakage.

The road allowance running through the Ordnance reserve on the Gloucester side of the river was conveyed to Mr. De Wand in exchange for his private road running from the Government quarry to the bulkhead, this latter being much more convenient for the department and also for the public.

BLACK RAPIDS LOCK.

A new crib 150 feet long, filled with stone, was built below the dam to save the wash caused by an eddy from one of the waste weirs. The up stream piers of both waste weirs were repaired, and six new chain blocks supplied. This station suffered severely from the freshet, but temporary repairs were promptly made, and navigation was not delayed. The necessary permanent repairs will be made this winter.

LONG ISLAND LOCKS.

The wall at the back of the upper lock was taken down and rebuilt in cement. The aprons of the by-wash were close sheet-piled with 10in. x 10in. x 24ft. timbers, and for this purpose a new pile driver was built, and added to the list of plant belonging to the canal, and was so made as to be readily taken apart for transporting from one point to another when required. For the purpose of unwatering the work of pile driving, a coffer dam was placed across the White Horse shoal. The lockmaster's house was re-shingled and sundry small repairs made to the station.

MANOTICK BRIDGE

Did not require any repairs this year.

WELLINGTON BRIDGE

Did not require any repairs this year.

BECKETT'S LANDING BRIDGE

Small repairs were made to flooring.

BURRITT'S RAPIDS LOCK.

Lockmaster's house repaired inside, and sundry small repairs made to station and bridge.

NICHOLSON'S RAPIDS LOCKS.

Sundry small repairs were made to the station.

CLOWE'S QUARRY LOCK.

A new set of stop logs were purchased for the waste weir, and sundry small repairs made to the station.

MERRICKVILLE LOCKS.

The two retaining walls of coursed rubble masonry laid in Portland cement, along the west side of the road across the locks were completed this year; having been commenced last year under contract with Mr. M. Ryan of Smith's Falls. A substantial iron railing was placed on the coping of these walls throughout their entire length, and a six-foot sidewalk built inside the walls. One pair of lock gates was rebuilt. Both bulkheads on the north and south sides of the waste weirs were repaired. The rock cut from the head of the locks to the river, a distance of about 1,350 feet, was deepened by blasting, last winter, from 18 to 24 inches. A bulkhead for unwatering the cut was placed at its upper end. The work was done by day labour, and the cut is now in first class condition, even at the lowest stage of the water, for all boats navigating the canal.

MAITLANDS RAPIDS LOCK.

Sundry small repairs were made to this station.

EDMOND'S RAPIDS LOCK.

One pair of lock gates were rebuilt. Lockmaster's house repaired, and sundry small repairs made to station.

OLD SLY'S LOCKS.

The road and approaches to the swing bridge were raised and repaired, and sundry small repairs made to station.

SMITH'S FALLS COMBINED LOCKS.

Some leakage through the basin was stopped. New sluice frames placed in middle lock, and sundry small repairs made to station.

SMITH'S FALLS DETACHED LOCK.

The old stone lock house was pulled down and replaced by a substantial brick cottage; the work being done at a cost of \$1,150, by contract with Mr. M. Ryan. The retaining dam was rebuilt and raised 10 inches higher than formerly, thus raising the level of the reach above, and enabling boats to go easily over the hitherto existing rock shoals in the channel. The Lombardy Road embankment was repaired, and sundry small repairs made to the station. A new steel Warren truss swing bridge was built at the foot of the lock by contract with the Weddell Bridge Co. of Trenton; but the by-wash has yet to be bridged over, and a road made between the two bridges before the crossing is complete.

POONAMALIE LOCK.

Nine new stop logs were purchased for the bulkhead at the head of the upper cut. Two new sluice frames put in, and sundry small repairs to station.

Department of Railways and Canals.

OLIVER'S FERRY BRIDGE.

The swing span was shifted off the pivot pier by a barge striking it ; but by prompt attention it was replaced without any delay to navigation, and with very little to bridge travel ; boats being put on to ferry passengers across whilst repairs were being made.

PERTH BRANCH.

Three pairs of lock gates were rebuilt. Twelve new chain blocks put in. A new store-house was built and sundry small repairs made to station. In the town of Perth, Gore Street swing bridge was replanked, the other three bridges requiring no repairs. The basin wharfs are shortly to be replanked all round.

THE "NARROWS" LOCK.

Gravel and stone were placed on the long embankment. Debris above upper gates was cleaned out by diver. The blue clay now being dredged out of the cut at Newboro' is being deposited by scows against the dam to stop leakage.

NEWBORO' LOCK.

A permanent bulkhead was built across the mouth of the cut and provided with 40-foot elm stop logs. The upper lock gates were upset and the sluice frames repaired. A new 5-inch well was sunk 35 feet into the rock to provide water for the lock house. Last winter the cut for a distance of about 2,200 feet was deepened from 18 to 24 inches by blasting, the work having been done by day labour. This cut has always been extremely difficult to navigate during the latter part of each season, owing to its being shallow, and also on account of its being a portion of the summit level which always is the first to fall. The work done last winter will in future enable boats to pass without difficulty at all stages of the water. Part of the bottom of this cut is blue clay, and was not deepened last winter, the rock only having been removed ; but the dredge is now at work taking this portion out, and will finish in about three weeks time.

CHAFFEY'S LOCK.

A new house was built for the lock labourer. The swing bridge and approaches to same were repaired. A 5-inch well was also drilled here, for a distance of 44 feet into the rock to provide water for the lock house.

DAVIS'S LOCK.

The upper sill of the lock was taken down and rebuilt by our own masons ; and sundry small repairs were made to the station.

JONES'S FALLS LOCK.

The head gates of the upper lock were repaired. Four new sluice frames put in, and small repairs made to the station ; and the swing bridge repaired. Morton Dam, which is under the charge of the lockmaster here was repaired ; but was badly shaken by the spring freshets ; and although safe for this season, requires to be rebuilt next winter.

BREWER'S UPPER MILLS LOCKS.

Two new swing beams were placed on the gates. Embankments repaired, and sundry small repairs to bridge and station.

BREWER'S LOWER MILLS LOCK.

The swing bridge and apparatus thereto were repaired. Fifty cubic yards of gravel were placed on the dam and lock walks, and sundry small repairs were made to the station.

KINGSTON MILLS LOCKS.

A new storehouse was built here. One new swing beam placed on gate. Sluices repaired. One hundred cubic yards of stone placed on embankments, and general repairs to station.

GENERAL.

The usual spring repairs consisting of pointing and grouting the lockwalls, painting gates, etc., etc., were made by the lockmasters and locklabourers. The contract for supplying the 5,000 cubic feet of white oak dimension timber has again been awarded to Mr. H. Harris, of Ottawa, Two hundred and seven barrels of Portland cement were purchased from Mr. McRae, of Ottawa, and about one hundred barrels of Hull cement from Messrs. C. B. Wright & Sons, of Hull, Que.

DREDGING PLANT.

The Dredge "Rideau" when fitting out this spring was caulked all over her hull. New braces fitted on crane, and a new set of tubes for her boiler. A set of anchors of 12in. x 14in x 25ft. white oak were placed in position and a new dipper handle framed. The tug "Shanly" did not require any but the usual spring repairs, painting, etc. She is however too heavy, in the water, and towards the end of the season is unable to go through the canal on account of her heavy draught and the lowness of the various levels. She requires to be lengthened about 15 or 20 feet, and her boiler shifted further forward, which would have the effect of lightening her draught about nine inches, and enable her to go anywhere without trouble. The dredge was employed the whole of last season deepening Newboro' Cut and the entrance to the lake. The entire dredging plant, consisting of dredge, tug, four side pocket and one flat scow, are in good working order.

I append hereto a table showing the highest and lowest water during each month of the year, at Ottawa and Kingston Mills lock stations.

I have the honour to be, sir,

Your obedient servant,

ARTHUR T. PHILLIPS,

Acting Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Chief Engineer of Railways and Canals.

Department of Railways and Canals.

RIDEAU CANAL.

TABLE showing monthly the Highest and Lowest Water on the Lower Sills of the Locks at Ottawa and Kingston Mills respectively, from July 1st, 1895, to June 30th, 1896.

OTTAWA.				KINGSTON MILLS.							
Highest.		Lowest.		Highest.		Lowest.					
	Ft.	in.		Ft.	in.		Ft.	in.			
July 1.....	13	2	July 31.....	8	8	July 1 to 3....	6	9	July 20 to 31..	6	5
August 27.....	9	5	Aug. 3.....	8	5	Aug. 1 to 14..	6	5	Aug. 15 to 31.	6	4
Sept. 1.....	9	0	Sept. 28 and 29	7	0	Sept. 1 to 4....	6	4	Sept. 15 to 30.	6	1
Oct. 11 and 15.	7	3	Oct. 30 and 31	6	4	Oct. 1 to 4....	6	1	Oct. 31.....	5	7
Nov. 26 and 27.	8	0	Nov. 6 and 7...	6	1	Nov. 1 to 11..	5	7	Nov. 27 to 30.	5	9
Dec. 31.....	13	6	Dec. 18 to 20...	7	8	Dec. 24 to 31..	6	0	Dec. 1 to 8....	5	9
Jan. 3.....	15	2	Jan. 31.....	11	0	Jan. 1 to 6....	6	0	Jan. 20 to 31..	5	10
Feb. 1.....	10	10	Feb. 29.....	9	0	Feb. 1.....	5	10	Feb. 29.....	7	2
Mar. 26 and 27	9	8	Mar. 5 to 8....	9	0	Mar. 1 to 5....	7	2	Mar. 12 to 31.	7	0
Apl. 24 and 25	25	4	Apl. 1 to 7....	9	6	Apl. 19 to 30..	7	3	Apl. 1 to 11...	7	1
May 1.....	21	2	May 31.....	15	6	May 30 and 31	7	10	May 1.....	7	3
June 11 and 12	16	4	June 30.....	11	11	June 1 to 6....	7	10	June 23 to 30.	7	8

ARTHUR T. PHILLIPS,
Acting Superintending Engineer.

RIDEAU CANAL OFFICE,
OTTAWA, July 2nd, 1896.

ST. LAWRENCE DISTRICT.

SUPERINTENDING ENGINEER'S OFFICE,

CORNWALL, 1st July, 1896.

SIR,—I beg to submit the following report for the fiscal year ending 30th June, 1896, upon construction as connected with the enlargement of the canals in my charge.

CORNWALL CANAL.

(Opened for traffic 1843.)

The canal has a total lockage of 48 feet and surmounts the Long Sault Rapids.

It extends from the town of Cornwall westwards to the village of Dickinson's Landing, a distance of 11½ miles.

It is located on the north side of the St. Lawrence, on ground sloping rapidly towards the river and at a considerable elevation above it.

The works of enlargement now under construction consist in deepening, widening and straightening the original channel, in strengthening and protecting the embankments and in the construction of new and enlarged locks, supply weirs, bridges, &c., &c. Also in addition to the above and not included in the original contract, the construction of dams across the north or Sheik's Island channel, with the necessary regulating weir, &c., on the island, designed to perfect the channel and do away with the existing sinuous and imperfectly constructed embankments west of the village of Mille Roches.

As no change or improvement in the original alignment was contemplated or provided for in the scheme for enlargement, attention was directed to the fact that the class of vessels for which the enlarged canal is designed, would have great difficulty in navigating it, and that on certain curves on Sections Nos. 6 and 7, west of Mille Roches, it would be practically impossible for vessels of full canal size to pass each other when under headway.

The enlargement at the lower or eastern entrance (Section No. 1) was commenced in 1876, and with the exception of some work on old lock No. 17, and the weir and head-race to the mills, was completed in 1882.

Section No. 10, upper entrance, which was commenced in 1884, was completed in 1895.

In 1888, the remainder of the work required to complete the enlargement was placed under contract, and except Sections Nos. 6 and 7 is still in progress.

And in 1893 the contract for Section No. 4, was extended to include the construction of the Sheik's Island Dams, which are now nearing completion, and the contract for Sections Nos. 6 and 7 and parts of Sections Nos. 5 and 8 affected by their construction, cancelled.

STATEMENT of work under existing contracts and in progress.

Locality.	Section.	Contractors.	Date of Contract.
Cornwall.....	2	Wm. Davis & Sons.....	November 5th, 1888.
Lock No. 19.....	3	do do.....	do do do
Maple Grove.....	4	do do.....	do do do
Sheik's Island Dams.....	4	do do.....	June 19th, 1893.
Mille Roches.....	5	The Gilbert Blasting and Dredging Co.....	November 2nd, 1888.
Moulinette.....	6	do do do.....	do do do
Sand Bridge.....	7	do do do.....	do do do
Long Sault.....	8	do do do.....	do do do
Dickinson's Landing....	10	Jocks, Delorimier & Broder.....	April 7th, 1884.

NOTE.—Section No. 2 includes the completion of Section No. 1. Section No. 4 includes the Sheik's Island dams. Section No. 8 adjoins section No. 10.

Department of Railways and Canals.

The water was drawn off the canal by the 15th March, 1896, and so continued until the 30th April following; this enabled the contractors to proceed with work which could not be carried on during navigation.

The stone delivered during the year was procured from the quarries at Cornwall, Maple Grove and Mille Roches.

Masonry, which was continued throughout the season of 1895, until stopped by frost in November, was recommenced in March, 1896, and has been continued without interruption.

SUMMARY OF YEAR'S WORK.

Section No. 2.

In the summer of 1895 a dam was built above old lock No. 18, the coping and top courses of masonry removed, rebuilt and raised two feet to conform to the new levels, the lock walls were also generally repaired.

While the water was out of the canal in the spring of 1896, the old platforms were taken out of the upper and lower recesses of old lock No. 18 and rebuilt. The mitre sills were also renewed.

Considerable stone protection to the inside slopes of the banks has been placed during the year and part of the banks have been raised and trimmed.

A small wharf has been built in front of the canal workshops, and the yard raised and levelled.

Work on the pitched stone facing on the outer or river slope of the bank west of lock No. 18 has been carried on continuously and is now nearing completion.

The excavation in the prism below lock No. 18 is now practically completed, but above the lock there remains considerable cleaning up to do.

Section No. 3.

The excavation above and below the new weir at lock No. 19 have been completed and the structure brought into use.

A dam has been built across the head of old lock No. 19, and the coping and portions of the old masonry, where considered necessary, have been removed and are being rebuilt.

While the canal was unwatered in the spring the lower recess of the old lock No. 19 was cleaned out and the platforms renewed.

New mitre sills will be put in next season, and the upper mitre sill platforms renewed.

The cribs at the head and foot of the lock have been built to water line and ballasted, but are not yet completed.

The stone protection to the inside slopes of the banks is being proceeded with and the banks trimmed and raised.

The excavation on this section is nearly completed.

Section No. 4.

The glance cribs at the foot of the old and new lock No. 20 have been completed and the ground around and between the locks is being cleared up and levelled.

In the spring of 1896, whilst the water was out of the canal, the arch of the old culvert at Robertson's was taken down to the level of the new bottom, and the remains of the north bank removed, thus completing the channel between locks Nos. 19 and 20 to full depth.

The level below lock No. 20 can now be temporarily lowered about 3 feet and permit the stone protection to the inside slopes of the banks to be proceeded with.

Section No. 5.

While the water was out of the canal in the spring of 1896, a large number of boulders in the bottom of the canal east of the bridge were drilled and blasted.

Two dredges were working on the section during the season of 1895, and made fair progress towards completion, but have been unable to work on the section this season for the reason that the contractors were obliged to wait for the completion of the Mille Roches bridges before the old culvert could be removed, in the meantime they will be employed on Section No. 8 in cleaning up bottom of canal and finishing the channel to the cutting through the old canal bank in connection with the Sheik's Island channel.

Section No. 8.

Fair progress has been made with excavation on this section which will be completed this season.

Section No. 10.

The final estimate for this work has been completed and forwarded to the department.

Upper Entrance Pier.

The renewal of the superstructure of the entrance pier, the contract for which was let on the 26th October, 1895, to Messrs. Wm. Davis & Sons, has been completed in a most durable and substantial manner.

Sheik's Island Dams.

The regulating weir at the lower dam commenced in the fall of 1895 was completed while the water was out of the canal in the spring of 1896, and as the dams had been practically completed during the season of 1895, the water was let into the new channel at the opening of navigation on the 1st May, 1896.

The filling was accomplished very gradually, commencing in the fall of 1895, and subsequently controlled by valves placed in the old culvert at Moulinette.

The entrances to the channel are being dredged out and will be completed in a few weeks, when the new channel will be brought into use.

Mille Roches Bridge.

This bridge takes the place of the culverts or tunnels at Mille Roches and Moulinette and affords access to Sheik's Island and the old village of Mille Roches from the mainland. Preparations for building were begun in the fall of 1895 and resumed on the 15th March last, when the canal was unwatered, the masonry of the piers and abutments was commenced on the 30th March and completed by the 1st of May ready for the superstructure, the contract for which was awarded to the Dominion Bridge Co., and will, it is stated, be finished by the 15th July, 1896.

WILLIAMSBURG CANALS.

FARRAN'S POINT.

(Opened for traffic 1847.)

This canal is about $\frac{3}{4}$ of a mile in length and has a lockage of $3\frac{1}{2}$ feet.

It overcomes a short, swift rapid above the village of Farran's Point, which is situated about 5 miles west of the village of Dickinson's Landing, the head of the Cornwall Canal.

A contract to restore the prism of this canal to its original dimensions, viz.: width 50 feet on bottom and 10 feet in depth, has been taken by the Gilbert Blasting and Dredging Co., the work is in progress and will shortly be completed.

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RAPIDE PLAT CANAL.

(Opened for traffic 1847.)

The lockage on this canal is $11\frac{1}{2}$ feet.

It surmounts the rapid of "Rapide Plat" and extends from the village of Morrisburg west to Flagg's Bay, about $3\frac{3}{4}$ miles.

The works now under contract and in progress are as follows:—

Location.	Section.	Contracts.	Date of Contract.
Morrisburg	1	Poupore & Fraser	January 26th, 1891.
Mariatown	2	Weddell Dredging Co.	January 12th, 1891.
New Road	1	Poupore & Fraser	January 26th, 1891.

NOTE:—The change in alignment, east of lock No. 24, formerly Section No. 4, is included in Section No. 3.

The enlargement was commenced in 1884, on Section No. 4, the upper or western entrance, and completed and brought into use in 1888.

The work of enlargement now in progress consists of the deepening and widening of the old channel and in constructing a new and enlarged lock, supply weir, and entrance pier at the village of Morrisburg.

Section No. 1.

This section extends west along the river front of the village of Morrisburg and includes the lift lock.

Since the work was commenced a change in the proposed alignment of the lower end of this section was made, by placing the centre line of the new lock parallel to that of the old lock No. 23, thereby improving the direction of the river entrance and enabling upward bound vessels to avoid the strong current.

The lock foundation of concrete and timber was begun in April, 1895.

Masonry, which was commenced in May and carried on with the foundation of the lock, &c., was completed in August in 1895, and the masonry of the lock walls in November following.

The masonry of the north retaining wall was completed in October, 1895, and a strong iron railing erected near the east end between Augusta and Stafford streets.

The masonry for the south retaining wall was commenced in May, 1896, and is still in progress.

The pumps in lock-pit ceased working on the 19th June and were then removed.

Dredging at the lower entrance was resumed in May, 1896.

The cribwork for entrance pier was begun in June and is now in progress.

The stone for the lock masonry was obtained from the Mille Roches quarry, Cornwall Canal, and that for the retaining and extension walls from Wolfe Island and Belleville.

The lock gates are now completed and will be placed in position in a few days.

Dredging operations to the lower entrance to the new lock were resumed on the 13th May, 1896, and are now in progress.

The cribwork for the pier at the lower entrance of the new lock was commenced on the 8th June, 1896, and is still in progress.

In view of the prospects of again having low water during the present season, every effort is being made to secure the completion of the new lock, the extension walls, and a sufficient portion of the south retaining wall, to enable a channel to be opened at the upper entrance of the lock to connect with the old canal, the dredging

of which, to new bottom, for a limited width, was commenced early in April and completed before the opening of navigation.

The coffer dam at the east end of the lock-pit has been removed and as soon as the gates are erected, the new lock will be available for the purposes of navigation.

Section No. 2.

This section begins at the west end of the village of Morrisburg and extends westwards to near Mariatown.

The work on this section consists chiefly of excavation, *i.e.* dredging and dry work.

The dredging operations were completed on the 10th July, 1895. The material dredged was utilized in widening and strengthening the tow-paths and embankments.

The levelling of the surface, and repairing of the slopes of the towing path, was completed on the 30th of July, 1895, which also completed the entire work on this section.

The final estimate of the work on this section has been prepared and forwarded to the department.

Section No. 3.

This section commences a short distance above Mariatown and extends west to the vicinity of the guard lock (No. 24).

The dredging operations were carried on to the 3rd December, 1895, resumed again on the 28th April, 1896, and are now in progress.

On the 28th November, 1895, the upper works and machinery of the large dredge "Sir Hector" were burnt and had to be almost rebuilt during the winter of 1895-96, she resumed worked on Section No. 1 on the 16th April, 1896.

About the middle of November, 1895, the deepened channel was available throughout this section.

The dredged material is being utilized in widening and strengthening the towing path.

Upon the formation of the north slope above water, or dry work, a force of labourers, teams, ploughs and scrapers were engaged up to the 8th October, 1895.

The stone protection to the north bank was commenced on the 14th August, 1895, and continued as the excavation progressed until the 4th November.

During the month of March, 1896, a cross dam of cribwork was formed at the lower end of the section, and the canal unwatered for the purpose of blasting hard points and large boulders which the dredges were unable to remove.

Section No. 4.

The work on this section was finished in 1888, and at once brought into use.

It comprises the new guard lock (No. 24) and supply weir, and the formation of the upper entrance to the canal, and also of the prism for a short distance below the lock.

Since its completion it has been found necessary to change the alignment at the lower end of this section, in order to connect with Section No. 3.

Department of Railways and Canals.

GALOPS CANAL.

POINT IROQUOIS DIVISION.

(Opened for traffic 1847.)

This canal as originally constructed was about three miles in length, with a lockage of 5 feet 7 inches at lock No. 25, in the village of Iroquois, from whence it extends westwards to Presqu'île, overcoming the Point Iroquois rapid and other stretches of swift water, as at Sparrow-Hawk Point, &c.

About ten years after the completion of these works some important changes were made, viz.: the lower mitre sill of lock No. 25 was lowered 3 feet 2 inches, and means afforded of regulating the depth of water on the upper sill, and consequently in the canal, by forming an embankment in the river to connect with the Galops Canal at Point Cardinal (lock No. 26.)

There are at present no works of construction on this division on which to report, but early in May, 1896, the surveys, plans, &c., for the enlargement of this division were sufficiently advanced to authorize the calling for tenders, accordingly notices for that purpose, and for the postponements, were given on the 9th and 22nd of May and 22nd of June, respectively, and finally on the 26th June a notice withdrawing the work was issued by the department.

JUNCTION DIVISION.

(Opened for traffic 1856.)

The Junction Division commences at Presqu'île and extends up stream to lock No. 26, at the village of Cardinal.

It consists chiefly of an embankment about $2\frac{1}{2}$ miles in length, formed in the river and connects the Galops and Point Iroquois Divisions, and thereby, as previously stated, raises the water and affords a means of controlling the level in the Iroquois Division.

The fall in the river between the above mentioned canals is one foot seven and a half inches.

Work on the junction was completed in 1856.

There are no works of construction on this division whereon to report.

GALOPS DIVISION.

(Opened for traffic 1846.)

This, the original Galops Canal, had a lockage of 6 feet 8 inches, and extended upwards from the village of Cardinal about 2 miles to the head of the Galops Rapid, which it was designed to overcome, and which commences about 7 miles east of the town of Prescott.

Some years after the completion of the canal the pier head was extended up stream by cribwork and the lockage or fall increased $11\frac{1}{2}$ inches.

The new Galops locks (No. 27, guard lock, and No. 28, lift lock,) are situated side by side and are the most westerly on the St. Lawrence.

Upper Entrance.—The works now under contract and in progress and for which Messrs. Murray & Cleveland are the contractors, were commenced in 1889. The contract was entered into on the 14th November, 1888, to be completed on the 15th June, 1891.

It embraces the construction of a lift lock connecting with the river below the rapid and of a guard lock and supply weir and the removal of the old guard lock, &c., also the deepening, widening and straightening of the channel from the upper entrance to Round Bay, a distance of about one mile.

The new supply weir, retaining walls, &c., connecting with the guard lock, were completed in the fall of 1895 and brought into use.

Drilling, blasting and dredging operations have been carried on continuously at the upper or western end of the section, also the deepening and widening of the lower entrance to the guard and lift locks, and the coffer dams removed.

The dredging at the lift lock (No. 28) is about completed and the cribs whereon to extend the south entrance wall are being framed.

A line of detached cribs from head of guard lock across Round Bay has been sunk and the superstructure is commenced.

From McLaughlin's Point to the head of the canal, the channel has been straightened by a line of cribwork protected by a talus of rock on both sides, the old cribwork extension from the pier head has also been protected in like manner and a heavy wall of dressed stone forming the superstructure of the inner or canal side of the pier, has been built.

A further extension of this pier is required to complete the upper entrance, the framing of the cribs for which purpose is now in progress.

This extension, about 300 feet, it is calculated will raise the water on the sill of the old guard lock from five to seven inches.

Work on the south half of the channel abreast of the old guard lock has been commenced, and will be carried on as rapidly as possible with a view to utilizing it in the fall during the anticipated low water.

The work on this section is generally well advanced, mooring posts have been placed, and banks trimmed and protected to final lines and levels which gives the work an appearance of completion.

There remains, however, a considerable quantity of earth and rock to be dredged as well as the removal of the old guard lock.

During the summer and autumn of 1895, the water in the river was at an unusually low stage and the old channel in the Galops Rapid became dangerous for loaded barges. To facilitate the passage of these vessels the mitre sills of the old guard lock were torn up and the coffer dam at the lower entrance of the lift lock was removed, thus enabling these vessels to pass down the canal to the lift lock and out to the river at the foot of the rapids, a great advantage to navigation.

ST. LAWRENCE RIVER AND CANALS.

Since my last report, surveys have been made for the enlargement of the Point Iroquois Division of the Galops Canal, and further surveys are in progress on the Junction and Galops Divisions, with a view to completing the enlargement of the "Galops Canal."

A minute survey of the south or "Flat Rock" channel, for comparison with the north or Canadian channel, has also been made with this result, the accuracy of my previous surveys is confirmed.

In connection with the location survey of the Point Iroquois Division and its proposed extension westwards, exhaustive surveys have been made at Presqu'île and Cardinal, the governing points.

An examination of some of the principal shoals in the Morrisburg reach has also been made during the low stage of the river.

I have the honour to be, sir,

Your obedient servant,

TOM S. RUBIDGE,

Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Chief Engineer of Canals, Ottawa.

Department of Railways and Canals

ST. LAWRENCE DISTRICT.

SUPERINTENDING ENGINEER'S OFFICE,

CORNWALL, 1st July, 1896.

SIR,—I have the honour to submit my annual report for the fiscal year ending 30th June, 1896, on the maintenance of the canals in the district under my charge, extending from the province line, Lake St. Francis, to Brighton and Presqu'île harbour on Lake Ontario, viz.: The Cornwall Canal, the Williamsburg Canals, and the Murray Canal, including also the intermediate river reaches and the buoy service connected with the navigable channel below Prescott.

The following is a general description of the work as originally constructed, in ascending order, commencing at the town of Cornwall.

Cornwall Canal, completed in 1843, surmounts the Long Sault Rapids, it extends from Cornwall to Dickinson's Landing— $11\frac{1}{2}$ miles, and has a total lockage of 48 feet.

The Farran's Point Reach is $4\frac{2}{3}$ miles in length, and the fall 1.58 feet.

Farran's Point Canal, completed in 1847, overcomes a short rapid extending $\frac{3}{4}$ of a mile west of Farran's Point—lockage $3\frac{1}{2}$ feet.

The Morrisburg reach is $10\frac{1}{2}$ miles in length. Fall 8.75 feet.

Rapide Plat Canal, completed in 1847, commences at Morrisburg and extends to Flag's Bay, $3\frac{3}{4}$ miles, overcoming the rapid of Rapide Plat. Lockage $11\frac{1}{2}$ feet.

The Iroquois reach is 4 miles in length and has a fall of 3.83 feet.

Point Iroquois Canal, completed in 1847, commences at Iroquois and extends to Presqu'île, 3 miles, overcoming the Iroquois Rapid and other stretches of swift water above the point. Lockage $5\frac{1}{2}$ feet.

The Junction, completed in 1856, commences at Presqu'île and extends to Cardinal, $2\frac{1}{2}$ miles, it is simply an embankment connecting the Point Iroquois and Galops Canals. Fall 1.60 feet.

Galops Canal, completed in 1846, commences at Cardinal and extends $2\frac{1}{4}$ miles to the head of the Galops Rapid, which it was designed to overcome. Lockage $7\frac{3}{8}$ feet.

New Channel Galops Rapid, completed in 1888, extends down stream 3,300 feet from the head of the Galops Canal, the fall varies from $3\frac{1}{2}$ to 6 feet, depending on the stage of the river.

Murray Canal, completed in 1890, is situated about 75 miles west of Kingston and consists in a canal or artificial strait about 6 miles in length connecting the Upper St. Lawrence and Bay of Quinté waters with Lake Ontario.

NOTE.—The Williamsburg Canals embrace the Farran's Point, Rapide Plat, Point Iroquois, Junction and Galops Canals, and the new channel in Galops Rapid. The Point Iroquois, Junction and Galops Canals are collectively styled the Galops Canal.

CORNWALL CANAL.

The navigation for the season of 1895 was closed on the 7th December. The canal which was unwatered on the 15th March, 1896, for construction purposes and also ordinary spring repairs was open for traffic on the 30th April following.

Owing to the extraordinary low stage of the water in the river during September and October, 1895, it was found necessary to occasionally cut off the water supply to the mills and on the 1st November the water supply for manufacturing purposes was entirely withdrawn until the close of navigation, except for the grist mills which were allowed to run after the 10th November.

A serious break occurred on the 26th July, 1895, the barge "Kildonan" when in lock No. 17, broke her mooring lines whilst water was being let into the chamber of

the lock, and all four gates were carried out, three gates of lock No. 15 were also damaged and navigation was suspended from 4 o'clock a.m. on the 26th until 2 o'clock p.m. on the 31st July.

The pontoon gate lifter "John Page," which was in the basin below Lock No. 17 was carried over the upper gates of lock No. 15 into the river by the rush of water from the level above, and totally wrecked.

A contract has been entered into with Messrs. J. & R. Miller of Cardinal, for the construction of a new gate lifter. This is now ready for use and will be delivered after testing it at Morrisburg in hanging the gates of new lock No. 23.

On 25th November, 1895, the anchor bolt of south lower gates of new entrance lock No. 15 was broken by an upward bound vessel drifting against it, navigation was not stopped however, but carried on through the old locks, which had fortunately been put in working order after completing the repairs to foundations.

On 28th November, 1895, water was let out of level between locks Nos. 20 and 21 for 48 hours to enable a dredge, which was sunk in the canal near Mille Roches culvert, to be raised, no delay was occasioned to navigation.

On 29th June, 1896, the barge "Bismark," grain laden, struck the retaining wall below lock No. 21, and sunk opposite the upper entrance to Sheik's Island Channel, interfering with navigation for a few days.

With these exceptions navigation was maintained in a fairly satisfactory manner, the draught of vessels, however, during the lowest water being restricted to eight feet.

The recess platforms and mitre sills of old locks Nos. 15, 16 and 17 underwent a thorough repair or renewal during the season of 1895, the gates were also put in working order and the whole work completed in time to be used before the close of navigation in case of accidents occurring at the new entrance, such as actually happened in November last.

Repairs or renewals to the masonry of the lock walls have been authorized to be commenced immediately and will probably be completed this season.

Three pairs of gates for the old locks Nos. 15, 16 and 17 received extensive repairs; and new foot bridges and top bars were provided. The locks were thus made ready and brought into use in October, 1895.

A new watch house has been built at lock No. 19. It is intended to build others of a similar class at all locks and bridges.

The usual works of renewals and repairs at the shops were carried on during the winter.

Whilst the canal was unwatered from 15th March to 30th April, 1896, repairs were made to valves of old lock No. 16, two new valves were put in lower south gate of old lock No. 17, and repairs made to valve gear.

A large quantity of stone was also placed below aprons of weirs at locks Nos. 18 and 20, to repair and prevent further damage by scouring the bottom; all locks, weirs, etc., etc., were also overhauled.

Extensive repairs and renewals not provided for in the estimates are required at the following works, viz. :—

The ice breaker at the foot of the canal.

Bearings for pivots for all gates; new locks Nos. 15 and 17. This will necessitate the unwatering of the locks.

The collector's office and lock houses in connection with lower entrance require extensive repairs.

The question of building houses for lock and bridge tenders at all new structures is submitted for your consideration, as also that of waste weirs for the intermediate levels between locks Nos. 18 and 20.

There have been no superannuations during the past year.

The locks at the lower entrance were dismantled and otherwise prepared for winter.

During the season of navigation the banks, culverts and ditches were kept in repair, also lockhouses and watch houses.

The highest water recorded during the year at lock No. 15 lower entrance, was 24 feet in January, 1896, and the lowest 9 feet 4½ inches in May, 1895.

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At lock No. 21 (the guard lock) the highest water was 10 feet 10 inches in January, 1896, and the lowest 6 feet 1 inch in December, 1895.

The highest water during the season of navigation at lock No. 21 was 9 feet 11 inches, and the lowest 7 feet 4 inches.

The above levels are with reference to the mitre sill of old locks.

The following fines were imposed during the year for causes mentioned:—

On 21st December, 1895—Barge "Riley," for damaging lock No. 18, fined \$5 by order of superintendent.

On 26th September, 1895—Barge "Jean," for damaging lock No. 17, fined \$5 by order of superintendent.

On 14th October, 1895—Barge "Eagle" for damaging lock No. 20, fined \$10 by order of superintendent.

On 1st November, 1895—Tug "Bronson," for refusing to obey orders in level between locks Nos. 20 and 21, fined \$5 by order of superintending engineer.

The barges "Adele" and "Laura" were charged \$4 each for wintering in canal above lock No. 17.

WILLIAMSBURG CANALS.

The several divisions of these canals, viz., Farran's Point, Rapide Plat and Galops, were closed for navigation on the 10th December, 1895, and re-opened for the season of 1896 on the 1st May, 1896.

Only one accident occurred during the year on these canals, viz.:—On the 13th June, 1896, the steamer "Spartan" collided with the lower gate of lock No. 23, Morrisburg, delaying navigation 36 hours.

The unusual lowness of the water during the season of 1895 caused considerable inconvenience to navigation, particularly at lock No. 23 of the Rapide Plat Canal. Upward bound vessels, if loaded, were compelled to resort to towage past the rapid.

The work of the repairs staff has been general, on banks and all structures.

At the repairs shop at Cardinal a pair of old gates from lock No. 27 were overhauled and rebuilt, to replace the upper gates at lock No. 26, Iroquois, these are now ready to be placed in position.

A change in the buoy service between Prescott and Dickinson's Landing was inaugurated last fall, viz., that of taking up the buoys at the close of navigation and replacing them in the spring by a spare lot provided for the purpose.

FARRAN'S POINT CANAL.

Lock No. 22. A pair of new gates, built under contract by Messrs. J. & R. Miller were placed in this lock at lower entrance, in August, 1895, and some minor repairs to lock made.

A contract for renewing the superstructure of the lower entrance pier was made with the Kerr Brothers, and the work has since been completed.

Owing to the prevailing low water in the river, a contract was entered into with the Gilbert Blasting and Dredging Co. for the cleaning out of the prism of this canal to its original depth; this work will be proceeded with at once.

RAPIDE PLAT CANAL.

Lock No. 23. Beyond the frequent cleaning out of the upper recess of this lock only minor repairs were required.

Lock No. 24. Some minor repairs were made to the weir and booms at head of lock.

GALOPS CANAL.

Lock No. 25. The old swing bridge across the lock on examination was found to be very rotten in many places and was rebuilt in February and March, 1896.

Extensive repairs were made to the wharf below the lower entrance pier.

The booms on the Point Iroquois section were temporarily repaired, extensive renewals are required.

Lock No. 26. This lock had frequently to be cleaned out, and several minor repairs were made to the gates.

The use of the swing bridge at this lock has been discontinued as it is unsafe, and will require to be rebuilt.

A contract for renewing the superstructure of the lower entrance piers was made with the Cardinal Manufacturing Co., and the work has since been completed.

Lock No. 27. The old guard lock No. 27 was abandoned about the end of September, 1895, and the new one brought into use, and in October following, the mitre hills were removed, thereby increasing the depth of water one foot.

The new lift lock at the Galops Rapids was also brought into use in October, 1895, for heavily laden vessels descending the river, and has proved of great advantage to navigation.

A new watch house has been built between the locks for the accommodation of the locktenders.

The gates from old lock No. 27 have been removed and taken to the work shop at Cardinal.

The river buoys between Dickinson's Landing and Prescott were lifted in the fall of 1895, repaired, painted and replaced in the river at the proper points before the opening of navigation in the spring.

Extensive repairs were made to the buoy boat during the winter.

Many minor temporary repairs have been made on the works where needed and at the shops at Cardinal.

The banks have been carefully watched and repaired where required.

Fines have been imposed during the year as under:—

1895....Sept. 4th....	Steamer "Melbourne".....	\$ 5 00
1895.... "	Tug "Nellie Reid".....	5 00
1896....June 13th....	Steamer "Spartan".....	40 00

The lowest water on the sill of lock No. 23, the governing point on these canals, was 4 feet in December, 1895, and the highest 9 feet 8 inches also in December, 1895.

The lowest water on the sill of lock No. 27, was 6 feet 5 inches in December, 1895, and the highest 11 feet 6 inches, also in December, 1895.

MURRAY CANAL.

This canal was closed for navigation on 4th December, 1895, and opened again on 17th April, 1896, and has since been maintained without interruption.

No accidents have occurred and no fines have been imposed during the year.

The number of vessels that passed through the canal for the year 1895-96 was 603.

The bridge structures have been thoroughly overhauled and repaired and machinery cleaned, tightened, &c. All the bridges require painting.

Cedar mooring posts were put in at the railway and highway bridges and elsewhere as required.

At the Trenton and railway bridges considerable scour occurred during the low water, which caused a slight settlement in the foundations of their respective western rest piers. The damage was thoroughly repaired last fall and the bottom of the canal is now being protected with stone to prevent its recurrence.

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Extensive repairs have been made to the rip-rap on north side of canal, from Trenton Road bridge to the east entrance pier, also west from the Brighton road Bridge.

Generally the banks have been kept in good condition and the ditches kept open.

Sheds were built at the collector's office and a small shelter at the Smithfield Road bridge; these have been painted, as also the storehouse at the Brighton Road bridge.

A wharf or landing stage is required at the collector's office near the Smithfield Road.

New and more powerful range lights are required at each end of canal to indicate the dredged channel.

Generally this canal is in a good state of repair.

The highest water recorded during the year was 12 feet 10 inches, and the lowest 10 feet 4 inches.

I append a statement showing the highest and lowest water during the past year on each of the canals in my district, also a condensed statement of the highest and lowest water during the season of navigation from the year 1891 to 1895, both inclusive.

I have the honour to be, sir,

Your obedient servant,

TOM S. RUBIDGE,

Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Chief Engineer of Canals, Ottawa, Ont.

STATEMENT of the Highest and Lowest Water on the Canals in the St. Lawrence District for the Year ended 30th June, 1896.

Month.	Cornwall Canal.						Williamsburg Canals.												Lake Ontario.	
	Lock 15.		Lock 21.		Lock 22.		Lock 23.		Lock 24.		Lock 25.		Lock 27.		Murray Canal.		High.	Low.		
	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.				
Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.		
1895.																				
July.....	9 5	9 0	8 11	8 4	8 8	7 11	8 0	7 0	8 2	7 0	10 7	9 3	9 0	8 2	12 0	11 5				
August.....	9 3	8 11½	9 2	8 4	8 4	7 8	7 6	6 7	7 5	6 8	9 10	8 11	8 6	7 11	11 8	11 5				
September.....	9 3	8 7	8 7	7 11	7 10	7 1	6 11	6 0	7 3	6 0	9 6	8 4	8 5	7 6	11 6	11 0				
October.....	9 0	8 2	8 8	7 6	8 0	6 8	7 0	5 5	7 4	5 5	9 7	7 10	8 7	7 2	11 3	10 6				
November.....	9 0	8 0	8 2	7 4	7 3	5 10	6 0	4 10	6 9	4 5	8 5	6 8	8 6	6 9	10 10	10 4				
December.....	9 8	8 2	10 0	6 1	10 0	5 10	10 6	4 0	9 9	4 1	13 0	5 9	11 6	6 5	10 0	10 7				
1896.																				
January.....	24 0	8 9	10 10	7 1	9 3	6 8	7 10	5 6	7 7	5 5	10 2	7 3	9 9	7 0	11 3	10 2				
February.....	20 9	15 3	9 6	6 11	9 6	6 10	7 9	6 0	7 1	5 3	9 3	7 0	8 5	7 1	11 7	11 1				
March.....	20 9	16 7	9 3	7 10	9 0	7 4	7 3	5 3	6 9	5 5	9 2	7 2	8 4	7 1	12 0	11 2				
April.....	17 8	10 3	9 7	8 6	9 1	8 0	8 4	6 7	8 7	6 7	11 3	8 8	9 7	7 11	12 9	12 0				
May.....	10 2½	9 8	9 11	9 2	9 4	8 6	8 10	7 10	9 3	7 8	12 0	10 0	10 6	8 11	12 10	12 6				
June.....	10 0	9 7	9 7	9 2	9 0	8 5	8 11	7 10	8 7	8 0	11 5	10 0	9 6	8 11	12 8	12 1				

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STATEMENT of the highest and lowest water on the Canals in the St. Lawrence District, May to November in each year.

Year.	Cornwall Canal.						Williamsburg Canals.					
	Lock No. 15.			Lock No. 21.			Lock No. 22.			Lock No. 23.		
	Highest.		Lowest.		Highest.		Lowest.		Highest.		Lowest.	
	Month.	Ft. in.	Month.	Ft. in.	Month.	Ft. in.	Month.	Ft. in.	Month.	Ft. in.	Month.	Ft. in.
1891	May	11 10	Nov	8 9½	May	11 11	Nov	8 2	May	10 11	Nov	7 6
1892	August	12 1	May	9 4	August	10 10	do	8 10	July	10 3	July	7 10
1893	May	12 5	Nov	9 7	May	11 9	do	9 0	May	11 2	Nov	8 3
1894	June	11 0	do	9 2	June	10 11	do	8 6	June	10 6	do	7 10
1895	May	9 10	do	8 0	May	9 4	do	7 4	May	8 9	do	5 10

STATEMENT of the highest and lowest water on the Canals in the St. Lawrence District, May to November in each year—Continued.

Year.	Williamsburg Canals.—Con.						Lake Ontario.					
	Lock No. 24.			Lock No. 25.			Lock No. 27.			Murray Canal.		
	Highest.		Lowest.		Highest.		Lowest.		Highest.		Lowest.	
	Month.	Ft. in.	Month.	Ft. in.	Month.	Ft. in.	Month.	Ft. in.	Month.	Ft. in.	Month.	Ft. in.
1891	May	12 0	Nov	6 9	May	13 11	Nov	9 0	May	12 0	Nov	8 0
1892	Sept.	10 0	do	7 0	July	12 8	do	9 4	July	10 3	do	8 3
1893	May	11 2	August	7 4	May	13 10	do	10 0	May	11 6	do	8 2
1894	June	10 5	Nov	6 9	July	13 3	do	9 1	July	10 9	do	9 1
1895	May	8 3	do	4 5	May	10 10	do	6 8	May	9 10	do	6 9

WELLAND CANAL.

ST. CATHARINES, ONT., 3rd Sept., 1896.

SIR,—I beg to submit my annual report upon the Welland Canal and its branches for the fiscal year ended 30th June, 1896.

The new canal was closed December 12th, 1895.

“ “ “ opened April 28th, 1896.

The old canal was closed December 14th, 1895.

“ “ “ opened April 27th, 1896.

The following repairs and renewals were carried out during the year.

DIVISION No. 1.

Port Dalhousie to Guard Lock.

Port Dalhousie Harbour.—New steps and platform were put in at the ferry landing, to suit the low level of the water in Lake Ontario. The cribwork on which the entrance wing walls of old lock No. 1 were built, being exposed owing to the low level of the lake, was found to require a good deal of repair as also the lower courses of masonry resting on them. These repairs were carried out.

The end of the east cribbing at the foot of old lock No. 1, was damaged and in a decayed condition, and was rebuilt.

Repair Shops, Port Dalhousie.—Gate of lock No. 22, was hauled out on the skids, overhauled and put in complete repair. The scow “Sir Charles” was hauled out on the skids, and almost entirely rebuilt, and painted. Four new swing bridge notice boards and braces, made and put up. The timber lifting scow was hauled out and thoroughly repaired, painted and caulked. Ten small tables made and put in the lock watch houses, and at swing bridges. The spare gates of new lock No. 1, were hauled out, thoroughly overhauled and put in order. The spare gate from lock No. 3 hauled out and broken through-rod and shunt plate, repaired, relaunched and put in at foot of lock. The two foot gates of lock No. 3 were hauled out on skids, taken apart, squared, dowed and in all respects put in good order. The hydraulic jacks were all taken apart, cleaned and the packing removed and all put in working order. New ladders were made for the locks and bridges wherever required. The large capstans in the gate yard for hauling out gates, etc., were taken apart, repaired and put in safe condition. The floor of the spillway bridge alongside gate yard repaired, also the winter float bridge across the harbour. The material was got out for and the large number of pins required made from it for the new pile work capping between locks Nos. 1 and 2. All injured and damaged tackle blocks repaired. Two dozen pick handles made. Two one-horse cart dump boxes made to replace old ones, all saws and tools sharpened and put in order. Repaired pier at the foot of lock No. 1 and painted large shop and the tank and its platform.

Lock No. 1 Level and Bridge.—Two hundred and thirty-eight piles were cut off below water line and spliced, along the floating tow-path, and a large oak waling bolted to the piles, the lighter waling taken off and used for capping the piles. The cribwork at the head of the lock on west side was taken down and replaced by new, above low-water line, the stone filling put back again and new snubbing posts put in. Two new cables put in gates; repaired cone rollers and frames, hub-gearing and water-wheels. Three new bolts and brass matrix and washers. Three long cables numerous cold shuts, 90 feet $\frac{5}{8}$ -in. chain. Diver removed obstructions at different times. Removed, repaired and replaced shear legs in chain wells. Changed vessel measuring gauge from foot to head of lock. Unshipped foot chains seventeen times when lake was very low, cut them eight times and used 9 feet of $\frac{5}{8}$ -in. chain. Cleaned out the mud pocket with hand dredge and removed a number of large roots and stumps. Adjusted all four gates, put on new water wheel guards. Overhauled twelve valves in large weir and put on vertical track for rollers.

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Lock No. 2 and Level.—Repaired fenders. 1 new long cable, 2 clutch studs and clutch, 4 snubbing posts, 5 brass washers, 1 new hub wheel, 2 brass matrices. Diver removed obstructions from sill. 2 intermediate gears, 1 phosphor bronze pinion, 1 slide valve, overhauled 8 wheel shaft gearings and boxings. Took out old safety cable and substituted 1½-in. iron rod. Took off and replaced old walings, nosings, etc. Made numerous repairs to all machinery, gearing and woodwork.

Lock No. 3 Level and Bridge No. 2.—Overhauled and put in order 6 sets of gearing on head gates, put in 1 set new studs, new waling and raised gate bridge; 1 new cable, adjusted all 4 gates, put in 1 large and 4 smaller snubbing posts. Overhauled all the waste weir gearing. Took out both foot gates and replaced them with others, put in new gate bridge and all connected machinery and gearing. Laid new stringers and bridge floor throughout, 1 new pinion, 1 brass matrix and washer. Made the usual extensive repairs to machinery, gearing and woodwork.

Lock No. 4 and Level.—Adjusted all 4 lock gates and overhauled the gearing, put in 3 snubbing posts, 2 brass matrices. Made the usual repairs to machinery, gearing and woodwork.

Bridge No. 3.—The floor plank and stringers on bridge and approaches were stripped and replaced with new. The locking gear was repaired and truss rods tightened up. The floats were repaired from time to time and new iron work attached where necessary.

Bridge No. 4.—The floats have been repaired and kept in good order, all stirrup straps, braces, trusses, etc., have been tightened up, new locking posts were supplied, put in place and the locks, catches, etc., kept in proper order, the fenders have been repaired as needed.

Lock No. 5 and Level.—Three cables, 1 new water wheel, 12 boxings, 1 new hub gear shaft, 1 cone roller frame and 3 rollers, 2 slide valves, took down waste weir bridge and put up new, 2 brass matrices and 2 washers, kept water wheels clear of ice, 1 phosphor bronze pinion, 1 new large snub and braces put in, constant repairs were made upon all iron work, gearing and woodwork.

Lock No. 6 and Level and Bridge No. 5.—12 new wooden boxings, 2 new cables, took down old and put up new waste weir bridge, took up old bridge planking and stringers, and put down new, took down old bridge across raceway, put in new stringers and plank and repaired hand-railing, 2 brass matrices and washers, 1 water wheel case, constant repairs were made on all ironwork, gearing and woodwork.

Lock No. 7 and Level.—Twenty-six new wooden boxings, 1 new cable, 3 new gear shafts, took down old and put up new bridge over waste weir, 1 new slide valve, 5 new snubbing posts, 1 brass matrix, 1 new eyebolt, 2 new water wheels and cases, 2 new intermediate gears, 2 phosphor bronze pinions, 3 brass set screws, 1 new clutch frame and 2 new studs, 1 new adjusting screw.

Bridge No. 6.—Repaired chains, eye bolts and shackles, cams and truss rods, and tightened up bolts, overhauled swinging gear, renewed and repaired walings of approaches, some broken piles spliced.

Lock No. 8 and Level.—1 new cable, 1 brass washer, 2 new bolts through gate bridge, 3 clutch studs, 1 phosphor bronze pinion, 9 wood boxings, took down old and put up new bridge across waste weir. Diver took toe roller off gate, 2 new water wheels, 6 wood screws. Diver cleaned out gravel from sill and repaired it, 1 new lever and stand.

Lock No. 9 and Level.—Took down old and put up new bridge across waste weir, 2 new studs, 2 water wheels and cases, put steel plate between cannon and turntable. Removed and repaired crab and replaced it, 3 brass matrices and washers, 3 cables, 1 slide valve. Took up 1 large snub and lowered it, put in new and heavier braces and straightened another.

Bridge No. 7.—Walings and floats were repaired. Top chords of bridge were repaired, bolts were tightened up, suspension cables put in order, swinging gear taken off and repaired.

Lock No. 10 and Level.—Two cables, 1 new jack shaft, 3 brass matrices. Took down old and put up new bridge over waste weir, 1 clutch stud.

Bridge No. 8.—Repaired floats and walings of approaches, overhauled, tightened up and repaired truss rods. Large stone in approach put back in place and dowelled.

Lock No. 11 and Level.—One new opening crab, 1 phosphor bronze pinion. Took down old and put up new bridge over waste weir, 2 cables, 6 brass set screws, 2 slide valves, straightened up and lowered 5 snubbing posts, 5 wood boxings. Filled large crack in reservoir bank, 1 new pinion.

Lock No. 12 and Level.—One new clutch stud, 2 cables, 1 brass set screw. Took down old and put up new bridge over waste weir, 3 new water-wheels, 1 water-wheel case, 35 boxings, 1 brass matrix, 10 cords of stone used for riprapping on banks. Straightened up and lowered 5 snubbing posts. Filled up washout in reservoir bank, 1 new pinion.

Lock No. 13 and Level and Bridge No. 9.—Four cables, 1 new pinion, 2 new clutch studs. Took down old and put up new bridge across waste weir and also one highway bridge across pond outlet, 2 brass matrices and washer, 2 double and 1 single curtain, put heavy plate on lock gate sills and new filling at foot sill, 1 wheel hub, 1 new water wheel. Straightened up and lowered 3 snubbing posts.

Lock No. 14 and Level.—Two cables, 3 new boxings, 4 matrices. Took down old and put up new bridge across waste weir, 2 phosphor bronze pinions. Cleaned out lock bottom. Put heavy plates on lock gate sills, 3 slide valves, 2 valve shutters. Cleaned out mud pocket and repaired mud sill, 1 new lever, 2 single and 2 double cast curtains, 1 crown wheel, 5 cords stone used for riprapping banks, straightened up and lowered 1 snubbing post.

Lock No. 15 and Level.—Put on 1 extension step, 1 water-wheel hub, 1 clutch stud, 2 cables, 2 pinions, 1 matrix. Took down old and put up new bridge over waste weir, 4 boxings, 1 brass set screw.

Lock No. 16 and Level.—Four water wheels, 2 cables, 3 boxings, 1 slide valve. Repaired the riprapping round the reservoir banks and along the canal. Took down and put up new bridge over waste weir, 1 cone roller frame and 5 cone rollers.

Lock No. 17 and Level.—Four boxings, 1 matrix, 1 slide valve, 3 cables. Repaired reservoir bank and stopped bad leak, cleaned out 150 feet of ditching, 1 pike pole, 29 cords of stone unloaded along banks for riprapping. Took down old and put up new bridge over waste weir. Filled in washout in banks.

Lock No. 18 and Level.—Three cables, 1 water-wheel, 6 wooden boxings. Cleaned out surface ditches on both sides and opened up trenches for riprapping, 1 clutch stud, 1 clutch shifter. Took down old and put up new bridge across waste weir. Laid up stone riprapping, 2 water-wheel cases, 4 cords of stone unloaded on banks, 1 matrix and 2 washers.

Lock No. 19 and Level.—Five matrices, 4 cables, 1 crank for valve, 10 boxings. Filled up large crevice in weir bank, 1 water wheel, cleaned out all surface ditches both sides, 2 brass washers. Took down old and put up new bridge over waste weir, straightened up and lowered 2 snubbing posts.

Lock No. 20 and Level.—Two cables, 2 clutch posts, 1 slide valve. Cleaned out all the ditches for draining off soakage on north side of banks and reservoirs. Took down old and put up new bridge over waste weir, 1 new water wheel, 7 boxings. Repaired broken gate bridge. Laid $2\frac{1}{2}$ cords of stone along canal banks to prevent wash, 1 new brass matrix, 1 new phosphor bronze pinion.

Lock No. 21 and Level.—Removed obstructions between lockgate and sills. Filled large cracks in reservoir banks and opened up ditch at foot of slope. Put in 2 snubbing posts, 2 cables, 2 new intermediate gears, 18 boxings. Cleaned out ditches on north side of banks. Took down old and put up new bridge across waste weir, 1 new water-wheel, 1 slide valve, 3 cords of stone laid as riprapping, 1 cast boxing, 2 new brass matrices and 2 brass washers. Made and put up new lock gate bridge and connected gearing.

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Lock No. 22 and Level.—Removed obstructions between lock gate and sill. Put in 1 snubbing post. Repaired floats at head of lock and put in 8 new shackles and 3 eye-bolts, 1 water-wheel, 3 boxings, 2 new slide valves. Took down old and put up new bridge over waste weir, 1 level pinion, 1 new crank, 1 new lever and stand. Straightened and lowered 2 snubbing posts.

Lock No. 23 and Level.—Six new cables, 2 brass matrices, 1 slide valve. Removed obstructions between lock gate and sill. Filled up undermined portion of the wall of ditch alongside canal with Portland cement concrete. Took down old and put up new bridge over waste weir. Repaired slide in slope next canal above lock alongside G. T. Railway branch, 5 cords of stone used for riprapping slopes, 1 new water-wheel and case, 12 boxings.

Lock No. 24 and Level and Bridge.—One new slide rod, 1 phosphor bronze pinion, 9 wood boxings, 1 brass matrix and washer. Removed obstructions between lock gate and sill. Cleaned out ditches and filled up many washouts along level. Repaired fence along east side of canal. Put up new bridge notice board. Stripped old planking and stringers and laid new on east approach to swing bridge, also new railing. Took down old and put up new bridge over waste weir. Put on new lock gate bridge and connected machinery. 2 new cables, 1 new shifter post, 2 slide valves. Put down new 28 feet crossing, 5 new snubbing posts.

Grand Trunk Railway Bridge No. 11.—The floats and walings were kept in good repair. New thrust timbers laid into bank at ends of braces. The bridge was overhauled throughout, bolts, stirrup straps, braces and truss rods all adjusted and new section of top chord put in.

Lock No. 25 and Level.—Removed obstruction between lock gates and sills. 2 new cables, 1 brass matrix.

Guard Lock.—2 new cables, 8 new cold shuts. Constant repairs were made when needed.

Generally.—All the machinery and gearing in connection with the lock gates, weirs, and swing bridges have received all needed repairs and renewals and have been kept in proper adjustment. Numerous obstructions have been removed by the diver from the locks. The binders, walings, protection pieces, foot boards, extension steps of all locks have been renewed and kept in repair. The canal banks throughout have been levelled up and the ditches kept in good order. All thistles and weeds on Government property have been cut and burnt.

No. 2 DIVISION.

Guard Lock to Welland Bridge.

Bridge No. 13.—Repaired and replaced damaged floats that were set adrift by vessel and refastened them. Later took away floats and substituted 12x16 oak wales on centre pier and approaches, and repaired damage to waling by steamer "Frost."

Bridge No. 14.—Screwed up rods and gearing and painted the bridge and approaches two coats. Repaired the broken chords of the bridge and approach with straps and bolts. Repaired bridge rests and catches.

Bridge No. 15.—Overhauled and put in order the swinging gear.

Bridge No. 16.—Rebuilt the gallows frame and laid new floor and took old lumber to gate yard. Repaired towpath south of bridge. Repaired and renewed the piles and wales of the approaches and centre pier. Repaired the approaches and screwed up the iron work.

Bridge No. 17.—Made and put in place new timber foundation and post for notice board. Repaired the bridge floor and screwed up the ironwork.

Scowed stone from No. 19 level, old canal, and built new culvert across the Quaker Road, scraped canal banks from guard lock to Welland frequently. Repaired the towpath at different places in the Deep Cut and cleaned out the ditches and put in

several new box culverts. Rebuilt the wing walls of towpath bridge south of Deep Cut and filled in washout with large boulders, pointed the walls with Portland cement and repaired the road paving. Took down the old unused bridge over Bell's Creek, Port Robinson, loaded it on scow and took it to gate yard. Painted swing bridge across lock at Port Robinson and repaired the floor. Repaired the bank, built a dry-wall and sheet piled a washout at south side of supply weir at Allanburgh. Searched the bottom of summit level and removed logs, driftwood and stumps. Took down the old bridge over Brown's ditch outlet to the Chippawa River, rebuilt it and built new approaches and rebuilt the drywalls on each side. Dug out and repaired leaks in three box culverts in Deep Cut, also dug out two fresh slides and put in new box culverts there, also a new snubbing post at Bridges 13 and 14. Repaired towpath and put in new box culvert south of Bridges No. 13 and 14. Hauled clay and filled in the abutments of Port Robinson dry dock. Repaired the winter float bridges at Port Robinson and Welland and placed them in position. Repaired towpath north and south of bridge No. 15 and put in one new box culvert. Rebuilt wing walls of stone culvert at Bell's Creek. Stripped and pumped out boat "Hanlan" and stored away her outfit. Drove piles and built coffer dam at Port Robinson dry dock. Chained Welland lock gates during flood in river. Cut derrick scow out of ice at Port Robinson and pumped her out. Excavated for new road bridge and built it south of bridge No. 16, graded and made approaches, made ditch between road and towpath, also removed old culvert and put new bridge in place of it—put in a breast wall of timber between the two bridges, sheet piled and puddled it and filled on each side. Built dry wall and repaired 300 feet of bank where washed out below supply weir at Allanburgh. Repaired stone culvert north of bridge No. 16. Refilled the road approaches of the bridge at the outlet of Brown's ditch. Underpinned the stone walls and repaired the paving of culvert at Bell's Creek. Built 50 feet of board fence at Allanburgh new bridge. Built 600 feet of new ditch rear of towpath north of bridge No. 14. Made 800 feet of new ditch south of bridge No. 13, west side. Made new privy pit below Allanburgh bridge and moved privy over it. Put in new posts and rehung gate across towpath at bridge No. 13. Repaired the gate crabs and chains and put new push bar to Port Robinson lock. Filled in old timber culvert across towpath north of bridge No. 16.

No. 3 DIVISION.

Welland Bridge to Port Colborne.

Bridge No. 18.—Repairs were made by M. C. R. R. Co.

Bridge No. 19.—Took up old floor planking and stringers of the bridge and approaches and replaced with new. Repaired the flooring of the bridge across the feeder lock at the Junction. Repaired broken gearing of bridge. Made and placed new stop block, put on new bridge lock and repaired waling.

Bridge No. 20.—Repairs made by G. T. R. Co.

Air Line Ferry.—Hand dredged bank of canal and cut off piles to suit the low water level. Removed old and placed new chain across canal. Made sundry repairs to scow. Laid up ferry scow for winter and placed float bridge and cut ice round it from time to time. Replaced ferry scow in the spring. Repaired and caulked and painted her. Repaired winch and bumping timber, ploughed and scraped hill forming west approach to ferry.

Bridge No. 21.—Removed decayed floor planks and stringers from bridge and west approach and substituted new. Made and placed new stop block and repaired floats and walings.

Bridge No. 22.—Repairs made by G. T. R. Co.

Bridge No. 23.—Removed decayed floor planks and stringers and substituted new.

Port Colborne Lock.—Diver and crew removed a quantity of stone from the bottom of the lock at various times. Replaced holding down timbers over sunken gate carried away by ice.

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Port Colborne Harbour.—Took soundings in dredged channel through sand bar and placed buoys to mark the channel and took them in at close of navigation. Diver removed stones from harbour entrance. Repaired the west pier waling and walls of basin. Lowered the ferry landing to suit low water level. Repaired a break in east pier, put in new timbers and stone filling. Placed strong braces from walls to lock gates old port Colborne lock. Stripped scow and boats and stored for winter, picked up floating logs and drift wood after storm. Repaired, caulked and painted ferry scow.

Took tool boat to Allanburgh for repairs and hauled out numerous logs, &c., from bottom of canal. Cleaned out where required the towpath and heelpath ditches, including those along the Welland raceway. Removed several decayed snubbing posts and substituted new between Welland and Port Colborne. Made frequent repairs to the floats in the rock cuts. Underpinned with oak timbers portions of the dry stone retaining walls where they had been undermined by the action of frost, &c., and stone chinked them where required. Dug out and drained several cracks in canal slopes near the Air Line crossing and filled and puddled them. Removed several decayed box culverts and substituted new. Repaired and strengthened the waste weir bridge at the junction. Put up barriers across towpath between Welland and Feeder junction, made float for hand dredge and removed bars in the Welland raceway. Replaced bridge at Humberstone and Welland town line and rebuilt bridge at Crowland and Humberstone town line, west side. Built bridge and faced slopes adjoining with stone north of Lyons Creek culvert, west side. Wheeled out sand from back ditch outlet after storms, scraped and filled in ruts along towpath. Cleaned out mud, &c., from bottom of Junction lock. Repaired culvert at the outlet of Hann's ditch. Faced slopes at end of new culvert below Junction lock with stone. Loaded cover stones procured from the shore of Lake Erie for Hann's culvert, built bridge over back ditch south of Ramey's bend, west side. Repaired dry wall along ditch near Humberstone bridge, west side. Repaired locktender's house, Port Colborne. Cut thistles and weeds on all Government property.

No. 4 DIVISION.

Dunnville and Feeder Division.

The supply of water has been greater this than for many previous years and was sufficient to allow the mills and factories along the line to run with a full supply to the close of the season.

The spring freshet passed off without doing any damage to the works, but large quantities of driftwood and rubbish came down with the ice and lodged on the upper side of the Dunnville booms and along the west side of the long embankment dam. Men and teams broke up the jam and passed it down over the apron below. The stationary bridge and head gates on the canal side of the entrance to the electric light pond were removed, new head gates were made and put in, and the cribwork abutments at ends of bridge were filled with stone.

The scow "McKenzie" was thoroughly overhauled and repaired; the top, sides, and rakes were cut down to the garboard streak and rebuilt, the cabin was also rebuilt and the scow caulked and painted 3 coats.

The mitre sills of Dunnville and Port Maitland locks were thoroughly cleaned out and the gates repaired where required. The Sunfish, Cranberry Creek, Bowman's, Hall's, Stromness, Marshville and Junction culverts have been cleaned out and the driftwood and rubbish taken out of the back ditches and dumped in rear of spoilbanks.

The old swing bridge and approaches at Marshville were taken down and a new and improved bridge and approaches built in place of same, the whole painted 3 coats. Sunken logs and other obstructions were taken out of the Feeder channel and the willow bushes cut down along towpath.

The old swing bridge built in 1873 across the canal at Stromness was taken down and a new and substantial structure built and put in place of it.

The outlet from culvert on Cranberry Creek was deepened and widened to give greater facilities for the flow of water from the drains on the north side of Feeder.

All worn out and broken planks in the apron below the Dunnville dam were taken out and replaced by new, and the same was done at the bridges.

The lock and bridge shanties have been repaired and considerable repairs have been made along the canal banks south of Welland Junction lock, by filling up the gullies made by heavy traffic, the banks were raised and widened with earth and faced with gravel and stone.

The rut holes on tow and heelpaths have been filled up and the back ditch on the north side of the Feeder cleaned out between guard lock and Sunfish Creek. Culvert and the swamp in rear of the custom-house filled in and raised, and the under drain cleared out.

The long embankment dam at Dunnville has been repaired and holes levelled up with gravel.

All locks, waste weirs and bridges overhauled and kept in good repair and working order. Ditches cleaned out everywhere when necessary and deepened throughout.

Port Maitland.—The outer crib at the end of the east pier was carried away by the ice shove during the spring freshet and it was rebuilt and filled with stone and planked.

Generally.—All the waste weir valves and machinery throughout were kept in good working order.

All thistles and other weeds cut on all Government property.

OLD WELLAND CANAL.

Lock No. 1, Level and Bridge.—Thirteen decayed piles above the lock were cut off under water and spliced with new white oak. The old floating towpath was repaired from time to time. The floor of the swing-bridge was repaired.

Lock No. 2, Level and Bridge.—Jacked up old swing bridge across the race and replanked the bridge floor and approaches. Repaired towpath and put in new box culverts. Framed and put up temporary bridge across canal at St. Paul Street, St. Catharines, took out decayed gallows posts from the swing bridge and replaced with new, then removed temporary bridge. Cleared out clay, stumps, etc., in front of weir racks. Stripped off and resingled roof of two Government houses and put on new ridges. Rebuilt towpath bridge across north weir and walls in front, repaired swing-bridge floor.

Lock No. 3 and Level.—Repaired long float and replanked 30 feet. Repaired towpath and put in one new box culvert. Repaired leak in bank. Put in one new slash-board. Repaired dry stone walls under towpath bridges.

Lock No. 4 and Level.—Repaired mill racebank with clay from bank at lock No. 8. Repaired towpath, floats and bridge. Rebuilt and cemented cistern in Government house. Took out old lock gate and replaced with one rebuilt. Repaired heel path bridge, towpath and put in new box culvert.

Lock No. 5, Level and Bridge.—Repaired towpath and put in one new box culvert. Rebuilt the dry wall each side of towpath bridge. Screened quarry waste and repaired towpath.

Hydraulic Race (No. 1).—Repaired highway bridge across race at the Merritton line. Rebuilt the rack at entrance near lock No. 11. Cleaned out bottom when water was out of canal in spring.

Lock No. 6 and Level.—Repaired towpath and put in one new box culvert. Repaired heelpath and towpath bridge floor. Scowed quarry waste and repaired towpath. Built new towpath bridge over the weir race.

Lock No. 7, Level and Bridge.—Towed two old floats to gate yard, took them apart and hauled timber into yard. Repaired towpath and put in one new box culvert. Built new swing bridge across lock and painted it. Built temporary bridge alongside and suitable approaches to new bridge. Removed temporary bridge. Scowed quarry waste and repaired towpath.

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Lock No. 9 and Level.—Took out three old lock gates and hung rebuilt gates and took old gates to yard. Made and put down three new crab foundations. Repaired towpath with quarry waste.

Lock No. 10 and Level.—Took out old lock gate and hung rebuilt gate. Took old gate to yard. Put iron railing on lock gate.

Lock No. 11 and Level.—Repaired bridge across race on Thorold Road near spoke factory. Repaired towpath and built dry wall along pond.

Lock No. 12 and Level.—Repaired towpath in various places.

Lock No. 13 and Level.—Took old lock gates and hung rebuilt gates. Put in new foot boards and iron railing. Took old gates to yard and rebuilt them. Repaired crabs, reset chain sheaves and put in new push bar. Repaired towpath with quarry waste.

Lock No. 14 and Level.—Repaired the lock gates and replaced one with a rebuilt gate and took old one to yard. Dug out and repaired leak in bank. Put up gate across towpath.

Lock No. 15, Level and Bridge.—Dug out and repaired leaks in banks, several times hauled clay from lock No. 12 level for this purpose. Repaired crab and put on 2 push bars and reset chain sheaves. Repaired bridge and lock gate valve gear and took out sunken log. Excavated to bottom of lock wall underpinned it with cement. Stopped leak and refilled. Repaired the heelpath bank with clay. Repaired bridge floor. Made 400 ft. of ditch along road back of lock. Built 2 stone culverts. Raised the road and took out 1 stone culvert.

Lock No. 16 and Level.—Dug out and repaired leak in bank. Made and put on new lock gate foot board.

Lock No. 17 and Level.—Repaired leak in bank.

Lock No. 18 and Level.—Built hand railing on weir bridge. Removed large stone from bottom of lock.

Lock No. 19 and Level.—Repaired the towpath and put in 2 new box culverts. Rebuilt entrance steps and platforms at locktenders' houses and repaired roof, chimney and board ceiling.

Lock No. 20 and Level.—Put in foundations and groundways for launching scows. Hauled out old piles and sunken logs from bottom of level.

Lock No. 21 and Level.—Built new truss bridge over weir race at foot of lock No. 22. Reshingled locktender's house. Stripped old float bridge and hauled out the timber. Dug new privy pit and moved privy. Repaired porch and door locktender's house. Repaired timber work under heelpath bridge and heelpath. Put in new snubbing posts.

Lock No. 22, Level and Bridge.—Repaired and reset gate crabs. Rebuilt 200 ft. of picket fence and rehung the gates. Built new truss bridge over race at foot of lock No. 23. Repaired verandah and pump at locktender's house. Repaired bridge floor and put in 3 new snubbing posts.

Lock No. 23 and Level.—Built new truss bridge over raceway. Repaired the long bridge and cribwork and leak in bank. Boarded up windows of 3 empty houses. Repaired towpath. Removed sunken log in front of weir. Built foot bridge and repaired heelpath.

Lock No. 24, Level and Bridge.—Repaired 200 feet of towpath and put in 1 new box culvert. Repaired the bridge floor and replanked part. Put one new slashboard on weir. Repaired the coping timber. Replaced old gallow's frame of bridge and repaired truss. Painted swing bridge and fence 2 coats. Took up decayed crossing at west end of bridge and laid new. Repaired the bridge over race, macadamized bridge approaches.

Lock No. 25, Level and Bridges.—Built the new pile and wale approach to new swing bridge at Allanburgh, filled and macadamized it. Repaired and reset crabs and chains of guard lock. Made and put in new fastenings at O'Neil's bridge and repaired.

floor. Repaired Marlatt's bridge and towpath at Higgins's weir. Repaired leak in bank at Marlatt's pond and repaired approaches to bridge, laid new floor in lock No. 25 shanty. Caulked the lock gates and weir valves to keep back water from lower levels. Repaired the towpath and ripped 1,200 feet of Marlatt's pond bank. Made 2 new crab foundations and put in place at Allanburgh's lock. Put new push bars on lock No. 25. Broke up ice jains at lock No. 25 weir and at Higgins. Repaired and rebuilt the guard timbers on approaches to O'Neil's bridge and repaired the gallows frame.

Gate Yard and Shops at Lock No. 21, Old Canal.—Made bolts and ironwork from time to time for No. 3 and 4 divisions. Repaired scow "Hercules" and fitted up pile driver on her. Fitted up some old and made 2 new pulleys. Turned 2 buoys 9 feet long and fitted them with chains and painted them for Port Colborne Harbour. Boxed out and painted 19 water-wheel casings for new canal. Hauled out, caulked and painted service boat "Fire Fly" and scow "Hamilton." Loaded and towed sundry scow loads of old bridge and other timber and unloaded. Made heavy vice for bolt cutter and made and cut 6 new ends for suspension bars, new canal. Made and ironed off 4 new barrow wheels. Reground 6 barrels of old Portland cement. Syphoned out the scows "Chippawa," "Hercules" and "Hamilton." Drew out on to ways the boarding boat, stripped and rebuilt her. Towed scow "Alabama" to yard, hauled out, repaired, caulked and painted her. Made and put in new screw to Port Dalhousie vice. Sawed and cut up at various times quantities of old timber and delivered at lock and bridge shanties, canal office and hydraulic race for fuel. Removed pile driver from scow "Hercules" and fitted her for hanging lock gates. Made table for gate yard office and 2 16-inch triple iron sheaves. Rebuilt old gates from lock No. 13. Caulked the rakes and deck of scow "Chippawa". Dressed, fitted and framed all timber for the new swing bridge at Marshville and delivered it. Caulked the flume and penstock and repaired the water power at gate yard shop. Towed 2 old floats, took them apart and piled timbers in gate yard. Made new launching ways at gate yard. Loaded timber on scow and delivered same at Port Robinson dry dock. Made a new 22 feet pile driver for general use. Brought unused bridge shanties from Marlatt's and O'Neil's bridges to yard. Sorted over and piled 20 tons of miscellaneous iron work. Made heavy timber and iron binding vice for Port Dalhousie shop. Made new pivot beam for Marshville bridge and delivered it. Shored up abutments of Port Robinson dry dock. Rebuilt 2 lock gates. Made 2 heavy needle beams and rollers for Marshville bridge and delivered them. Stripped the gate scow "Hercules," hauled her out and thoroughly rebuilt, caulked and painted her. Put in all her heavy gearing and lifting machinery. Fitted up ice pick and chisels for winter use. Built new horse power for pile driver. Framed timber and made 2 spare lock gates for lock No. 2 old canal. Made 32 feet sounding pole and sent it to Welland aqueduct. Rebuilt 2 one horse dump carts. Made pivot beam for new swing bridge at Stromness. Repaired and put brass linings in 4 male steps and finished iron work for new bridge lock No. 7. Made and fitted all ironwork for all lock gates rebuilt at gate yard. Made new boring head for water-wheels, new canal. Made 6 new 2-inch screw ends for suspension bars, new canal. Drilled and bored out 24 water-wheel cases. Peeled and turned 50 new snubbing posts for No. 1 Division and painted them. Built new iron drill and saw rig and made all the ironwork for new swing bridge at Stromness. Made 6 new and repaired 4 old barrows. Repaired and fitted up stiff leg derrick. Rebuilt flume at gate yard and repaired the gate tramway. Built new iron drill. Repaired 6 water-wheels for new canal. Made a 22 foot ladder and large tool box. Took out the water-wheel at the gate yard, repaired it, put on pair of new couplings and reset the wheel. Repaired and set the tires on 3 quarry carts. Repaired scow "Chippawa" and put in part of new streak and caulked her above water.

Generally.—Cut all thistles and weeds on canal lands. Blocked up all bridges. Unwatered the canal from lock No. 2 to 25 and repaired all weir aprons, valve gears, &c. Let in the water and filled up all levels of old canal in spring. Cleaned out bottom of locks from No. 6 to No. 24. Unblocked the swing bridges, gate crabs, chains, cables, &c., on all locks from No. 3 to Allanburgh.

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The accompanying statement A contains the amounts collected, or to be collected for damage to canal works.

Statement B contains the amounts collected or to be collected from vessels or canal employees for breaches of canal rules.

Statements C and D contain the highest and lowest recorded depths of water upon the new and old lock mitre sills at Port Dalhousie and Port Colborne in each month of the fiscal year.

WORK CHARGEABLE TO INCOME.

Rebuilding East Pier Superstructure Port Dalhousie.—The renewal of the superstructure of the East Pier at Port Dalhousie was proceeded with. The portion of the work under contract was completed by the contractors, Messrs. Battle & Newman, in a satisfactory manner.

Rebuilding Marshville and Stromness Road Bridges.—The rebuilding of these bridges has been completed.

Cleaning out and deepening Back Ditches on the line of the Feeder.—Tenders were invited for this work, and the contract for sections Nos. 1 and 2 north of the Feeder between Marshville and the Forks Road, was awarded to Joseph Bulning, and for section No. 1 south of the Feeder between the Boulton Ditch and the Grand Trunk Railway crossing, was awarded to W. A. N. West. The first named sections were completed. No work has been done by W. A. N. West upon the section awarded to him. He stated that he was unable to carry on the work.

Four thousand feet in length of the ditch between Marshville and the Forks Road, in continuation eastward of sections Nos. 1 and 2 above mentioned, was carried on and completed by day labour.

CHARGEABLE TO CAPITAL.

Materials were delivered for constructing safety appliances in connection with the lock gates.

I have the honour to be sir,

Your obedient servant,

W. G. THOMPSON, M. I. C. E.,

Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,

Deputy Minister and Chief Engineer, Railways and Canals,

Ottawa.

A.

STATEMENT OF Damages to Welland Canal property, during the Fiscal Year ending 30th June, 1896, and amount paid on account of damages in the same year.

Date of Damages	Name of Vessel.	AMOUNT OF DAMAGES.		Date Paid.	WHERE PAID.
		Paid.	Unpaid.		Collector's Office.
1895.		\$ cts.	\$ cts.	1895.	
June 12.....	Steamer Sequin.....	5 20		August 7.....	Port Colborne.
do 21.....	Schooner Albatross.....	19 02		do 7.....	Port Dalhousie.
July 1.....	Steamer Rosedale.....	9 00		do 22.....	Port Colborne.
Aug. 19.....	do W. L. Frost.....	10 25		Sept. 23.....	do do
do 24.....	do Bannockburn.....	6 50		do 16.....	Port Dalhousie.
do 29.....	do Nicaragua.....		12 10		
Sept. 14.....	Barge Minnedosa.....	27 90		Oct. 23.....	Port Dalhousie.
do 20.....	do Augustus.....	3 40		Nov. 18.....	do do
				1896.	
Nov. 14.....	do Minnedosa.....	20 75		April 30.....	Port Dalhousie.
do 21.....	Steamer Bannockburn.....	21 51		do do	do do
1896.					
May 1.....	Schooner Marine.....		11 43		
do 8.....	Steamer Nicaragua.....		6 23		
do 10.....	Barge F. D. Ewens.....		11 34		
do 11.....	Steamer Ionia.....		19 04		
do 12.....	do Sequin.....		16 62		
do 26.....	Schooner G. M. Morley.....		50 00		
do 30.....	Steamer Sequin.....		10 51		
June 3.....	Barge Neelon.....		15 13		
do 3.....	do Lisgar.....		15 10		
do 8.....	Schooner Emerald.....		2 81		
do 17.....	Barge Ceylon.....		14 94		
do 22.....	Schooner St. Louis.....		17 28		
do 30.....	do Omaha.....		19 40		
	Total.....	123 53	221 93		

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B.

STATEMENT of Fines collected from Vessels Contravening Canal Regulations and from Locktenders for neglect of duty during the Fiscal Year ending 30th June, 1896.

Date of Fine	Name of Vessel.	AMOUNT OF FINE.		Date Paid.	WHERE PAID.
		Paid.	Unpaid		Collector's Office.
1895.		\$ cts.	\$ cts.	1895.	
Aug. 6	Steamer Bannockburn	10 00		Sept. 16	Port Dalhousie.
do 15	do D. R. Vanallen	10 00		Aug. 29	Port Colborne.
do 15	Schooner Albatross	10 00		do 30	do do
do 15	Steamer D. D. Calvin	10 00		Sept. 16	do do
do 24	do D. R. Vanallen		10 00		
Sept. 24	Schooner Worts	20 00		Oct. 11	Port Dalhousie.
				1896.	
do 24	Steamer D. D. Calvin	10 00		June 7	Port Dalhousie.
1896.					
May 26	Steamer D. R. Vanallen		10 00		
June 9	do Lake Michigan	10 00		June 27	Port Dalhousie.
do 9	do Melbourne	10 00		do do	do do
do 10	do Niagara	10 00		do do	do do
do 10	do Nipigeon	10 00		do 28	do do
do 17	do Bon Voyage		10 00		
	<i>Lock tenders.</i>			1895.	
Sept. 20	Richard Hutton	5 00		Sept. 21	Port Dalhousie.
do 20	John Flynn	5 00		do do	do do
1896.				1896.	
Jan. 13	Lewis Mosier	10 00		Jan. 22	St. Catharines.
		136 00	30 00		

C.

STATEMENT showing the Highest and Lowest Depth of Water on the Lower Mitre Sill Lock No. 1, Old Welland Canal, Port Dalhousie, for the Fiscal Year ending 30th June, 1896.

Months.	Lower Sill.		Months.	Lower Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1895.	Ft. in.	Ft. in.	1896.	Ft. in.	Ft. in.
July	11 11	11 5	January	11 1	10 5
August	11 6	11 1	February	11 4	10 10
September	11 1	10 6	March	11 5	10 10
October	10 8	9 5	April	12 7	11 7
November	10 5	9 7	May	12 7	12 2
December	10 10	10 1	June	12 6	12 1

STATEMENT showing the Highest and Lowest Depth of Water on the Lower Mitre Sill Lock No. 1, New Welland Canal, Port Dalhousie, for the Fiscal Year ending 30th June, 1896.

Months.	Lower Sill.		Months.	Lower Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1895.	Ft. in.	Ft. in.	1896.	Ft. in.	Ft. in.
July.....	14 10	14 4	January.....	14 0	13 4
August.....	14 5	14 0	February.....	14 3	13 9
September.....	14 0	13 5	March.....	14 4	13 9
October.....	13 7	12 4	April.....	15 6	14 6
November.....	13 4	12 6	May.....	15 6	15 1
December.....	13 9	13 0	June.....	15 5	15 0

D.

STATEMENT showing the Highest and Lowest Depth of Water on the Upper Mitre Sill of the Old Lock at Port Colborne, Welland Canal, for the Fiscal Year ending 30th June, 1896.

Months.	Upper Sill.		Months.	Upper Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1895.	Ft. in.	Ft. in.	1896.	Ft. in.	Ft. in.
July.....	11 3	10 8	January.....	12 4	9 7
August.....	11 9	10 5	February.....	12 1	8 7
September.....	12 0	10 1	March.....	11 6	9 6
October.....	11 5	9 9	April.....	11 4	10 4
November.....	15 5	9 3	May.....	12 0	10 6
December.....	14 6	9 10	June.....	11 8	10 9

STATEMENT showing the Highest and Lowest Depth of Water on the Upper Mitre Sill of the New Lock at Port Colborne, Welland Canal, for the Fiscal Year ending 30th June, 1896.

Months.	Upper Sill.		Months.	Upper Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1895.	Ft. in.	Ft. in.	1896.	Ft. in.	Ft. in.
July.....	14 2	13 7	January.....	15 3	12 6
August.....	14 8	13 4	February.....	15 0	11 6
September.....	14 11	13 0	March.....	14 5	12 5
October.....	14 4	12 8	April.....	14 3	13 3
November.....	18 4	12 2	May.....	14 11	13 5
December.....	17 5	12 9	June.....	14 7	13 8

Department of Railways and Canals.

ST. PETER'S CANAL.

ST. PETER'S CANAL OFFICE, 19th October, 1896.

SIR,—I have the honour to report completion, during the fiscal year ending 30th June, 1896, of sundry works of renewal and repairs for some time in progress at St. Peter's Canal.

From time to time reports were made to the department that the lock gates and timbers of St. Peter's Canal were injured by perforations of the "teredo." The ravages of these borers at length so honey-combed and weakened the lock timbers submerged beneath low water level, that the canal was operated with difficulty and risk; and replacement of the damaged structures became necessary. Occurrences unforeseen at commencement of the work, somewhat retarded completion of these renewals, but the damaged structures were made good, and the canal was re-opened for traffic on the 8th of November, 1895.

The damaged lockgates have been replaced by new gates of pitch pine, treated with creosote, as an additional preservative. At present it would be premature to conclude that the new creosoted structures will be absolutely secure from ravages of the "teredo," but to this date no indication whatever of the work of borers is apparent.

A portion of the coffer dam constructed for unwatering of the lock was left at the north entrance and caused obstruction and risk to the larger craft passing via the canal. This obstruction has been removed during the year.

From repeated examinations, diver Sampson reports that considerable ballast left from the cofferdam at the south entrance to the canal still remains at the sides of the channel. This will require to be taken away, lest the drift ice and heavy seas carry boulders into the lock and injure the gates.

At the Bras d'Or entrance to the canal, and also at the south entrance, obstructions of clay have accumulated. Removal of these is necessary to give the larger vessels using the canal full depth of water; and will require fifteen or twenty days' work by a dredge of ordinary efficiency to properly clear the channel.

During the fiscal year, since the canal has been reopened, traffic month by month compares favourably with that of former years.

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

JOHN D. MATHESON,
Lockmaster and Collector.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Chief Engineer Railways and Canals,
Ottawa.

OFFICE OF THE INSPECTOR OF CANALS,

HAMILTON, 19th August, 1896.

SIR,—I have the honour to report my inspection, during the fiscal year ending 30th June, 1896, of the respective offices for collection of tolls on the Dominion canals.

From time to time, at dates of inspection, detailed returns showing particulars of all collections made, and of the working of each office, were submitted to the department.

The aggregate receipts, on account of canal revenue, during the fiscal year 1895-96 were \$290,089.08.

Receipts of hydraulic and other rents, during the fiscal year were \$51,414.01.

Classified under subdivisions of tolls, wharfage and storage, fines, damages and sundry miscellaneous minor receipts, the exhibit of revenue, at the thirty offices established for collection of canal revenue, is as follows:—

WELLAND CANAL.

Collection Divisions.	CANAL REVENUE.					Total Canal Revenue.	Hydraulic and Other Rents.
	Tolls.	Wharfage and Storage.	Fines.	Damages.	Other Receipts.		
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.		
Port Colborne.....	90,920 88	.....	30 00	.....	36 08	90,986 96	770 50
Port Dalhousie.....	50,491 59	.....	90 00	.....	71 95	50,653 54	1,230 65
Dunnville.....	235 15	.....	.....	.....	.....	235 15	1,068 34
Port Maitland.....	20 92	.....	.....	.....	.....	20 92	.....
St. Catharines.....	791 25	.....	10 00	.....	.....	801 25	6,120 02
Chippawa.....	43 39	.....	.....	.....	.....	43 39	5 00
Port Robinson*.....	8 35	.....	.....	.....	.....	8 35	.....
Totals.....	142,511 53	.....	130 00	.....	108 03	142,749 56	9,194 51

*This office was closed July 5th.

ST. LAWRENCE CANALS.

Valleyfield.....	1,854 58	.....	5 00	.....	4 00	1,863 58	2,809 00
Cornwall.....	3,877 18	.....	25 00	.....	8 00	3,910 18	6,960 00
Cardinal.....	742 43	.....	10 00	.....	.....	752 43	979 00
Lachine.....	917 03	17 10	.....	.....	1,333 42	2,267 55	.....
Montreal*.....	53,183 13	3,016 04	40 00	.....	14,076 86	70,316 03	30,215 05
Kingston.....	183 48	.....	.....	.....	.....	183 48	.....
Totals.....	60,757 83	3,033 14	80 00	.....	15,422 28	79,293 25	40,963 05

*The tolls collected at Montreal include payment for Let-passes issued at Lachine for \$1,122.70; at Cornwall for \$21,963.04; and at Kingston for \$8,870.30.

CHAMBLY CANAL.

Chambly.....	13,016 26	.....	7 00	.....	.....	13,023 26	140 00
St. Johns.....	13,213 03	.....	.....	.....	.....	13,213 03	50 00
St. Ours Lock.....	577 72	.....	2 00	.....	.....	579 72	.....
Totals.....	26,807 01	.....	9 00	.....	.....	26,816 01	140 00

Department of Railways and Canals

OTTAWA RIVER CANALS.

Collection Divisions.	CANAL REVENUE.					Total Canal Revenue.	Hydraulic and Other Rents.
	Tolls.	Wharfage and Storage.	Fines.	Damages.	Other Receipts.		
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Ottawa	19,782 17					19,782 17	
Grenville	11,096 91				8 00	11,104 91	13 00
Carillon	60 50					60 50	43 00
St. Anne's	1,151 35				2 20	1,153 55	
Totals	32,090 93				10 00	32,101 13	56 00

RIDEAU CANAL.

Ottawa	3,826 99	51 94			266 50	4,145 43	501 75
Kingston Mills	1,434 34					1,434 34	332 50
Smith's Falls	536 89				9 20	546 00	58 20
Totals	5,798 13	51 94			275 70	6,125 77	942 45

ST. PETER'S CANAL.

St. Peter's	1,248 38					1,248 38	
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MURRAY CANAL.

Brighton	522 12					522 12	4 00
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TRENT VALLEY CANALS.

Burleigh Falls	75 25					75 25	
Bobcaygeon	476 94				165 00	641 94	
Fenelon Falls	65 05				1 00	66 05	51 00
Hastings	35 71				0 75	36 46	
Peterborough	265 20					265 20	3 00
Buckhorn	147 96					147 96	
Totals	1,066 11				166 75	1,232 86	54 00

SAULT STE. MARIE CANAL.

Sault Ste. Marie							10 00
Grand Totals ..	270,802 04	3,085 08	219 00		15,982 96	290,089 08	51,414 01

During the fiscal year bank remittances in favour of the Receiver General have been made daily or weekly, as determined by the department, and by such deposits the receipts, as tabulated above, were duly balanced at the above named offices.

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

H. B. WITTON,
Inspector of Canals.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister of Railways and Canals.

Department of Railways and Canals.

REPORT

OF THE

SECRETARY OF THE RAILWAY COMMITTEE

OF THE

PRIVY COUNCIL

Department of Railways and Canals.

RAILWAY COMMITTEE OF THE PRIVY COUNCIL.

The Minister of Railways and Canals, being Chairman of the Railway Committee of the Privy Council, on which certain extensive duties are imposed by the Railway Act, 1888, and its amendments, it seems proper that a brief record should here be made of the matters submitted to the Committee during the calendar year from January to December, 1896, and the decisions arrived at. They are as follows:—

Montreal Park and Island Railway to cross the Lachine Canal at Montreal and Côte St. Paul.—Hearing adjourned.

Complaint of fishermen and residents of Burlington Beach that the Grand Trunk Railway Company have deprived them of access to their fishing grounds by building a wire fence and closing up certain gates and crossings.—Case dismissed.

Complaint by Mr. E. Dubé *re* rates charged on the Temiscouata Railway—Case dismissed.

Montreal Park and Island Railway, for approval of plan of proposed place and mode of crossing by its railway of the Grand Trunk Railway wharf siding tracks at Lachine.—Approved.

Montreal Park and Island Railway, for permission to cross the Cote St. Luc Road, near Westmount.—Granted.

Complaint that the Fenelon Road crossing of the Grand Trunk Railway near Lindsay is in a dangerous condition—Order issued directing Grand Trunk Railway to make the necessary repairs.

Grand Trunk Railway, for approval of plan and profile of a crossing by their railway of St. Etienne Street, in Montreal.—Approved.

City of St. Henri, for authority to open a prolongation of St. Jean Street across the line of the Grand Trunk Railway, and to remove fences shutting off said street from the railway.—Under consideration.

Grand Trunk Railway, for variation of Orders *re* crossing of street railways at Toronto and Montreal as regards cost of protection.—Under consideration.

Grand Trunk Railway *re* crossing of its tracks by the Canada Southern Railway Company's branch to the Ontario Peat Fuel Company's works.—Partly heard.

Complaint by the City of Three Rivers that the overhead bridge crossing Le Jeune Street over the C. P. R., being in a dangerous condition, and that gates and watchmen are necessary at the crossing by the C. P. R., at Bonaventure Street.—Case withdrawn.

Canadian Pacific Railway for approval of plan of bridge across the Columbia River at Revelstoke, B. C.—Approved.

Township of Orford for permission to cross the Canadian Pacific Railway with a public road near Magog Lake.—Granted.

City of Toronto for permission to lay a 12 inch water main under Grand Trunk and Canadian Pacific Railway tracks on Bay Street in that city.—Granted.

Nakusp and Slocan Railway (C. P. R.) for approval of proposed change in the location of the Sandau Branch of the Nakusp and Slocan Railway, and for authority to take possession of, use or occupy certain lands of the Kaslo and Slocan Railway.—Granted.

Tagona Water and Light Company for permission to lay their water pipes under the tracks of the C. P. R., at Sault Ste. Marie.—Granted.

Application by Captain J. E. Porter, for an order compelling the Central Railway Company of New Brunswick to widen the drain in their bridge crossing the Washademook River.—Case dismissed.

Toronto, Hamilton and Buffalo Railways for power to take possession of, use or occupy certain property of the Grand Trunk Railway Company in the Township of Barton required for right of way purposes.—Granted.

The Ottawa, Arnprior and Parry Sound Railway for approval of plan of bridge to Parry Island.—Approved.

Montreal Park and Island Railway for approval of an overhead crossing by their electric railway of the Canadian Pacific Railway at the village of Côte des Neiges—Approved.

The St. Lawrence and Adirondack Railway Company for approval of a change in location of the line of its railway near Valleyfield.—Approved.

Atlantic and North-west Railway Company (C. P. R.) for approval of plan *re* grade of approaches to their tracks along certain streets in St. Johns, P.Q.—Approved.

Ottawa, Arnprior and Parry Sound Railway Company for approval of plan and site of the proposed works upon the lands covered with the waters of the Rideau Canal, Ottawa.—Approved.

The Okatoks Irrigation Company for permission to cross the Calgary and Edmonton Railway with an Irrigation Ditch.—Granted.

Province of Manitoba for an order directing that Le Moine Street in the municipality of Kildonan, be extended across the tracks of the Canadian Pacific Railway.—Granted.

Columbia and Kootenay Railway Branch from a point on the bank of the Kootenay River.—Sanctioned.

Toronto, Hamilton and Buffalo Railway branch to connect the village of Ridgeville with its main line.—Sanctioned.

Canadian Pacific Railway Branch from their main line in Hochelaga Ward, Montreal, to the St. Lawrence Sugar Refinery in the town of Maisonneuve.—Sanctioned.

City of Winnipeg for an order directing that Gladstone Street be extended across the tracks and lands of the Canadian Pacific Railway Company.—Granted.

Canadian Pacific Railway for approval of plan and proposed site of bridges across the following streams in British Columbia, viz. :—

Sicamous Narrows, Columbia River, Pitt River, Fraser River, Stone River, Harrison River and Maria Slough.—Approved.

Montreal Park and Island Railway for approval of a crossing by their street railway of the Grand Trunk Railway near St. Lawrence Station.—Approved.

Moncton Electric Street Railway for approval of crossing of the Intercolonial Railway at Main and St. George streets, Moncton.—Approved.

Department of Railways and Canals

South-western Railway for approval of plan and site of bridge across the Chateauguay River.—Approved.

Gulf Shore Railway for approval of plan and site of bridges across the following streams in New Brunswick, viz. :—South River, Tracadie River, and Pokemouche River.—Approved.

Montreal Park and Island Railway for permission to cross under the Atlantic and North-west Railway (C.P.R.) near Lachine.—Granted.

Hamilton Radial Electric Railway for approval of crossing of the G.T.R. on Sherman Avenue and Fergusson Avenue, Hamilton.—Approved.

Hamilton Radial Electric Railway for approval of crossing of the G.T.R. at Burlington.—Hearing adjourned.

The Hull Electric Company for permission to cross the Canadian Pacific Railway near the Hull station.—Hearing adjourned.

Kingston and Pembroke Railway for variation of Order *re* crossing of their railway by the Kingston, Napanee and Western Railways at Harrowsmith.—Granted.

London Street Railway for permission to cross the tracks of the Grand Trunk, Canadian Pacific and London and Port Stanley Railway.—Hearing adjourned.

Town of Magog for permission to cross, with six of its streets, the tracks of the Atlantic and North-west Railways (C.P.R.)—Hearing adjourned.

Canadian Pacific Railway for approval of plan of trestle bridge over Kelesquasheshing Lake, and plan of trestle bridge over Kelesquasheshing River, Algoma.—Hearing adjourned.

City of Winnipeg for permission to extend Gladstone Street across the tracks of the Canadian Pacific Railway.—Granted.

Sherbrooke Street Railway for permission to cross the tracks of the Grand Trunk and Canadian Pacific Railways.—Granted.

Hamilton Radial Electric Railway for permission to cross two parcels of land owned by Grand Trunk Railway.—Case withdrawn as the two Companies arrived at an agreement.

Toronto, Hamilton and Buffalo Railway for approval of plans and profile of portions of its railway to be constructed across certain streets and roads in Hamilton.—Approved.

Toronto, Hamilton and Buffalo Railway for approval of junction with the Grand Trunk Railway at Hamilton.—Approved.

Toronto, Hamilton and Buffalo Railway for approval of plan and site of bridge across Desjardins Canal.—Approved.

Toronto, Hamilton and Buffalo Railway Branch to Ridgeville.—Sanctioned.

Montreal Park and Island Railway for permission to cross Lot No. 925 of G. T. R. at Lachine.—Granted.

Toronto, Hamilton and Buffalo Railway for a reconsideration of the order closing Hughson Street in the City of Hamilton.—Order issued directing that Hughson Street shall not be closed.

Ottawa, Arnprior and Parry Sound Railway for approval of crossing Grand Trunk Railway at Scotia.—Approved.

City of Toronto for permission to lay down water pipes under the tracks of the Canadian Pacific and Grand Trunk Railways.—Granted.

Montreal Street Railway for variation of order *re* crossing of G. T. R. on Notre Dame Street, St. Henri.—Order varied.

Montreal and Ottawa Railway (C. P. R.) for approval of crossing of its railway of the Central Counties Railway at Vankleek Hill.—Approved.

COLLINGWOOD SCHREIBER,

Secretary of Railway Committee of the Privy Council.

Prepared by

J. W. PUGSLEY,

Clerk of Ry. Com. of P. C.

Department of Railways and Canals.

PART II

STATEMENTS OF THE ACCOUNTANT

Department of Railways and Canals.

No. 1.

STATEMENT showing the amount expended by the Department of Railways and Canals,
Dominion of Canada, during the Fiscal Year ending 30th June, 1896.

Name of Work.	Chargeable to Capital.	Chargeable to Income.	Chargeable to Revenue.	
			Staff.	Repairs.
CANALS.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Beauharnois.....			20,725 47	15,050 85
Carillon.....			13,995 69	12,161 10
Grenville.....	3,850 31			
Chambly.....		3,694 63	19,349 65	11,801 12
Cornwall.....	448,408 31	2,175 00	15,472 26	25,259 56
Lachine.....	184,998 25	8,193 15	58,342 96	24,950 20
Lake St. Louis.....	49,909 31			
Murray.....			5,409 10	5,410 33
Rideau.....		21,452 29	34,052 77	30,196 38
Sault Ste. Marie.....	189,986 59		16,074 70	2,650 17
Soulanges.....	535,939 07			
St. Anne's.....			2,495 54	4,993 89
St. Lawrence.....	7,457 05			
St. Ours.....			2,094 91	1,678 49
St. Peter's.....	1,455 21	16,743 64	2,182 04	260 90
Trent.....	392,976 08	6,185 75	4,349 34	3,329 97
Welland.....	1,677 67	18,768 99	87,988 11	62,542 64
Williamsburg.....	Galops.....	150,744 16	9,588 51	9,036 00
	Rapide Plat.....	286,396 96		
	Farran's Point.....	4,980 00		
	Iroquois.....	8,607 04		
Totals.....	2,258,778 97	85,820 49	292,121 05	209,321 60
Sunday labour.....			13,632 19	
Salaries and contingencies canal officers.....			38,850 69	
Dredge vessels, Lachine.....				2,751 04
do Rideau.....				5,993 06
Miscellaneous, works not provided for.....		5,024 58	850 54	8,262 70
Surveys and inspections.....		868 82		
Expenses of Deep Waterways Commission.....		5,000 00		
Salaries of extra clerks and copyists.....		1,997 48		
Salaries of engineers, draughtsmen and extra clerks.....		18,010 69		
Services extra clerks preparing returns for Parliament.....		736 05		
Costs of litigation.....		4,449 99		
Total on Canals.....	2,258,778 97	121,908 10	345,454 47	226,328 40
RAILWAYS.				
Canadian Pacific.....	65,669 49			
Intercolonial.....	\$259,423 42			
Less refund previous years.....	318 19			
	259,105 23		3,012,827 62	
Prince Edward Island.....			225,138 56	
Windsor Branch.....			16,476 46	
Total.....	324,774 72		3,254,442 64	
Governor General's car "Victoria".....	1,290 31			
Railway subsidies.....		648,145 49		
Surveys and inspections.....		4,990 89		
Railway statistics.....		168 80		
Reporting evidence before Railway Committee of the Privy Council.....		112 20		
Total on Railways.....	326,065 03	653,417 38	3,254,442 64	
Total on Railways and Canals.....	2,584,844 00	775,325 48	3,599,897 11	226,328 40

Total amount expended, \$7,186,394.99.

DEPARTMENT OF RAILWAYS AND CANALS,

LEONARD SHANNON,

OTTAWA, 1st November, 1896.

Accountant.

Department of Railways and Canals

No. 2.

STATEMENTS showing the amounts expended on Construction, Renewals, Ordinary Repairs and Working Staff of the Canals of the Dominion of Canada, up to the 30th June, 1896.

ST. PETER'S CANAL.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation		156,523 32			
do since do	1868	21,519 72			
do do do	1869	70,719 80			
do do do	1870		46,193 57		
do do do	1871			225 36	555 78
do do do	1872			280 00	6,122 07
do do do	1873			343 32	6,539 58
do do do	1874			725 93	1,558 57
do do do	1875	20 97		560 00	889 35
do do do	1876	11,125 00		641 55	
do do do	1877	63,330 18		600 00	17 45
do do do	1878	26,511 51		600 00	
do do do	1879	107,337 75		631 50	
do do do	1880	80,120 54		400 00	
do do do	1881	69,434 76		959 58	
do do do	1882	484 00		1,920 54	200 63
do do do	1883			2,089 19	232 42
do do do	1884	2,471 40		2,601 47	367 85
do do do	1885	16,820 15		1,929 11	183 11
do do do	1886	2,316 85		2,360 67	297 81
do do do	1887	1,087 75	750 00	2,777 13	343 23
do do do	1888			3,217 77	1,588 40
do do do	1889		500 00	3,085 29	353 38
do do do	1890			3,110 15	255 34
do do do	1891	972 65	510 53	3,255 30	312 02
do do do	1892	14,387 00	30,936 82	3,007 70	1,461 24
do do do	1893	811 59	9,987 78	2,938 15	1,856 30
do do do	1894	437 05	3,852 21	2,935 94	1,986 70
do do do	1895	868 44	26,222 46	2,499 81	353 55
do do do	1896	1,455 21	16,743 64	2,182 04	260 90
Total		648,755 64	135,697 01	45,877 50	25,735 68

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

BAIE VERTE CANAL—SURVEY.

				Year ending 30th June.	Capital.	Income.
					\$ cts.	\$ cts.
Government expenditure prior to		Confederation.				
do	since	do		1868		
do	do	do		1869		
do	do	do		1870		
do	do	do		1871		17,929 34
do	do	do		1872		6,399 41
do	do	do		1873		14,943 83
do	do	do		1874		4,018 90
do	do	do		1875		443 00
do	do	do		1876		110 75
do	do	do		1877		22 30
do	do	do		1878		
do	do	do		1879		
do	do	do		1880		
do	do	do		1881		520 00
do	do	do		1882		
do	do	do		1883		
do	do	do		1884		
do	do	do		1885		
do	do	do		1886		
do	do	do		1887		
do	do	do		1888		
do	do	do		1889		
do	do	do		1890		
do	do	do		1891		
do	do	do		1892		
do	do	do		1893		
do	do	do		1894		
do	do	do		1895		
do	do	do		1896		
Total.						44,387 53

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

Department of Railways and Canals.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

LACHINE CANAL.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Expenditure by Imperial Government.....		40,000 00			
Government expenditure prior to Confederation		2,547,532 85			
do since do	1868		1,852 70	13,742 05	10,431 51
do do do	1869	2,000 00		14,209 02	12,085 84
do do do	1870			15,834 49	13,302 39
do do do	1871		12,231 40	17,478 52	15,093 25
do do do	1872	36,708 15		16,076 93	12,334 69
do do do	1873	7,824 28	35,158 21	23,601 03	34,300 60
do do do	1874	158,618 35		25,811 07	22,828 66
do do do	1875	197,420 52		28,592 01	30,057 34
do do do	1876	327,769 39		33,797 73	29,103 65
do do do	1877	1,439,375 73		33,148 86	19,824 33
do do do	1878	1,484,619 63		39,062 97	13,646 41
do do do	1879	958,053 30		42,338 84	12,400 78
do do do	1880	369,566 74		38,950 90	10,223 62
do do do	1881	292,165 51		39,027 99	19,888 33
do do do	1882	252,821 33	2,978 66	41,158 90	17,116 46
do do do	1883	396,496 96	1,859 68	45,554 91	18,199 59
do do do	1884	188,266 18		48,624 51	19,683 24
do do do	1885	111,215 23		49,004 85	20,199 78
do do do	1886	210,509 42		50,969 10	19,199 18
do do do	1887	28,772 52	12,981 59	53,113 97	22,567 81
do do do	1888	19,414 34	7,996 38	52,229 61	19,999 64
do do do	1889	76,032 96	972 71	54,110 67	22,957 71
do do do	1890	7,448 03	8,235 46	53,114 34	22,999 38
do do do	1891	217 53	16,155 75	50,721 69	36,292 98
do do do	1892	87,852 35	27,480 80	52,729 37	67,499 62
do do do	1893	445,983 21	50,937 40	53,185 00	51,616 79
do do do	1894	64,345 14	15,856 74	60,174 03	40,939 70
do do do	1895	189,944 36	32,405 20	56,337 44	25,891 45
do do do	1896	184,998 25	8,193 15	58,342 96	24,950 20
Total		10,125,972 26	235,298 83	1,161,043 76	685,634 93

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

BEAUHARNOIS CANAL.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation		1,611,424 11			
do since do	1868		63,193 75	9,349 99	6,216 98
do do do	1869		55 00	9,626 99	6,498 57
do do do	1870		27 50	10,117 57	6,384 81
do do do	1871			12,316 53	5,722 36
do do do	1872		27 50	11,792 46	15,733 38
do do do	1873		5,122 50	12,210 73	9,882 06
do do do	1874		28 00	15,392 51	10,990 56
do do do	1875		36 00	14,399 32	12,253 01
do do do	1876			14,465 86	17,170 83
do do do	1877			14,377 63	15,207 36
do do do	1878			14,383 37	9,861 05
do do do	1879			15,015 86	10,370 71
do do do	1880	266 15		15,362 61	8,997 34
do do do	1881			17,659 93	10,770 67
do do do	1882			18,804 53	20,813 86
do do do	1883		6,727 44	18,287 77	15,826 71
do do do	1884		3,277 98	19,107 38	16,232 61
do do do	1885		7,999 79	18,960 40	14,637 70
do do do	1886		8,491 80	19,228 90	14,356 00
do do do	1887		3,633 57	18,867 45	14,999 88
do do do	1888		14,411 97	19,325 05	14,285 98
do do do	1889		10,993 52	20,019 11	14,982 54
do do do	1890			19,847 42	14,999 20
do do do	1891		17,085 68	18,886 86	12,537 39
do do do	1892		1,696 23	20,050 01	14,599 80
do do do	1893			20,348 34	14,107 11
do do do	1894		6,547 72	20,574 53	13,903 46
do do do	1895		27,982 93	20,428 59	12,299 49
do do do	1896			20,725 47	15,050 85
Total		1,611,690 26	177,336 88	479,933 17	370,092 27

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

Department of Railways and Canals.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

ST. LAWRENCE RIVER AND CANALS, SURVEYS, &c.

	Year ending 30th June.	Chargeable to Capital.	Chargeable to Income.
		\$ cts.	\$ cts.
Government expenditure prior to Confederation.....		18,442 85	98,378 46
do since do	1868		
do do do	1869		
do do do	1870		
do do do	1871		
do do do	1872		
do do do	1873	33,241 69	
do do do	1874	26,541 30	
do do do	1875	20,611 36	
do do do	1876	50,215 47	
do do do	1877	47,377 31	
do do do	1878	5,570 46	
do do do	1879	9,265 77	
do do do	1880	9,214 56	
do do do	1881	6,927 96	
do do do	1882	28,933 45	
do do do	1883	44,874 31	
do do do	1884	89,846 03	
do do do	1885	115,110 17	
do do do	1886	116,051 73	
do do do	1887	74,437 31	
do do do	1888	56,482 85	
do do do	1889	18,493 92	
do do do	1890	23,979 91	
do do do	1891	35,137 25	
do do do	1892	59,779 31	
do do do	1893	52,643 39	
do do do	1894	13,721 66	
do do do	1895	182,775 75	
do do do	1896	7,457 05	
Total		1,147,132 82	98,378 46

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

LAKE ST. LOUIS.

	Year ending 30th June.	Chargeable to Capital.		Chargeable to Income.	
		\$	cts.	\$	cts.
Government expenditure prior to Confederation.....	1868				
do since do.....	1869				
do do do.....	1870				
do do do.....	1871				
do do do.....	1872				
do do do.....	1873				
do do do.....	1874				
do do do.....	1875				
do do do.....	1876				
do do do.....	1877				
do do do.....	1878				
do do do.....	1879				
do do do.....	1880				
do do do.....	1881				
do do do.....	1882				
do do do.....	1883				
do do do.....	1884				
do do do.....	1885				
do do do.....	1886				
do do do.....	1887				
do do do.....	1888				
do do do.....	1889				
do do do.....	1890				
do do do.....	1891				
do do do.....	1892				
do do do.....	1893				
do do do.....	1894				
do do do.....	1895			4,753	14
do do do.....	1896			49,909	31
Total.....				54,662	45

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

Department of Railways and Canals.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

CORNWALL CANAL.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation		1,933,152 69			
do since do	1868		2,786 00	11,244 47	3,774 18
do do do	1869	10,692 04		10,347 91	3,859 14
do do do	1870		17,780 05	10,368 16	7,145 42
do do do	1871		7 50	11,848 39	8,891 61
do do do	1872		10,000 21	10,594 30	8,163 70
do do do	1873		1,011 75	13,042 25	12,467 65
do do do	1874			13,405 20	7,610 70
do do do	1875	1,780 00		13,351 91	7,097 34
do do do	1876			13,320 61	6,423 67
do do do	1877	49,211 37		13,375 70	6,440 54
do do do	1878	145,015 45		13,825 50	4,935 21
do do do	1879	143,092 05		13,817 96	4,983 15
do do do	1880	109,454 95		14,440 33	9,735 76
do do do	1881	53,948 14		15,173 60	5,524 10
do do do	1882	44,587 61		15,052 20	6,634 62
do do do	1883	21,728 93		18,283 67	8,361 71
do do do	1884	23,018 13		18,475 48	9,007 73
do do do	1885	62,034 90	16,298 96	15,988 96	12,368 51
do do do	1886	57,820 83	6,960 95	15,994 80	11,832 83
do do do	1887	46,966 43		17,520 54	12,100 29
do do do	1888	67,945 74		16,938 54	13,942 64
do do do	1889	163,9 3 85		17,890 55	58,205 26
do do do	1890	365,038 01	2,000 00	17,063 49	12,758 18
do do do	1891	599,001 85	1,459 98	16,077 72	9,830 05
do do do	1892	398,555 25	2,345 26	15,596 66	9,864 36
do do do	1893	352,536 13		15,173 01	9,668 14
do do do	1894	404,990 22		15,344 02	7,733 54
do do do	1895	450,689 65	21,497 74	15,414 56	13,053 55
do do do	1896	448,408 31	2,175 00	15,472 26	25,259 56
Total		5,953,662 53	84,323 40	424,442 75	317,673 14

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

WILLIAMSBURG CANALS.

			Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
				\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation				1,320,655 54			
do	since	do	1868			5,745 97	6,442 41
do	do	do	1869			5,769 81	5,670 88
do	do	do	1870			5,573 13	6,546 16
do	do	do	1871			6,382 17	5,308 41
do	do	do	1872		1,077 00	5,542 94	3,230 07
do	do	do	1873			6,424 49	7,347 75
do	do	do	1874			6,857 19	7,395 92
do	do	do	1875			6,547 62	4,110 29
do	do	do	1876			7,418 39	11,690 98
do	do	do	1877			7,388 08	10,053 61
do	do	do	1878			7,430 11	4,449 78
do	do	do	1879			7,517 20	3,549 71
do	do	do	1880			7,590 15	3,999 77
do	do	do	1881			7,572 35	5,020 73
do	do	do	1882			7,589 44	7,447 69
do	do	do	1883	13 19		7,423 48	7,299 39
do	do	do	1884	2,473 44		7,757 04	7,349 37
do	do	do	1885	103,237 12		7,696 67	8,198 03
do	do	do	1886	149,835 71		7,671 54	7,847 05
do	do	do	1887	115,853 00		7,635 54	7,904 76
do	do	do	1888	70,128 29	1,613 67	7,646 79	8,190 13
do	do	do	1889	59,867 26		7,485 28	8,794 61
do	do	do	1890	139,078 37		8,954 53	8,191 69
do	do	do	1891	230,670 60		8,678 25	7,987 40
do	do	do	1892	376,545 32	797 83	9,458 33	8,551 32
do	do	do	1893	372,193 29	3,675 00	8,676 03	8,347 97
do	do	do	1894	498,390 23		10,230 09	7,029 95
do	do	do	1895	347,357 23	13,720 36	9,675 09	7,371 37
do	do	do	1896	442,121 12	8,607 04	9,588 51	9,036 00
Total				4,228,419 71	29,490 90	219,926 21	204,363 20

LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,

OTTAWA, 1st November, 1896.

Department of Railways and Canals.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

WELLAND CANAL.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Imperial Government.....		222,220 00			
Government expenditure prior to Confederation.....		7,416,019 83			
do since do	1868	12,097 84		37,679 05	38,852 96
do do do	1869	43,486 36		39,060 61	50,773 03
do do do	1870		22,173 72	40,340 45	65,009 19
do do do	1871		48,569 10	42,383 33	53,381 02
do do do	1872	53,680 32	6,022 44	37,085 37	50,276 90
do do do	1873	82,282 20	47,876 27	45,382 99	66,550 73
do do do	1874	746,420 61		50,966 48	103,666 99
do do do	1875	1,047,119 91		52,595 00	88,539 99
do do do	1876	1,569,478 19	700 00	57,623 31	81,376 12
do do do	1877	2,199,962 61		59,963 47	49,783 93
do do do	1878	2,138,392 99		60,138 59	66,393 53
do do do	1879	1,552,697 41		59,942 23	56,755 57
do do do	1880	1,252,924 75		63,198 10	76,535 25
do do do	1881	1,242,943 37	6,593 19	56,398 04	69,249 53
do do do	1882	603,402 17	13,664 80	74,641 51	84,374 97
do do do	1883	549,433 29	5,979 03	109,207 21	72,707 62
do do do	1884	432,336 21		113,276 87	90,926 97
do do do	1885	463,505 38	6,150 21	112,670 00	91,534 66
do do do	1886	215,380 75	1,359 00	111,660 22	69,507 48
do do do	1887	1,071,073 87	3,828 67	109,371 69	77,440 80
do do do	1888	429,720 94	10,740 86	110,806 01	86,518 97
do do do	1889	225,910 21	43,803 80	113,587 05	77,547 77
do do do	1890	117,633 22	51,648 28	109,202 02	72,686 19
do do do	1891	36,371 03	19,767 73	107,662 63	82,548 30
do do do	1892	29,541 21	9,008 80	104,673 73	73,771 87
do do do	1893	8,259 94	25,103 13	104,926 73	65,016 84
do do do	1894	1,571 78	13,430 20	102,018 80	53,053 71
do do do	1895	3,809 35	24,245 02	90,438 07	48,270 94
do do do	1896	1,677 67	18,768 99	87,988 11	62,542 64
Total.....		23,769,353 41	379,433 24	2,264,887 67	2,025,594 47

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

STE. ANNE'S LOCK AND CANAL.

			Year end- ing 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
				\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation				134,456 51			
do	since	do	1868			778 16	432 47
do	do	do	1869			1,062 96	1,873 51
do	do	do	1870			1,136 54	1,280 36
do	do	do	1871			1,285 84	1,539 02
do	do	do	1872		1,939 46	1,106 80	1,393 63
do	do	do	1873		540 11	2,199 64	1,264 40
do	do	do	1874	12,753 27		2,614 90	7,208 63
do	do	do	1875	32,627 71		1,859 20	4,506 68
do	do	do	1876	24,935 85		1,952 14	4,033 72
do	do	do	1877	30,003 08		1,982 65	1,756 93
do	do	do	1878	14,618 85		2,057 32	541 95
do	do	do	1879	22,113 02		2,202 03	3,259 70
do	do	do	1880	3,054 68		2,152 57	1,704 71
do	do	do	1881	69,042 76		2,553 02	3,257 92
do	do	do	1882	193,158 36		2,611 30	2,343 99
do	do	do	1883	172,959 95		2,569 86	3,448 83
do	do	do	1884	142,006 25		2,775 32	2,725 49
do	do	do	1885	93,679 57		2,618 60	4,042 04
do	do	do	1886	129,681 67		2,611 90	5,803 01
do	do	do	1887	45,276 08	6,054 10	2,537 41	1,499 96
do	do	do	1888	18,910 55	1,372 59	2,505 61	1,380 75
do	do	do	1889	24,786 33		2,569 22	1,750 79
do	do	do	1890	6,151 14		2,571 04	1,525 51
do	do	do	1891		8,173 69	2,505 69	1,503 56
do	do	do	1892		25,471 61	2,571 28	1,666 21
do	do	do	1893		6,521 88	2,581 08	2,800 03
do	do	do	1894		3,497 56	2,640 00	2,799 63
do	do	do	1895		3,694 33	2,508 14	3,025 91
do	do	do	1896			2,495 54	4,993 89
Total				1,170,215 63	57,265 33	63,615 76	75,343 23

LEONARD SHANNON,
*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS.
OTTAWA, 1st November, 1896.

Department of Railways and Canals

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

CARILLON AND GRENVILLE CANALS.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation		63,053 64			
do since do	1868		19,817 22	6,301 88	8,911 28
do do do	1869			6,549 38	10,157 42
do do do	1870		4,167 96	6,617 81	9,852 09
do do do	1871		23,119 37	8,676 90	8,218 24
do do do	1872	165,257 28		8,324 51	17,235 31
do do do	1873	133,199 10	3,051 38	10,068 28	8,781 50
do do do	1874	245,258 38		10,710 88	10,605 82
do do do	1875	339,864 76		10,378 57	18,520 44
do do do	1876	326,203 16		10,764 38	11,475 96
do do do	1877	245,738 04		11,050 27	10,304 06
do do do	1878	22,676 20		11,401 30	5,082 72
do do do	1879	243,141 24		11,501 22	7,629 98
do do do	1880	281,514 27		11,959 14	7,625 54
do do do	1881	336,707 53		13,059 18	8,076 91
do do do	1882	433,084 39		14,387 49	7,582 68
do do do	1883	433,575 10		17,479 58	8,310 02
do do do	1884	399,267 16		17,393 91	7,918 42
do do do	1885	157,187 72		19,702 30	10,429 26
do do do	1886	104,973 24	75 00	20,597 82	9,303 31
do do do	1887	20,747 11		20,011 36	10,554 41
do do do	1888	38,996 29		21,531 12	10,036 62
do do do	1889	298 17		22,098 88	10,135 66
do do do	1890	17 58	4,526 61	15,896 16	7,582 38
do do do	1891		4,395 25	21,230 22	10,796 68
do do do	1892	34,585 64	15,036 48	17,458 69	8,620 15
do do do	1893	207 00	42,298 74	16,762 71	10,669 28
do do do	1894	385 55	20,034 94	14,144 98	11,620 09
do do do	1895		5,963 76	15,453 21	12,303 25
do do do	1896	3,850 31		13,995 69	12,161 10
Total		4,029,788 86	142,486 71	405,507 82	290,500 58

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

CULBUTE LOCK AND DAM.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure since Confederation.	1868				
do do do	1869				
do do do	1870				
do do do	1871				
do do do	1872				
do do do	1873				
do do do	1874		835 53		
do do do	1875	63,659 29	38,388 99		
do do do	1876	76,842 44			
do do do	1877	56,081 87			
do do do	1878	5,933 53			
do do do	1879	20,694 19			
do do do	1880	16,688 20		202 50	259 31
do do do	1881	4,721 62		962 85	
do do do	1882	29,567 15		790 00	162 33
do do do	1883	14,249 60		695 00	288 99
do do do	1884	8,151 16		733 50	
do do do	1885	19,071 76		730 00	572 75
do do do	1886	26,385 27		730 00	2,396 14
do do do	1887	7,760 88		730 00	967 33
do do do	1888	7,573 99		739 50	730 60
do do do	1889	17,112 01		1,050 00	116 53
do do do	1890	2,818 35		747 83	
do do do	1891	2,183 15	9,122 05	745 25	499 91
do do do	1892		1,546 25	736 00	
do do do	1893		1,420 65	749 00	13 55
do do do	1894		2,540 14	730 00	494 43
do do do	1895		1,475 26	436 05	434 28
do do do	1896				
Total		379,494 46	55,328 87	11,507 48	6,936 15

LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

Department of Railways and Canals.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

RIDEAU CANAL.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Imperial Government.....		3,911,701 47			
Government expenditure prior to Confederation		153,062 60			
do since do	1868		7,298 12	18,397 28	16,475 21
do do do	1869			19,250 71	13,140 77
do do do	1870		13 16	20,022 37	19,469 33
do do do	1871		11,732 98	22,814 58	18,120 52
do do do	1872		4,967 50	22,139 48	14,005 32
do do do	1873		18,070 97	22,841 51	26,074 49
do do do	1874		5,793 16	26,815 44	22,957 40
do do do	1875	9,310 85		26,553 37	19,699 81
do do do	1876	2,163 96		26,430 77	14,428 25
do do do	1877	214 11		25,959 56	14,198 18
do do do	1878			26,651 51	11,034 22
do do do	1879	7,703 88		26,042 52	7,134 55
do do do	1880			26,463 88	11,434 05
do do do	1881		133 50	26,024 71	8,627 00
do do do	1882			26,915 29	13,860 28
do do do	1883		70 65	27,322 81	23,524 84
do do do	1884		4,597 50	26,938 95	19,245 02
do do do	1885		2,098 76	26,971 32	18,189 55
do do do	1886		550 00	27,045 95	35,648 04
do do do	1887		20,823 96	29,440 46	18,565 34
do do do	1888		18,889 48	33,458 83	25,478 87
do do do	1889		6,665 22	33,801 77	18,106 36
do do do	1890		21,124 10	34,270 57	18,025 21
do do do	1891		20,967 25	34,641 98	21,537 56
do do do	1892		31,363 23	35,500 82	21,507 16
do do do	1893		24,274 71	35,022 49	18,789 50
do do do	1894		14,485 11	34,943 35	16,939 47
do do do	1895		31,559 48	33,827 08	19,897 32
do do do	1896		21,452 29	34,052 77	30,196 38
Total.....		4,084,156 87	266,931 13	810,562 13	536,310 00

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

ST. OURS LOCK.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation		121,537 65			
do since do	1868			1,532 75	753 74
do do do	1869			1,755 15	1,399 18
do do do	1870			1,458 09	1,006 22
do do do	1871			1,414 48	1,210 98
do do do	1872			1,565 80	1,263 19
do do do	1873			2,076 50	1,575 10
do do do	1874			2,219 13	2,363 42
do do do	1875			1,362 22	1,245 69
do do do	1876			1,403 92	1,601 71
do do do	1877			1,533 40	750 80
do do do	1878			1,556 65	283 77
do do do	1879			1,581 55	456 07
do do do	1880			1,614 01	705 54
do do do	1881			1,741 97	1,299 77
do do do	1882			2,002 71	1,902 41
do do do	1883		17,230 32	2,361 65	2,188 08
do do do	1884		5,279 17	2,315 37	1,494 99
do do do	1885		4,700 64	2,271 57	3,652 63
do do do	1886			2,311 70	4,143 47
do do do	1887			2,175 37	5,864 78
do do do	1888			2,216 04	2,801 17
do do do	1889		17,964 45	2,421 14	2,002 63
do do do	1890		24,571 96	2,138 40	1,935 44
do do do	1891		21,696 74	2,011 08	4,460 16
do do do	1892		3,585 34	2,168 44	1,944 33
do do do	1893			2,136 66	1,994 34
do do do	1894			2,216 68	924 55
do do do	1895			2,161 63	915 50
do do do	1896			2,094 91	1,678 49
Total		121,537 65	95,028 62	55,818 97	53,818 15

LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

Department of Railways and Canals

STATEMENTS showing the amounts expended on Construction, Renewals, &c. — *Con.*

CHAMBLY CANAL.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation		634,711 76			
do since do	1868			8,312 90	9,355 70
do do do	1869			8,437 22	13,120 97
do do do	1870			8,934 41	20,180 73
do do do	1871		2,839 85	10,214 71	22,426 33
do do do	1872		1,906 40	9,628 50	22,327 99
do do do	1873		759 00	10,390 44	11,789 27
do do do	1874		2,810 00	11,675 67	16,427 19
do do do	1875	2,415 00		12,201 99	16,306 91
do do do	1876			10,593 14	13,273 56
do do do	1877	80 00		10,281 78	10,111 32
do do do	1878			10,413 99	6,022 96
do do do	1879			11,301 53	8,809 77
do do do	1880			11,516 22	12,377 74
do do do	1881			13,950 47	20,705 17
do do do	1882		31,796 41	16,686 78	16,843 60
do do do	1883		21,332 36	15,904 38	15,182 24
do do do	1884		41,640 77	18,448 85	12,003 34
do do do	1885		21,049 23	18,378 55	13,046 95
do do do	1886		14,547 27	19,501 28	11,999 77
do do do	1887		17,911 17	19,053 62	20,071 37
do do do	1888		65,536 64	20,073 60	11,823 74
do do do	1889		51,437 87	19,679 22	19,392 18
do do do	1890		23,221 48	19,655 38	14,399 93
do do do	1891		43,344 41	19,204 76	11,399 93
do do do	1892		38,353 99	19,665 22	12,976 48
do do do	1893		21,127 65	19,310 29	12,451 03
do do do	1894		8,567 78	19,040 93	11,920 74
do do do	1895		6,147 63	19,325 49	11,779 12
do do do	1896		3,694 63	19,349 65	11,801 12
Total		637,206 76	418,024 54	431,130 97	410,327 15

LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

MURRAY CANAL.

			Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
				\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederat'n.			1868		400 00		
do	since	do	1869				
do	do	do	1870				
do	do	do	1871				
do	do	do	1872				
do	do	do	1873				
do	do	do	1874				
do	do	do	1875				
do	do	do	1876				
do	do	do	1877				
do	do	do	1878				
do	do	do	1879				
do	do	do	1880				
do	do	do	1881				
do	do	do	1882	7,135 63			
do	do	do	1883	84,071 68			
do	do	do	1884	118,187 43			
do	do	do	1885	148,902 66			
do	do	do	1886	179,704 52			
do	do	do	1887	142,563 66			
do	do	do	1888	146,754 37			
do	do	do	1889	215,326 46			
do	do	do	1890	106,760 35		494 31	
do	do	do	1891	61,260 49		5,137 03	173 53
do	do	do	1892	5,964 22		5,803 48	3,505 15
do	do	do	1893	30,838 79		5,499 62	5,341 34
do	do	do	1894			5,667 52	5,295 57
do	do	do	1895			5,354 97	5,063 49
do	do	do	1896			5,409 10	5,410 33
Total.....				1,247,470 26	400 00	33,366 03	24,789 41

LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

Department of Railways and Canals.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

TRENT CANAL.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation		309,371 31			
do since do	1868				
do do do	1869				
do do do	1870				
do do do	1871				
do do do	1872				
do do do	1873				
do do do	1874				
do do do	1875				
do do do	1876				
do do do	1877				
do do do	1878				
do do do	1879				
do do do	1880	561 50		1,188 92	3,568 89
do do do	1881			2,489 93	2,233 50
do do do	1882		5,836 51	2,011 92	8,115 50
do do do	1883	40,767 16	9,303 66	2,235 50	3,047 42
do do do	1884	120,393 91	6,198 57	2,208 64	5,264 35
do do do	1885	121,382 84		3,303 87	4,653 50
do do do	1886	75,103 30		1,639 75	5,917 88
do do do	1887	179,541 63		1,938 08	6,008 88
do do do	1888	114,879 35		1,770 29	5,151 42
do do do	1889	47,592 13	29,677 92	3,242 05	5,935 94
do do do	1890	58,644 50	11,522 65	3,450 99	730 55
do do do	1891	9,826 49	3,164 81	3,803 66	4,888 98
do do do	1892	4,457 28	6,506 97	3,695 85	4,721 85
do do do	1893	5,962 47	10,838 90	3,739 86	2,087 17
do do do	1894	3,412 32	20,403 93	3,785 47	4,988 59
do do do	1895	53,907 70	21,143 41	4,184 18	3,374 49
do do do	1896	392,976 08	6,185 75	4,349 34	3,329 97
Total		1,538,779 97	130,783 08	49,038 30	74,018 88

LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

TAY CANAL.

				Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs
					\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure since Confederation.				1868				
do	do	do		1869				
do	do	do		1870				
do	do	do		1871				
do	do	do		1872				
do	do	do		1873				
do	do	do		1874				
do	do	do		1875				
do	do	do		1876				
do	do	do		1877				
do	do	do		1878				
do	do	do		1879				
do	do	do		1880				
do	do	do		1881				
do	do	do		1882		748 65		
do	do	do		1883	4,831 80			
do	do	do		1884	50,878 12			
do	do	do		1885	92,473 97			
do	do	do		1886	65,561 51			
do	do	do		1887	49,617 92			
do	do	do		1888	54,166 57			
do	do	do		1889	89,486 18			
do	do	do		1890	22,226 23		*	*
do	do	do		1891	17,114 78		*	*
do	do	do		1892	29,771 65		*	*
do	do	do		1893			*	*
do	do	do		1894			*	*
do	do	do		1895			*	*
do	do	do		1896			*	*
Total					476,128 73	748 65		

* Included in Rideau Canal.

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

Department of Railways and Canals.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

SAULT STE. MARIE CANAL.

	Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure since Confederation.	1868				
do do do	1869				
do do do	1870				
do do do	1871				
do do do	1872		949 35		
do do do	1873				
do do do	1874				
do do do	1875				
do do do	1876				
do do do	1877				
do do do	1878				
do do do	1879				
do do do	1880				
do do do	1881				
do do do	1882				
do do do	1883				
do do do	1884				
do do do	1885				
do do do	1886				
do do do	1887				
do do do	1888	8,145 06			
do do do	1889	34,018 95			
do do do	1890	176,568 55			
do do do	1891	325,336 33			
do do do	1892	341,474 31			
do do do	1893	589,801 25			
do do do	1894	1,316,529 29			
do do do	1895	466,151 50		3,432 73	
do do do	1896	189,986 59		16,074 70	2,650 17
Total		3,448,011 83	949 35	19,507 43	2,650 17

LEONARD SHANNON,
Accountant

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

STATEMENTS showing the amounts expended on Construction, Renewals, &c.—*Con.*

SOULANGES CANAL.

			Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
				\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederat'n			1868				
do	since	do	1869				
do	do	do	1870				
do	do	do	1871				
do	do	do	1872				
do	do	do	1873				
do	do	do	1874				
do	do	do	1875				
do	do	do	1876				
do	do	do	1877				
do	do	do	1878				
do	do	do	1879				
do	do	do	1880				
do	do	do	1881				
do	do	do	1882				
do	do	do	1883				
do	do	do	1884				
do	do	do	1885				
do	do	do	1886				
do	do	do	1887				
do	do	do	1888				
do	do	do	1889				
do	do	do	1890				
do	do	do	1891				
do	do	do	1892	54,235	76		
do	do	do	1893	210,336	24		
do	do	do	1894	723,380	95		
do	do	do	1895	752,016	53		
do	do	do	1896	535,939	07		
Total..				2,275,908	55		

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

RECAPITULATION—EXPENDITURE ON CANALS, also showing Revenue received.

	Year ending 30th June.	Capital.		Income.		Staff.		Repairs.		Revenue received.	
		\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Government expenditure prior to Confederation, including Imperial Government	1868	20,593,866	13	98,378	46	113,084	50	101,646	44	403,879	19
Government expenditure since Confederation	1869	33,617	56	95,347	79	116,069	76	118,579	31	400,263	32
do	1870	126,898	20	90,355	96	120,403	02	150,176	70	414,087	02
do	1871			116,429	54	135,040	81	140,467	52	488,538	76
do	1872	255,645	75	33,269	27	124,137	69	152,086	25	466,847	52
do	1873	256,547	27	127,369	55	148,581	18	186,573	13	486,433	26
do	1874	1,189,591	91	51,037	05	167,194	40	213,613	86	510,755	90
do	1875	1,714,830	37	479	00	168,401	21	203,226	85	414,979	59
do	1876	2,388,733	46	810	75	178,411	80	190,578	45	390,337	01
do	1877	4,131,374	30	22	30	179,661	40	138,448	51	390,857	37
do	1878	3,843,338	62			187,521	31	122,251	60	373,814	17
do	1879	3,064,068	61			191,892	44	115,349	99	337,675	13
do	1880	2,123,366	34			195,039	33	147,167	52	341,598	14
do	1881	2,075,891	65	7,246	69	197,573	62	134,653	63	361,538	17
do	1882	1,593,174	09	55,025	03	224,572	61	187,369	02	325,231	54
do	1883	1,763,001	97	62,503	14	269,415	01	178,617	86	361,904	01
do	1884	1,577,295	42	60,993	99	280,637	29	192,219	38	372,561	69
do	1885	1,504,621	47	58,297	59	980,226	20	201,708	47	321,289	47
do	1886	1,333,324	80	31,984	02	282,323	63	198,251	97	328,977	43
do	1887	1,783,698	16	65,983	06	285,172	62	198,888	84	321,784	88
do	1888	1,033,118	34	120,561	59	292,458	76	201,928	93	317,902	04
do	1889	972,918	43	162,015	49	290,516	63	240,261	36	333,188	90
do	1890	1,026,364	24	146,853	54	301,040	23	176,089	00	354,816	92
do	1891	1,318,092	15	165,843	87	294,562	12	204,768	45	349,431	90
do	1892	1,437,149	30	194,129	61	293,115	58	231,089	54	324,475	24
do	1893	2,069,573	30	196,185	84	291,588	97	204,759	39	357,089	37
do	1894	3,027,164	19	109,216	33	294,446	34	179,630	13	387,788	97
do	1895	2,452,273	65	216,057	58	281,477	04	164,033	71	339,840	49
do	1896	2,258,778	97	85,820	49	292,121	05	209,321	60	339,538	72
Total		* 66,948,348	65	* 2,362,292	53	* 6,476,705	95	* 5,103,787	41	10,917,796	74

* This does not include expenditure which has been charged o Canals—General—but amounts expended on specified Canals.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

LEONARD SHANNON,
Accountant.

CANALS,

DR.

COLLECTORS of Canal Tolls

Balance due by Collectors, July 1st, 1895.	CANAL REVENUE.				Total Canal Revenue accrued.	Hydraulic Rents, &c.	Total.
	Tolls.	Wharfage and Storage.	Fines.	Other Receipts including Harbour dues on Welland Canal.			
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
	90,920 88		30 00	36 08	90,986 96	770 50	91,757 46
	50,491 59		90 00	71 95	50,653 54	1,230 65	51,884 19
	235 15				235 15	1,068 34	1,303 49
	20 92				20 92		20 92
	8 35				8 35		8 35
	791 25		10 00		801 25	6,120 02	6,921 27
	43 39				43 39	5 00	48 39
	142,511 53		130 00	108 03	142,749 56	9,194 51	151,944 07
	1,854 58		5 00	4 00	1,863 58	2,809 00	4,672 58
	25,840 22		25 00	8 00	25,873 22	6,960 00	32,833 22
	742 43		10 00		752 43	979 00	1,731 43
	2,039 73	17 10		1,333 42	3,390 25		3,390 25
	21,227 09	3,016 04	40 00	14,076 86	38,359 99	30,215 05	68,575 04
	9,053 78				9,053 78		9,053 78
	60,757 83	3,033 14	80 00	15,422 28	79,293 25	40,963 05	120,256 30
	13,016 26		7 00		13,023 26	140 00	13,163 26
0 77	13,212 26				13,213 03	50 00	13,263 03
	577 72		2 00		579 72		579 72
0 77	26,806 24		9 00		26,816 01	190 00	27,006 01
	19,782 17				19,782 17		19,782 17
	11,096 91			8 00	11,104 91	13 00	11,117 91
	60 50				60 50	43 00	103 50
	1,151 35			2 20	1,153 55		1,153 55
	32,090 93			10 20	32,101 13	56 00	32,157 13
	3,826 99	51 94		266 50	4,145 43	501 75	4,647 18
	1,434 34				1,434 34	382 50	1,816 84
	536 80			9 20	546 00	58 20	604 20
	5,798 13	51 94		275 70	6,125 77	942 45	7,068 22
	1,248 38				1,248 38		1,248 38
	1,248 38				1,248 38		1,248 38

Department of Railways and Canals.

1895-96.

in Account with Revenue.

Cr.

COLLECTION DIVISIONS.	DEPOSITED TO THE CREDIT OF THE RECEIVER GENERAL.		Total.	Cost of Staff, Repairs and Offices of Collection.
	On account of Canal Revenue.	On account of Hydraulic Rents, &c.		
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Welland Canal</i>				154,907 90
Port Colborne.....	90,986 96	770 50	91,757 46	3,742 69
Port Dalhousie.....	50,653 54	1,230 65	51,884 19	2,503 00
Dunnville.....	235 15	1,068 34	1,303 49	782 00
Port Maitland.....	20 92		20 92	600 00
Port Robinson.....	8 35		8 35	
St. Catharines.....	801 25	6,120 02	6,921 27	193 07
Chippawa.....	43 39	5 00	48 39	130 00
Totals.....	142,749 56	9,194 51	151,944 07	162,858 66
<i>St. Lawrence Canals</i>				184,711 87
Beauharnois.....	1,863 58	2,809 00	4,672 58	1,534 52
Cornwall.....	25,873 22	6,960 00	32,833 22	2,113 91
Cardinal.....	752 43	979 00	1,731 43	1,310 10
Lachine.....	3,390 25		3,390 25	2,232 53
Montreal.....	38,359 99	30,215 05	68,575 04	8,872 70
Kingston.....	9,053 78		9,053 78	1,201 72
Totals.....	79,293 25	40,963 05	120,256 30	201,977 35
<i>Chambly Canal</i>				34,924 17
Chambly.....	13,023 26	140 00	13,163 26	1,609 52
St. Johns.....	13,213 03	50 00	13,263 03	1,694 50
St. Ours.....	579 72		579 72	615 43
Totals.....	26,816 01	190 00	27,006 01	38,843 62
<i>Ottawa Canal</i>				33,646 22
Ottawa.....	19,782 17		19,782 17	
Grenville.....	11,104 91	13 00	11,117 91	1,156 22
Carillon.....	60 50	43 00	103 50	852 19
St. Anne's Locks.....	1,153 55		1,153 55	850 49
Totals.....	32,101 13	56 00	32,157 13	36,505 12
<i>Rideau Canal</i>				65,744 95
Ottawa.....	4,145 43	501 75	4,647 18	2,407 97
Kingston Mills.....	1,434 34	382 50	1,816 84	449 75
Smith's Falls.....	546 00	58 20	604 20	339 15
Totals.....	6,125 77	942 45	7,068 22	68,941 82
<i>St. Peter's Canal</i>				2,442 94
.....	1,248 38		1,248 38	230 29
Totals.....				2,673 23

CANALS,

DR.

COLLECTORS of Canal Tolls in

Balance due by Collectors, July 1st, 1895.	CANAL REVENUE.				Total Canal Revenue accrued.	Hydraulic Rents, &c.	Total.
	Tolls.	Wharfage and Storage.	Fines.	Other Receipts including Harbour dues on Welland Canal.			
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
	75 25				75 25		75 25
	476 94			165 00	641 94		641 94
	65 05			1 00	66 05	51 00	117 05
	35 71			0 75	36 46		36 46
	265 20				265 20	3 00	268 20
	147 96				147 96		147 96
	1,066 11			166 75	1,232 86	54 00	1,286 86
	522 12				522 12	4 00	526 12
	522 12				522 12	4 00	526 12
						10 00	10 00
77	270,801 27	3,085 08	219 00	15,982 96	290,089 08	51,414 01	341,503 09
					1,964 37		1,964 37
					288,124 71		339,538 72

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

Department of Railways and Canals.

1895-96.

Account with Revenue—*Concluded.*

CR.

COLLECTION DIVISIONS.	DEPOSITED TO THE CREDIT OF THE RECEIVER GENERAL.		Total.	Cost of Staff, Repairs and Offices of Collection.
	On account of Canal Revenue.	On account of Hydraulic Rents, &c.		
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Trent Valley Canal</i>				7,679 31
Burleigh	75 25		75 25	
Bobcaygeon.....	641 94		641 94	44 45
Fenelon Falls	66 05	51 00	117 05	
Hastings.....	36 46		36 46	12 40
Peterboro'.....	265 20	3 00	268 20	8 00
Buckhorn.....	147 96		147 96	
..... Totals.....	1,232 86	54 00	1,286 86	7,744 16
 <i>Murray Canal</i>				
Brighton.....	522 12	4 00	526 12	11,060 71 322 86
..... Totals.....	522 12	4 00	526 12	11,383 57
 <i>Sault Ste. Marie</i>		10 00	10 00	19,329 77
Dredge vessels.....				8,744 10
Inspection.....				2,358 51
Department of Printing and Stationery.....				1,221 66
General.....				9,201 30
.....	290,089 08	51,414 01	341,503 09	21,525 57
..... Less Refunds	1,964 37		1,964 37	*571,782 87
..... Net Revenue.....	288,124 71		339,538 72	

*The above amount does not include expenditure under Capital or Income.

LEONARD SHANNON,

Accountant.

HYDRAULIC AND OTHER RENTS.

SUMMARY Statement of Lessees' Accounts—1895-96.

Dr.

Cr.

Balance due 1st July, 1896.	Accrued during the year ended 30th June, 1896.	Total.	NAME OF WORK.	Abatement.	Paid into hands of Collectors.	Balance.	Total.
\$ cts.	\$ cts.	\$ cts.		\$ cts.	\$ cts.	\$ cts.	\$ cts.
29,607 55	8,389 50	37,997 05	Welland Canal.....	689 75	9,194 51	28,132 79	37,997 05
3,364 62	980 00	4,344 62	Williamsburg Canal.....		979 00	3,365 62	4,344 62
4,512 50	4,145 00	8,657 50	Cornwall.....		6,960 00	1,697 50	8,657 50
7,892 50	3,010 00	10,902 50	Beauharnois.....		2,809 00	8,093 50	10,902 50
22,872 80	31,137 49	54,010 29	Lachine.....	200 00	30,215 05	23,595 24	54,010 29
321 84	145 00	466 84	Chambly.....		190 00	276 84	466 84
4,937 24	1,806 85	6,744 09	Rideau.....	3,083 75	942 45	2,717 89	6,744 09
80 00	125 00	205 00	Sundry.....	4 00	124 00	77 00	205 00
354 18		354 18	Land sales, Intercolonial Railway.....			354 18	354 18
73,943 23	49,738 84	123,682 07	Totals.....	3,957 50	51,414 01	68,310 56	123,682 07

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

Department of Railways and Canals.

STATEMENT showing Refunds Canal Tolls paid during the Year 1895-96.

Date.	To whom paid.	Refund of Tolls on	Canals.	Amount.	Total.
1895.				\$ cts.	\$ cts.
Aug. 29	John Heney	Wood	Rideau	361 45	
Oct. 17	J. Le Michaud	Excess of tolls	St. Lawrence	66 82	
Nov. 8	E. A. Middlemiss	Overpaid on steamer	do	12 20	
do	8 Ottawa Transportation Co.	Unused "Let Pass"	do	2 33	
Dec. 12	Montreal Transportation Co.	Cement and lumber	do	68 41	
do	12 Kingston and Montreal Transportation Co.	Grain	do	50 07	
1896.					
Jan. 10	Richelieu and Ontario Navigation Co.	Paid twice on passengers	do	30 00	
do	10 Poupore & Fraser	Cement	do	29 51	
do	16 Richelieu and Ontario Navigation Co.	Paid twice on passengers	do	24 00	
March 4	Prosper La Plante	Cement	do	160 87	
April 21	Owners' steamer "Passport"	Unused "Let Pass"	do	2 72	
June 3	Montreal Transportation Co.	Material for Government works	do	58 97	
July 27	Edward Verrille	Unused "Let Pass"	do	4 73	
do	27 Kingston and Montreal Forwarding Co.	Coal	do	197 25	
do	29 Jas. Carruthers	Wheat	do	385 02	
1895.					1,092 90
Oct. 17	Ottawa River Navigation Co.	Paid twice on "Duchess York"	Lachine	23 50	
1896.					
April 21	The Calvin Co.	Timber	do	31 35	
July 29	The Canadian Forwarding and Export Co.	Coal	do	87 72	
1895.					142 57
Nov. 8	McArthur & Son	Lumber	Beauharnois	6 00	
1896.					6 00
Jan. 10	Kingston and Montreal Forwarding Co.	Corn	Welland	31 50	
April 21	G. Morden	Lumber	do	54 00	
June 3	Joseph Miller	do	do	2 63	
July 29	M. Julian	Unused "Let Pass"	do	28 58	
Feb. 28	Jos. Michaud	do do	Cornwall	61 36	
April 21	Ogdensburg Transit Co.	Corn	do	115 50	
June 9	Montreal Transportation Co.	do	Williamsb'g	67 88	
					67 88
					1,964 37

LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,

OTTAWA, 1st November, 1896.

INTERCOLONIAL RAILWAY.

(Including amounts paid to Nova Scotia Railway and European and North American Railway, N.B.)

	Year.	Construction.	Working Expenses including Windsor Branch Railway.		Revenue received, including Windsor Branch Railway.	
			\$	cts.	\$	cts.
Expenditure prior to Confederation.....		10,766,725 54				
do since do	1868	483,353 65	359,961 08		420,752 58	
do do do	1869	282,615 18	387,548 47		455,022 76	
do do do	1870	1,729,381 49	445,208 75		471,245 09	
do do do	1871	2,916,782 13	442,993 31		565,713 52	
do do do	1872	5,131,141 51	595,076 22		622,900 56	
do do do	1873	5,201,450 37	1,011,892 60		703,458 26	
do do do	1874	3,614,898 81	1,847,175 24		893,430 17	
do do do	1875	3,426,099 55	1,532,589 62		861,593 43	
do do do	1876	1,108,321 59	1,277,197 79		848,861 46	
do do do	1877	1,318,352 19	1,661,673 55		1,154,445 35	
do do do	1878	408,816 74	1,811,273 56		1,378,946 78	
do do do	1879	226,639 19	2,010,183 22		1,294,099 69	
do do do	1880	2,048,014 60	1,607,956 70		1,520,310 45	
do do do	1881	608,732 80	1,780,353 53		1,777,856 76	
do do do	1882	585,568 79	2,080,592 37		2,100,315 85	
do do do	1883	1,616,632 96	2,383,477 20		2,395,034 99	
do do do	1884	1,405,377 52	2,366,719 95		2,376,666 19	
do do do	1885	1,195,363 08	2,460,229 87		2,392,605 00	
do do do	1886	544,958 17	2,508,473 10		2,406,858 88	
do do do	1887	823,070 86	2,854,158 91		2,621,337 41	
do do do	1888	742,203 09	3,300,481 94		2,937,337 40	
do do do	1889	655,228 13	3,174,785 19		2,923,736 46	
do do do	1890	365,246 48	3,500,455 80		2,958,243 38	
do do do	1891	79,929 34	3,691,273 65		3,007,630 51	
do do do	1892	168,101 77	3,458,891 39		2,978,950 82	
do do do	1893	228,984 79	3,062,207 45		3,099,815 20	
do do do	1894	166,362 43	2,999,317 07		3,020,485 74	
do do do	1895	327,034 51	2,964,940 98		2,979,795 59	
do do do	1896	259,105 23	3,029,304 08		2,994,201 93	
Total.....		*48,434,492 49	60,606,392 59		54,161,652 21	

* Including \$296,872.90 charged to "Consolidated Fund."

Total cost of construction as above..... \$48,434,492 49

LESS amounts transferred from Capital to Consolidated Fund as follows:—

	Nova Scotia Ry.	European and North American Ry.
1868.....	\$ 16,800 99	\$ 11,302 89
1870.....	34,403 45	1,749 21
1871.....	50,405 69	
1873.....	106,899 59	75,311 08
	<u>\$ 208,509 72</u>	<u>\$ 83,363 18</u>
		208,509 72

296,872 90

Cape Breton Railway.....	\$48,137,619 59
Oxford and New Glasgow Railway.....	3,859,884 54
Eastern Extension Railway.....	1,945,497 69
	<u>1,324,042 81</u>

Total Capital cost of Intercolonial Railway system..... \$55,267,044 63

LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,

OTTAWA, 1st November, 1896.

Department of Railways and Canals.

EASTERN EXTENSION RAILWAY.

	Year.	Capital.	Working Expenses.	Revenue received.
		\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation	1868			
do since do	1869			
do do do	1870			
do do do	1871			
do do do	1872			
do do do	1873			
do do do	1874			
do do do	1875			
do do do	1876			
do do do	1877			
do do do	1878			
do do do	1879			
do do do	1880			
do do do	1881			
do do do	1882			
do do do	1883			
do do do	1884	1,284,311 97	10,033 77	30,767 66
do do do	1885	2,055 92	78,273 65	73,050 01
do do do	1886	183 79	94,756 06	66,893 11
do do do	1887		94,254 04	64,107 10
do do do	1888		90,954 73	70,552 20
do do do	1889	34,235 73	90,719 04	72,436 65
do do do	1890		79,102 77	84,658 95
do do do	1891	3,255 40	*	†
do do do	1892		*	†
do do do	1893		*	†
do do do	1894		*	†
do do do	1895		*	†
do do do	1896		*	†
Total		1,324,042 81	538,094 06	462,465 68

* Included in Intercolonial Railway working expenses. † Included in Intercolonial Railway revenue.

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

CARLETON BRANCH RAILWAY.

	Year.	Capital.	Working Expenses.	Revenue received.
		\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation.				
do since do	1868			
do do do	1869			
do do do	1870			
do do do	1871			
do do do	1872			
do do do	1873			
do do do	1874			
do do do	1875			
do do do	1876			
do do do	1877			
do do do	1878			
do do do	1879			
do do do	1880			
do do do	1881			
do do do	1882			
do do do	1883			
do do do	1884			
do do do	1885			
do do do	1886	85,610 69		
do do do	1887	2,299 62		
do do do	1888	500 17		
do do do	1889			
do do do	1890			
do do do	1891			
do do do	1892			
do do do	1893			
do do do	1896			
Total		*88,410 48		

* 56 Victoria, cap. 6, transferred the Carleton Branch Railway to the city of St. John, N. B., for the sum of \$40,000 which sum was paid in March, 1893, to the Receiver General.

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

Department of Railways and Canals

CAPE BRETON RAILWAY.

	Year.	Capital.		Working Expenses.	
		\$	cts.	\$	cts.
Government expenditure prior to Confederation	1868				
do since do	1869				
do do do	1870				
do do do	1871				
do do do	1872				
do do do	1873				
do do do	1874				
do do do	1875				
do do do	1876				
do do do	1877				
do do do	1878				
do do do	1879				
do do do	1880				
do do do	1881				
do do do	1882				
do do do	1883				
do do do	1884				
do do do	1885				
do do do	1886				
do do do	1887		76,501 89		
do do do	1888		689,450 50		
do do do	1889		1,083,276 60		
do do do	1890		1,170,523 62		
do do do	1891		521,441 62		
do do do	1892		99,936 96		
do do do	1893		59,982 74		
do do do	1894		158,770 61		
do do do	1895		*		
do do do	1896		*		
Total			3,859,884 54		+

*Included in Intercolonial Railway capital.

+Included in Intercolonial Railway working expenses.

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

OXFORD AND NEW GLASGOW RAILWAY.

	Year.	Capital.		Working Expenses.	
		\$	cts.	\$	cts.
Government expenditure prior to Confederation ..	1868				
do since do	1869				
do do do	1870				
do do do	1871				
do do do	1872				
do do do	1873				
do do do	1874				
do do do	1875				
do do do	1876				
do do do	1877				
do do do	1878				
do do do	1879				
do do do	1880				
do do do	1881				
do do do	1882				
do do do	1883				
do do do	1884				
do do do	1885				
do do do	1886				
do do do	1887				
do do do	1888				
do do do	1889		280,932 35		
do do do	1890		840,553 57		
do do do	1891		434,074 60		
do do do	1891		220,886 39		
do do do	1892		48,745 23		
do do do	1893		7,922 80		
do do do	1894		112,382 75		
do do do	1895		*		
do do do	1896		*		
Total			1,945,497 69		†

*Included in Intercolonial Railway capital.

†Included in Intercolonial Railway working expenses.

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

Department of Railways and Canals.

MONTREAL AND EUROPEAN SHORT LINE RAILWAY.

	Year.	Construction.	Working expenses.	Revenue received.
		\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation.....	1868			
do since do	1869			
do do do	1870			
do do do	1871			
do do do	1872			
do do do	1873			
do do do	1874			
do do do	1875			
do do do	1876			
do do do	1877			
do do do	1878			
do do do	1879			
do do do	1880			
do do do	1881			
do do do	1882			
do do do	1883			
do do do	1884			
do do do	1885	49,587 45		
do do do	1886	135,214 38		
do do do	1887	24,157 32		
do do do	1888	397 35		
do do do	1889			
do do do	1890			
do do do	1891	124,568 23		
do do do	1892			
do do do	1893			
do do do	1894	17 99		
do do do	1895			
do do do	1896			
Total.....		333,942 72		

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

PRINCE EDWARD ISLAND RAILWAY.

—	Year.	Construction.		Working Expenses.		Revenue received.	
		\$	cts.	\$	cts.	\$	cts.
Government expenditure prior to Confederation.....	1874	3,114,735	11	750	00		
do since do	1875	46,086	63	49,344	62	24,493	99
do do do	1876	42,546	10	219,930	43	118,060	96
do do do	1877	200,000	00	228,595	25	130,664	92
do do do	1878	6,551	86	221,599	49	135,899	60
do do do	1879	40,129	05	223,313	12	125,855	91
do do do	1880	16,539	82	164,640	55	113,851	11
do do do	1881			203,122	88	131,131	43
do do do	1882		402 03	228,259	97	137,267	54
do do do	1883	57,186	02	252,808	41	146,170	42
do do do	1884	130,663	38	236,428	13	144,504	12
do do do	1885	76,956	56	211,207	01	158,588	06
do do do	1886	4,668	33	216,744	34	155,584	36
do do do	1887	5,800	00	204,237	45	155,303	37
do do do	1888			229,639	95	158,363	62
do do do	1889			247,559	44	171,369	56
do do do	1890			266,485	85	160,971	78
do do do	1891			257,990	08	174,258	05
do do do	1892	8,300	49	289,706	38	157,442	69
do do do	1893			226,422	17	162,690	42
do do do	1894			226,891	06	158,533	83
do do do	1895			232,905	19	149,654	78
do do do	1896			225,138	56	146,476	54
Total.....		3,750,565	38	4,863,720	33	3,117,137	06

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

Department of Railways and Canals.

CANADIAN PACIFIC RAILWAY.

	Year.	Construction, including Subsidy of \$25,000,000.	Working Expenses.	Revenue received.
		\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation.....				
do since do	1868			
do do do	1869			
do do do	1870			
do do do	1871	30,148 32		
do do do	1872	489,428 16		
do do do	1873	561,818 44		
do do do	1874	310,224 88		
do do do	1875	1,546,241 67		
do do do	1876	3,346,567 06		
do do do	1877	1,691,149 97		
do do do	1878	2,228,373 13		
do do do	1879	2,240,285 47		
do do do	1880	4,044,522 72	78,892 01	104,975 69
do do do	1881	4,968,503 93	236,944 98	291,498 06
do do do	1882	(1) 4,589,075 79	1,786 20	
do do do	1883	(2) 10,033,800 04	266 09	
do do do	1884	(3) 11,192,722 02	327 02	
do do do	1885	(4) 9,900,281 53		
do do do	1886	(5) 3,672,584 81		
do do do	1887	(6) 915,057 49		
do do do	1888	52,098 65		
do do do	1889	86,716 07		
do do do	1890	40,980 54		
do do do	1891	37,367 00		
do do do	1892	66,211 39		
do do do	1893	413,836 49		
do do do	1894	146,539 87		
do do do	1895	49,209 77		
do do do	1896	65,669 49		
Total.....		*62,719,414 70	318,216 30	396,473 75

* Agrees with Public Accounts balance sheet, 1895-96.

(1) Including	\$ 2,210,000 00	on account subsidy.
(2) do	5,323,076 60	do
(3) do	7,254,208 27	do
(4) do	6,862,201 00	do
(5) do	2,890,427 00	do
(6) do	460,087 13	do

*\$25,000,000 00

* See also pages 46 and 47 for this expenditure.

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

ANNAPOLIS AND DIGBY RAILWAY.

	Year.	Capital.	Working Expenses.
		\$ cts.	\$ cts.
Government expenditure prior to Confederation.....			
do since do	1868		
do do do	1869		
do do do	1870		
do do do	1871		
do do do	1872		
do do do	1873		
do do do	1874		
do do do	1875		
do do do	1876		
do do do	1877		
do do do	1878		
do do do	1879		
do do do	1880		
do do do	1881		
do do do	1882		
do do do	1883		
do do do	1884		
do do do	1885		
do do do	1886		
do do do	1887		
do do do	1888		
do do do	1889	9,847 27	
do do do	1890	381,942 75	
do do do	1891	196,869 36	
do do do	1892	26,129 39	
do do do	1893	2,190 62	
do do do	1894	1,675 36	
do do do	1895	570 55	
do do do	1896		
Total.....		* 619,225 80	

* Of this amount Parliament voted under 52 Vic., cap. 8, the sum of \$500,000 as a subsidy to the Western Counties Railway which is also shown in the statement of subsidies pages 46 and 47.

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

Department of Railways and Canals

RECAPITULATION—RAILWAYS.

	Year.	Construction.		Working Expenses.		Revenue Received.	
		\$	cts.	\$	cts.	\$	cts.
Government expenditure prior to Confederation		13,881,460	65				
do since do	1868	483,353	65	359,961	08	420,752	58
do do do	1869	282,615	18	387,548	47	455,022	76
do do do	1870	1,729,381	49	445,208	75	471,245	09
do do do	1871	2,946,930	45	442,993	31	565,713	52
do do do	1872	5,620,569	67	595,076	22	622,900	56
do do do	1873	5,763,268	81	1,011,892	60	703,458	26
do do do	1874	3,925,123	69	1,847,925	24	893,430	17
do do do	1875	5,018,427	85	1,581,934	24	886,087	42
do do do	1876	4,474,434	75	1,497,128	22	966,922	42
do do do	1877	3,209,502	16	1,890,268	80	1,285,110	27
do do do	1878	2,643,741	73	2,032,873	05	1,514,846	38
do do do	1879	2,507,053	71	2,233,496	34	1,419,955	60
do do do	1880	6,109,077	14	1,851,489	26	1,739,137	25
do do do	1881	5,577,236	73	2,220,421	39	2,200,486	25
do do do	1882	5,175,046	61	2,310,638	54	2,237,583	39
do do do	1883	11,707,619	02	2,636,551	70	2,541,205	41
do do do	1884	14,013,074	89	2,613,508	87	2,551,937	97
do do do	1885	11,224,244	54	2,749,710	53	2,624,243	07
do do do	1886	4,443,220	17	2,819,973	50	2,628,336	35
do do do	1887	1,846,387	18	3,152,650	40	2,840,747	88
do do do	1888	1,765,582	11	3,621,076	62	3,166,253	22
do do do	1889	2,709,857	37	3,513,063	67	3,167,542	67
do do do	1890	2,392,767	99	3,846,044	42	3,203,874	11
do do do	1891	1,184,317	34	3,949,263	73	3,181,888	56
do do do	1892	417,425	73	3,748,597	77	3,136,393	51
do do do	1893	712,917	44	3,288,629	62	3,262,505	62
do do do	1894	585,749	01	3,226,208	13	3,179,019	57
do do do	1895	376,814	83	3,197,846	17	3,129,450	37
do do do	1896	324,774	72	3,254,442	64	3,140,678	47
Total		123,075,476	61	66,326,423	28	58,136,728	70

* Total amount paid on construction..... \$123,075,476 61
 Less amount received from the city of St. John, N.B., as purchase of the
 Carleton Branch Railway..... 40,000 00
 Total cost of construction..... \$123,035,476 61

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
 OTTAWA, 1st November, 1896.

STATEMENT showing Subsidies voted for Railways as to which contracts

Subsidies voted.		Railways.				
Authority.	Amount.		1883-84.	1884-85.	1885-86.	1886-87.
	\$ cts.		\$	\$	\$	\$
46 Vic., cap. 25	156,800 00	International Railway, Quebec	144,000			
53 do 2						
45 do 14	384,000 00	Quebec and Lake St. John Railway, Quebec				
46 do 25	80,000 00					
48-49 do 59	96,000 00					
49 do 10	186,295 00					
50-1 do 24	28,800 00					
51 do 3	96,000 00		32,000	37,027	186,745	202,219
52 do 3	64,000 00					
53 do 2	30,000 00					
54-5 do 8	5,250 00					
57-8 do 4	44,800 00					
46 do 25	89,600 00	Kingston, Napanee and Western Railway, formerly Napanee, Tamworth and Quebec Railway, Ontario				
49 do 10	70,000 00					
50-1 do 24	12,800 00					
52 do 3	32,000 00		32,000	57,600		
55-6 do 5	64,000 00					
47 do 8	272,000 00	Pontiac Pacific Junction Railway, Quebec				
51 do 3	41,000 00			49,090	41,000	60,580
53 do 2	24,000 00	Caraquet Railway, N.B.				
46 do 25	115,200 00					
47 do 8	76,800 00			32,000	76,800	61,200
50-1 do 24	32,000 00					
47 do 8	32,000 00					
49 do 10	57,600 00	Great Northern Railway, Quebec				
52 do 3	22,400 00				25,088	
53 do 2	48,000 00					
56 do 2	48,000 00					
57-8 do 4	96,000 00					
47 do 8	48,000 00	Kingston and Pembroke Railway, Ontario		48,000		
45 do 14	660,000 00	Northern and Pacific Junction Railway, Ontario				
46 do 26						
53 do 2	660,000 00		154,440	1,051,590	78,370	
47 do 8	128,000 00	Canada Eastern Ry., formerly Northern and Western Ry., N.B.				
48-9 do 59	19,200 00					
49 do 10	32,000 00					
48-9 do 59	140,800 00				128,000	18,200
57-8 do 4	35,200 00					
47 do 8	60,342 00	Quebec Central Railway, Quebec				
51 do 3						60,342
53 do 2	288,000 00	Montreal and Sorel Ry., Quebec				
48-9 do 59	72,000 00				64,972	4,950
53 do 2	40,000 00	Montreal and Champlain Junction Railway, Quebec				
48-9 do 59	30,000 00					
50-1 do 24	64,000 00					
51 do 3	9,600 00				30,000	
46 do 25	38,400 00		Elgin, Petibodiac & Havelock, Railway, N.B.			
51 do 3	44,252 82				38,400	
47 do 8	22,400 00	St. Louis and Richibucto Ry., N.B.			22,400	
48-9 do 59	96,000 00	Canada Atlantic Railway, Ont.				
49 do 10	38,400 00				48,480	44,384
50-1 do 24	180,000 00					
47 do 6	750,000 00	Esquimalt and Nanaimo Ry., B.C.			422,520	327,480
47 do 8	96,000 00	Erie and Huron Railway, Ontario				96,000
46 do 25	320,000 00	Baie des Chaleurs Railway, Que.				
47 do 8						
52 do 3	300,000 00	New Brunswick and Prince Edward Railway, N.B.				
48-9 do 59	118,400 00					97,440

Department of Railways and Canals.

3.

have been entered into and payments made up to the 30th June, 1896.

Payments.									Total to 30th June, 1896.
1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	\$ cts.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
8,960 00		3,840 00							156,800 00
232,013 00	19,911 00	38,440 00	70,350 00	26,222 73	76,471 77	81,600 00		3,744 00	1,006,743 50
		95,744 00	7,600 00		1,856 00	13,932 80			208,732 80
24,158 00							18,750 00		193,578 00
40,050 00	13,950 00								224,000 00
		20,000 00	9,500 00	24,100 00			32,000 00	32,000 00	142,688 00
									48,000 00
		35,000 00	600 00						1,320,000 00
159,400 00	6,300 00	100 00					30,400 00		342,400 00
								288,000 00	348,342 00
		6,719 50	17,116 07						93,757 57
16,400 00	36,700 00	5,400 00			15,100 00				103,600 00
				44,252 82					82,652 82
									22,400 00
	9,491 20	149,812 00	30,188 00						282,355 20
									750,000 00
									96,000 00
50,300 00	75,200 00	148,675 00				95,825 00			620,000 00
16,000 00									113,440 00

STATEMENT showing Subsidies voted for Railways as to

Subsidies voted.		Railways.					
Authority.	Amount.		1883-84.	1884-85.	1885-86.	1886-87.	1887-88.
	\$ cts.		\$	\$	\$	\$	\$ cts
50-IV.,c.24	217,600 00	St. Lawrence, Lower Laurentian and Saguenay Ry., Que., now Laurentian Railway.				64,430	28,383 00
49 do 10	11,200 00	L'Assomption Ry., Quebec.				11,200	
49 do 10	32,000 00	Great Eastern Railway, Que.					
50-51 do 24	96,000 00					19,200	
56 do 2	64,000 00						
53 do 2	37,500 00						
47 do 8	160,000 00						
52 do 3	96,000 00	Irondale, Bancroft and Ottawa Railway, Ont.				15,000	
49 do 10	96,000 00	Buctouche and Moncton Ry., N. B.				40,480	20,573 57
50-51 do 24	6,400 00	Albert Southern Railway, N.B.				1,000	18,428 57
47 do 8	51,200 00						
52 do 3	274,940 00	Lac Témiscamingue Colonization Railway, Que.				14,000	3,000 00
57-8 do 4	38,400 00	Joggins Railway, N. S.					26,138 78
49 do 10	4,000 00						
45 do 14	240,000 00	Témiscouata Railway, N.B., and Quebec.					249,684 00
48-9 do 58	258,000 00						
51 do 3	100,000 00						
53 do 2	51,200 00						
48-9 do 59	44,800 00	Leamington and St. Clair Railway, Ontario.					32,000 00
50-1 do 24	6,400 00						
49 do 10	16,000 00	Toronto, Grey and Bruce Ry., Ont.					14,656 00
50-1 do 24	22,400 00	Dominion Line Co., Quebec.					11,840 00
49 do 10	256,000 00	West Ontario Pacific Ry. and Ontario and Quebec Railway.					60,000 00
53 do 2	96,000 00						
50-1 do 24	14,400 00	Drummond County Ry., Quebec.					15,057 00
52 do 3	14,400 00						
53 do 2	76,800 00						
57-8 do 4	96,000 00						
48-9 do 59	128,000 00	Brockville, Westport and Sault Ste. Marie Railway, Ontario.					
53 do 2	64,000 00						
54-5 do 8	32,000 00	Montreal and Lake Maskinongé Railway, Quebec.					
57-8 do 4	10,200 00						
49 do 10	54,400 00	South Norfolk Railway, Ontario.					
53 do 2	51,200 00	Guelph Junction Railway, Ontario.					
50-1 do 24	22,400 00	Belleville and North Hastings Railway, Ontario.					
48-9 do 59	108,800 00						
49 do 10	48,000 00	Hereford Railway, Quebec.					
52 do 3	118,400 00						
50-1 do 24	224,000 00	Lake Erie & Detroit River Ry., O.					
55-6 do 5	96,000 00	Beauharnois Junction Ry., Quebec.					
50-1 do 24	138,400 00	St. Catharines and Niagara Central Ry., Ontario.					
50-1 do 24	108,000 00						
55-6 do 5	108,800 00	Fredericton and St. Mary's Railway Bridge Co., N.B.					
57-8 do 4	30,000 00						
52 do 3	9,600 00	Harvey Branch Railway Co., N.B.					
50-1 do 24	240,000 00	Nova Scotia Central Railway Co., N. S.					
50-1 do 24	44,800 00	Cumberland Railway and Coal Co., N.S.					
52 do 3	19,200 00	Pontiac and Kenfrew Ry. Co., Ont.					
52 do 3	54,400 00	Thousand Islands Ry. Co., Ontario.					
52 do 3	96,000 00	Quebec, Montmorency and Charlevoix Railway Co., Quebec.					
56 do 3	375,900 00	St. Clair Frontier Tunnel Co., Ont.					
52 do 3							

Department of Railways and Canals.

which contracts have been entered into, &c.—*Continued.*

Payments.								Total June 30th, 1896.
1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	\$ cts.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
		32,003 00	92,784 00					217,600 00
								11,200 00
		16,300 00	4,845 00					40,345 00
				17,000 00	32,000 00	32,000 00		96,000 00
	4,366 00	1,600 43			34,580 00			101,600 90
1,387 06		10,684 37	18,960 00					50,460 00
9,000 00	26,360 00					233,198 95	17,900 75	303,859 70
	9,761 22	1,600 00						37,500 00
163,216 00	74,300 00	82,770 00	54,830 00	21,150 00				645,950 00
19,200 00								51,200 00
3,520 00								14,656 00
800 00	189,200 00	6,000 00						15,360 00
13,815 00	12,428 00	136,000 00	5,105 00	13,435 00		92,096 00		256,000 00
45,000 00		47,400 00	12,800 00					287,936 00
19,700 00	20,080 00	1,500 00						105,200 00
54,400 00								41,280 00
46,000 00								54,400 00
21,888 00								46,000 00
63,900 00	91,300 00							21,888 00
106,500 00	11,900 00				220,331 00			155,200 00
54,650 00	4,250 00						3,500 00	338,731 00
26,640 00		11,760 00						62,400 00
30,000 00								38,400 00
5,553 57								30,000 00
	219,100 00	3,300 00	8,300 00					5,553 57
	29,400 00	10,450 00						230,700 00
	9,800 00	3,800 00						39,850 00
	10,400 00				14,000 00			13,600 00
	65,600 00					30,400 00		24,400 00
	173,000 00	143,400 00	58,600 00					96,600 00
								375,000 00

STATEMENT showing Subsidies voted for Railways as to

Subsidies voted.		Railways.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.
Authority.	Amount.		\$	\$	\$	\$	\$ cts.
50-1 V., c. 24	\$ 57,600 00	{ Brantford, Waterloo and Lake Erie Ry., Ontario..					
57-8 do 4							
51 do 3	287,200 00		{ Port Arthur, Duluth and Western Railway, Ont..				
53 do 2							
50-1 do 24	192,000 00	Montreal and Ottawa Rail- way, Ontario.....					
53 do 2							
54-5 do 8							
57-8 do 4							
50-1 do 24	44,800 00	Cornwallis Valley Ry., N.S.					
52 do 3							
52 do 3	320,000 00	{ Ottawa & Gatineau Ry., Q.					
57-8 do 6	64,000 00						
51 do 3	83,612 54						
52 do 3	142,400 00	Central Railway, N.B.....					
53 do 2							
57-8 do 4	48,000 00						
53 do 2	361,270 00	Montreal and Western Rail- way, Que.....					
52 do 3	128,000 00	Parry Sound Colonization Railway, Ont.....					
57-8 do 4	64,000 00	Shuswap and Okanagan Rail- way, B.C.....					
52 do 3	163,200 00						
54-5 do 8	89,600 00	Tobique Valley Ry., N.B..					
53 do 2	35,200 00						
55-6 do 5	9,600 00						
53 do 2	112,000 00	Columbia and Kootenay Ry., B.C.....					
53 do 2	35,200 00	Waterloo Junction Ry., Ont.					
53 do 2	99,200 00	Orford Mountain Ry., Que..					
53 do 2	57,600 00	St. Lawrence and Adiron- dack Railway, Que.....					
55-6 do 5	25,024 00						
51 do 3	24,439 84	Chatham Branch Ry., N.B..					
55-6 do 5	40,000 00	New Glasgow Iron, Coal and Railway, N.S.....					
56 do 2	102,400 00	United Counties Ry., Que.					
57-8 do 4	102,400 00						
55-6 do 5	21,600 00	Phillipsburg Junction Railway Quarry Co., Que.....					
55-6 do 5	430,400 00	Ottawa, Arnprior and Parry Sound Railway, Ont.....					
56 do 2	67,200 00	Montfort Colonization Rail- way, Que.....					
55-6 do 5	48,000 00	Lotbinière and Mégantic Railway, Que.....					
57-8 do 4	48,000 00						
56 do 2	48,000 00	Grand Trunk, Georgian Bay and Lake Erie Ry., Ont.....					
55-6 do 5	80,000 00	Canadian Pacific Ry., Revel- stoke to Arrow Lake, B.C..					
57-8 do 4	121,600 00	Nakusp and Slocan Ry., B.C.					
55-7 do 5	89,600 00	Dominion Coal Co., N.S.					
56 do 2	22,400 00	Oshawa Railway and Naviga- tion Co., Ont.....					
57-58 do 4	51,200 00	Tilsonburg, Lake Erie and Pacific Railway, Ont.....					
56 do 2	11,200 00	St. Stephen's and Milltown Railway, N.B.....					
			208,000	403,245	2,171,249	1,406,533	1,027,041 92
37 do 14	1,525,250 00	Canada Central Railway.....					
46 do 2							
44 do 1	25,000,000 00	Canadian Pacific, main line..					
47 do 8	1,500,000 00	Canadian Pacific, extension..					
48-9 do 58							
		Western Counties Railway .					

This return does not include the Atlantic and North-western Railway.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 1st November, 1896.

Department of Railways and Canals

which contracts have been entered into, &c.—*Concluded.*

Payments.								Total
								to 30th June,
1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
	36,620 00	16,190 00					4,790 00	57,600 00
		87,000 00	70,075 00	114,125 00				271,200 00
		49,960 00			23,640 00			73,600 00
		42,670 00	2,130 00					44,800 00
		87,582 00	38,790 00	104,380 00	53,376 00			284,128 00
		75,639 00	83,612 54					159,251 54
		76,143 00	32,253 00	133,388 00	119,486 00			361,270 00
			30,400 00	28,820 00		68,780 00	24,800 00	152,800 00
			162,260 00		640 00	300 00		163,200 00
			73,000 00	41,674 46	19,341 54			134,016 00
			88,800 00					88,800 00
			32,800 00					32,800 00
			32,000 00		52,800 00			84,800 00
			40,256 00	24,448 00	297 60			65,001 60
			24,439 84					24,439 84
				32,945 84	5,454 16		1,140 00	39,840 00
					88,973 00	42,728 15	52,926 85	184,628 00
					18,688 00	2,912 00		21,600 00
					101,120 00	249,280 00	80,000 00	430,400 00
					32,000 00	35,200 00		67,200 00
					35,200 00	38,400 00		73,600 00
						39,744 00		39,744 00
						28,000 00		28,000 00
						117,760 00		117,760 00
						32,000 00	55,808 00	87,808 00
							22,400 00	22,400 00
							51,200 00	51,200 00
							9,635 89	9,625 89
846,721 83	1,491,595 72	1,079,105 87	1,061,615 93	624,794 07	1,043,285 10	1,123,949 10	648,145 49	13,135,282 03
								1,525,250 00
								25,000,000 00
								1,500,000 00
								500,000 00
								41,660,532 03

LEONARD SHANNON,
Accountant.

Department of Railways and Canals.

PART III

RAILWAY SUBSIDIES

Department of Railways and Canals.

No. 1.

RAILWAY SUBSIDIES.

TABLE of Cash Subsidies granted and paid in aid of Railway Construction.

No.	Name of Railway.	No. of miles built.	No. of miles paid and provided for.	Subsidy paid and Available at June 30, 1896.	Subsidy paid to 30th June, 1896.	Subsidy paid to 1st Nov., 1896.
				\$ cts.	\$ cts.	\$ cts.
1	Albert Southern	16	16	50,460 00	50,460 00	50,460 00
2	Baie des Chaleurs	70	70	620,000 00	620,000 00	620,000 00
3	Beauharnois Junction	19 50	19 50	62,400 00	62,400 00	62,400 00
4	Belleville and North Hastings	6 84	6 84	21,888 00	21,888 00	21,888 00
5	Brantford, Waterloo & Lake Erie	18	18	57,600 00	57,600 00	57,600 00
6	Brockville, Westport and Sault Ste. Marie	44 50	44 50	105,200 00	105,200 00	105,200 00
7	Buctouche and Moncton	31 75	31 75	101,600 00	101,600 00	101,600 00
8	Canada Atlantic	54 05	54 05	282,355 20	282,355 20	282,355 20
9	Canada Central	120	120	1,525,250 00	1,525,250 00	1,525,250 00
10	Canada Eastern	107	107	342,400 00	342,400 00	342,400 00
11	Canadian Pacific	1,905	1,905	25,000,000 00	25,000,000 00	25,000,000 00
12	do (extension)	170	185	1,580,000 00	1,528,000 00	1,528,000 00
13	Caraquet	67	67	224,000 00	224,000 00	224,000 00
14	Central (of New Brunswick)	44 50	44 50	142,400 00	75,639 00	75,639 00
15	Cornwallis Valley	14	14	44,800 00	44,800 00	44,800 00
16	Columbia and Kootenay	27 75	27 75	88,800 00	88,800 00	88,800 00
17	Cumberland	14	14	39,850 00	39,850 00	39,850 00
18	Dominion Lime Co.	4 80	4 80	15,360 00	15,360 00	15,360 00
19	Dominion Coal Co.	27 44	27 44	87,808 00	87,808 00	87,808 00
20	Drummond Counties	89 98	93 10	297,920 00	287,936 00	287,936 00
21	Elgin, Petitoodiac and Havelock	12	12	38,400 00	38,400 00	38,400 00
22	Erie and Huron	30	30	96,000 00	96,000 00	96,000 00
23	Esquimalt and Nanaimo	71	71	750,000 00	750,000 00	750,000 00
24	Fredericton and St. Mary's Bridge Co.	1 33	1 33	30,000 00	30,000 00	30,000 00
25	Grand Trunk, Georgian Bay and Lake Erie	12 42	12 42	39,744 00	39,744 00	39,744 00
26	Great Eastern	12 50	12 50	40,345 00	40,345 00	40,345 00
27	Great Northern	44 05	99 59	318,688 00	142,688 00	142,688 00
28	Guelph Junction	15 25	15 25	46,000 00	46,000 00	46,000 00
29	Harvey Branch	3	3	5,553 57	5,553 57	5,553 57
30	Hereford	48 50	48 50	155,200 00	155,200 00	155,200 00
31	Irondale, Bancroft and Ottawa	30	50	160,000 00	96,000 00	96,000 00
32	International	49	49	156,800 00	156,800 00	156,800 00
33	Joggins	12	12	37,500 00	37,500 00	37,500 00
34	Kingston and Pembroke	15	15	48,000 00	48,000 00	48,000 00
35	Kingston, Napanee and Western	61 35	61 35	208,732 80	208,732 80	208,732 80
36	L'Assomption	3 50	3 50	11,200 00	11,200 00	11,200 00
37	Lake Erie and Detroit River	84 04	84 04	338,731 00	338,731 00	338,731 00
38	Lake Temiscamingue Colonization	45 84	45 84	303,859 70	303,859 70	303,859 70
39	Leamington and Lake St. Clair	16	16	51,200 00	51,200 00	51,200 00
40	Lotbinière and Mégantic	28	30	96,000 00	73,600 00	88,000 00
41	Montreal and Sorel	44 67	44 67	93,757 57	93,757 57	93,757 57
42	Montreal and Lake Champlain	83	83	103,600 00	103,600 00	103,600 00
43	Montreal and Western	70	70	361,270 00	361,270 00	361,270 00
44	Montreal and Lake Maskinongé	12 90	12 90	41,280 00	41,280 00	41,280 00
45	Montreal and Ottawa	23	60	192,000 00	73,600 00	73,600 00
46	Montfort Colonization	21	21	67,200 00	67,200 00	67,200 00
47	Nakusp and Slocan	36 80	38	121,600 00	117,760 00	117,760 00
48	New Brunswick and P.E.I.	35 45	35 45	113,440 00	113,440 00	113,440 00
	Carried forward	3,773 71	3,897 57	34,716,192 84	34,202,807 84	34,217,207 84

TABLE of Cash Subsidies granted and paid in aid of Railway Construction—*Con.*

No.	Name of Railway.	No. of miles built.	No. of miles paid and provided for.	Subsidy paid and Available at 30th June, 1896.	Subsidy paid to 30th June, 1896.	Subsidy paid to 1st Nov., 1896.
				\$ cts.	\$ cts.	\$ cts.
	Brought forward.....	3,773 71	3,897 57	34,716,192 84	34,202,806 84	34,217,207 84
49	New Glasgow Iron and Coal Co.	12	12	39,840 00	39,840 00	39,840 00
50	North Shore.....	159	159	954,000 00		
51	Northern Pacific Junction.....	110	110	1,320,000 00	1,320,000 00	1,320,000 00
52	Nova Scotia Central.....	73 50	73 50	235,200 00	230,700 00	230,700 00
53	Ontario and Pacific.....		53 87	172,400 00		
54	Ontario, Belmout and Northern.....		10	32,000 00		
55	Ontario and Quebec.....	61 25	61 25	196,000 00	196,000 00	196,000 00
56	Orford Mountain.....	26 50	26 50	84,800 00	84,800 00	84,800 00
57	Oshawa Railway and Navn. Co.....	7	7	22 400 00	22,400 00	22,400 00
58	Ottawa & Gatineau Valley.....	56 50	56 50	284,128 00	284,128 00	284,128 00
59	Ottawa, Arnprior & Parry Sound.....	107	107	430,400 00	430,400 00	430,400 00
60	Parry Sound Colonization.....	43	60	192,000 00	152,800 00	152,800 00
61	Pontiac and Pacific Junction.....	70	70	193,578 00	193,578 00	193,578 00
62	Phillipsburg Junction.....	6 75	6 75	21,600 00	21,600 00	21,600 00
63	Pontiac and Renfrew.....	4 25	4 25	13,600 00	13,600 00	13,600 00
64	Port Arthur, Duluth and Western.....	84 75	84 75	271,200 00	271,200 00	271,200 00
65	Quebec Central.....	74 86	74 86	348,342 00	348,342 00	348,342 00
66	Quebec, Montreal, Ottawa and Occidental.....	120	120	1,440,000 00		
67	Quebec and Lake St. John.....	245 85	245 85	1,006,743 50	1,006,743 50	1,006,743 50
68	Quebec, Montmorency and Charlevoix.....	30	30	96,000 00	96,000 00	96,000 00
69	Shuswap and Okanagan.....	51	51	163,200 00	163,200 00	163,200 00
70	South Norfolk.....	17	17	54,400 00	54,400 00	54,400 00
71	St. Catharines & Niagara Central.....	12	12	38,400 00	38,400 00	38,400 00
72	St. Clair Frontier Tunnel.....	2 23	2 23	375,000 00	375,000 00	375,000 00
73	St. Lawrence & Lower Laurentian.....	38 85	38 85	217,600 00	217,600 00	217,600 00
74	St. Louis, Richibucto & Buctouche.....	7	7	22,400 00	22,400 00	22,400 00
75	St. Lawrence and Adirondack.....	20 31	20 31	65,001 60	65,001 60	65,001 60
76	Temiscouata.....	112 95	112 95	645,950 00	645,950 00	645,950 00
77	Thousand Island.....	4 33	4 33	24,400 00	24,400 00	24,400 00
78	Tilsonburg, Lake Erie and Pacific.....	16	16	51,200 00	51,200 00	51,200 00
79	Tobique Valley.....	27 87	27 87	134,016 00	134,016 00	134,016 00
80	Toronto, Grey and Bruce.....	4 60	4 60	14,656 00	14,656 00	14,656 00
81	United Counties.....	57	64	204,800 00	184,628 00	184,628 00
82	Waterloo Junction.....	10 25	10 25	32,800 00	32,800 00	32,800 00
83	Western Counties.....	20	20	500,000 00	500,000 00	50,000 00
84	Western Ontario Pacific.....	18 75	18 75	60,000 00	60,000 00	60,000 00
85	Cap de la Magdeleine.....	3	3	9,600 00		
86	Gulf Shore.....		12	38,400 00		2,109 51
87	St. Stephen and Milltown.....	3 50	3 50	11,200 00	9,635 89	9,635 89
	Total.....	5,492 56	5,716 29	44,733,447 94	41,508,226 83	41,524,736 34

STATEMENT showing Railways receiving Cash Subsidies of fixed amounts, payable Annually or Semi-annually for fixed period of years.

No.	Name of Railway.	Miles Subsidized.	Amount of Instalment.	Amount paid up to 30th June, 1896.
1	International (Atlantic and North-west) Railway Co.....	252	\$93,300 per ½ year for 20 years	\$ 1,119,600
2	Kingston, Smith's Falls and Ottawa Railway Co.....	56	3,136 do 21	Nil.
	Total.....	308		1,119,600

Department of Railways and Canals

STATEMENT showing Railways aided by the Grant of Loans.

No.	Name of Railway.	Amount of Loans authorized.	Amount loaned.
		\$	\$ cts.
1	Albert Railway Co.	15,000	14,725 56
2	Fredericton and St. Mary's Bridge Co.	300,000	300,000 00
3	St. John Bridge and Railway Extension Co.	500,000	433,900 00
		815,000	748,625 56

STATEMENT showing Railways subsidized by the Grant of used Iron Rails valued at the amount set forth.

No.	Name of Railway.	Tons of used Rails.	Subsidy on value of Rails.	Subsidy in used Rails paid.
			\$ cts.	\$ cts.
1	Central Railway Co. of New Brunswick.	4,052	83,612 54	83,612 54
2	Elgin, Petitcodiac and Havelock Ry. Co.	2,201	44,252 82	44,252 82
3	Chatham Branch Railway Company.	958	24,439 84	24,439 84
	Total.	7,211	152,305 20	152,305 20

STATEMENT showing Railways aided by the Loan of used Iron Rails valued at the amount set forth.

No.	Name of Railway.	Tons of used Rails.	Value of used Rails loaned.	Remarks.
			\$ cts.	
1	Kent Northern Railway Company.	2,549	58,334 27	By 51 Victoria, chapter 3, these used rails will be granted as a subsidy (the section of road to be first laid with new steel rails weighing not less than 50 lbs. per lin. yard and after an O.C. had been passed authorizing transfer.)
2	Halifax Cotton Company.	233	4,335 00	
3	Steel Company of Canada.	597	11,964 66	
4	Albert Railway Company.	726	14,665 45	
	Total.	4,105	89,299 38	

STATEMENT showing Railways subsidized by Grants of Lands.

No.	Act.	Name of Railway.	Estimated number of miles.	Acres granted per mile.	Total acres granted.
1	{ 52 Vic., c. 4. } { 53 Vic., c. 3. }	Alberta Railway and Coal Co.....	50	6,400	320,000
2	50-51 Vic., c. 23.	Alberta and Athabasca Railway Co.....	300	6,400	1,920,000
3	56-57 Vic., c. 6....	Brandon and South-western Railway Co.....	17	6,400	108,800
4	53 Vic., c. 4.....	Calgary and Edmonton Railway Co.....	340	6,400	2,176,000
5	{ 54-55 Vic., c. 5 } { 56-57 Vic., c. 6 }	Canadian Pacific Railway Co.....	277	6,400	1,772,800
6	49 Vic., c. 11.....	North-west Central Railway Co.	450	6,400	2,880,000
7	{ 52 Vic., c. 4. } { 53 Vic., c. 4. }	Lake Manitoba Railway and Canal Co.	142	6,400	908,800
8	53 Vic., c. 4	Lac Seul Railway Co.....	18	6,400	115,200
9	{ 48-49 Vic., c. 60 } { 49 Vic., c. 11.. }	Manitoba North-western Railway Co.....	476	* { 6,400 } { 3,200 }	2,726,400
10	{ 48-49 Vic., c. 60 } { 54-55 Vic., c. 10 }	Manitoba South-western Colonization Rail- way Co.	218½	6,400	1,396,800
11	53 Vic., c. 4	Manitoba South-eastern Railway Co.....	110	6,400	704,000
12	50-51 Vic., c. 23.	Medicine Hat Railway and Coal Co.....	8	6,400	51,200
13	52 Vic., c. 4.....	North-western Railway Co. of Canada.....	330	10,000	3,300,000
14	{ 48-49 Vic., c. 60 } { 50-51 Vic., c. 23 } { 52 Vic., c. 4.... }	North-western Coal and Navigation Co.....	110	6,400	708,400
15	{ 48-49 Vic., c. 60 } { 50-51 Vic., c. 23 }	Qu'Appelle, Long Lake and Saskatchewan Railway and Steamboat Co.....	347	6,400	2,220,800
16	{ 50-51 Vic., c. 23 } { 52 Vic., c. 4.... }	Red Deer Valley Railway and Coal Co.....	55	6,400	352,000
17	56-57 Vic., c. 6....	Rocky Mountain Railway and Coal Co.....	60	6,400	384,000
18	56-57 Vic., c. 6....	Saskatchewan and Western Railway Co.....	15	6,400	96,000
19	{ 47 Vic., c. 25 } { 47 Vic., c. 70 } { 43 Vic., c. 59 }	Winnipeg and Hudson Bay Railway Co.....	900	† { 6,400 } { 12,800 }	8,580,000
20	49 Vic., c. 11.....	Wood Mountain and Qu'Appelle Railway Co.	240	6,400	1,536,000
Total.....			4,463½		32,257,200

*376 miles at 6,400 acres per mile and 100 miles at 3,200 acres per mile.
 †475 miles at 6,400 acres per mile and 425 miles at 12,800 acres per miles.

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No. 2.

LIST OF RAILWAY SUBSIDY ACTS PASSED IN EACH YEAR.

NOTE.—The marginal number opposite each subsidy has reference to the alphabetical list in the Minister's report showing the action taken in cases where a contract for work has been made with any company.

By the Acts of Parliament below specified, authority has been placed in the hands of the Governor in Council to grant, upon certain conditions, aid towards the construction of various lines of railway throughout the Dominion, as follows, namely:—

By the Acts of 45 Vic., cap. 14, 1882 (*Assented to 17th May, 1882*):—

- | | | |
|----|---|-----------|
| 1. | For a railway from Gravenhurst to Callander, both in the province of Ontario, a subsidy not exceeding \$6,000 per mile, nor exceeding in the whole | \$660,000 |
| 2. | For a railway from St. Raymond to Lake St. John, both in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole | 384,000 |
| 3. | For a railway from a point on the Intercolonial Railway at Rivière du Loup or Rivière Ouelle, in the province of Quebec, or between them, to Edmundston, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole | 240,000 |
| 4. | For a railway from Oxford to New Glasgow, both in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole | 224,000 |

“The said subsidies to be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to complete the said railways respectively, within a reasonable time, to be fixed by Order in Council, and according to descriptions and specifications to be approved by the Governor in Council on the report of the Minister of Railways and Canals, and specified in an agreement to be made by the company with the Government, and which the Government is empowered to make, and to be payable out of the Consolidated Revenue Fund of Canada, by instalments on the completion of each ten miles of railway, proportionate to the value of the portion so completed in comparison with the whole work undertaken, such proportion to be established by the report of the said Minister; provided always, that the granting of such bonuses or subsidies shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting therewith, as the Governor in Council may determine.”

By the special Act 45 Vic., cap. 55, 1882 (*Assented to 17th May, 1882*):—

- | | | |
|----|--|-----------|
| 5. | A subsidy authorized in favour of “The Chignecto Marine Transport Railway Company,” provided that they construct and thereafter maintain and operate a ship railway, to be approved by the Government, across the Isthmus of Chignecto, from the Gulf of St. Lawrence to the Bay of Fundy, per year, for twenty-five years | \$150,000 |
|----|--|-----------|

By the Act 46 Vic., cap. 25, 1883 (*Assented to 25th May, 1883*):—

- | | | |
|----|--|---------|
| 6. | To the Baie des Chaleurs Railway Company, for 100 miles of their railway, from Métapediac, on the Intercolonial Railway, to Paspebiac, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole | 320,000 |
|----|--|---------|

- | | |
|--|-----------|
| 7. To the Caraquet Railway Company, for 36 miles of their railway, from a point near Bathurst to Caraquet, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | \$115,200 |
| 8. To the Gatineau Valley Railway Company, for the first 50-mile section of their railway, from Hull station, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.. | 160,000 |
| 9. To the Great American and European Short Line Railway Company, for 80 miles of their railway, from Canso to Louisburg or Sydney, in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 256,000 |
| 10. To the International Railway Company, for 49 miles of their railway, from Sherbrooke, in the province of Quebec, to the international boundary line, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 156,800 |
| 11. To the Northern and Western Railway Company, for 32 miles of their railway, from the Intercolonial Railway, near the Miramichi, to Moran's, near Demphy village, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.. | 102,400 |
| 12. To the Montreal and Western Railway Company, for the first 50-mile section of their railway, out of St. Jérôme, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. | 160,000 |
| 13. To the Napanee, Tamworth and Quebec Railway Company, for 28 miles of their railway, from Napanee to Tamworth, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 89,600 |
| 14. To the Quebec and Lake St. John Railway Company, for 25 miles of their railway, from St. Raymond to Lake St. John, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 80,000 |
| In addition to the subsidy granted by the Act forty-fifth Victoria, chapter fourteen. | |
| 15. For a railway from the International Railway at Petitcodiac to Havelock Corner, in the province of New Brunswick, 12 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 38,400 |
| 16. For a railway from Gravenhurst to Callander, 110 miles, a subsidy not exceeding \$6,000 per mile, nor exceeding in the whole..... | 660,000 |
| In addition to the subsidy granted by the Act forty-fifth Victoria, chapter fourteen. | |

“The nine subsidies first mentioned to be granted to the companies hereinbefore named respectively; and the two subsidies last mentioned to be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to complete the said railways, respectively; and all the eleven lines above mentioned, and also the lines of railway in respect of which it is provided by the Act of forty-fifth Victoria, chapter fourteen, that subsidies may be granted, shall be commenced within two years from the first day of July next, and completed within a reasonable time, not to exceed four years from and after the passing of this Act, to be fixed by Order in Council, and according to descriptions and specifications to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made by each company with the Government, and which the Government is empowered to make; and all the said subsidies authorized by this Act, respectively, to be paid out of the Consolidated Revenue Fund of Canada by instalments, on the completion of each section of not less than ten miles of railway, proportionate to the value of the portion so completed in comparison with the whole work undertaken, to be established by the report of the said Minister; Provided always, that the granting of such subsidies shall be subject to such conditions for securing such running powers

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or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized as the Governor in Council may determine."

By the special Act 46 Vic., cap. 26, 1883 (*Assented to 25th May, 1883*):—

- 17.** An advance authorized in favour of the "St. John Bridge and Railway Extension Company," to enable them to build a railway bridge across the River St. John, N.B., with railway connection with the Intercolonial, such advance to be secured by a mortgage on their entire property, not to exceed 80 per cent of the expenditure on the work, nor a total sum of \$ 500,000

By the Act 47 Vic., cap. 8, 1884 (*Assented to 19th April, 1884*):—

- 18.** To the Government of the province of Quebec, in consideration of their having constructed the railway from Quebec to Ottawa, forming a connecting line between the Atlantic and Pacific coasts via the Intercolonial and Canadian Pacific Railways, and being as such a work of national and not merely provincial utility, a subsidy not exceeding \$6,000 per mile for the portion between Quebec and Montreal, 159 miles, nor exceeding in the whole..... 954,000
- 19.** And for the portion between Montreal and Ottawa, 120 miles, \$12,000 per mile, nor exceeding in the whole..... 1,440,000
- 20.** For the construction of a line of railway connecting Montreal with the harbours of St. John and Halifax by the shortest and best practicable route, after the report of competent engineers, a subsidy not exceeding \$170,000 per annum, for fifteen years, or a guarantee of a like sum for a like period as interest on bonds of the company undertaking the work.
- 21.** For the construction of a line of railway from Oxford station, on the Intercolonial Railway, to Sydney or Louisburg, a subsidy not exceeding \$30,000 per annum for fifteen years or a guarantee of a like sum for a like period as interest on the bonds of the company undertaking the work, in addition to the subsidies previously granted, and also a lease or transfer to such company of the Eastern Extension Railway, from New Glasgow to Canso, with its present equipment.
- 22.** To the Quebec Central Railway Company, for a line of railway from Beauce Junction to the international boundary line, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 211,200
- 23.** For the extension of the Canadian Pacific Railway, from its terminus at St. Martin's Junction, near Montreal, or some other point on the Canadian Pacific Railway, to the harbour of Quebec, in such manner as may be approved by the Governor in Council a subsidy not exceeding \$6,000 per mile, nor exceeding in the whole..... 960,000
- 24.** To the Irondale, Bancroft and Ottawa Railway Company, for a line of railway from the Victoria branch of the Midland Railway to the village of Bancroft, in the township of Dunganon, county of Hastings, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 160,000
- 25.** To the Pontiac Pacific Junction Railway, for a line of railway from Hull or Aylmer to Pembroke, provided the Ottawa River is crossed at some point not east of Lapasse, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 272,000
- 26.** To the Gatineau Railway Company, for a line of railway from Kazuabazua to Le Désert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 160,000
- 27.** To the Napanee, Tamworth and Quebec Railway Company, for a line of railway from Tamworth to Bogart and Bridgewater, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 70,400

28. To the Montreal and Western Railway Company, for a line of railway from the end of the line subsidized in the now last session of Parliament, towards Le Désert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$160,000
29. To the Northern and Western Railway Company, for a line of railway from Fredericton to the Miramichi River, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole (instead of the subsidy proposed in 1883).....	128,000
30. To the Erie and Huron Railway Company, for a line of railway from Wallaceburg to Sarnia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
31. To the Ontario and Pacific Railway Company, for a line of railway from Cornwall to Perth, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	262,400
32. To the Kingston and Pembroke Railway Company, for a line of railway from Mississippi to Renfrew, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
33. To the Great Northern Railway Company, for that portion of their railway between St. Jérôme and New Glasgow, in the county of Terrebonne, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
34. For a line of railway and bridge between the Jacques Cartier Union Railway Junction with the Canadian Pacific Railway and St. Martin's Junction connecting the Jacques Cartier Union Railway with the North Shore Railway proper, a subsidy not exceeding in the whole.....	200,000
35. For a line of railway from Richibucto to St. Louis, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
36. For a line of railway from Hopewell to Alma, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	51,200
37. For a line of railway from St. Andrew's to Lachute, in the county of Argenteuil, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
38. For a line of railway from the Grand Piles, on the River St. Maurice, to Lake Edward, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	217,600
39. For a line of railway from Annapolis to Digby, in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
40. For a line of the Central Railway, from the head of Grand Lake to the Intercolonial Railway between Sussex and St. John, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	128,000
41. To the Caraquet Railway Company, for the extension of their line of railway from Caraquet to Shippegan Harbour, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	76,800
42. For a branch of the Intercolonial Railway, from Metapediae eastward towards Paspébiac, twenty miles, in the province of Quebec, a sum not exceeding in the whole.....	300,000
43. For a branch of the Intercolonial Railway, from Derby Station to Indian-town, fourteen miles, a sum not exceeding in the whole.....	140,000

"The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies, respectively; the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to construct and complete the said railways respectively. All the lines for the construction of which subsidies are

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granted shall be commenced within two years from the first day of July next and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, except the line mentioned in the fourth section of this Act,* which shall be commenced within one year, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister. The subsidies to the province of Quebec shall be capitalized, and the interest shall be payable at such time and in such manner as the Government of Canada shall agree upon with the Government of the said province. The two subsidies last mentioned in the list are for works to be constructed by the Government of Canada.

“Provided, always, that the granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council may determine.”

By the special Act 47 Vic., cap. 6, 1884 (*Assented to 19th April, 1884*):

- 44.** Relating to an agreement with the province of British Columbia, authority was given, *inter alia*, for the grant of a subsidy to the “Esquimalt and Nanaimo Railway Company” in aid of the construction of a line of railway and telegraph between the points named; such subsidy to be in lands *en bloc* on Vancouver Island, the boundaries being fixed by the Act, and in money \$750,000

By the Act 48-49 Vic., cap. 59, 1885 (*Assented to 20th July, 1885*):

- 45.** To the Ottawa, Waddington and New York Railway and Bridge Company, for a line of railway from Ottawa to Waddington, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole 166,400
- 46.** To the New Brunswick and Prince Edward Island Railway Company, for a line of railway from Sackville to the Straits of Northumberland, at or near Cape Tormentine, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole 118,400
- 47.** To the Montreal and Sorel Railway Company, for a line of railway from St. Lambert to Sorel, a subsidy not exceeding \$1,600 per mile, nor exceeding in the whole 72,000
- 48.** To the Brockville, Westport and Sault Ste. Marie Railway Company, for a line of railway from Brockville to Westport, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole 128,000
- 49.** To the Quebec and Lake St. John Railway Company, for a line of railway from its junction on the North Shore Railway to St. Raymond, upon condition of the company extending their road to a point 50 miles north of St. Raymond, a subsidy not exceeding \$3,200 per mile nor exceeding in the whole 96,000
- 50.** To the Northern and Western Railway Company, for a line of railway from the northern end of the 40 miles subsidized between Fredericton and the Miramichi River by 47 Victoria, chapter 8, to Boiestown, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole 19,200

* The extension of the Canadian Pacific Railway from its terminus at St. Martin's Junction, or some other point on the said railway to the harbour of Quebec.

51. To the Montreal and Champlain Junction Railway Company, for a line of railway from Brosseau's to Dundee, a subsidy not exceeding \$500 per mile, nor exceeding in the whole	\$30,000
52. To the Thunder Bay Colonization Railway Company, for a line of railway from the Murillo station of the Canadian Pacific Railway to the east end of Whitefish Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	92,000
53. To the Central Ontario Railway Company, for a line of railway from Coe Hill or Rathbun, to Bancroft, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
54. To the Belleville and North Hastings Railway Company, for a line of railway from the village of Madoc to the junction with the Central Ontario Railway at Eldorado, a subsidy not exceeding \$1,500 per mile, nor exceeding in the whole	10,500
55. For a line of railway from Long Sault to the foot of Lake Temiscamingue, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	25,600
56. For a line of railway from a point on the Canada Southern Railway near Comber, to Lake Erie, at or near the village of Leamington, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	44,800
57. To the Napanee, Tamworth and Quebec Railway Company, for a line of railway from Tamworth towards Bogart and Bridgewater, 16 miles, in lieu of the subsidy granted by 47 Vic., chap. 8, a subsidy of.....	70,000
58. To the Gatineau Railway Company, for a line of railway from Hull station towards Le Désert, a distance of 62 miles, in lieu of the subsidies granted by 46 Vic., chap. 25, and 47 Vic., chap. 8, a subsidy of....	320,000
59. For a line of railway from the Grand Piles, on the River St. Maurice, to its junction with Lake St. John Railway, a distance of about 50 miles, in lieu of the subsidy granted by 47 Vic., chap. 8, for a line of railway from the Grand Piles, on the River St. Maurice, to Lake Edward, a subsidy of.....	217,600
60. To the Canada Atlantic Railway Company, for a line of railway from Valleyfield to a point one and a half miles west of Johnston's, a subsidy not exceeding \$1,600 per mile, and from one and a half miles west of Johnston's to Lacolle; also from the present terminus at Ottawa, to the Chaudiere Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
61. For a line of railway from Indiantown via the Miramichi Valley, to its junction with the Northern and Western Railway at or near Boiestown, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	140,800

"The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies, respectively; the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways, respectively. All the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council; and shall also be constructed according to descriptions, specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also, of every line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister.

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“ Provided always, that the granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connected with those so subsidized, as the Governor in Council may determine.”

By the Act 48-49 Vic., cap. 58, 1885 (*Assented to 20th July, 1885*):—

- 62.** For a railway from a point on the Intercolonial Railway at Rivière du Loup or Rivière Ouelle, in the province of Quebec, to Edmundston, in the province of New Brunswick, a subsidy not exceeding two thousand eight hundred dollars per mile for seventy-five miles, and six thousand dollars per mile for eight miles, nor exceeding in the whole two hundred and fifty-eight thousand dollars; the said subsidy to be in addition to the subsidy authorized to be granted in aid of the construction of the said railway by the Act forty-fifth Victoria, chapter fourteen, and constituting with the subsidy so authorized, a subsidy not exceeding in the whole four hundred and ninety-eight thousand dollars, and to be granted for the said railway upon the terms and conditions specified in the said Act, and payable out of the Consolidated Revenue Fund of Canada; and for the purpose of incorporating the persons undertaking the construction of the said railway and those who shall be associated with them in the undertaking, the Governor may grant to them, under such corporate name as he shall deem expedient, a charter conferring upon them the franchises, privileges and powers requisite for the said purposes, which shall be similar to such of the franchises, privileges and powers granted to railway companies during the present session as the Governor shall deem most useful or appropriate to the said undertaking; and such charter being published in the *Canada Gazette*, with any Order or Orders in Council relating to it, shall have force and effect as if it were an Act of the Parliament of Canada.
- 63.** For a line of railway from the south bank of the St. Lawrence river, opposite or near Montreal, to the harbours of St. Andrew's, St. John and Halifax via Sherbrooke, Moosehead Lake, Mattawamkeag, Harvey, Fredericton and Salisbury, a subsidy not exceeding eighty thousand dollars per annum for twenty years, forming in the whole, together with the subsidy authorized by the Act forty-seventh Victoria, chapter eight, for a line of railway connecting Montreal with the said harbours of St. John and Halifax by the shortest and best practicable route, which the line above described is found to be, a subsidy not exceeding two hundred and fifty thousand dollars per annum, the whole of which shall be paid in aid of the construction of such a line of railway for a period of twenty years, or a guarantee bond of a like sum for a like period as interest on the bonds of the company undertaking the work; the said subsidy to be so granted upon the terms and conditions of and payable out of the Consolidated Revenue Fund in the manner specified in the said last mentioned Act in respect of the subsidy thereby authorized in aid of the said line of railway.
- 64.** The Governor in Council may grant a further subsidy as an aid towards procuring free access as hereinafter described for the trains and traffic of the Canadian Pacific Railway Company from St. Martin's Junction, near Montreal, or from some other point on their railway to be selected by the said company, to the harbour of Quebec, in such a manner as shall be approved by the Governor in Council, that is to say: an additional subsidy not exceeding three hundred and forty thousand dollars, constituting, together with the subsidy authorized by the said last mentioned Act, to aid in procuring the extension of

the Canadian Pacific Railway to Quebec, and the subsidy also thereby authorized to aid in constructing a line connecting the Canadian Pacific Railway at the Jacques Cartier Union Junction with the North Shore Railway proper (which subsidies shall be applicable to the said first mentioned purpose) a sum not exceeding in the whole the sum of one million five hundred thousand dollars, payable out of the Consolidated Revenue Fund of Canada.

The said Act further provided as follows in relation to this matter :—

“ If it should be expedient so to do in order to facilitate such access, the Governor in Council may acquire the North Shore Railway, and may apply the said sum of one million five hundred thousand dollars, or any part thereof, in aid of such acquisition and upon such acquisition may transfer and convey or lease the said railway to the Canadian Pacific Railway Company, subject to such obligation as the Government shall have assumed in acquiring it.”

By the Act 49 Vic., cap. 10, 1886 (*Assented to 2nd June, 1886*):—

65.	For a railway from a point at or near Moncton, to Buctouche, in the province of New Brunswick, thirty miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 96,000
66.	For a railway from Ingersoll via London to Chatham, in the province of Ontario, eighty miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	256,000
67.	To the Northern and Western Railway Company, for ten miles of their railway, intervening between the termini of the portions of their railway for which subsidies are already granted, the one from Fredericton and the other from Indiantown, and an extension of two miles down to deep water at Chatham, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	32,000
68.	To the Caraquet Railway Company, for ten miles of their railway, from the end of the present subsidized portion at Lower Caraquet to Shippegan, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
69.	To the Lake Erie, Essex and Detroit River Railway Company, for thirty-seven miles of their railway, from Windsor to Leamington, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	118,400
70.	To the Thunder Bay Colonization Railway Company, for fifty-six miles of their railway, from the end of the present subsidized section to a point near Crooked Lake, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	179,200
71.	To the Parry Sound Colonization Railway Company, for forty miles of their railway, from the village of Parry Sound to the village of Sundridge, on the line of the Northern Pacific Junction Railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	128,000
72.	For a railway from a point at or near New Glasgow or St. Lin, to or near to Montcalm, in the province of Quebec, eighteen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
73.	For a railway from Hereford to the International Railway, in the township of Eaton, in the province of Quebec, thirty-four miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	108,800
74.	For a railway from St. Félix to Lake Maskinongé, parish of St. Gabriel in the province of Quebec, ten miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
75.	For a railway from Glenannan to Wingham, in the province of Ontario, five miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	16,000

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76.	For a railway from a point at or near the McCann Station, on the Intercolonial Railway, to the Joggins, on Cumberland Basin, in the province of Nova Scotia, twelve miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 38,400
77.	For a railway from L'Assomption to L'Épiphanie, in the province of Quebec, three miles and a half, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	11,200
78.	To the Montreal and Western Railway Company, for seventy miles of their railway from St. Jérôme, north-westerly towards Désert, in the province of Quebec, a subsidy of \$5,161 per mile, in lieu of the subsidies granted by 46 Vic., chap. 25, and 47 Vic., chap. 8, not exceeding in the whole	361,270
79.	For a railway from St. Andrew's to the Canadian Pacific Railway at or at any point east of the town of Lachute, in the county of Argenteuil, in the province of Quebec, seven miles, in lieu of the subsidy granted by 47 Vic., chap. 8, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
80.	To the Canada Atlantic Railway Company, for twelve miles of their railway from Clark's Island to Valleyfield, and from Lacolle, in the province of Quebec, to the international boundary, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
81.	For a railway from Truro to Newport, in the province of Nova Scotia, forty-nine miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	156,800
82.	To the Quebec and Lake St. John Railway Company, for ninety-five miles of their railway, from a point fifty miles north of St. Raymond to Lake St. John, in the province of Quebec, a subsidy not exceeding \$1,961 per mile, nor exceeding in the whole (in addition to the subsidy granted by 45 Victoria, chapter 14, and 46 Victoria, chapter 25, of \$3,200 per mile).....	186,295
83.	To the Cap Rouge and St. Lawrence Railway Company, for twelve miles of their railway from Lorette via Cap Rouge to Quebec, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
84.	For the construction of wharfs and landing stages on the line of the railway from Long Sault to the foot of Lake Temiscamingue, a subsidy of.....	6,000
85.	To the Gananogue, Perth and James Bay Railway Company, seventeen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	54,400
86.	For a railway from St. Eustache to St. Placide, county of Two Mountains, eighteen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
87.	For a railway from a point on the Intercolonial Railway through the Stewiacke Valley, on the line which will afford facilities of communication with the Iron Mines, Spring Side, Upper Stewiacke and Musquodoboit settlements, twenty-five miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
88.	For a railway from Yamaska to the River St. Francis, in the province of Quebec, ten miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
89.	For a railway from Perth Centre station, on the New Brunswick Railway, to a point near Plaister Rock Island, in the province of New Brunswick, twenty-eight miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	89,600
90.	For a railway from Fredericton to the village of Prince William, in the province of New Brunswick, twenty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400

91.	For a railway from a point on the Intercolonial Railway near Newcastle or via Douglstown to a point on the River Miramichi, opposite the town of Chatham, in the province of New Brunswick, six miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$19,200
92.	For a railway from a point on the Canadian Pacific Railway to Eganville, in the province of Ontario, twenty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
93.	To the Belleville and North Hastings Railway Company, for seven miles of their railway, from the village of Madoc to the junction with the Central Ontario Railway at Eldorado, in the province of Ontario, a subsidy (in addition to the subsidy of \$1,500 per mile granted by 48-49 Victoria, chapter 59), not exceeding \$1,700 per mile, nor exceeding in the whole.....	11,900
94.	To the Napanee, Tamworth and Quebec Railway Company, for eighteen miles of their railway from Tamworth to Tweed, in lieu of the subsidy granted by 48-49 Victoria, chapter 59, a subsidy of.....	70,000
95.	To the Albert Railway Company, for their railway from Salisbury to Hopewell, in the province of New Brunswick, which is a feeder to the Intercolonial Railway, in the form of a loan, repayable at such time and secured in such manner as the Governor in Council determines, a subsidy of.....	15,000

“The subsidies hereinbefore mentioned as to be granted to the companies named for that purpose shall be granted to such companies respectively; the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to construct and complete the said railways respectively. All the lines for the construction of which subsidies have been granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall be so constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in the agreement to be made in each case by the company to the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council, and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister: Provided always, that the granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements, and other rights, as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council may determine.”

By section 2 of this Act authority was given for the grant of a charter by the Governor in Council for the purpose of constructing a railway from Long Sault to the foot of Lake Temiscamingue.

By the Act 50-51 Vic., cap. 24, 1887 (*Assented to 23rd June, 1887*).

96.	To the St. Catharines and Niagara Railway Company, for twelve miles of their railway from the city of St. Catharines to the bridge over the Niagara River, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 38,400
97.	To the Vaudreuil and Prescott Railway Company, for thirty miles of their railway from Vaudreuil towards Hawkesbury, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
98.	To the Richmond Hill Junction Railway Company, for five miles of their railway from Richmond Hill Junction, on the Northern Railway of Canada, to Richmond Hill village, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	16,000

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99.	To the Drummond County Railway Company, for thirty miles of their railway from Drummondville towards Nicolet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
100.	To the Jogins Railway Company, for one and a quarter miles of their railway extending from the southern end of the portion subsidized by the Act 49 Victoria, chapter 10, to the wharfs, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	4,000
101.	To the Moncton and Buctouche Railway Company, for two miles of their railway from the west end of the portion subsidized by the Act 49 Victoria, chapter 10, to Moncton, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	6,400
102.	To the Beauharnois Junction Railway Company, for thirty miles of their railway from St. Martin's towards St. Anicet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
103.	To the Harvey Branch Railway Company, for three miles of their railway from the southern terminus of the Albert Railway to Harvey Bank, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	9,600
104.	To the Brantford, Waterloo and Lake Erie Railway Company, for eighteen miles of their railway from the town of Brantford to the village of Hagersville or the village of Waterford, or some intermediate point on the Canada Southern Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
105.	To the Guelph Junction Railway Company, for sixteen miles of their railway from its junction with the Canadian Pacific Railway to the town of Guelph, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	51,200
106.	To the Massawippi Railway Company, for ten miles of their railway from a point on the Atlantic and North-western Railway near the village of Magog, to Ayer's Flat station, on the Massawippi Valley Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
107.	To the Napanee, Tamworth and Quebec Railway Company, for four miles of their railway from the north end of the section subsidized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, to Tweed, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	12,800
108.	To the Dominion Lime Company, for seven miles of their railway from a point on the Quebec Central Railway, in the township of Dudswell, to the Dudswell Lime Company's quarries, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
109.	To the South Norfolk Railway Company, for seventeen miles of their railway from Port Rowan to the town of Simcoe, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	54,400
110.	To the Jacques Cartier Union Railway Company, extending and completing their railway, a subsidy of.....	20,000
111.	For a line of railway from Mount Forest to Walkerton, twenty-four miles in length, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	76,800
112.	To the Oshawa Railway and Navigation Company, for seven miles of their railway from Port Oshawa towards Raglan, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
113.	To the Saguenay and Lake St. John Railway Company, for thirty miles of their railway from Lake St. John towards Chicoutimi, or from Chicoutimi towards Lake St. John, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000

114. To the Great Eastern Railway Company, for thirty miles of their railway from the River St. Francis to the Arthabaska Railway, at St. Grégoire station, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$96,000
115. To the Ontario and Pacific Railway Company, for six miles of their railway from the northern end of the portion subsidized by the Act 47 Victoria, chapter 8, to the town of Perth, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200
116. To the Caraqueet Railway Company, for seven miles of their railway from Lower Caraqueet to Shippegan, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding in the whole..	32,000
117. To the St. Lawrence and Lower Laurentian and Saguenay Railway Company, for the section of this railway from Grand Piles, on the St. Maurice River, to its junction with the Quebec and Lake St. John Railway, in lieu of the subsidy granted by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, for a line of railway from Grand Piles, on the St. Maurice River, to its junction with the Lake St. John Railway, a distance of about fifty miles, a subsidy of.....	217,600
118. To the St. John Valley and River du Loup Railway Company, for twenty-two miles of their railway from the village of Prince William towards the town of Woodstock, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
119. To the Lake Temiscamingue Railway Company, for four short sections of railway, in all about two miles in length, to overcome the rapids of the Ottawa River, known as "La Mi-Charge," "La Cave," "Les "Erables," and "La Montagne," and for the construction of wharfs and landing stages at these rapids, to connect the Canadian Pacific Railway at Mattawa with Lake Temiscamingue by steamboats, railways and other works (in lieu of a portion two miles in length, out of the eight miles of railway subsidized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, under which about six miles of railway have already been built from the foot of Long Sault proper to the foot of Lake Temiscamingue, and in lieu also of the subsidy granted by the Act 49 Victoria, chapter 10), a subsidy of.....	12,400
120. To the Carillon and Grenville Railway Company, for twelve miles of their railway from St. Eustache to Sault au Récollet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
121. To the Minudie Branch Railway Company, for five and a half miles of their railway from its junction with the Joggins Railway, near the River Hébert railway bridge, to the village of Minudie, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	17,600
122. To the Lake Temiscamingue Colonization and Railway Company, for ten and a half miles of their railway from the Long Sault to Lake Kippewa, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	33,600
123. To the Leamington and St. Clair Railway Company, for two miles of their railway from the north end of the section subsidized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, to the village of Comber, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	6,400
124. To the Cumberland Railway and Coal Company for fourteen miles of their railway from a point on the Spring Hill and Parraboro' Railway, near Spring Hill, to a point on the railway between Oxford and New Glasgow, near Oxford village, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	44,800

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125.	To the Montreal and Champlain Junction Railway Company, a subsidy of.....	\$ 64,000
126.	To the Quebec and Lake St. John Railway Company, for nine miles of their railway, the distance which the previous subsidies granted are short of covering from the city of Quebec to Lake St. John, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	28,800
127.	To the Temiscouata Railway Company, for thirty miles of a branch of their railway from Edmundston towards the St. Francis River, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	96,000
128.	To the Cornwallis Valley Railway Company, for thirteen miles of their railway from Kentville to Kingsport, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	41,600
129.	To the Nova Scotia Central Railway Company, for thirty-four miles of their railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	108,800
130.	To the Tobique Valley Railway Company, for fourteen miles of their railway from Perth Centre station towards Plaister Rock Island, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, for a railway from Perth Centre station, on the New Brunswick Railway, to a point near Plaister Rock Island, a subsidy of.....	89,600
131.	For a railway from Woodstock towards Centreville, twenty miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	64,000
132.	For a railway bridge over the St. Lawrence River, at Coteau Landing on the line of the Canada Atlantic Railway, a subsidy of fifteen per cent on the value of the structure, not to exceed.....	180,000
133.	To the Lake Erie, Essex and Detroit River Railway Company, for twenty-seven miles of their railway, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding.....	118,400

“For the purpose of granting corporate powers to persons or companies undertaking the construction of railways or parts of railways, mentioned in the next preceding section, for the construction of which no corporate powers exist at the time of the passing of this Act, the Governor in Council may grant to them, under such corporate name as he shall deem expedient, a charter conferring upon them the franchises, privileges and powers requisite for the said purposes, as the Governor in Council shall deem most useful or appropriate to the said undertaking; and such charter being published in the *Canada Gazette*, with any Order or Orders in Council relating to it, shall have force and effect as if it were an Act of the Parliament of Canada.

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies respectively; the other subsidies, including subsidies granted for railways over a line extending beyond a point to which any company hereinbefore mentioned by name is authorized to construct their railway, shall be granted to such companies as shall be approved by the Governor in Council, as having established, to his satisfaction, their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council; and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon completion of the work subsidized, except as regards the subsidy for the bridge over the

St Lawrence River, upon which shall be paid fifteen per cent of the value of work done on monthly progress estimates, certified by the Chief Engineer, and upon the approval of the Minister of Railways and Canals.

“The granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

“Notwithstanding anything contained in the Act forty-fifth Victoria, chapter fourteen, or in the Act forty-sixth Victoria, chapter twenty-five, the balances of the sums granted for a railway from St. Raymond to Lake St. John and to the Quebec and Lake St. John Railway Company by the said Acts respectively, which have not yet been paid by the Government, may be paid at any time within one year from the passing of this Act, subject to the conditions in the said Act contained.”

By the Act 51 Vic., cap. 3, 1888 (*Assented to 22nd May, 1888*):—

134.	To the Ottawa and Parry Sound Railway Company, for 22 miles of their railway from a point on the Canadian Pacific Railway to Eganville, in lieu of the subsidy granted by 49 Victoria, chapter 10, for a railway from a point on the Canadian Pacific Railway to Eganville, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 70,400 00
135.	To the Nova Scotia Central Railway Company, for 46 miles of their railway, in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	147,200 00
136.	To the Montreal and Champlain Junction Railway Company, for 3 miles of their railway from the end of the present subsidized section, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	9,600 00
137.	To the Massawippi Junction Railway Company, for their railway from a point on the Atlantic and North-west Railway, near the village of Magog, to Ayer's Flat station, on the Massawippi Valley Railway, in lieu of the subsidy granted by 50-51 Victoria, chapter 24, a subsidy of.....	32,000 00
138.	To the Pontiac Pacific Junction Railway Company, for bridging the several channels of the Ottawa River at Culbute and west thereof, a subsidy of \$31,500, to be paid out monthly as the work progresses, upon the certificate of the Chief Engineer of Government railways, in the proportion which the value of the work executed bears to the value of the whole work undertaken, and for three miles of their railway extending from a point three miles east of Pembroke to Pembroke, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$9,600, provided that the entire work subsidized upon this railway shall be completed within four years from the passing of this Act, the subsidy granted by this Act not to exceed in the whole.....	41,100 00
139.	To the Port Arthur, Duluth and Western Railway Company, for 84½ miles of their railway from Port Arthur towards Gun Flint Lake, in lieu of the subsidies granted by 48-49 Victoria, chapter 59, and 49 Victoria, chapter 10, for the construction of a railway from Murillo Station to Crooked Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	271,200 00
140.	To the Quebec and Lake St. John Railway Company, for 30 miles of their railway from Lake St. John towards Chicoutimi, or from Chicoutimi towards Lake St. John, being a transfer made at the request of the Saguenay and Lake St. John Railway Company of the subsidy granted to them by 50-51 Victoria, chapter 24, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000 00

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141.	To the Temiscouata Railway Company, for 20 miles of their branch railway from Edmundston towards the St. Francis River, in the province of Quebec, in lieu of the subsidy granted by 50-51 Victoria, chapter 24, a subsidy of.....	\$100,000 00
142.	To the Quebec Central Railway Company, for the construction and completion of a line of railway from St. Francis Station to a point on the Atlantic and North-west Railway near Moose River, 90 miles, in lieu of the balance of the subsidy, unearned, granted by 47 Victoria, chapter 8, a subsidy not exceeding \$21,191.54 per annum for twenty years, or a guarantee of a like sum for a like period as interest on the bonds of the company, such annual subsidy for twenty years representing a grant in cash of.....	288,000 00
143.	To the Central Railway Company of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 4,052 tons of used iron rails and fastenings, loaned to the St. Martin's and Upham Railway Company, now forming part of the Central Railway, which rails and fastenings stand in the Public Accounts as an asset for.....	83,612 54
144.	To the Elgin, Petitcodiac and Havelock Railway Company of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 2,201 tons of used iron rails and fastenings loaned to the Elgin Branch Railway, now forming part of the Elgin, Petitcodiac and Havelock Railway, which rails and fastenings stand in the Public Accounts as an asset for.....	44,252 82
145.	To the Kent Northern Railway Company of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 2,549 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for.....	58,334 27
146.	To the Halifax Cotton Company of Nova Scotia, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 233 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for.....	4,335 00
147.	To the Steel Company of Canada, in Nova Scotia, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed, authorizing their transfer to the company) of 597 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for.....	11,964 66
148.	To the Albert Railway Company of New Brunswick, a grant as a subsidy (the section of road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 726 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for.....	14,665 45

- 149.** To the Chatham Branch Railway of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 958 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for..... \$24,439 84

“ All the lines, for the construction of which subsidies are granted, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications, and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council; and also the said subsidies respectively, payable in cash, shall be payable out of the Consolidated Revenue Fund of Canada by instalments, on the completion to the satisfaction of the Minister of Railways and Canals of each section of the railway of not less than 10 miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon completion of the work subsidized.”

By the Act 52 Vic., chap. 3, 1889. (*Assented to 2nd May, 1889*):—

- 150.** To the Ontario and Pacific Railway Company, for a line of railway from Cornwall to Ottawa, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... \$172,400 00
- 151.** To the Ottawa and Gatineau Railway Company, for a line of railway from Hull station towards Le Désert, a distance of sixty-two miles, a subsidy not exceeding in the whole..... 320,000 00
- 152.** To the Cap Rouge and St. Lawrence Railway Company, for twelve miles of their railway, from Lorette via Cap Rouge to Quebec, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 38,400 00
- 153.** To the Parry Sound Colonization Railway Company, for forty miles of their railway, from the village of Parry Sound to the village of Sundridge, or some other point on the line of the Northern and Pacific Junction Railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole 128,000 00
- 154.** For a railway from St. Andrew's to the Canadian Pacific Railway, at or at any point east of the town of Lachute, in the county of Argenteuil, in the province of Quebec, seven miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 22,400 00
- 155.** For a railway from Truro, or a point between Truro and Stewiacke, to Newport or to Windsor, in the province of Nova Scotia, forty-nine miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 156,800 00
- 156.** For a line of the Central Railway from the head of Grand Lake to the Intercolonial Railway, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 128,000 00
- 157.** To the Albert Southern Railway Company, the balance remaining unpaid of the subsidy granted by the Act 47th Victoria, chapter 8, not exceeding in the whole 31,771 43
- 158.** To the Baie des Chaleurs Railway Company, the balance remaining unpaid of the subsidy mentioned in the Act 49th Victoria, chapter 17, not exceeding in the whole 244,500 00

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159.	To the Irondale, Bancroft and Ottawa Railway Company, for a line of railway from the Victoria Branch of the Midland Railway to the village of Bancroft, in the county of Hastings, the balance remaining unpaid of the subsidy granted by the Act 47th Victoria, chapter 8, not exceeding in the whole.....	\$145,000 00
160.	To the Northern and Pacific Junction Railway Company, for a railway from Gravenhurst to Callander, the balance remaining unpaid of the subsidies granted by the Act 45th Victoria, chapter 14, and 46th Victoria, chapter 25, not exceeding in the whole..	35,000 00
161.	For a railway from some point on the Joggins Railway, near the Hébert River, to Young's Mills, in the province of Nova Scotia, a distance of five miles, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	16,000 00
162.	To the St. Clair Frontier Tunnel Company, for the construction of a tunnel under the St. Clair River, from a point at or near Sarnia, to a point at or near Port Huron, a subsidy not exceeding in the whole.....	375,000 00
163.	To the Pontiac and Renfrew Railway Company, for six miles of their railway from the north bank of the Ottawa River, opposite Braeside, or from Bristol Iron Mines, to the Pontiac Pacific Junction Railway, near the Quyon River, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	19,200 00
164.	To the Quebec, Montmorency and Charlevoix Railway Company, for thirty miles of their railway, from the east bank of the St. Charles River, to or near to Cap Tourmente, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	96,000 00
165.	To the Fredericton and St. Mary's Bridge Company, for a bridge over the St. John River, at Fredericton, in the province of New Brunswick, a subsidy not exceeding in the whole.....	30,000 00
166.	To the Napanee, Tamworth and Quebec Railway Company, for seven miles of their railway, from a point at or near Yarker to a point at or near Harrowsmith, and to a company for three miles of railway from a point at or near Harrowsmith to a point at or near Sydenham, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	32,000 00
167.	For a railway from a point near Sicamous, on the Canadian Pacific Railway, to a point on Lake Okanagan for fifty-one miles of such railway, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	163,200 00
168.	To the Cornwallis Valley Railway Company, for one mile of their railway, from the end of the line subsidized by the Act 50-51 Victoria, chapter 24, to Kingsport, in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	3,200 00
169.	To the Lake Témiscamingue Colonization and Railway Company, for fifteen miles of their railway, from Mattawa station on the Canadian Pacific Railway, towards the Long Sault, or from the Long Sault towards the said Mattawa station, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
170.	To the Maskinongé and Nipissing Railway Company, for fifteen miles of their railway, from a point on the Canadian Pacific Railway at or near Maskinongé or Louiseville, towards the parish of Saint-Michel des Saints, on the River Mattawin, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00

171. To the Kingston, Smith's Falls and Ottawa Railway Company, for twenty miles of their railway, from the city of Kingston towards Smith's Falls, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 64,000 00
172. To the South Ontario Pacific Railway Company, for forty-nine and one-half miles of their railway, from Woodstock to Hamilton, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	158,400 00
173. For a railway from St. Césaire to St. Paul d'Abbotsford, in the province of Quebec, five miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	16,000 00
174. To the Great Eastern Railway Company, for twenty miles of their railway, from the east end of the line subsidized by the Act 50-51 Victoria, chapter 24, at St. Grégoire, towards the Chaudière Junction station on the Intercolonial Railway, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000 00
175. To the Drummond County Railway Company, for four and one-half miles of their railway, from the end of the line subsidized by the Act 50-51 Victoria, chapter 24, to Ball's Wharf, on the St. Lawrence River, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	14,400 00
176. To the St. Catharines and Niagara Central Railway Company, for twenty miles of their railway, from the end of the line subsidized by the Act 50-51 Victoria, chapter 24, at St. Catharines, towards the city of Hamilton, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000 00
177. To the Quebec and Lake St. John Railway Company, for twenty miles of their railway, from the end of the section of thirty miles from Lake St. John towards Chicoutimi, subsidized by the Act 51 Victoria, chapter 3, towards Chicoutimi, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000 00
178. To the Grand Trunk, Georgian Bay and Lake Erie Railway Company, for fifteen miles of their railway, from the village of Tara or some point between Tara and Hepworth, to the town of Owen Sound, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
179. To the Hereford Railway Company, for fifteen miles of their railway, from Cookshire to a junction with the Quebec Central Railway at Dudswell, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
180. To the Massawippi Junction Railway Company, for fifteen miles of their railway, from Ayer's Flat to Coaticook, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
181. To the Brockville, Westport and Sault Ste. Marie Railway Company, for twenty miles of their railway, from a point at or near Newboro', towards Palmer's Rapids, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000 00
182. To the Thousand Islands Railway Company, for four miles of their railway, from a point near the St. Lawrence River, in Gananoque village, to Gananoque Junction of the Grand Trunk Railway, and for thirteen miles of their railway, from Gananoque Junction of the Grand Trunk Railway to a junction with the Brockville, Westport and Sault Ste. Marie Railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	54,400 00

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- 183.** For a railway from Cape Tourmente towards Murray Bay, twenty miles, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... \$64,000 00
- 184.** To the Amherstburg, Lake Shore and Blenheim Railway Company, for twenty miles of their railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 64,000 00

“ So much of the subsidy of three thousand two hundred dollars per mile, which under the provisions of the Act forty-ninth Victoria, chapter seventeen, and of this Act, may be paid to the Baie des Chaleurs Railway Company in respect of the thirty miles of their railway, from the seventieth to the hundredth mile, eastward from Metapediac, shall be applicable to the section of the said railway, comprised between the fortieth and the seventieth mile thereof, eastward from Metapediac, instead of to the said first mentioned section of thirty miles, making six thousand four hundred dollars per mile applicable to the secondly mentioned section of thirty miles; but the foregoing provision shall be subject to the condition that the said company undertake to complete the thirty miles of their railway from the seventieth to the hundredth mile eastward from Metapediac within a reasonable time, not to exceed four years, to be fixed by Order in Council, and without any further subsidy from the Government of Canada, and that they deposit with the Minister of Railways and Canals, as security to the Crown that they will well and truly carry out their undertaking, their bonds to the amount of two hundred thousand dollars.

“ The subsidies hereinbefore mentioned as to be granted to companies named for that purpose, shall be granted to such companies respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized, except as respects the tunnel under the St. Clair River, in which case there shall be paid fifteen per cent of the value of work done on monthly progress estimates, certified by the Chief Engineer, and upon the approval of the Minister of Railways and Canals.

“ The granting of such subsidies, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights, as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

“ And for the removal of doubts it is hereby declared and enacted that the provision in the Act passed in the fifty-first year of Her Majesty's reign, and chaptered three, relating to the Pontiac Pacific Junction Railway Company, extended and extends the several subsidies in aid of the said company for four years from the passing of the said Act, that is to say, from the twenty-second day of May, one thousand eight hundred and eighty-eight.”

By the Special Act, 52 Vic., cap. 5, 1889 (*Assented to 2nd May, 1889*):—

- 185.** In order to enable the Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company to complete their railway from Regina to some point on the South Saskatchewan River at or near Saskatoon, and thence northward to Prince Albert, the Governor in Council may enter into a contract with such company for the transport of men, supplies, materials and mails,

for twenty years, and may pay for such services during the said term, eighty thousand dollars per annum in manner following, that is to say:—the sum of fifty thousand dollars to be paid annually on the construction of the railway to a point at or near Saskatoon, such payment to be computed from the date of the completion of the railway to such point; and the remaining thirty thousand dollars annually on the extension of the railway to Prince Albert, such payment to be computed from the date of such last mentioned completion: Provided that if the second portion of the said railway is not built and operated to Prince Albert within two years after the completion of the railway to the South Saskatchewan as aforesaid, the payment of fifty thousand dollars shall cease until the whole railway is finished to Prince Albert.

By the Act 53 Vic., cap. 2, 1890 (*Assented to 16th May, 1890*):—

186.	To the Montreal and Ottawa Railway Company, for thirty miles of their railway, from the western end of the thirty-six miles subsidized by the Act 50-51 Victoria, chapter 24, towards Ottawa, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	\$ 96,000
187.	To the Waterloo Junction Railway Company, for eleven miles of their railway, from Waterloo to Elmira, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	35,200
188.	To the Northern and Pacific Junction Railway Company, for a railway from Gravenhurst to Callander, the balance remaining unpaid of the subsidies granted by the Acts 45 Victoria, chapter 14, and 46 Victoria, chapter 25, not exceeding in the whole...	600
189.	For a railway from Woodstock via London to Chatham, in the province of Ontario, thirty miles in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, for a railway from Ingersoll via London to Chatham, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	256,000
190.	To the St. Catharines and Niagara Railway Company, for fourteen miles of their railway, from the end of the twenty miles subsidized by the Act 52 Victoria, chapter 3, to Hamilton, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	44,800
191.	To a railway from Ottawa to Morrisburg, fifty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	166,400
192.	To the Erie and Huron Railway Company, for twenty-two miles of their railway from Petrolea via Oil Springs to Dresden, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
193.	To the Brockville, Westport and Sault Ste. Marie Railway Company, for a railway from Brockville to Westport, the balance remaining unpaid of the subsidy granted by the Act 48-49 Victoria, chapter 59, not exceeding in the whole.....	83,000
194.	To the Manitoulin and North Shore Railway Company, for thirty miles of their railway from Little Current to the Algoma Branch of the Canadian Pacific Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
195.	To the Port Arthur, Duluth and Western Railway Company, for five miles of their railway, being a branch of the main line of railway to the Kakabeka Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	16,000
196.	To the Lake Erie and Detroit River Railway Company, for fifty miles of their railway, on a line to be fixed by the Governor in Council, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	160,000

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197. To the Lindsay, Bobcaygeon and Pontypool Railway Company, for sixteen miles of their railway, from Bobcaygeon to the Midland Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 51,200
198. To the Kingston, Smith's Falls and Ottawa Railway Company, for thirty-six miles of their Railway, from the north-east end of the twenty miles subsidized by the Act 52 Victoria, chapter 3, to Smith's Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	115,200
199. To the Ottawa and Parry Sound Railway Company, for thirty miles of their railway, from Eganville to Barry's Bay, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
200. To the Belleville and Lake Nipissing Railway Company, for thirty miles of their railway, from Belleville to Tweed and thence to Bridgewater, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
201. To the Cobourg, Northumberland and Pacific Railway Company, for thirty miles of their railway from Cobourg to the Ontario and Quebec Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
202. To the St. Stephen and Milltown Railway Company, for three and a half miles of their railway, from the town of St. Stephen to the town of Milltown, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	11,200
203. To the Woodstock and Centreville Railway Company, for six miles of their railway, from the western end of the twenty miles subsidized by the Act 50-51 Vic., chap. 24, to the International boundary between the province of New Brunswick and the state of Maine, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200
204. For a railway from a point at or near Fredericton, via Oromocto and Gagetown, to a point on the New Brunswick Railway west of Westfield station, for thirty miles thereof, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
205. To the Central Railway Company of New Brunswick, for four and a half miles of their railway, the distance which the previous subsidy granted is short of covering, from the head of Grand Lake to the Intercolonial Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	14,400
206. To the Montreal and Western Railway Company, for seventy miles of their railway, from St. Jérôme, north-westerly towards Désert, in the province of Quebec, in lieu of the subsidy granted by the Act 49 Vic., chap. 10, a subsidy not exceeding \$5,161 per mile, nor exceeding in the whole.....	361,270

"Provided, that the subsidy hereby granted to the Montreal and Western Company may be paid by instalments on the completion of each section of the railway as follows, that is to say :—

SECTIONS.	Approximate length in miles.
St. Jérôme to Shawbridge.....	8
Shawbridge to St. Sauveur.....	4
St. Sauveur to Ste. Adèle.....	6
Ste. Adèle to Lac à la Fourche.....	6
Lac à la Fourche to Ste. Agathe.....	6½
Ste. Agathe to St. Faustin.....	14
St. Faustin to St. Jovite.....	7½
St. Jovite to Summit Lake.....	8
Summit Lake to La Chute aux Iroquois.....	7
La Chute aux Iroquois towards Désert.....	3

“Such instalments to be proportionate to the value of the portions so completed in comparison with that of the whole work undertaken, to be established as aforesaid.”

207. For seventy-five miles of the railway from Shelburne, in the county of Shelburne, and from Liverpool, in the county of Queen's towards Annapolis, in the province of Nova Scotia, to be so contracted for as to secure the construction to both Shelburne and Liverpool, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 240,000
208. To the Inverness and Richmond Railway Company, for fifty miles of their railway from Port Hawkesbury to Broadcove, a subsidy not exceeding \$1,000 per mile, nor exceeding in the whole.....	50,000
209. To the International Railway Company, for a railway from Sherbrooke to the international boundary, the balance remaining unpaid of the subsidy granted by the Act 46 Vic., chapter 25, not exceeding in the whole.....	3,840
210. For completing the Montreal and Sorel Railway from St. Lambert to Sorel.....	40,000
211. To the Pontiac Pacific Junction Railway Company, for seven and a half miles of their railway, from Hull to Aylmer, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	24,000
212. To the Montreal and Lake Maskinongé Railway Company, for three and a half miles of their railway, the distance which the subsidy granted by the Act 49 Vic., chapter 10, is short of covering from St. Félix to Lake Maskinongé, in the parish of St. Gabriel, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	10,200
213. To the Great Eastern Railway Company, for a bridge over the Nicolet River, and also a bridge on the St. Francis River, a subsidy of 15 per cent on the value of the structure, not to exceed.....	37,500
214. To the Drummond County Railway Company, for twenty-four miles of their railway, from Drummondville to Ste. Rosalie, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	76,800
215. To the Great Northern Railway Company, for fifteen miles of their railway, from, at or near Montcalm to the Canadian Pacific Railway, between Joliette and St. Félix de Valois, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
216. To the Lake Temiscamingue Colonization Railway Company, for twenty miles of their railway, from the northern end of the fifteen miles subsidized by the Act 52 Vic., chapter 3, to the Long Sault, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
217. To the Maskinongé and Nipissing Railway Company, for fifteen miles of their railway, from the northern end of the 15 miles subsidized by the Act 52 Victoria, chapter 3, towards the parish of St. Michel des Saints, on the River Mattawa, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
218. To the St. Lawrence and Adirondack Railway Company, for eighteen miles of their railway, from Valleyfield to Huntingdon, on the Montreal and Champlain Junction Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
219. To the Quebec Central Railway Company, for ninety miles of their railway, from St. Francis Station, on the Quebec Central Railway, to a point on the Atlantic and North-western Railway,	

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	near Moose River, or from a point on the Quebec Central Railway between the Chaudière River and Tring Station, to a point on the International Railway at or near Lake Megantic, in lieu of the subsidy granted by the Act 51 Victoria, chapter 3, a subsidy not exceeding \$21,191.54 per annum for twenty years, or a guarantee of a like sum for a like period, as interest on the bonds of the company, such annual subsidy for twenty years representing a grant in cash of.....	\$288,000
220.	To the Quebec and Lake St. John Railway Company, for a railway bridge over the St. Charles River, to give access to the city of Quebec, a subsidy not to exceed in the whole \$30,000; also for twelve miles of their railway from Lorette via Charlebourg to Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$38,400.....	68,400
221.	For a railway from Summerside to Richmond Bay, in the province of Prince Edward Island, three miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	9,600
222.	To the Columbia and Kootenay Railway Company, for thirty-five miles of their railway, from the outlet of Kootenay Lake to a point on the Columbia River as near as practicable to the junction of the Kootenay and Columbia Rivers, a subsidy not exceeding \$3,200 per mile, nor to exceed in the whole.....	112,000
223.	For a railway from a point on the Intercolonial Railway through the Stewiacke Valley on a line which will afford facilities of communication with the Iron Mines, Springside, Upper Stewiacke and Musquodoboit settlements, twenty-five miles, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
224.	For a railway from Fredericton to the village of Prince William in the province of New Brunswick, twenty-two miles, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
225.	To the St. John Valley and Rivière du Loup Railway Company, for twenty-two miles of their railway from the village of Prince William towards the town of Woodstock, in lieu of the subsidy granted by the Act 50-51 Victoria, chapter 24, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
226.	To the Témiscouata Railway Company, for sixteen miles of their railway, from the west end of the twenty miles of their branch railway from Edmundston, subsidized by the Act 51 Victoria, chapter 3, towards the St. Francis River, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	51,200
227.	For a railway from the north end of the fourteen miles for which a subsidy was granted by the Act 50 and 51 Victoria, chapter 24, to the Tobique Valley Railway Company, from Perth Centre towards Plaister Rock Island, eleven miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	35,200
228.	To the Orford Mountain Railway Company, for thirty-one miles of their railway, between Eastman and Kingsbury, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	99,200
229.	For a railway from Lachine Bank, on a line of the Grand Trunk Railway, to a point at or near Rivière des Prairies, a distance of fifteen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose, shall be granted to such companies respectively; the other subsidies,

including subsidies granted for railways over a line extending beyond a point to which any company hereinbefore mentioned by name is authorized to construct its railway, shall be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively. All the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of July next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council,—except the Erie and Huron Railway, which shall be completed within two years from the first day of July next. And they shall also be constructed according to descriptions and specifications, and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specifying an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make. The location, also, of every such line of railway shall be subject to the approval of the Governor in Council. And all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized—except as regards the Erie and Huron Railway Company, upon which payment shall be made only upon the completion of the work—except, also as regards the subsidies to the Inverness and Richmond Railway, which shall be paid on the completion of each ten mile section, in accordance, as nearly as practicable, with the agreement between the company and the municipality of Inverness, and with section four of the Act of the Legislature of Nova Scotia, 1890, intituled: An Act to enable the county of Inverness to borrow money—except, also, as regards the subsidies to the Great Eastern Railway Company for bridges over the Nicolet and St. Francis Rivers, and to the Quebec and Lake St. John Railway for the bridge over the St. Charles River, upon which shall be paid fifteen per cent of the value of work done, on monthly progress estimates certified by the Chief Engineer and upon the approval of the Minister of Railways and Canals—and except also the subsidy granted to the Quebec Central Railway Company, the first annual payment upon which shall be made at the end of twelve months from the date of the Chief Engineer's certificate of the completion of the work, and each subsequent payment at the end of each twelve months thereafter, for the term of twenty years.

“The granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing running powers or traffic arrangements or other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those subsidized, as the Governor in Council determines.”

By the special Act 53 Vic., ch. 5, 1890 (*Assented to 16th May, 1890*):—

230. In order to enable the Calgary and Edmonton Railway Company to construct so much of their railway as reaches from a point on the line of the Canadian Pacific Railway Company within the town of Calgary to a point on the North Saskatchewan River near Edmonton, the Governor in Council may enter into a contract with such company for the transport of men, supplies, materials and mails for twenty years, and may pay for such services during the said term, eighty thousand dollars per annum, in manner following, that is to say: the sum of eighty thousand dollars to be paid annually on the construction of the railway from Calgary to a point on the North Saskatchewan River near Edmonton,—such payment to be computed from the date of the completion of the railway between such points: Provided that the Governor General in Council may order such sums to be paid in semi-annual instalments, and may permit the company to assign the same by way of security for any bonds or securities which may be issued by the company in respect of the company's undertaking.

By 54-55 Victoria, ch. 8, 1891 (*Assented to 30th Sept., 1891*):—

231. To the Great Northern Railway Company, for a railway from a point at or near New Glasgow or St. Lin to or near to Montcalm, in the province of Quebec, eighteen miles, the balance

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	remaining unpaid of the subsidy, not exceeding \$3,200 per mile, granted by the Act forty-ninth Victoria, chapter ten, nor exceeding in the whole.....	\$ 28,100 00
232.	To the Quebec and Lake St. John Railway Company, for the railway bridge over the St. Charles River to give access to the city of Quebec, the difference between the amount already paid to the company and the sum of \$30,000 mentioned as not to be exceeded by the Act fifty-third Victoria, chapter two, a subsidy not exceeding.....	5,250 00
233.	To the Oshawa Railway Company, for seven miles of their railway from Port Oshawa towards Raglan, in lieu of the subsidy for a like amount granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400 00
234.	To the St. Lawrence, Lower Laurentian and Saguenay Railway Company, for the section of their railway from Grand Piles, on the St. Maurice River to its junction with the Quebec and Lake St. John Railway, the balance remaining unpaid of the subsidy granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, not exceeding in the whole.....	92,784 00
235.	To the Great Eastern Railway Company, for thirty-miles of their railway, from the River St. Francis to the Arthabaska Railway at St. Grégoire station, the balance remaining unpaid of the subsidy, not exceeding \$3,200 per mile, granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, not exceeding in the whole.....	79,700 00
236.	To the South Ontario Pacific Railway Company, for forty-nine and one-half miles of their railway from Woodstock to Hamilton, in the province of Ontario, in lieu of the subsidy for a like amount granted by the Act fifty-second Victoria, chapter three, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	158,400 00
237.	To the Montreal and Ottawa Railway Company (formerly the Vaudreuil and Prescott Railway Company), for thirty miles of their railway from Vaudreuil towards Hawkesbury, the balance remaining unpaid of the subsidy granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, not exceeding in the whole.....	46,040 00
238.	To the Tobique Valley Railway Company, for fourteen miles of their railway from Perth Centre station towards Plaister Rock Island, in lieu of the subsidy for a like amount granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, a subsidy not exceeding \$6,400 per mile, nor exceeding in the whole....	89,600 00
239.	To the Kingston, Smith's Falls and Ottawa Railway Company for fifty-six miles of their railway from the city of Kingston to Smith's Falls, in lieu of the subsidies, not to exceed \$179,200, granted by the Acts fifty-second Victoria, chapter three, and fifty-third Victoria, chapter two, a subsidy not exceeding \$12,534 per annum, to be paid in semi-annual instalments of \$6,267 each, for twenty years, which represents a grant in cash of.....	179,200 00

“ Provided, that upon the completion of twenty-eight miles of the said railway a semi-annual subsidy may be paid proportionate to the value of the portion so completed in comparison with that of the whole fifty-six miles ; Provided also, that the company may deposit with the Minister of Finance and Receiver General a sum not exceeding \$1,170,000, in consideration whereof there shall be paid to the company, for twenty years, a semi-annual annuity calculated on a basis of three and one-half per cent on the amount so deposited ; Provided further, that the Governor in Council may permit the company to assign the said subsidy and annuity to trustees by way of security for any bonds or securities which may be issued by the company in respect of their undertaking.”

240. To the Brockville, Westport and Sault Ste. Marie Railway Company, for twenty miles of their railway, from a point at or near Newboro' towards Palmer's Rapids, in the province of Ontario, in lieu of a subsidy for a like amount granted by the Act fifty-second Victoria, chapter three, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... \$64,000 00

“ Provided that the subsidy hereby granted to the Brockville, Westport and Sult Ste. Marie Railway Company may be paid by instalments, on the completion of each section of the railway as follows, that is to say:—

Sections.	Length in miles.
From, at or near Newboro' to Westport.....	4
From Westport towards Palmers Rapids.....	16

“ The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies respectively ; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council ; and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make ; the location, also of every such line of railway, shall be subject to the approval of the Governor in Council ; and all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized—except as to the subsidy granted to the Kingston, Smith's Falls and Ottawa Railway Company, the first semi-annual payment upon which shall be made at the end of six months from the date of the Chief Engineer's certificate of the completion of twenty-eight miles of the railway, and each subsequent payment at the end of each six months thereafter, for the term of twenty years,—except also as to the Quebec and Lake St. John Railway Company, the subsidy to which shall be paid upon the completion of the work,—except also as to the Brockville, Westport and Sault Ste. Marie Railway Company, the subsidy to which shall be paid as follows : on the completion of that portion of the said road from, at or near Newboro' to Westport, a distance of four miles, the sum of twelve thousand eight hundred dollars, and on the completion of the remaining sixteen miles from Westport towards Palmer's Rapids, the sum of fifty-one thousand two hundred dollars.

“ Within one month after the commencement of each session of Parliament, whilst any of the said moneys are being paid out, there shall be laid before Parliament a statement showing all payments of such moneys during the then next preceding year, the names of the respective persons to whom such payments have been made, and the amounts paid them respectively, together with the engineer's report upon which pay-

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ments have been recommended, and copies of all contracts between the Government and the company under which the said subsidies are authorized to be paid.

"The granting of such subsidies respectively shall be subject to such conditions for securing such running power or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

By the Act 55-56 Victoria, chap. 5, 1892 (*Assented to 9th July, 1892*):—

241.	To the Lake Erie and Detroit River Railway Company, for fifty-eight miles of their railway from a point at or near Cedar Creek to the town of Ridgelytown, in lieu of the subsidies granted to the Lake Erie and Detroit River Railway Company by the Act 53 Victoria, chapter 2, and to the Amherstburg, Lake Shore and Blenheim Railway Company by the Act 52 Victoria, ch. 3.	\$224,000 00
242.	To the Ottawa, Arnprior and Parry Sound Railway Company, for fifty-five miles of their railway from Barry's Bay towards the Northern Pacific Junction Railway, a subsidy not exceeding \$6,400 per mile on the first twenty-seven and a half miles out from Barry's Bay, and not exceeding \$3,200 per mile on the second twenty-seven and a half miles, nor exceeding in the whole.....	264,000 00
243.	To the Canadian Pacific Railway Company or to the Columbia and Kootenay Railway and Navigation Company, for a railway from a point on the Canadian Pacific Railway at or near Revelstoke to the head of Arrow Lake, for twenty-five miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000 00
244.	To the Tobique Valley Railway Company, for a railway from the north end of the eleven miles for which a subsidy was granted by the Act 53 Victoria, chapter 2, to Plaister Rock Island, for 3 miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	9,600 00
245.	To the Monfort Colonization Railway Company, for twenty-one miles of their railway from Lachute, St. Jérôme or a point at or near St. Sauveur, on the line of the Montreal and Western Railway, to Monfort and westward, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	67,200 00
246.	To the Ontario, Belmont and Northern Railway Company, for ten miles of their railway from the Belmont iron mines to the Canadian Pacific Railway and the Central Ontario Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000 00
247.	To the Montreal and Champlain Junction Railway Company, the balance remaining unpaid of the subsidies granted by the Acts 50-51 Victoria, chapter 24, and 51 Victoria, chapter 3, a subsidy of.....	15,100 00
248.	To the Buctouche and Moncton Railway Company, for thirty-two miles of their railway from Moncton to Buctouche, the balance remaining unpaid of the subsidy, not exceeding \$3,200 per mile, granted by the Acts 49 Victoria, chapter 10, and 50-51 Victoria, chapter 24, not exceeding in the whole.....	35,480 00
249.	To the Cobourg, Northumberland and Pacific Railway Company, for nineteen miles of their railway from Cobourg to the Ontario and Quebec Railway (in addition to the subsidy granted by the Act 53 Victoria, chapter 2), a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	60,800 00

250.	For a railway from the parish of St. Rémi, in the county of Napierville, to St. Cyprien in the said county, for twelve miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 38,400 00
251.	To the Inverness and Richmond Railway Company (or any other company undertaking the work), for twenty-five miles of their railway from a point on the Cape Breton Railway, at or near Orangedale, to Broadcove, a subsidy not exceeding \$3,200 per mile, in lieu of the subsidy of \$50,000 granted to the said railway company by 53 Victoria, chapter 2, and on the same conditions, not exceeding in the whole.....	80,000 00
252.	To the Nicola Valley Railway Company, for twenty-five miles of their railway from a point on the Canadian Pacific Railway at or near Spence's Bridge towards Nicola Lake.....	80,000 00
253.	To the Lotbinière and Megantic Railway Company, for fifteen miles of their railway from a point at or near St. Jean Deschailons towards Glen Lloyd, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
254.	To the Stewiacke and Lansdowne Railway Company, for a railway from a point on the Intercolonial Railway, through the Stewiacke Valley, on a line which will afford facilities of communication with the iron mines at Springside, Upper Stewiacke and Musquodoboit settlements, twenty-five miles, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000 00
255.	To the Philipsburg Junction Railway and Quarry Company, for six and seven-hundredths miles of their railway from Stanbridge Station to Philipsburg, in the county of Missisquoi, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	21,600 00
256.	To the Kingston, Napanee and Western Railway Company, for three miles of their railway from a point at or near Harrowsmith to a point at or near Sydenham, in lieu of the subsidy granted for this section of road by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	9,600 00
257.	For a railway from Cape Tourmente towards Murray Bay, in the province of Quebec, twenty miles, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000 00
258.	To the Stewiacke and Lansdowne Railway Company, for a railway from Truro, or a point between Truro and Stewiacke, to Newport or to Windsor, in the province of Nova Scotia, for forty-nine miles of such railway, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	156,800 00
259.	To the Restigouche and Victoria Railway Company, for fifteen miles of their railway from Campbelton towards Grand Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
260.	For a railway from St. Johns to Ste. Rosalie, thirty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	102,400 00
261.	For a railway from St. Placide to St. Andrew's, eight miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	25,600 00
262.	For a railway to complete the connection between Sydney and Louisburg, in the county of Cape Breton, for twenty-eight miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	89,600 00

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- 263.** To the Belleville and Lake Nipissing Railway Company, for thirty miles of their railway from Belleville to Tweed and thence to Bridgewater, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... \$ 96,000 00
- 264.** To the Kingston, Smith's Falls and Ottawa Railway Company, for fifty-six miles of their railway from the city of Kingston to Smith's Falls, in lieu of the subsidies, not to exceed \$179,200, granted by the Acts 52 Victoria, chapter 3, and 53 Victoria, chapter 2, a subsidy calculated on a basis of three and a half per cent on the amount of such subsidies so granted, to be paid in semi-annual instalments for such period not exceeding twenty-one years, as the company may elect, which represents a grant in cash of..... 179,200 00

“ Provided, that upon the completion of twenty-eight miles of the said railway a semi-annual subsidy may be paid proportionate to the value of the portion so completed in comparison with that of the whole fifty-six miles : Provided also, that the company may deposit with the Minister of Finance and Receiver General, a sum not exceeding \$1,170,000, in consideration whereof there shall be paid to the company for such period not exceeding twenty years as the company may elect, a semi-annual annuity calculated on a basis of three and a half per cent on the amount so deposited. Provided further, that the Governor in Council may permit the company to assign the said subsidy and annuity to trustees by way of security for any bonds or securities which may be issued by the company in respect of their undertaking.”

- 265.** To the St. Catharines and Niagara Central Railway Company, for thirty-four miles of their railway from the city of St. Catharines to the city of Hamilton, in lieu of the subsidies, not to exceed \$108,000, granted by the Acts 52 Victoria, chapter 3, and 53 Victoria, chapter 2, a subsidy calculated on a basis of three and a half per cent on the amount of the said subsidies, to be paid in semi-annual instalments for such period, not exceeding twenty years, as the company may elect, representing a grant in cash of \$108,000 : Provided that, upon the completion of ten miles of said railway, a semi-annual subsidy may be paid proportionate to the value of the portion so completed in comparison with that of the whole thirty-four miles. Provided also, that the company may deposit with the Minister of Finance and Receiver General a sum not exceeding \$400,000, in consideration whereof there shall be paid by the Government to the company, for such period not exceeding twenty years, as the company may elect, a semi-annual annuity, calculated on a basis of three and a half per cent on the amount so deposited, or a guarantee of a like sum, as interest on the bonds of the company : Provided further, that the company, with the approval of the Governor in Council, may assign the said subsidy and annuity to trustees by way of security for principal, or interest of any bonds or securities which may be issued by the company in respect of their undertaking, and the subsidy last above mentioned to the St. Catharines and Niagara Central Railway Company shall be paid in instalments, the first semi-annual payment upon which shall be made at the end of the six months from the date of the Chief Engineer's certificate of the completion of the first ten miles of railway, and each subsequent payment at the end of six months thereafter, for the term of twenty years or less. It is a condition of this subsidy that the sum not exceeding \$400,000 above mentioned shall be deposited with the Finance Minister before January 1st, 1893.

266.	To the Woodstock and Centreville Railway Company, for a railway from Woodstock towards Centreville, twenty miles, in lieu of the subsidy granted by 50-51 Victoria, chapter 24, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . .	\$64,000 00
267.	To the Brockville, Westport and Sault Ste. Marie Railway Company, for the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding \$3,200 per mile, and also for the balance remaining unpaid of the subsidy granted by the Act 53 Victoria, chapter 2, nor exceeding in the whole.	96,800 00
268.	To the New Glasgow Iron, Coal and Railway Company, for a railway from Eureka Junction on the Intercolonial Railway to a point at or near Sunnybrae, including a branch line to the charcoal iron furnace at Bridgeville, for twelve and a half miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	40,000 00
269.	To the Thousand Island Railway Company, for an extension of their railway to connect with the Brockville, Westport and Sault Ste. Marie Railway, the Kingston, Napanee and Western Railway, the Kingston, Smith's Falls and Ottawa Railway, or the waters of the Rideau Canal, and an extension across the mouth of the Gananoque River, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole.	44,000 00
	Payable, \$14,000 on the completion of the last named or southern extension, and the balance of said subsidy, being \$30,000, on the completion of the first named or northern extension of their railway.	
270.	To the Manitoulin and North Shore Railway Company, for thirty miles of their railway from Little Current to the Algoma Branch of the Canadian Pacific Railway, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$96,000 00
271.	To the Lindsay, Bobcaygeon and Pontypool Railway Company, for sixteen miles of their railway from the end of the line subsidized by the Act 53 Victoria, chapter 2, at the junction with the Midland Railway, to Pontypool, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	51,200 00
272.	For seventy-five miles of the railway from Sand Point, Shelburne Harbour, in Nova Scotia, to Annapolis Royal, in the county of Annapolis and to a junction at or near New Germany on the Nova Scotia Central Railway, with a view to future construction to Liverpool, in lieu of the subsidy of a like amount granted by the Act 53 Victoria, chapter 2, for the same length of railway from Shelburne and from Liverpool, towards Annapolis, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	240,000 00
273.	To the Kingston, Napanee and Western Railway Company, for twenty miles of their railway, being extensions or branches in the counties of Peterborough, Hastings, Addington, Frontenac or Leeds, towards iron deposits, a subsidy not exceeding \$3,200 per mile, payable in instalments regulated by the length of each of the said extensions, additions or branches, the subsidy not exceeding in the whole.	64,000 00
274.	To the St. John Valley and Rivière du Loup Railway Company, for ten miles of their railway from the north end of the line subsidized by the Act 53 Victoria, chapter 2, towards the town of Woodstock, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	48,000 00

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275.	To the Cobourg, Northumberland and Pacific Railway Company, for thirty miles of their railway from Cobourg to the Ontario and Quebec Railway, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 96,000 00
276.	To the Ottawa, Arnprior and Parry Sound Railway Company, for thirty miles of their railway, from Eganville to Barry's Bay, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000 00
277.	To the Ottawa, Arnprior and Parry Sound Railway Company, for twenty-two miles of their railway from a point on the Canadian Pacific Railway to Eganville, in lieu of the subsidy granted by the Act 51 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400 00
278.	To the Lake Témiscamingue Colonization Railway Company, for thirty-five miles of their railway from Mattawa to the Long Sault, in lieu of the subsidies granted by the Acts 52 Victoria, chapter 3, and 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	112,000 00
279.	To the Témiscouata Railway Company, for twelve miles of their railway from the north end of the section of the St. François Branch subsidized by the Act 51 Victoria, chapter 3, being the first twelve miles on the section subsidized by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$1,800 per mile, in addition to the subsidy already granted, and not exceeding in the whole.....	21,600 00
280.	To the Tilsonburg, Lake Erie and Pacific Railway Company, for sixteen miles of their railway from Port Burwell to Tilsonburg, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	51,200 00
281.	To the Woodstock and Centreville Railway Company, for six miles of their railway from the west end of their twenty miles subsidized by the Act 50-51 Victoria, chapter 24, to the international boundary between the province of New Brunswick and the state of Maine, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200 00
282.	To the Lake Témiscamingue Colonization Railway Company, for 15 miles of their railway from the Long Sault to the crossing of the Kippewa River, a subsidy not exceeding \$3,200 per mile—and a subsidy of fifteen per cent on the value of a wooden truss bridge over the Ottawa River near Mattawa, not exceeding \$15,000,—nor exceeding in the whole.....	63,000 00
283.	To the Goderich and Wingham Railway Company, for thirty-one miles of their railway from Goderich to Wingham, via Port Albert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	99,200 00
284.	To the Joliette and St. Jean de Matha Railway Company, for eight miles of their railway from St. Félix de Valois to St. Jean de Matha, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	25,600 00
285.	To the Bracebridge and Baysville Railway Company, for fifteen miles of their railway from Bracebridge towards Baysville, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
286.	To the Nipissing and James Bay Railway Company, for twenty-five miles of their railway from, at or near North Bay station on	

	the Canadian Pacific Railway towards James Bay, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	\$ 80,000 00
287.	For a railway from a point on the Intercolonial Railway between Ste. Flavie and Little Métis station to Matane, for fifty miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	160,000 00
288.	To the Ontario and Pacific Railway Company, for fifty-three and eighty-seven hundredths miles of their railway from Cornwall to Ottawa, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	172,400 00
289.	For a railway from a point on the line of the Canadian Pacific Railway on the Isle Jésus, in the county of Laval, towards St. Eustache, for twelve miles of such railway, in lieu of the subsidy granted by the Act 50-51 Victoria, chapter 24, to the Carillon and Grenville Railway Company, for twelve miles of their railway, from St. Eustache to Sault au Récollet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	38,400 00
290.	For a railway from St. Eustache to St. Placide, in the county of Two Mountains, for eighteen miles of such railway, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	57,600 00
291.	To the Port Arthur, Duluth and Western Railway Company, the balance remaining unpaid of the subsidy granted by the Act 51 Victoria, chapter 3, not exceeding, with the amount already paid, \$3,200 per mile, nor exceeding in the whole	114,125 00
292.	To the Drummond County Railway Company for four and six-tenths miles of their railway from Bull's Wharf, on the St. Lawrence River, near Nicolet, to Ste. Rosalie Junction, an excess of distance by the constructed line over the subsidies heretofore voted for a railway between the said points, \$3,200 per mile, not exceeding in the whole	14,720 00
293.	To the St. Lawrence and Adirondack Railway Company, for five and forty-two hundredths miles of their railway, from Huntingdon towards the international boundary, which, with the distance between Valleyfield and Huntingdon, twelve and fifty-eight hundredths miles, makes up the distance of eighteen miles named in the 53 Vic., chap. 2, granting a subsidy to this company, and for five and forty-hundredths miles from the east end of the eighteen miles referred to the international boundary, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	25,024 00

"The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications, and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies respectively shall be payable out of the Consolidated

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Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized,—except as to subsidies with respect to which it is hereinbefore otherwise provided, and except also as to the subsidy granted to the Kingston, Smith's Falls and Ottawa Railway Company, and the subsidy granted to the St. Catharines and Niagara Central Railway Company, the first semi-annual payments upon both of which shall be made at the end of six months from the date of the Chief Engineer's certificate of the completion of their railways respectively, and each subsequent payment at the end of each six months thereafter, for the term of twenty years or less.

"The granting of such subsidies respectively shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines."

- 294.** Notwithstanding the expiration of the time limited by the Act 47 Victoria, chapter 8, and by the contract entered into with the Pontiac Pacific Junction Railway Company, the Governor in council may pay the balance remaining unpaid of the subsidy granted by the said Act to the said company, according as it becomes due and payable in accordance with the said contract, and subject to the terms and conditions applicable to the said subsidy under the terms of the said Act.
- 295.** Notwithstanding the expiration of the time limited by the Act 52 Victoria, chapter 3, and by the contract entered into with the Quebec and Lake St. John Railway Company, the Governor in Council may pay the balance remaining unpaid of the subsidy granted by the said Act to the said company, according as it becomes due and payable in accordance with the said contract, and subject to the terms and conditions applicable to the said subsidy under the terms of the said Act; and notwithstanding anything contained in the Act 50-51 Victoria, chapter 24, the Governor in Council may also pay to the said company the balance remaining unpaid of the subsidy granted to the company by the said Act, amounting to \$12,800, on the four miles of their road from the north end of the main line subsidized towards Roberval.
- By the Act 56 Vic., chap. 2, 1893 (*Assented to 1st April, 1893*):—
- 296.** To the Great Eastern Railway Company, for twenty miles of their railway, from the east end of the line subsidized by the Act 50-51 Victoria, chapter 24, at St. Grégoire, towards the Chaudière Junction station on the Intercolonial Railway, in the province of Quebec, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... \$ 64,000 00
- 297.** To the United Counties Railway Company, for thirty-two miles of their railway, from a point at or near the town of Iberville to St. Hyacinthe, and thence towards Sorel, in lieu of the subsidy granted by the Act 55-56 Victoria, chapter 5, for a railway from St. Johns to Ste. Rosalie, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 102,400 00
- 298.** To the Ontario, Belmont and Northern Railway Company, for ten miles of their railway, divided into two sections: first, from the Belmont Iron Mines to Marmora village; second, from Marmora village to the junction with the Ontario Central Railway, in lieu of the subsidy granted by the Act 55-56 Victoria, chapter 5, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 32,000 00
- 299.** To the Central Ontario Railway Company, for twenty miles of their railway, from Coe Hill or Gilmore, or some point between

	Coe Hill and Gilmore, to Bancroft, via L'Amable, or as near thereto as practicable, in lieu of the subsidy granted by the Act 48-49 Victoria, chapter 59, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 64,000 00
300.	To the Quebec and Lake St. John Railway Company, for thirty miles of their railway, from Lake St. John towards Chicoutimi, the balance remaining unpaid of the subsidy granted by the Act 51 Victoria, chapter 3, not exceeding in the whole.....	81,040 00
301.	To the Irondale, Bancroft and Ottawa Railway Company, for fifty miles of their railway, from the Victoria branch of the Midland Railway to the village of Bancroft, in the county of Hastings, the balance remaining unpaid of the subsidy granted by the Act 47 Victoria, chapter 8, and again granted by the Act 52 Victoria, chapter 3, not exceeding in the whole.....	145,000 00
302.	To the Beauharnois Junction Railway Company, for thirty miles of their railway, from Ste. Martine towards St. Anicet, the balance remaining unpaid of the subsidy granted by the Act 50-51 Victoria, chapter 24, not exceeding in the whole.....	3,500 00
303.	To the St. Stephen and Milltown Railway Company, for three and a half miles of their railway, from the town of St. Stephen to the town of Milltown, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	11,200 00
304.	To the Quebec, Montmorency and Charlevoix Railway Company, for thirty miles of their railway, from the east bank of the River St. Charles, to or near to Cape Tourmente, in the province of Quebec, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole..	30,400 00
305.	To the Ottawa and Gatineau Valley Railway Company, for sixty-two miles of their railway, from Hull station towards Le Désert, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole.....	89,248 00
306.	To the Grand Trunk, Georgian Bay and Lake Erie Railway Company, for fifteen miles of their railway, from the village of Tara, or some point between Tara and Hepworth, to the town of Owen Sound, in the province of Ontario, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
307.	To the Nova Scotia Central Railway Company (or to such person or persons or company as in the opinion of the Minister or acting Minister of Justice are entitled to the same) for eighty miles of their railway, from Lunenburg, on the east coast of Nova Scotia, westward to a point in the district of New Germany, together with a spur about three-fourths mile long to Bridgewater railway wharf, and from a point thirty-three and a half miles from Lunenburg and running to Middleton on the Windsor and Annapolis Railway, of unpaid subsidies granted by the Acts 50-51 Victoria, chapter 24, and 51 Victoria, chapter 3, an amount not exceeding in the whole.....	4,500 00
308.	To the Great Northern Railway Company, for eighteen miles of their railway, from a point at or near New Glasgow or St. Lin, to or near to Montcalm, in the province of Quebec, the balance remaining unpaid of the subsidy granted by the Act 54-55 Victoria, chapter 8, not exceeding in the whole.....	25,600 00
309.	To the Great Northern Railway Company, for fifteen miles of their railway, from, at or near Montcalm to the Canadian Pacific	

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	Railway between Joliette and St. Félix de Valois, in lieu of the subsidy granted by the Act 53 Victoria, chap. 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$ 48,000 00
310.	To the Montfort Colonization Railway Company, for twenty-one miles of their three-foot gauge railway from Lachute, St. Jérôme, or a point at or near St. Sauveur, on the line of the Montreal and Western Railway, to Montfort and westward, in lieu of the subsidy granted by the Act 55-56 Victoria, chapter 5, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	67,200 00
311.	To the Maskinongé and Nipissing Railway Company, for fifteen miles of their railway, from a point on the Canadian Pacific Railway at or near Maskinongé or Louiseville, towards the parish of St. Michel des Saints, on the river Mattawa, in the province of Quebec, and for fifteen miles of their railway from the north end of the fifteen miles above referred to, towards the parish of St. Michel des Saints on the river Mattawa, in the province of Quebec, in lieu of the subsidies granted by the Acts 52 Victoria, chap. 3, and 53 Victoria, chap. 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	96,000 00
312.	To the Parry Sound Colonization Railway Company, for forty miles of their railway, from the village of Parry Sound to the village of Sundridge, or some other point on the Northern Pacific Junction Railway, in the province of Ontario, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole.	97,600 00
313.	To the Jacques Cartier Union Railway Company, for extending and completing their railway, in lieu of the subsidy granted by the Act 50-51 Victoria, chapter 24, a subsidy of.	20,000 00
314.	To the Oshawa Railway Company, for seven miles of their railway and branches as follows: from Port Oshawa to a point at or near Edmondson's Falls mill site, near Mill Street, in the town of Oshawa (this portion being known as the "Lake" section of the said railway); thence to a point at or near the town hall in the town of Oshawa, and thence to the Oshawa station of the Grand Trunk Railway Company of Canada (this portion being known as the "Town" or "Northern" section of the said railway)—in lieu of the subsidy granted by the Act 54-55 Victoria, chapter 8, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	22,400 00

"All the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council.

"The granting of such subsidies respectively shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

"All the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed.

in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized,—except as follows:—

“(a.) The subsidy to the Ontario, Belmont and Ottawa Railway Company, which shall be paid as follows: on the completion of the first section, an instalment proportionate to the value of the said section in comparison with that of the ten miles hereby subsidized, to be established as aforesaid, and the balance of the said subsidy on the completion of the second section;

“(b.) The subsidy to the Oshawa Railway Company, which shall be paid as follows: on the completion of the “Town” or “Northern” section, an instalment proportionate to the value of the said section in comparison with that of the seven miles hereby subsidized, to be established as aforesaid, and the balance of the said subsidy, on the completion of the “Lake” section of the said railway.”

By the Act 57-58 Vic., cap. 4, 1894. (*Assented to, 23rd July, 1894*):—

315.	To the Bracebridge and Baysville Railway Company, for fifteen miles of their railway from Bracebridge towards Baysville, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 48,000
316.	To the Brockville, Westport and Sault Ste. Marie Railway, the balance remaining unpaid of the subsidy granted by chapter 3 of 1889, not exceeding \$3,200 per mile, and also the balance remaining unpaid of the subsidy granted by chapter 2 of 1890, which was re-granted by chapter 5 of 1892; the whole not exceeding.....	86,800
317.	To the Tilsonburg, Lake Erie and Pacific Railway Company, for sixteen miles of their railway, from Port Burwell to Tilsonburg, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	51,200
318.	To the Brantford, Waterloo and Lake Erie Railway Company, for eighteen miles of their railway, from the town of Brantford to the village of Hagersville or the village of Waterford, or some intermediate point on the Canada Southern Railway, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, not exceeding \$3,200 per mile, nor exceeding in the whole....	4,790
319.	To the St. Catharines and Niagara Central Railway Company, for 34 miles of their railway from the city of St. Catharines to the city of Hamilton, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	108,800
320.	To the Montreal and Ottawa Railway Company (formerly the Vaudreuil and Prescott Railway Company), for thirty miles of their railway from Vaudreuil towards Hawkesbury, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887; and for 30 miles of their railway from the western end of the 30 miles first mentioned towards Ottawa, the balance remaining unpaid of the subsidy granted by chapter 2 of 1890, not exceeding \$3,200 per mile; the whole not exceeding.....	118,400
321.	Notwithstanding the expiration of the time limited by chapter 2 of 1890, and by the contract entered into with the Quebec Central Railway Company, and notwithstanding anything otherwise in the said chapter 2 contained, the Governor in Council may pay the subsidy granted by the said chapter to the said company at the present worth of the twenty annual payments mentioned in the said chapter (interest computed at four per cent), for and upon the completion of its railway extending from a point between the Chaudière River and Tring Station to a point on the International Railway at or near Lake Megantic, and upon the inspection and acceptance of the same by the Chief Engineer of Railways and Canals, the sum in all of.....	288,000

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322.	To the Philipsburg Junction Railway and Quarry Company, for $\frac{17}{100}$ mile of their railway from Stanbridge Station to Philipsburg, in the county of Missisquoi and a branch to Missisquoi Bay, the balance remaining unpaid of the subsidy granted by chapter 5 of 1892, not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 2,912
323.	To the Joliette and St. Jean de Matha Railway Company, for 8 miles of their railway from St. Félix de Valois to St. Jean de Matha, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	23,600
324.	To the Lake Temiscamingue Colonization Railway Company, for their railway from Mattawa to the foot of the Kippewa Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$160,000,—also 15 per cent on the value of a wooden truss bridge over the Ottawa River near Mattawa, not to exceed \$15,000 in all, in lieu of the subsidies granted by chapter 5 of 1892,—also the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, for their railway from Long Sault to Lake Kippewa, a subsidy not exceeding \$3,200 per mile of railway and 15 per cent on the value of the bridges,—also, a sum of \$1,750 additional per mile on their said railway from Mattawa to the foot of the Kippewa Lake; the whole not exceeding.....	274,940
325.	For a railway from St. Placide to St. Andrews, 8 miles, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	25,600
326.	For a railway from St. Eustache to St. Placide, in the county of Two Mountains, for 18 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
327.	For a railway from a point on the line of the Canadian Pacific Railway on Isle Jésus, in the county of Laval, towards St. Eustache, for 12 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, to the Carillon and Grenville Railway Company, for 12 miles of their railway, from St. Eustache to Sault au Récollet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
328.	For a railway from the parish of St. Rémi, in the county of Napierville, to St. Cyprien, in the said county, for 12 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
329.	To the Pontiac Pacific Junction Railway Company, for bridging the several channels of the Ottawa River at Culbute and west thereof, a subsidy of \$31,500, to be paid out monthly as the work progresses, upon the certificate of the chief engineer of government railways, in the proportion which the value of the work executed bears to the value of the whole work undertaken; and for 3 miles of their railway extending from a point 3 miles east of Pembroke to Pembroke, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$9,600, in lieu of the subsidy granted by chapter 3 of 1888; provided that the entire work subsidized upon this railway shall be completed within 4 years from the passing of this Act; the subsidy granted by this Act not to exceed in the whole.....	41,100

330. To the Pontiac Pacific Junction Railway Company, for the construction or acquisition of $7\frac{1}{2}$ miles of railway, from Hull to Aylmer, in lieu of the subsidy granted by chapter 2 of 1890, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$ 24,000
331. To the Pontiac Pacific Junction Railway Company, for 85 miles of their railway from Aylmer to Pembroke, the balance remaining unpaid of the subsidy granted by chapter 8 of 1884, less the subsidy granted for the line from Hull to Aylmer, provided the Ottawa River is crossed at some point not east of Lapasse, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	73,172
332. To the Harvey Branch Railway Company, for 3 miles of their railway from the southern terminus of the Albert Railway to Harvey Bank, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, not exceeding \$3,200 per mile, nor exceeding in the whole.....	4,046
333. For a railway from a point on the Intercolonial Railway near Newcastle via Douglastown, to a point on the River Miramichi opposite the town of Chatham, in the province of New Brunswick, 6 miles, in lieu of the subsidy granted by chapter 10 of 1886, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200
334. For a railway from some point on the Joggins Railway, near the Hebert River, to Young's Mills, in the province of Nova Scotia, a distance of 5 miles, in lieu of the subsidy granted by chapter 3 of 1889, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	16,000
335. To the Woodstock and Centreville Railway Company, for a railway from Woodstock to the international boundary between the province of New Brunswick and the state of Maine, 26 miles, in lieu of the subsidies granted by chapter 24 of 1887 and chapter 2 of 1890 a subsidy not exceeding \$3,200 per mile nor exceeding in the whole.....	83,200
336. For 90 miles of the railway from Newport or Windsor to Truro, or to a point between Truro and Stewiacke, and from a point on the said railway to a point at or near Eastville, and from Eastville through the valley of the Musquodoboit River towards a point on the proposed Dartmouth branch of the Intercolonial, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile; and also for a railway bridge over the Shubenacadie River on the line of the said railway, a subsidy of 15 per cent on the value of the structure; the whole not exceeding.....	300,000
337. To the Nipissing and James Bay Railway Company, for 25 miles of their railway from, at or near North Bay Station on the Canadian Pacific Railway towards James Bay, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile; also for 43 miles of their railway from North Bay towards Lake Tamagaming, a subsidy not exceeding \$3,200 per mile; the whole not exceeding.....	217,000
338. To the Lotbinière and Mégantic Railway Company, for 15 miles of their railway, in addition to the 15 miles already subsidized and built, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
339. To the Drummond County Railway Company, for 30 miles of their railway from St. Leonard northerly towards a junction with the Intercolonial Railway at Chaudière Junction, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000

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340.	For a railway from Lime Ridge, in the county of Wolfe, in the province of Quebec, northerly through the county of Wolfe and into the county of Megantic, a distance not exceeding 50 miles from Lime Ridge, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 160,000
341.	To the Strathroy and Western Counties Railway Company, for 25 miles of their railway from St. Thomas through the counties of Elgin and Middlesex, towards Forest Station or Park Hill, on the Grand Trunk Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
342.	To the Parry Sound Colonization Railway Company, for 20 miles of their railway east from Parry Sound, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
343.	To the Manitoulin and North Shore Railway Company, for 10 miles of their railway from Little Current to Nelson, on the Algoma Branch of the Canadian Pacific Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
344.	To the United Counties Railway Company for 32 miles of their railway from Iberville to Sorel, in addition to the 32 miles already subsidized, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	102,400
345.	To the Joliette and St. Jean de Matha Railway Company, for 12 miles of their railway from St. Jean de Matha to Ste. Emelie de L'Energie, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
346.	To the Great Northern Railway Company, for 22 miles of their railway, from the eastern end of the 15 miles subsidized by chapter 2 of 1893 to a point between Joliette and St. Félix de Valois, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
347.	To the Quebec and Lake St. John Railway Company, for 2 miles of the Chicoutimi branch of their railway, from the east end of the 50 miles already subsidized and built eastward to deep water at Chicoutimi, a subsidy not exceeding \$3,200 per mile; also for 12 miles from the 52nd mile on the Chicoutimi branch to Ha Ha Bay, a subsidy not exceeding \$3,200 per mile; the whole not exceeding.....	44,800
348.	To the Pontiac and Ottawa Railway Company, for 23 miles of their railway from the point of divergence from the Pontiac Railway to Ferguson's Point, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	73,600
349.	To the Ottawa and Gatineau Valley Railway Company, for 20 miles of their railway from the eastern end of the 62 miles already subsidized towards Désert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
350.	To the Canada Eastern Railway Company for 6 miles of their railway from the town of Chatham to Black Brook, a subsidy not exceeding \$3,200 per mile; also for 4 miles of their railway for a branch to the village of Nelson, a subsidy not exceeding \$3,200 per mile; the whole not exceeding.....	32,000
351.	For a railway from Cross Creek Station, on the Canada Eastern Railway to Stanley village, in the county of York, in the province of New Brunswick, 6 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200
352.	To the Restigouche and Victoria Railway Company, for 20 miles of their railway from the western end of the 15 miles subsidized by chapter 5 of 1892, towards Grand Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000

353.	To the Central Railway Company of New Brunswick, for 15 miles of their railway from Chipman station to the Newcastle coal fields, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 48,000
354.	To the Tobique Valley Railway Company, for 15 miles of their railway from the present terminus at Plaister Rock easterly, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
355.	Towards the restoration or renewal of the railway bridge on the South-eastern Railway over the Yamaska River at Yamaska, a subsidy equal to one-third of the actual cost of the renewal of the bridge, but the grant not to exceed in the whole.....	50,000
356.	To the Boston and Nova Scotia Coal and Railway Company, for 10½ miles of their railway from the north end of the section already subsidized to Broad Cove, a subsidy not exceeding \$3,200 per mile; also for 25 miles of their railway from a point on the Cape Breton Railway at or near Orangedale towards Broad Cove, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile; the whole not exceeding	113,600
357.	For a railway from Port Hawkesbury towards Cheticamp, 25 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
358.	To the Manitoba North-western Railway Company, for 100 miles of the extension of their main line from its present western terminus towards Prince Albert,—the company relinquishing 3,200 acres of the land grant per mile, and the whole road to be operated as a continuous line of railway under one management, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	320,000
359.	For a line of railway from the junction of the Elk and Kootenay Rivers to Coal Creek, a distance of 34 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	108,800
360.	For a railway from Abbotsford Station on the Mission Branch of the Canadian Pacific Railway to the town of Chilliwack, 21 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	67,200
361.	To the Nicola Valley Railway Company, for 28 miles of their railway from the western end of the section of their road subsidized by chapter 5, of 1892, towards Nicola Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	89,600
362.	To the Nakusp and Slocan Railway Company, for 38 miles of their railway from the town of Nakusp to a point at or near the Forks of Carpenter Creek, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	121,600
363.	To the Pontiac and Kingston Railway Company, for 22 miles of a railway from Portage du Fort to Upper Thorne Centre, via Shawville, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
364.	To the New Glasgow Iron, Coal and Railway Company, for 5 miles of their railway, from Sunnysbrae to Kerrogare, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	16,000 00
365.	To the South Shore Railway Company, for 35 miles of their railway from Yarmouth towards Shelburne and Lockport, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	112,000 00
366.	To the Cape Breton Railway Extension Company, for 30 miles of railway from Port Hawkesbury to St. Peter's, on their line of railway from Port Hawkesbury to Louisbourg, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000 00

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367.	For a railway from a point on the Intercolonial Railway between Norton and Sussex Stations towards Havelock, 20 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$ 64,000 00
368.	For a railway from St. John to Barneville, for a distance of 10 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000 00
369.	For a line of railway from Cap de la Magdeleine to connect with the Piles Branch of the Canadian Pacific Railway, 3 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	9,600 00
370.	To the Canada Eastern Railway Company, for an extension of one mile from the western end of their railway, to connect with the Canadian Pacific Railway, a subsidy not exceeding.....	3,200 00
371.	To the Great Northern Railway Company, for 30 miles of their railway from its junction with the Lower Laurentian Railway near St. Tite, in the vicinity of the River St. Maurice, westward, in lieu of the subsidy granted to the Maskinongé and Nipissing Railway Company by chapter 2 of 1893, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000 00
372.	To the Lindsay, Bobcaygeon and Pontypool Railway Company, for 16 miles of their railway from Bobcaygeon to the Midland Railway, and for another 16 miles from the end of the first mentioned 16 miles to Pontypool, in lieu of the subsidies granted by chapter 2 of 1890, and chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	102,400 00
373.	To the Montfort Colonization Railway Company, for 12 miles of their railway from the end of the 21 miles already subsidized westward to a point on the Rouge River, in the county of Argenteuil, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400 00
374.	For a railway from a point on the Caraquet Railway, at or near Pokemouche siding, towards Tracadie village, 12 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400 00

The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railway and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council.

The granting of such subsidies respectively shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

The said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized,—except as to subsidies with respect to which it is hereinbefore otherwise provided, and except also as to the

subsidy granted to the Great Northern Railway Company by chapter two of 1893, for fifteen miles from Montcalm to the Canadian Pacific Railway, which shall be paid as follows: on the completion of the eighteen miles from New Glasgow to Montcalm and of two miles out of the fifteen miles from Montcalm to the Canadian Pacific Railway, an instalment proportionate to the value of the ten miles out of the total mileage subsidized by chapter two of 1893, to be established as aforesaid, and the balance of the said subsidy on the completion of the remaining thirteen miles of the said railway.

LAND SUBSIDIES.

By 47 Vic., chap. 25, clause 7, 1884 (*Assented to 19th April, 1884*):—

1. The Governor in Council is hereby authorized in aid of the construction of a railway from some point on the Canadian Pacific Railway to Hudson's Bay, to make a free grant of not more than six thousand four hundred acres for each mile of railway within Manitoba, and not more than twelve thousand eight hundred acres for each mile in the North-west Territories.

By 48-49 Vic., chap. 60, 1885 (*Assented to 20th July, 1885*):—

2. To the North-western Coal and Navigation Company (Limited), Dominion lands to an extent not exceeding three thousand eight hundred acres for each mile of the company's railway, from Medicine Hat to the coal banks on the Belly River, about one hundred and ten miles.
3. To the Manitoba and South-western Colonization Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from its commencement at Winnipeg to its terminus at Whitewater Lake, about one hundred and fifty miles.
4. To the Manitoba and North-western Railway Company, Dominion lands to the extent of six thousand four hundred acres for each mile of the company's railway, for the whole distance from Portage la Prairie to the crossing of the South Branch of the River Saskatchewan, twenty miles from Prince Albert, about four hundred and thirty miles.
5. To the Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway, from its commencement near Regina to the navigable waters of Long Lake.

"The said grants, and each of them, may be so made in aid of the construction of the said railways respectively, in the proportion and upon the conditions fixed by the Orders in Council made in respect thereof,—each of the said enterprises being respectively subject to any modification thereof which may hereafter be made by the Governor in Council; and except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash on the issue of the patents therefor."

By 49 Vic., cap. 11, 1886 (*Assented to 2nd June, 1886*):—

6. To the Manitoba and North-western Railway Company, Dominion lands to the extent of six thousand four hundred acres per mile for each mile of the company's branch railway running from a point on the main line of that railway, at or near Todburn, in a north-westerly direction through the county of Russell to the Assiniboine River, near the town of Shellmouth, about twenty-six miles.
7. To the North-west Central Railway Company, or to such other company as may undertake the construction of the railway, or a railway from a point on the Manitoba and North-western Railway via Rapid City, westward, Dominion lands to the extent of six thousand four hundred acres for each mile of the company's railway, for the whole distance from Brandon station on the Canadian Pacific Railway, or from such point on the Manitoba and North-western Railway as aforesaid, to Battleford, in the provisional district of Saskatchewan, about four hundred and fifty miles.

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- 8.** To the Wood Mountain and Qu'Appelle Railway Company, Dominion lands to the extent of six thousand four hundred acres for each mile of the company's railway for the whole distance commencing at a point in township number four, in range number thirty, west of the second meridian, in the Dominion lands system of survey, passing through the town of Fort Qu'Appelle, to join the Manitoba and North-western Railway at a point to be fixed for that purpose by the Governor in Council, about two hundred and forty miles.

"The said grants, and each of them, may be so made in aid of the construction of the said railways respectively, in the proportions and upon the conditions fixed by the Orders in Council made in respect thereof,—each of the said enterprises being respectively subject to any modification thereof which may hereafter be made by the Governor in Council; and, except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively, of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash on the issue of the patents therefor."

By section 5 of this Act authority was given for the incorporation by the Governor in Council of a company to construct the line from Brandon, or other point indicated, to Battleford, subsidized by this Act.

By 50-51 Vic., cap. 22, 1887 (*Assented to 23rd June, 1887*):—

- 9.** The subsidy to the North-western Coal and Navigation Company, granted by 49 Vic., chap. 60, was increased from 3,800 acres per mile to 3,840 acres per mile.

By 50-51 Vic., cap. 23, 1887 (*Assented to 23rd June, 1887*):—

- 10.** To the Alberta and Athabasca Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from some point on the Bow River or Canadian Pacific Railway, at or between Calgary and Crowfoot Creek, to a point near the town plot of Edmonton, about three hundred miles.
- 11.** To the Qu'Appelle, Long Lake and Saskatchewan Railway and Steamboat Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway, from a point near the northern terminus of the completed portion of that railway, at or near Long Laketon, on the navigable waters of Long Lake, to a point at or near where the fifty-second parallel of latitude crosses the South Saskatchewan River, thence to a point at or near the elbow of the North Saskatchewan River, with branches to Prince Albert and Battleford, about three hundred and twenty-five miles.
- 12.** To the Medicine Hat Railway and Coal Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway, from a point at or near Medicine Hat, on the line of the Canadian Pacific Railway, to the coal field in or near townships twelve and thirteen, range six, west of the fourth principal meridian, a distance of about eight miles, to be selected out of such lands as are at the disposal of the Government in the proximity of the line of the company's railway.

"The said grants, and each of them may be, so made in aid of the construction of the said railways respectively, in the proportions and upon the conditions fixed by the Orders in Council made in respect thereof, each of the said enterprises being respectively subject to any modification thereof which may hereafter be made by the Governor in Council; and, except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively, of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash on the issue of the patents therefor."

By 52 Vic., chap. 4, 1889 (*Assented to 2nd May, 1889*):—

- 13.** To the North-western Coal and Navigation Company (Limited), in addition to the grant provided for by section one of the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign and chaptered sixty, Dominion lands to an extent not exceeding two thousand six hundred

acres for each mile of the company's railway from Dunmore station, on the Canadian Pacific Railway, to Lethbridge, on the Belly River, the present terminus of the said railway, a distance of one hundred and nine and one-half miles,—such additional grant to be made only on condition that the gauge of the said railway be made standard width; and also to the said North-western Coal and Navigation Company (Limited), Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from Lethbridge to the international boundary, a distance of about fifty miles.

- 14.** To the Red Deer Valley Railway and Coal Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from Cheadle Station, on the Canadian Pacific Railway, to its terminus at a point in or near township twenty-nine, range twenty-three, west of the fourth meridian, a distance of about fifty-five miles.
- 15.** To the North-western Railway Company of Canada, Dominion lands to an extent not exceeding ten thousand acres for each mile of the company's railway from Calgary, on the Canadian Pacific Railway, northerly to a point on the North Saskatchewan River, at or near Edmonton, a distance of about two hundred and ten miles; and also to the said North-western Railway Company of Canada, Dominion lands to an extent not exceeding ten thousand acres for each mile of the company's railway from Calgary southerly to Lethbridge, a distance of about one hundred and twenty miles.
- 16.** To the Lake Manitoba Railway and Canal Company, Dominion lands to an extent not exceeding six thousand acres for each mile of the company's railway from Portage la Prairie to the southern boundary of Lake Manitoba, a distance of about seventeen miles.

“The said grants, and each of them, may be so made in aid of the construction of the said railways respectively, in the proportions and upon the conditions fixed by the Orders in Council made in respect thereof, and except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively, of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash on the issue of the patents therefor.

“The Governor in Council may make the grant of land provided for by section three of the Act forty-ninth Victoria, chapter eleven, being for the line of the Wood Mountain and Qu'Appelle Railway, of about two hundred and forty miles in length, applicable to the line of railway of the said company, as authorized by the Act respecting the Wood Mountain and Qu'Appelle Railway Company, passed during the present session of Parliament, upon the like terms and subject to the like conditions as those upon which the grant hereinbefore mentioned was authorized to be made to the said company by the Act in this section first cited.”

By the Act 53 Vic., cap. 4, 1890 (*Assented to 16th May, 1890*):—

- 17.** To the Canadian Pacific Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a branch line to be constructed from Glenboro' westerly a distance of about sixty miles to a point on the proposed branch railway of the said company running from Brandon south-westerly.
- 18.** To the Canadian Pacific Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a branch line of railway from a point at or near Brandon, on the main line of the Canadian Pacific Railway, south-westerly to or near township three, range twenty-seven, west of the first principal meridian, and thence westerly, a total distance of one hundred miles; and also a similar grant, at the same rate per mile, for the said company's proposed branch railway from a point on the line just described at or near township three, range twenty-seven, west of the first principal meridian, easterly to Deloraine, a distance of about twenty-five miles, making the total length of railway to which this grant is applicable one hundred and twenty-five miles.

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- 19.** To the Brandon and South-western Railway Company, Dominion lands to an extent not less than six thousand four hundred acres per mile for the line of railway from a point in township one, in either range twenty-three or twenty-four west of the first principal meridian, to Deloraine, a distance of about seventeen miles.
- 20.** To the Lac Seul Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point at or near Shelly Station, on the main line of the Canadian Pacific Railway, to a point at or near White Mud Lake, on the Winnipeg River, a distance of about eighteen miles.
- 21.** To the Calgary and Edmonton Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from Calgary to a point at or near Edmonton on the North Saskatchewan River, a distance of about one hundred and ninety miles; and also a grant of six thousand four hundred acres for each mile of the company's railway from Calgary to a point on the international boundary between Canada and the United States, a distance of about one hundred and fifty miles.
- 22.** To the North-western Coal and Navigation Company (Limited) Dominion lands to an extent not exceeding three thousand eight hundred and forty acres for each mile of the company's railway from Lethbridge to the Crow's Nest Pass, a distance of about one hundred miles.
- 23.** To the Lake Manitoba Railway and Canal Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile, for a line of railway from Portage la Prairie to Lake Winnipegosis, at or near Meadow Portage, a distance of about one hundred and twenty-five miles.
- 24.** To the Manitoba and South-eastern Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile, for a line of railway from Winnipeg southerly or south-easterly to a point on the west side of the Lake of the Woods, a distance of about one hundred and ten miles.

The said grants and each of them may be made in aid of the construction of the said railways respectively, in the proportion and upon the conditions fixed by the Orders in Council made in respect thereof, and except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash, on the issue of the patents therefor.

The lands by this Act authorized to be granted to the Canadian Pacific Railway Company shall be taken and held, and may be disposed of, free and clear of any encumbrance on the lands or property of the said company created before the passing of this Act.

By the special Act 53 Vic., cap. 3, 1890 (*Assented to 26th March, 1890*):—

- 25.** The Act 52 Victoria, chapter 4, authorizing, in error, the grant of land to the North-western Coal and Navigation Company, for fifty miles from Lethbridge to the international boundary, was amended—the said grant being made to the Alberta Railway and Coal Company.

By 54-55 Vic., cap. 9, 1891 (*Assented to 30th September, 1891*):—

- 26.** In lieu of the subsidy in land authorized by the Act 52 Victoria, chapter 4, to be granted to the Red Deer Valley Railway and Coal Company, and subject to the conditions in the said Act mentioned, the Governor in Council may grant Dominion lands to the said company to an extent not exceeding six thousand four hundred acres for each mile of the said company's railway, from the town of Calgary, in the district of Alberta, in the North-west Territories, to a point in or near township twenty-nine, range twenty-three, west of the fourth meridian, a distance of about fifty-five miles.

By 54-55 Vic., cap. 10, 1891 (*Assented to 30th September, 1891*):—

- 27.** To the Manitoba South-western Colonization Railway Company, in addition to the subsidy for one hundred and fifty miles of railway authorized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter sixty, Dominion lands to the extent of six thousand four hundred acres per mile for the balance of the two hundred and twelve miles of railway which have been constructed and are in operation, that is to say, for a distance of sixty-two miles.
- 28.** Also, to the Manitoba South-western Colonization Railway Company, Dominion lands to the extent of six thousand four hundred acres for each mile of the company's branch line of railway from Carmen to Barnsley, a distance of about six and one-quarter miles.
- 29.** To the Canadian Pacific Railway Company, in addition to the subsidy authorized by the Act 53 Victoria, chapter 4, for the company's branch line running in a south-westerly and westerly direction from a point at or near Brandon for a distance of one hundred miles, Dominion lands to the extent of six thousand four hundred acres for each mile of the extension westward of the said branch line, from the western limit of the said one hundred miles to a point at or near La Roche Percée, situated in township one, range six, west of the second meridian, a distance of about sixty miles.

"The said grants and each of them shall be made in aid of the construction of the said railways respectively, in the proportion and upon the conditions fixed by the Orders in Council made in respect thereof, and, except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively, of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash, on the issue of the patents therefor."

By the Act 57-58 Vic., cap. 6, 1894 (*Assented to 23rd July, 1894*):—

- 30.** To the Rocky Mountain Railway and Coal Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point at or near Olds Station on the line of the Calgary and Edmonton Railway in a westerly direction to the Red Deer River and thence along the said river in a westerly direction to the coal fields, a distance of about sixty miles.
- 31.** To the Canadian Pacific Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point at or near Souris on the Souris Branch of the Canadian Pacific Railway, in a westerly direction to the Pipestone Valley, a distance of about thirty-two miles.
- 32.** To the Brandon and South-western Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point in township one, in either range twenty-three or twenty-four west of the first principal meridian, to a point at or near Deloraine, a distance of about seventeen miles.
- 33.** To the Saskatchewan and Western Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from Minnedosa to Rapid City, a distance of about fifteen miles.

The said grants and each of them may be made in aid of the construction of the said railways respectively in the proportion and upon the conditions fixed by the Orders in Council made with respect thereto; and, except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively of the cost of the survey of the lands and incidental expenses at the rate of ten cents per acre in cash on the issue of the patents therefor.

The lands authorized by this Act to be granted to the Canadian Pacific Railway Company shall be taken and held, and may be disposed of, free and clear of any encumbrance on the lands or property of the said company created before the passing of this Act

Department of Railways and Canals.

PART IV.

MISCELLANEOUS STATEMENTS.

Department of Railways and Canals

No. 1.

STATEMENT of Contracts entered into during the Fiscal Year ended 30th June, 1896.

1. SUBSIDIZED RAILWAYS.

No. of Contract.	Contractor.	Date of Signature.	General Description.
11944	Canada Eastern Railway Co.	22nd Nov., 1895.	From west end of their line to connect C. P. R. with St. Mary's Bridge, 1 mile.
12035	Cap de la Madeleine Railway Co.	26th June, 1896.	From Cap de la Madeleine to Piles Branch of the C. P. R., 3 miles.
12058	Ottawa and Gatineau Railway Co.	7th Oct., 1895.	From eastern end of 62 miles already subsidized towards Desert, 20 miles.
12276	Gulf Shore Railway Co. of N. B.	22nd April, 1896.	From a point on Caraqueet Railway, at or near Pokemouche Siding, towards Tracadie Village, 12 miles.
12280	Ontario, Belmont and Northern Railway Co.	23rd do 1896.	From Belmont Iron Mines to Marmora Village; and from Marmora Village to junction with Ontario Central Railway, in 2 sections, 10 miles.
12293	Lake Manitoba Railway and Canal Co.	5th Feb., 1896.	From Portage La Prairie and a point half way to the mouth of the Saskatchewan River and transport Government supplies, &c.
12306	Lotbinière and Megantic Railway Co.	3rd July, 1896	Amending subsidy contract No. 11908 of 19th Nov., 1894, by substituting 2½ miles on the northern end of their line for the 2½ miles from Lyster Station to Lyster, 2½ miles.
12421	Winnipeg Great Northern Railway Co.	12th May, 1896.	From Lake Dauphin or thereabouts to the Saskatchewan River and transport Government supplies, &c.
12479	Midland Railway Co.	30th July, 1896.	From Newport or Windsor to Truro or to a point between Truro and Stewiacke, and from a point on the said railway to a point at or near Eastville, and from Eastville through the Valley of Musquodoboit River towards a point on the proposed branch of the Intercolonial Railway, 90 miles; also a railway bridge over the Shubenacadie River.
12511	Montfort Colonization Railway Co.	30th do 1896.	From end of the 21 miles already subsidized westward to a point on the Rouge River, County of Argenteuil, 12 miles.

2 INTERCOLONIAL RAILWAY.

12178	Rathbun Co.	6th Sept. 1895.	25 platform cars.
12192	Thomas Robley.	30th do 1895.	Baggage room at Sydney, C.B.
12193	Hugh McDonald & Son	4th do 1895.	Station at Eureka, N.S.
12218	Power & Co.	16th Oct. 1895.	Heating system in freight shed and warehouse, Deep Water Terminus, Halifax.
12227	Piton & Samson.	9th do 1895.	Warehouse at Deep Water Terminus, Halifax.
12247	C. O. Foss.	16th Nov. 1895.	Supply 2,630 sq. yds. granite paving blocks.
12260	Canadian Bridge & Iron Co.	24th Oct. 1895.	1 deck beam bridge near Lévis.
12261	Canadian General Electric Co.	30th Dec. 1895.	Put electric lights in warehouse, Deep Water Terminus, Halifax.
12262	James and A. Robert Munro.	11th do 1895.	625 farm crossing gates.
12263	J. S. & A. S. Ross.	12th do 1895.	40 standard switch gates, and 50 standard switch stands.
12269	Rhodes, Curry & Co.	28th do 1895.	2 snow-ploughs.
12274	John Starr, Son & Co.	1st Jan. 1896.	Install 145 incandescent lamps in brick freight-shed, Deep Water Terminus, Halifax.

2. INTERCOLONIAL RAILWAY—*Concluded.*

No. of Contract.	Contractor.	Date of Signature.	General Description.
12322	J. Matheson & Co.	10th Mar., 1896.	2 iron bridges.
12323	Canadian Bridge & Iron Co.	10th do 1896.	3 do
12325	Jas. Watson & Co., J. R. Hutchins, agent.	Not signed.	Supply 3,000 tons steel rails.
12350	Walter S. Talbot	11th April, 1896.	Coal shed and trestle approach at Truro.
12422	John Kelly & J. Ryan.	5th May, 1896.	Additions to station and freight shed buildings, Windsor Junction.
12446	Rhodes, Curry & Co.	11th June, 1896.	50 box freight cars.
12490	Rathbun Co.	17th do 1896.	25 platform cars.
12493	Rhodes, Curry & Co.	17th do 1896.	50 box freight cars.
12494	do	15th do 1896.	Freight shed at Dartmouth.
12496	Crossen Car Manufacturing Co. (Limited.)	17th do 1896.	75 platform cars.
12556	Dominion Bridge Co. (Ltd).	12th Aug., 1896.	A 55 feet turntable for Dartmouth, N. S.
12557	John McDougall & Co.	1st do 1896.	1,500 car wheels.
12561	Galena Oil Works (Ltd).	17th Sept., 1896.	Supply Sibley's and galena oil for Government railways.
12562	do do	23rd do 1896.	Deliver entire quantity of signal oil.

3. PRINCE EDWARD ISLAND RAILWAY.

12240	Rhodes, Curry & Co.	20th Nov., 1895.	125 car wheels.
12504	Sidney Grey.	1st May, 1896.	Sell newspapers, &c.

4. RIDEAU CANAL.

12298	H. Harris.	21st Feb., 1896.	Supply 4,000 cub. ft. white oak timber.
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5. SAULT STE. MARIE CANAL.

12164	J. & R. Miller.	1st Oct., 1895.	Offices and workshop.
12230	Dominion Bridge Co.	5th Dec., 1895.	Operate by electricity a railway swing bridge and construct a motor house.
12313	J. & R. Miller	23rd March, 1896.	Drill holes, &c., on the lift walls.
12460	Lipsett & Gregg	6th July, 1896.	Residence of masonry for superintendent.

6. SOULANGES CANAL.

12330	Dominion Bridge Co.	23rd April, 1896.	Five highway bridges.
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7. TRENT VALLEY CANAL.

12185	Warde & Ritchie	18th Oct., 1895.	3 lock houses.
12289	H. Walters	12th Jan., 1896.	1 deck and 2 dump scows.
12418	Corry & Laverdure	7th May, 1896.	Section No. 2 Peterborough-Lakefield division.
12456	Rathbun Co	30th June, 1896.	Supply 14,000 barrels Portland Cement "Starr" Brand.
12506	Larkin & Sangster.	12th Aug., 1896.	Abutments and piers for Grand Trunk Railway Bridge at Auburn, Peterboro'.

Department of Railways and Canals.

8. WELLAND CANAL.

No. of Contract.	Contractor.	Date of Signature.	General Description.
12195	Joseph Bulning.....	26th Oct., 1895.	Clear out and deepen back ditch north side of Feeder.
12197	W. A. N. West.....	5th Nov., 1895.	Clear out and deepen back ditch south side of Feeder.
12332	John Stuart.....	30th May, 1896.	Supply iron castings for 1896.
12334	Dean Brothers.....	30th do 1896.	Supply brass and phosphor bronze castings for 1896.

9. WILLIAMSBURG CANAL.

12108	Kerr Brothers.....	1st Aug., 1895.	Renew part of superstructure north pier, lower entrance, Farran's Point Canal.
12458	Gilbert Blasting and Dredging Company	31st July, 1896.	Dredge and deepen Farran's Point Canal.

10. CORNWALL CANAL.

12150	J. & R. Miller.....	30th Sept., 1895.	3 pairs lock gates, locks 15 and 17.
12175	Wm. Davis & Sons.....	26th Oct., 1896.	Reconstruction south pier and ice breaker.
12330	Dominion Bridge Co. (Ltd.)..	23rd April, 1896.	2 highway bridges.

WALTER S. DOULL,
Law Clerk.

October 14, 1896.

No.

GENERAL.

SHOWING Water power and other Public Property leased by the Department

Date of Signature.	Term of Lease.	Lessees.	Property Leased.	Area of Property Leased.
<i>1. Lachine Canal.</i>				
Nov. 28, '95	Pleasure of Government.	Armstrong & Cook..	Connect drain Montreal west with Lachine drain.	.....
June 27, '95	do	James Ferrier, jr....	Surplus water and part cad. lot 326, St. Ann's Ward, Parish of Montreal, Mill street.	23,443 sq. ft.
Dec. 2, '95	3 years.....	Northern Paving & Construction Co.	Land at St. Gabriel south of canal, near Atwater avenue.	19,200 ft.
do 18, '95	Pleasure of Government.	Montreal Water and Power Co.	May lay a 14-inch cast iron pipe under canal at St. Henri.	.....
Mch. 5, '96	21 years only..	Montreal Park and Island Railway Co.	Pts. lots 1005, 950 and 964, Parish of Lachine, Co. Jacques Cartier, Que.	5'111, 0'233, 0'215.
April 11, '96	Pleasure of Government.	Grand Trunk Ry. Co.	Railway tracks from St. Henri bridge to Montreal Rolling Mills and to Clendinning & Sons Foundry at St. Henri.	.....
April 23, '96	do	Thos. A. Trenholme.	Surplus land; 4 parcels, 3 being crossed by government collecting drain.	Over 90 arpents.
May 2, '96	do	Charles Sénécal.	Surplus land, 2 lots north and south G. T. Ry., one crossed lengthways by government collecting drain.	Over 74 arpents.
do 1, '96	5 years.	William E. Muir....	Pt. cad. lot 324, St. Ann's ward, Montreal, west side Wellington Basin.	0'6267
June 17, '96	Pleasure of Government.	Dominion Coal Co....	Lay a 3-inch pipe from Wellington Basin to their power house.	.....
<i>2. Rideau Canal.</i>				
Oct. 15, '95	do	Fannie M. Wise, widow.	Lots 2 and 3, Hogsback Lock Station.....	4'80 and 5'73 sq. chains.
Nov. 14, '95	do	Samuel Daniels.....	Tract of land at Head of Deep Cut.....	1,400 sq. ft..
Jan. 10, '96	do	Matthew Ryan.....	Tract of land at Jones' Lock.....	4,000 sq. ft..
Mch. 14, '96	4 years and thereafter renewable 10 years.	Wm. F. & R. Mc-Broom.	Surplus water and pt. lot 21, 7th con., Tp. Storrington, Brewer's Lower Mills Lock Station.	2½ acres.
Sept. 18, '96	Pleasure of Government.	Elize G. Laverdure..	Wharf lots 5 and 6, west side Canal Basin, Ottawa.	6,000 sq. ft.
June 12, '96	do	Ottawa Forwarding Co.	Wharf lots 1, 2, 3, 4, west side Canal Basin, Ottawa.	12,900 sq. ft.
May 30, '96	21 years renewable.	Corporation of the City of Ottawa.	Pts. Canal Reserve S, E. end Deep Cut in Lot Letter E, Con. Letter D, Rideau Front.	{ 0'68 } { 0'81 } { 0'30 }
July 4, '96	Pleasure of Govt.	Michael Keily.....	Pts. No. 1, 2, 3, 4, Rideau Canal Reserve; Deep Cut, Ottawa.	1'50
do 4, '96	do	Ottawa Brick Manufacturing Co.	Reserve Land, Pt. Tp. Lot 35, Con. Letter B, Tp. Nepean.	3'18
Aug. 12, '96	do	Thomas Birkett.....	Wharf Lots 9 and 10, West side Canal, between Sappers bridge and Basin, Ottawa.	6,000 sq. ft.
Mar. 2, '96	21 years.....	Ottawa, Arnprior & Parry Sound Ry. Co.	Lot Letter C., Con. letter C, Tp. Nepean, Pt. Canal Reserve E. side of canal.	7'365.

Department of Railways and Canals.

2.

STATEMENT

of Railways and Canals during the Fiscal Year ended 30th June, 1896.

For what purpose used.	Amount of Water Power Leased.	Date from which Lease is reckoned.	Terms of Payment.				Remarks.
			Annual Rental.	Amount of each instalment.	When due each year.	When first instalment was due.	
Carrying off surface water.		May 1, 1895	1 00		May 1	May 1, '95	In advance.
Nail factory..	75 h. p...	Jan. 1, 1895	2,000 00	1,000 00	July 1, Jan. 1	July 1, '95	do
Manufacture.		Oct. 1, 1895	100 00		Oct. 1	Oct. 1, '95	do
Supply water to St. Henri, &c.		Dec. 1, 1895	1 00		Dec. 1	Dec. 1, '95	do
Construct a railway.		May 1, 1896	10 00		Jan. 2	May 1, '96	do
Recv. or deliver goods, &c		April 1, 1896	500 00		April 1	April 1, '96	do
Pasturage		May 1, 1896	90 00		May 1	May 1, '96	do
do		do 1, 1896	74 00		do 1	do 1, '96	do
Erect a shed		do 1, 1896	450 00		do 1	do 1, '96	do
Obtain water for their engines.		June 1, 1896	30 00		June 1	June 1, '96	do
Summer residence.		Sept. 1, 1895	2 00		Sept. 1	Sept. 1, '95	do
Yacht house.		Nov. 1, 1895	2 00		Nov. 1	Nov. 1, '95	do
Ice house....		do 1, 1895	7 50		do 1	do 1, '95	do
Grist mill....	40 h. p....	Jan. 2, 1896	65 00	32 50	Jan. 1, July 1	Jan. 2, '96	Rent of first year not charged on account of erection of buildings.
Loading cargo.		May 1, 1896	54 60		May 1	May 1, '96	In advance.
do		do 1, 1896	104 65		do 1	do 1, '96	do
Extension of King street &c.		do 1, 1896	1 00		do 1	do 1 '96	do
		June 1, 1896	8 00		June 1	June 1 '96	do
		do 1, 1896	1 00		do 1	do 1 '96	do
		July 1, 1896	54 60		July 1	July 1 '96	do
Approaches to a central station.		May 1, 1895	500 00		May 1	May 1 '96	do

GENERAL STATEMENT showing Water Power and other Public Property

Date of Signature.	Term of Lease.	Lessees.	Property Leased.	Area of Property Leased.
			<i>3. Williamsburg Canal.</i>	
Dec. 27, '95	Pleasure of Govt.	Lucius Flagg.	Lot No. 7, Con. 1, Tp. Matilda, County of Dundas.	0.56
			<i>4. Welland Canal.</i>	
do 3, '95	do	Sperry Carter ...	1½-in. iron pipe to house on West St., Port Colborne.	
Jan. 10, '96	10 years.	Hutchinson, Hicks & Julian	Parcel of land W. of west pier, Port Dalhousie.	6.00
Oct. 29, '95	21 years.	Corporation Village of Merritton.	Lay a 2nd 16-in. pipe through W. bank canal Reservoir, adjoining Lock No. 25.	800 ft. by 250
do 29, '95	Pleasure of Govt.	Charles McDermott.	Pt. Lot 14, 6th Con., and 14, 7th Con., Tp. of Grantham, near lock No. 5, St. Catharines.	1½
Nov. 14, '95	21 years.	Municipality of Dunnville.	Portion canal lands, village of Dunnville..	0.35
Feb. 6, '96	5 years.	James Walker.	Pt. Lot 29, Canal Reserve land, Tp. of Thorold, Co. of Welland.	11.9
Apl. 11, '96	10 years .	J. Rolston and W.F. Haskins.	Surplus water and Pt. Mittleberger Mill site and adjoining land, Dunnville.	0.3
do 23, '96	10 years.	John Reeb.	Lay gas pipe along canal lands and across Canal, Co. of Welland.	
May 28, '96	84 years and thereafter 10 years renewable.	Riordan Paper Mills.	Surplus water and water lots at locks 16, 18, 19 and 21, Merritton.	
July 2, '96	Pleasure of Govt.	Ontario Peat Fuel Co.	Cross Welland Canal Feeder by a Swing Bridge.	
do 3, '96	do	Wm. L. Rice.	Pt. Lot 26, 5th Con., Crowland.	0.70
Aug. 20, '96	do	W. B. Clark.	Pts. Lots 20 and 21, 2nd Con., Tp. Grantham.	15.00
Oct. 6, '96	21 years renewable once only.	Whitman & Barnes Manufacturing Co.	Lot 14th, 7th Con., Tp. of Grantham, old lock house lot at lock No. 6.	½
			<i>5. Intercolonial Railway.</i>	
May 21, '95	Pleasure of Govt.	Rambler's Bicycle Club.	May erect foot bridge across I. C. Ry. Prince's Lodge, Co. of Halifax.	
Dec. 30, '95	do	Quebec Central Ry. Co.	Lot of land near St. Henri Junction, Que..	2,581 sq. ft.
Mar. 16, '96	3 years.	Geo. L. Hanington..	Privilege selling newspapers &c. on I. C. Ry. trains between Truro & Sydney.	
do 24, '96	do	Canada Ry. News Co.	Privilege selling newspapers on I. C. R., trains except between Truro & Sydney.	
Oct. 23, '95	.....	Town of Campbellton	May build level crossing over I. C. Ry. at Andrews St. extension.	
			<i>6. Trent Valley Canal.</i>	
Nov. 7, '94	Pleasure of Govt.	Frank Sandford.	May cut a flume through Government dam, Fenelon Falls.	

October 14, 1896.

Department of Railways and Canals.

leased by the Department of Railways and Canals—*Concluded.*

For what purpose used.	Amount of Water Leased.	Date from which Lease is reckoned.	Terms of Payment.				Remarks.
			Annual Rental.	Amount of each instalment.	When due each year.	When first instalment was due.	
			\$ cts.	\$ cts.			
As a lawn		Jan. 1, '96	1 00		Jan. 2....	Jan. 1 '96	In advance.
Domestic	1½-in. pipe	July 1, '95	2 00		July 1....	July 1 '96	do
Summer hotel		Jan. 2, '96	25 00		Jan. 2....	Jan. 2 '96	do
Settling pond	16-in. pipe	Oct. 1, '95	1 00		Oct. 1....	Oct. 1 '95	do
Piling lumber		do 1, '95	75 00		do 1....	do 1 '95	do
Market ground		Nov. 1, '95	5 00		Nov. 1....	Nov. 1 '95	do
Pasture.....		Jan. 2, '96	25 00		Jan. 2....	Jan. 2 '96	do
Power house.	25 h. p.	do 1, '96	45 00	22 50	do 1, July 1	do 1 '96	Cancels lease No. 9057.
Supply gas to town Weland.	6-in. pipe.	May, 1, '96	25 00		May 1....	May 1 '96	
Paper mills..	700 h. p. & 800 h. p. not over 1,500.	Jan. 1, '96	242 00	121 00	Jan. 1, July 1	Jan. 1 '96	Cancels lease No. 5895
Connect with C. S. Ry.		June 1, '96	1 00		June 1....	June 1 '96	In advance.
Coal, lumber yard.		July 1, '96	25 00		July 1....	July 1 '96	do
		do 1, '96	37 50		do 1....	do 1 '96	do
Flour and card mill.		Oct. 1, '96	75 00		Oct. 1....	Oct. 1 '96	do
Foot bridge							The Crown at liberty to remove it at any time.
Freight platform & shed		June 30, '95	1 00		June 30....	June 30 '95	In advance.
Sell newspapers.		Apl. 1, '96	725 00	60 41½	Monthly....	April 1 '96	do
do		do 1, '96	1st year 3,375 00 2nd year 3,475 00 3rd year 3,575 00	281 25 289 58½ 297 91½	Monthly.	do 1 '96	do
Power house.	Surplus water.	Nov. 1, '94	1 00		Nov. 1...	Nov. 1 '94	do

WALTER S. DOULL,
Law Clerk.

No.

AGREEMENTS respecting Subsidies in aid of construction of

Date of Signature.	Name of Railway Company.	Line of Railway to be constructed.	Acts of Canada granting Subsidy.	Amount of Subsidy.	
				Per mile.	Not more in all than.
1895.				\$	\$
Nov. 22.. 1896.	Canada Eastern Ry. Co.	From west end of their line to connect C.P. Ry. with St. Mary's bridge.	57-58 V., c. 4	3,200	.....
June 26.. 1895.	Cap de la Madeleine Ry. Co.	From Cap de la Madeleine to the Piles Branch of the C.P. Ry.	57-58 V., c. 4	3,200	9,600
Oct. 7.. 1896.	Ottawa and Gatineau Ry. Co.	From eastern end of 62 miles already subsidized towards Désert.	57-58 V., c. 4	3,200	64,000.
April 22..	Gulf Shore Ry. Co. of N.B.	From a point on Caraquet Railway at or near Pokemouche siding towards Tracadie Village.	57-58 V., c. 4	3,200	38,400
April 23..	Ontario, Belmont and Northern Ry. Co.	From Belmont Iron Mines to Marmora Village; and from Marmora Village to Junction with Ontario Central Railway.	56 V., c. 2..	3,200	32,000.
Feb. 5..	Lake Manitoba Ry. and Canal Co.	From Portage La Prairie or Gladstone to a point half way to the mouth of the Saskatchewan River, and transport Government supplies, &c.	58-59 V., c. 8	.....	40,000 for 20 yrs.
July 3..	Lotbinière and Mé-gantic Ry. Co.	Amending subsidy Contract No. 11908 of 19 Nov., 1894 by substituting 2½ miles on the northern end of their line for the 2½ miles from Lyster Station to Lyster.	57-58 V., c. 4	3,200	48,000.
May 12..	Winnipeg Great Northern Ry. Co.	From Lake Dauphin or thereabouts to the Saskatchewan River, and transport Government supplies, &c.	58-59 V., c. 8	.....	40,000 for 20 yrs.
July 30..	Midland Ry. Co.	From Newport or Windsor to a point on proposed branch of the Inter-colonial Railway, also a railway bridge over the Shubenacadie River.	57-58 V., c. 4	3,200	300,000
June 26..	Montreal and Ottawa Ry. Co.	From Vaudreuil towards Ottawa.	57-58 V., c. 4	3,200	118,400
July 30..	Montfort Coloniza-tion Ry. Co.	From end of the 21 miles already subsidized westward to a point on the Rouge River, County of Argenteuil.	57-58 V., c. 4	3,200	38,400

October 14, 1896.

Department of Railways and Canals.

3.

Railways entered into during the fiscal year ended 30th June, 1896.

No. of miles sub- sided.	Maximum Grade Feet per mile.	Radius of curvature not less than.	Width of clearing each side.	Width of cutting.	Embankment.	Steel rails, lbs. per lineal yard.	When to be completed.	Remarks.
	Feet.	Feet.	Feet.	Feet.	Feet.	Lbs.		
1	27	1,433	50	20	15	56	July 1, 1895.	
3	105	574	50	20	15	56	Oct. 1, 1895.	
20	105	574	50	20	15	56	Aug. 1, 1897.	
12	53	955	50	20	15	56	June 1, 1897.	
10	80	716	50	20	14	56	Oct. 31, 1896.	Cancels No. 11327.
.....	65	955	50	20	14	56	Feb. 1, 1898.	
2½	80	1,910	50	20	14	56	July 1, 1897.	
.....	65	955	50	20	14	56	Dec. 31, 1898.	
90	65	881	50	20	15	56	Aug. 1, 1898.	
60	53	955	50	20	15	56	do 1, 1898.	
12	175	573	50	19	14	56	do 1, 1897.	

WALTER S. DOULL,
Law Clerk.

No. 4.

PROPERTY purchased, or damaged, by the Department of Railways and Canals during the fiscal year ended 30th June, 1896.

Date of Signature.	Who sold, &c., to Her Majesty.	Lot.	District.	County.	Area of land.	Amount paid.	Remarks.
Nov. 9, 1895	Alexandre Théoret...	Lot 18	Beauharnois	Beauharnois		\$ cts. 64 50	Damage by Str. "Ocean," Release.
Dec. 4, 1895	Félix Pilon.....	Lot 6.	do	do		163 50	do
do 4, 1895	Hector Langevin.....	Lot 17	do	do		158 75	do
Aug. 1, 1895	Est. Wm. Yule.....	Lot 309	Chambly	Chambly	Pch. feet. 73 175	828 00	And \$132.43 interest.
Sept. 23, 1895	Hormisdas Riendeau.....		Chambly Canton	do			Release from all claims, he accepting letters patent for lot 39.
Dec. 23, 1895	Samuel Moss, et uz.	Lot 30	Cornwall	Stemont.	Acres. 6.5	280 00	
do 24, 1895	J. G. Snetsinger.....	E ½ 31	do	do	2.3	100 00	
April 16, 1896	T. Robertson, et uz.	E ½ 27	do	do	0.06	900 00	
May 11, 1896	Wm. H. Miller, et uz.	Pt. lot 32	do	do	0.03	100 00	
do 14, 1896	John G. Snetsinger, et uz.	Front 32	do	do	0.07	70 00	
do 13, 1896	Hugh U. Thompson.....	Front ½ lot 32	do	do	1.60	250 00	
do 18, 1896	J. N. Dickson, D. B. McClellan.	Pts. lots 31, 32	do	do	2.71	475 00	
do 15, 1896	James E. Rae, et uz.	Pt. E ½ lot 32.	do	do	0.10	125 00	
July 15, 1895	Rev. Alex. F. McGillivray.	Lot 184	Grand Narrows	Victoria.	1.39 & 0.77	686 40	And \$196.70 costs.
Mar. 6, 1896	Geo. Campbell, et al, Exrs. J. S. Mclean.	Lots 32, 28, 28A	North Sydney	Cape Breton	3.11, 5.24 & 0.14	8,194 85	
May 25, 1896	Chas. J. Campbell.....	Lot 186	Grand Narrows	Victoria.	2 69	118 36	

Department of Railways and Canals.

Date	Case Name	Location	Acres	Value	Remarks
Sept. 25, 1895.	R. Thompson Coates	Nappen River	Cumberland	500 00	
July 2, 1895.	William Roche, et ux	Halifax	Halifax	56,594 79	And \$1, Halifax Ry. extension.
Oct. 9, 1895.	Julia E. Grant, et ux.	do	do	1 00	Quit-claim deed.
Aug. 16, 1895.	Charles Roche	do	do	1 00	do
Sept. 29, 1894.	Isabella Cameron, et al.	Sydney	Cape Breton	318 73	And \$126.68 costs.
Dec. 13, 1895.	H. F. Burton, injuries at a fire at deep water terminus.	Halifax	do	100 00	
July 8, 1895.	William Prouseu	Parish of Montreal	Hochelaga	175 00	Leakage claim.
Sept. 13, 1895.	J. F. Regis Prudhomme, et al.	do	do	150 00	do
Nov. 20, 1895.	George S. Brush, compensation for use of 2 acres and injury to the same.	do	do	800 00	
May 14, 1895.	Heets of Mrs. J. Pigeon	Parish of Lachine	Hochelaga	30 00	
July 5, 1895.	Joseph and Aldéric Larche.	do	do	970 00	
May 15, 1896.	Françoise X. Jarry	do	do	742 50	do
do 15, 1896.	Françoise X. Jarry	do	do	300 00	do
do 27, 1896.	John & Peter Jackson	do	do	780 00	do
do 19, 1896.	William Evans	do	do	900 00	do
do 16, 1896.	Alex. Aubertin	do	do	270 00	do
do 16, 1896.	Thos. Hennechon	do	do	90 00	do
do 16, 1896.	Patrick Farmer, et al.	do	do	546 00	do
do 20, 1896.	A. & H. Mills	do	do	546 00	do
do 20, 1896.	Thos. A. Trenholme	do	do	448 00	do
do 20, 1896.	Hormisdas Poirier, et al.	do	do	39 00	do
do 20, 1896.	Hugh McGee	do	do	1,000 00	do
June 12, 1896.	George W. Stevens, et al.	do	do		do
Feb. 19, 1895.	Richard McC. Ritchie, et al.	Bryson	Pontiac	275 00	Release, damages.
June 5, 1895.	Catharine Boothe	Tp. Mansfield	do	25 00	do
Oct. 12, 1895.	Miss J. & J. W. Bryson	do	do	60 00	do
Dec. 14, 1895.	Cor. Tp. South Elmstley	S. Elmstley	Leeds	200 00	Flooding public highway.
Jan. 14, 1896.	William J. McLean, et ux.	N. Elmstley	Lanark	100 00	do
April 13, 1896.	William J. McLean	do	do	10 72	Release for a fence.

PROPERTY purchased, or damaged, by the Department of Railways and Canals, during the fiscal year ended 30th June, 1896—Continued.

Date of Signature.	Who sold, etc., to Her Majesty.	Lot.	District.	County.	Area of Land.	Amount paid.	Remarks.
Jan. 2, 1896.	John J. Armstrong, <i>et al.</i>	S. E. $\frac{1}{2}$ 19, Pt. S. W. N. $\frac{1}{2}$ lot 18, Con. 8.	Rideau Canal—Continued.	Lanark.		\$ cts.	
do	William Beveridge, <i>et ux.</i>	N. E. $\frac{1}{2}$ 19	do	do			
do	John Beveridge	S. W. $\frac{1}{2}$ 23, 8th Con.	do	do			
do	Richard Bolton, <i>et al.</i>	N. $\frac{1}{2}$ 22, N. E. $\frac{1}{2}$ 23 & S. $\frac{1}{2}$ 24, 9th Con.	do	do			
Dec. 31, 1895.	Alonso King, <i>et ux.</i>	Lot 21, 9th Con.	do	do			
Jan. 2, 1896.	Sam. T. Dowson, <i>et al.</i>	Pt. 19, 9th Con.	do	do			
do	Chas. Foster, <i>et ux.</i>	Pt. 18, Con. 9 and 8.	do	do			
do	Richard Frizell	Lot 20, Con. 8	do	do			
do	William Frizell	Pts. 18 and 17, Con. 9.	do	do			
do	Ebenezer Frizell	Pts. 24 and 25, Con. 7.	do	do			
do	Richard Gould, <i>et al.</i>	Pt. 20, Con. 7	do	do			
do	George Groome, <i>et al.</i>	Pt. 21, Con. 10.	do	do			
do	Joanna Moodie, <i>et al.</i>	Lot 24, Con. 8	do	do			
do	B. & J. Kerr, <i>et al.</i>	do 20, Con. 9	do	do			
do	James King, <i>et al.</i>	do 21, Con. 8	do	do			
do	John Matthews, <i>et al.</i>	do 25, Pt. 24, Con. 7	do	do			
do	James S. Moore.	Pt. 19, Con. 9	do	do			
do	W. H. Moore, <i>et al.</i>	Pt. 17, Con. 9	do	do			
do	W. H. McLean, <i>et ux.</i>	Pt. 17, Con. 7	do	do			
do	Dan. McNaughton, <i>et al.</i>	Pts. 19, and 20, Con. 7, &c.	do	do			
do	Dan. McKay, <i>et al.</i>	Pt. 20, Con. 7.	do	do			
do	David McLean, <i>et al.</i>	Pt. 22, Con. 7.	do	do			
do	William R. McLean, <i>et ux.</i>	Lot 22, 7th con., pt. lot 22, con. 8.	do	do			
do	Thomas H. McVeity	Pts. 17, con. 7, 18, con. 8.	do	do			
do	George Rathwell, <i>et al.</i>	Pt. lot 23, con. 9	do	do			
do	Robert Smith, <i>et ux.</i>	Pt. 22, con. 4.	do	do			
do	Francis J. Spalding	Pt. 22, con. 9.	do	do			
do	Annie Wilson, <i>et al.</i>	Pt. 21, con. 7	do	do			
do	James Wilson, <i>et al.</i>	Pt. 21, con. 7	do	do			
do	Geo. A. Harris and The Ottawa Forwarding Co.	Lots 2 & 3, pt. of reserve and basin.	Ottawa	Carleton.			Quit-claim.
June 2, 1896.							

Department of Railways and Canals

Nov. 4, 1895.	John Tierney, et al.	Lots 33, con. 10.	50 00	Frontenac	0.25 acres	Judge, Exchequer Court.
Oct. 3, 1895.	W. N. Fairbanks.	Pt. lots 1, 8, 9, blk. 11, 3, blk. 18, 10, blk. 26, 1, 2, 3, 4, 5 & 10, blk. 31, 6, 7, 9, 10, blk. 40, 8, 9, 10, blk. 40.		Provenchet		Quit claim deed.
May 12, 1896.	do	Lots 6, 7, 8, blk. 45, 7, 8, 9, 10, blk. 54, 4, 5, blk. 59.		do		\$180.67 was paid in full settlement for all the lots contained in both deeds.
Nov. 12, 1895.	Lake Superior Power Co.	Pt. Laird & Henderson mill site.	1 00	Algona	2.65	Exchange of land.
Aug. 26, 1895.	Mrs. Henriette Lamothe.		40 00			Receipt for two months' interest on \$4,000, compensation for land taken. Est. V. B. Cassidy.
Jan. 2, 1896.	G. L. A. Beaudet, executor	Pt. several lots	1,600 00	Soulanges	6.87	
do 7, 1896.	Moise Thanvete, Jr.	Pt. lot 329	1,800 00	do	4.07	
do 23, 1896.	Octave Leroux	do 140	2,600 00	do	5.80	And \$260.00 interest.
Feb. 8, 1896.	Raphael Menard	do 139	2,600 00	do	5.70	\$338.00 do
do 12, 1896.	Emilien Chulhier	do 319, 320	2,200 00	do	4.08 & 2.05	\$300.66 do
do 22, 1896.	Emilien Thuauvette, et al.	do 359	1,800 00	do	6.17	\$324.00 do
Mar. 10, 1896.	Joseph Monpette.	do 124	1,240 00	do	5.51	\$372.00 do
do 25, 1896.	Joseph Leroux	do 3	100 00	do	0.09	
do 21, 1896.	G. J. Beaudet, et al, ex'rs	do 114	1,175 00	do	6.77	\$325.00 do
do 23, 1896.	G. J. Beaudet.	do 107, 112	3,900 00	do	8.00 & 21.00	\$1,000.00 do
May 12, 1896.	Zp. Langlois	do 1	750 00	do		Release damages.
Apr. 7, 1896.	James Ahearn, et al.	do 56, 57	125 00	Vaudreuil		
Sept. 14, 1895.	Peter Hamilton	Lot E. Caroline st.	175 00	Peterborough	0.2	
do 12, 1895.	Mary Ann Hurl, et al.,	N.E. pt. blk. B.	700 00	do	0.29	
do 25, 1895.	Charles Fry, et ux.	Pts. 55, 56, S. side & 55, 56, N. Portage Road	2,550 00	Victoria	12.8, 81.0, 120.3, 12.8 and 81.0	
do 30, 1895.	Martin Coughlin, et ux.	Pt. lot 13, Con. 8.	30 00	Peterborough.	0.39	
do 11, 1895.	do	Pt. lot 15, Con. 8.	15 00	do	1 acre.	
do 13, 1895.	W. M. Graham, et ux.	S. E. pt. blk. B.	70 00	do	0.006	
do 19, 1895.	Martha Wilson	Pt. 16, E. Caroline St	600 00	do	0.2	N. Maria Street.
Oct. 4, 1895.	Ellen Sage	N. pt. blk. A, Quarry Reserve, pt. 28, Con. 7.	400 00	do	0.8	T. P. Smith.

PROPERTY purchased, or damaged, by the Department of Railways and Canals, during the Fiscal Year ended 30th June, 1896—Continued.

Date of Signature.	Who sold, etc., to Her Majesty.	Lot.	District.	County.	Area of Land.	Amount paid	Remarks.
Oct. 4, 1895.	C. D. Crawford, et ux.	S. ½ lot 12	Lakefield	Peterborough.	0.013	200 00	Between Maria and Cash- arine streets.
Sept. 27, 1895.	S. J. Wallace, et ux.	Pts. lots 13 and 14.	do	do	0.25	750 00	do
do 20, 1895.	Nathan D. Ennis	N. ½ 11 and 12	do	do	0.20	1,275 00	do
Oct. 11, 1895.	S. A. Montgomery, et ux.	Pt. 2, E. Caroline St.	do	do	0.36	800 00	And N. Maria street.
do 5, 1895.	Thomas Cox, et ux.	N. pt. 28, Con. 7	do	do	0.09	10 00	Tp. Smith.
do 19, 1895.	David Wright, et ux.	Pt. 59, N. side For- tage Rd.	Eldon	Victoria.	6.2	70 00	
do 12, 1895.	William H. Hunter, et ux.	Pt. lot 5	Lakefield	Peterborough.	0.006	25 00	do
Nov. 12, 1895.	Sydney Hunter, et ux.	Pt. lot 25, Con. 5.	do	do	1.27	30 00	do
do 16, 1895.	James Blackwell	Pt. blk. C. & D. Plan 15	Douro	do	9.12	450 00	
do 23, 1895.	Abram Webster, et ux.	Pts. lots 59 and 60.	Eldon	Victoria.	22.7	240 00	
do Oct. 4, 1895.	John Deck, et ux.	Pt. S. ½ blk. A Quarry Smith Reserve, pt. 28	do	Peterborough.	1.08	325 00	
Nov. 28, 1895.	Patrick Kelly	Pt. 43, Subd. lot 1, Con. 12	Douro	do	4.14	900 00	
do 16, 1895.	Charles McCall	E. ½ of W. ½ 3, Con. 11	do	do	2.22	125 00	
do 16, 1895.	Frederick Edwards.	Pt. 37, 38, subd. 1, Con. 12	do	do	5.76	1,500 00	
do 19, 1895.	Josiah Hunter, et ux.	Pt. E. ½ 25, Con. 5.	Smith	do	3.26	125 00	
do 18, 1895.	S. E. & H. Snelgrove, Ex'rs.	Lot 17, E. Caroline St.	Lakefield	do	0.27	650 00	And N. Maria street.
do 18, 1895.	Charlotte Snelgrove, et al.	Quarry Reserve, Rear 17.	do	do	0.12	100 00	do
Dec. 4, 1895.	Hanna & T. Hammond	Pt. lot 13, Con. 8.	Douro	do	4.88	185 00	
do 5, 1895.	W. A. Hunter, et ux.	Pt. S. pt. 28, Con. 7.	do	do	12.35	300 00	
do 18, 1895.	William Little	Pt. 44, subd. lot 1, C. 12.	Douro	do	2.27	450 00	
Nov. 30, 1895.	John Shea	Pt. E. ½ 4, Con. 11.	do	do	26.66	1,275 00	
Dec. 17, 1895.	Euphemia Campbell, et al.	Lot 51, N. side For- tage Rd.	Eldon	Victoria.	74.00	400 00	
do 18, 1895.	W. G. Thompson	W. ½ 4, Con. 11	Douro	Peterborough.	42.13	1,900 00	
do 9, 1895.	George A. Bickell, et al.	E. pt. 24, Con. 5.	Smith	do	6.96	125 00	
do 9, 1895.	John James Bickell, et al.	Pt. 23, Con. 4, W. pt. 24, C. 5.	do	do	21.59	780 00	
do 23, 1895.	W. D. E. Strickland	Pt. 8, E. of Clements St.	Lakefield.	do	0.12	250 00	Tp. Smith.

Department of Railways and Canals.

Jan. 18, 1896.	Daniel Maloney.....	Pt. 9, Con. 10.....	Douro ..	do ..	23.83	675 00
do 7, 1896.	Michael Sullivan	Pt. 41, 42, subd. lot 1, C. 12.	do ..	do ..	4.05	1,125 00
do 23, 1896.	Z. J. Burnham, et al.....	Pts. 18, 19, 20, W. Ashburnham.....	do ..	do ..	3.295	3,275 00
do 23, 1896.	Z. J. Burnham, et al.....	Con. St. N. 4 21, pts. 22, 23, 24, N. Maria St. and pts. 66, 67, 68, 69, S. Maria St.	do ..	do ..	53.22	2,325 00
do 7, 1896.	L. & W. C. Taylor	Pt. lot 3, Con. 11, pt. 3, C. 12.	Douro.....	do ..		3,900 00
Jan. 31, 1896.	Wm. C. Taylor	Pt. 3, Con. 12.....	do ..	do ..	1.71	200 00
Feb. 17, 1896.	H. T. Strickland.....	Pts. 30, Con. 6.....	Dummer ..	do ..	2 acres.	500 00
do 25, 1896.	John Burnham, et al.....	Pts. 14, 15, 16, 17, blk. A.	Ashburnham ..	do ..	1.14	700 00
do 19, 1896.	Samuel Edwards.....	Pt. 39, subd. lot 1, C. 12.	Douro.....	do ..	1.56	675 00
do 27, 1896.	Annie Erskine.....	Pt. blk. U, plan 1.....	Ashburnham ..	do ..	3.22	810 00
do 27, 1896.	David Oliver.....	do ..	do ..	do ..	2.28	1,250 00
Mar. 12, 1896.	R. S. Tivey, et ux.....	Pt. blk. T, plan 1.....	do ..	do ..	0.92	830 00
do 10, 1896.	T. P. Armstrong	Pt. blk. W.....	do ..	do ..	0.33	350 00
do 12, 1896.	Geo. J. Horkins.....	Pt. blk. T.....	do ..	do ..	3 acres.	2,250 00
April 21, 1896.	Peter Macpherson.....	Pt. 31, con. 4, E 381, con. 3.	Eldon.....	Victoria.....	152.50	4,400 00
do 22, 1896.	Margaret McDonald	Pt. lot 2, con. 4.....	do ..	do ..	36.60	750 00
Nov. 11, 1895.	W. W. Webster.....	Pt. 2, S. Bridge st.....	Carden ..	Peterborough.	0.05	175 00
April 18, 1896.	Dennis Cronan, et ux	Pt. 1, con. 7.....	Lakefield ..	Victoria.....	48 acres.	700 00
do 27, 1896.	Michael McNulty, et ux.....	Pt. 2, con. 5.....	Carden ..	Victoria.....	41	1,485 00
do 28, 1896.	Esther & J. Collins.....	Pts. 27, 26, con. 2.....	do ..	do ..	14.35	540 00
Feb. 29, 1896.	Theodore T. Ludgate	Pt. blk. S, plan 1.....	Eldon ..	Peterborough.	2.58	1,270 00
Mar. 30, 1896.	John Burnham, et ux.....	Pt. 64.63.....	Ashburnham ..	do ..	0.33	200 00
do 20, 1896.	Ellen & J. Carlisle	Pt. blk. U, plan 1.....	do ..	do ..	1.86	3,875 00
April 6, 1896.	James Jewell, et ux.....	Pt. 20, con. 4.....	Eldon ..	do ..	21.40	1,050 00
do 15, 1896.	Susan & R. Bray.....	Pt. 12, con. 11.....	do ..	do ..	21.50	350 00
do 9, 1896.	Isabella C. Finney, et al.....	Pt. 21, con. 4.....	do ..	do ..	13.40	425 00
do 29, 1896.	Patrick Burk, et ux.....	Pt. 32, con. 4.....	do ..	Victoria.....	64.50	2,600 00
do 30, 1896.	John Merry, et ux.....	Pt. 17, pt. res. allow- ance bet. con. 3 & 4	do ..	do ..	44.30	575 00
April 17, 1896.	Wm. Ashe.....	Pt. 1 & 2.....	Lakefield ..	Peterborough.	0.66	4,000 00
May 2, 1896.	Alice J. McGirr, et al.....	Pt. 5.....	Balscover.....	Victoria.....	0.03	15 00
do 6, 1896.	John McPherson.....	Pt. 31, con. 4 & rd. allowance.	do ..	do ..	71.20	2,900 00
May 9, 1896.	Ben. Cowie, et ux.....	Pt. 13, con. 3.....	Eldon ..	do ..	1 acre.	20 00
do 9, 1896.	Elizabeth & R. Connolly	Pt. 32, con. 4.....	do ..	do ..	57.25	2,300 00
do 9, 1896.	Fred. A. Staaback.....	Pt. 3, plan 15, con. 2.....	do ..	do ..	0.2	15 00
April 1, 1896.	Ellen & J. Carlisle.....	Pts. 4, A, C, E, blk. B	Peterborough.	Peterborough.	2.12	1,450 00
May 23, 1896.	Angus McPherson, et ux.....	Pts. 10, 27, con. 11.	Eldon ..	Victoria.....	4 acres.	65 00
April 17, 1896.	David Conroy, et ux.....	Pts. 9, W con.....	Ashburnham ..	Peterborough.	0.3	140 00

N. Nelson st., plan 4.

PROPERTY purchased, or damaged, by the Department of Railways and Canals, during the Fiscal Year ended 30th June, 1896—*Concluded.*

Date of Signature.	Who sold, &c., to Her Majesty.	Lot.	District.	County.	Area of land.	Amount paid.	Remarks.
April 25, 1896	James May	Pt. 21, N. Maria st.	<i>Trent Valley Canal—(Continued).</i>				
Oct. 18, 1896	Elizabeth J. Crowe	Pt. 15, plan 8.	Ashburnham	Peterborough	0.14	700 00	
May 21, 1896	David S. Brown	Pt. Page 11, 12, con 2	Lakefield	do	0.15	175 00	
do 29, 1896	Margaret & A. Finney	Lot 4	Eldon	Victoria	69.50	650 00	
April 18, 1896	Patrick Cronan	Pt. 1, con. 7	Lakefield	Peterborough	C.2	700 00	
June 6, 1896	W. E. Burke	Pt. 2, con. 4	Carden	Victoria	7.5	53 00	
do 6, 1896	Jonathan W. Folliot, et al.	Pts. 9 to 15, & lot 6.	do	do	28.5	700 00	
do 6, 1896	Lucinda Silverthorne, et al.	Pt. 7	do	do	0.23	30 00	
do 6, 1896	F. A. Staback, et ux.	Pt. 30 & Page 10, c. 2	do	do	0.02	10 00	
do 11, 1896	Charlotte Dalglish, et al.	Pt. 26, con. 1	do	do	37.60	355 00	
do 11, 1896	John Harrigan, et ux.	Pt. 24, con. 4	do	do	17.01	300 00	
do 11, 1896	Neil McLeod	Pt. 4, con. 1	do	do	29.40	425 00	
do 11, 1896	Thos. Crawford	Pt. 2, con. 3	Carden	do	1.60	30 00	
do 11, 1896	Edward Sheely, et ux.	Pt. 2, con. 6	do	do	70.80	1,050 00	
do 11, 1896	Michael Burk, et al.	Pt. Page 25, con. 5	do	do	49.2	515 00	
do 11, 1896	John Murphy, et ux.	Pt. 2, con. 5	Eldon	do	23.20	315 00	
do 15, 1896	Eliza Marsh	Pt. 8, plan 15	Carden	do	59.60	775 00	
do 11, 1896	Henry Folliot, et ux.	Pt. 4 & 26, C.1, & pts Page lots 7, 8, 9, c 2	Eldon	do	0.05	15 00	
do 11, 1896	Wm. Crawford	Pt. 3, con. 4	do	do	46.80	1,050 00	
do 11, 1896	Robert Munro	Lot 1, pt. lot 3, c. 4.	Carden	do	26.10	450 00	
do 12, 1896	Ruel Hamel, et ux.	Pt. 4, con. 4	do	do	173 acres.	2,700 00	
do 22, 1896	Dougal A. McHilvray	Pt. 1, con. 3	do	do	12.40	220 00	
do 18, 1896	Hector McInnis, et al.	Pt. 28	do	do	78 acres.	1,200 00	
do 25, 1896	Benj. R. Matthews	Pt. blk. W, plan 1	Eldon	do	13.80	320 00	
May 27, 1896	Mary Etta Adam, et al.	Pts. 32, 31, con. III	Ashburnham	Peterborough	1 acre.	2,800 00	
June 13, 1896	Thos. Staback, et ux.	Pt. 1, plan 15	Eldon	Victoria	89.80	1,650 00	
do 25, 1896	James McNabb	Pt. 3, con. III	Balsover	do	0.30	100 00	
do 22, 1896	Angus McPherson, et ux.	Pt. 7, con. II	Carden	do	36.30	425 00	
do 30, 1896	S. Wascott	Pt. 11, con. 9	Thornah.	do	3.75	875 00	
do 11, 1896	James McFadyen, et ux.	Pts. 24, con. 1	do	Ontario.	4.60	250 00	
do 23, 1896	John Burgess, et ux.	Pt. 3, con. X	Eldon	Victoria	9.20	310 00	
do 20, 1896	Alex. G. Campbell, et ux.	Pt. 8, con. 10	Thornah.	Ontario.	0.14	10 00	
do 2, 1896	Donald McKae	Pt. 5, and 4, con. B, pt. 5, con. A, pt. 4, con. 11.	do	do	4.50	950 00	
do 30, 1896	Angus McDougall, et ux.	Pt. 8, con. 10	do	do	41.30	1,755 00	

Department of Railways and Canals.

do 30, 1896.	Thos. Byrne, <i>et ux.</i>	Pt. 1, con. VI	Garden	Victoria	141 80	1,700 00
do 20, 1896.	John D. Cowie	Pt. 2, con. X	Thorah	Ontario	3 acres.	1,000 00
do 30, 1896.	Selma Brown, admstrx.	Pt. 13, con. XI	do	do	10 75	930 00
do 20, 1896.	Joseph Hodgson, <i>et ux.</i>	Pts. 13, 14, con. C	Mara	do	13 50	700 00
do 30, 1896.	Sarah Gilchrist	Pt. 11, con. X	Thorah	do	7 80	975 00
April 11, 1896.	Geo. McKelvey, <i>et ux.</i>	Pts. Portage lots 14, 15, 16.	Eldon	Victoria	182 25	1,750 00
July 7, 1896.	Hamilton P. ovident L. Sy.	Pt. 2, con. A	Mara	Ontario	5 acres.	200 00
do 15, 1896.	John McArthur, <i>et al.</i> , exrs.	Pt. 10, con. X	Thorah	do	0 35	25 00
June 30, 1896.	Geo. A. Wescott, <i>et ux.</i>	Pt. 10, con. 10	do	do	9 60	1,450 00
Aug 6, 1896.	Esther E. Stabback	Pt. 4	Eldon	Victoria	0 05	15 00
do 10, 1896.	Ben. Madill, <i>et ux.</i>	Portage lot 11, pt. 27, con. 2 and pt. 27, con. 1.	do	do	47 10	1,300 00
June 20, 1896.	Wm. Kean, <i>et ux.</i>	Pts. 5, 6, con. XI, pt. 7, con. X	Thorah	Ontario	27 80	2,050 00
July 18, 1896.	John McKay, executor	Pt. 6, con. B	Mara	do	1 acre.	30 00
do 23, 1896.	Wm. Kean, <i>et ux.</i> , executors	Pt. 1, cons. A and B road allowance.	do	do	9 30	250 00
June 30, 1896.	Peter Campbell, <i>et ux.</i>	Pt. 9, con. 10	Thorah	do	3 95	350 00
do 20, 1896.	Thos. Morgan, <i>et ux.</i>	Pt. 6, con. B	Mara	do	1 40	55 00
Mar. 31, 1896.	Garret I. Galvin	Pt. 14, con. 8	Douro	Peterborough	3 5	55 00
Sept. 26, 1896.	Robert Lunan, <i>et ux.</i>	Pts. 18, 19, cons. 3 and 4.	Eldon	Victoria	64 70	975 00
<i>Welland Canal.</i>						
Nov. 13, 1895	Martha Ann Carlson, <i>et al.</i>	Pt. 15, con. 5.	Grantham	Lincoln	0 5	200 00
do 7, 1895.	Cor. Tp. N. Cayuga	Damage to roads.	N. Cayuga	Haldimand		566 86
Jan. 15, 1896	F. J. Quinn & P. Gibbons, Executors.	Lot 27, West street	Pt. Colborne	Welland		575 00
<i>Williamsburgh Canal.</i>						
Mar. 4, 1896.	Jeremiah McLaughlin, <i>et ux.</i>	Lots 11, 12, con. 1.	Edwardsburgh	Grenville	0 44	110 00
do 6, 1896.	Geo. P. Anderson	Pt. 10, con. 1	do	do	1 30	300 00

Estate of George Gaddy.

Estate of Jas. McGregor, Executors, John Cowie.

Release damages.
Dunnville damages.
Release damages.

WALTER S. DOULL,
Law Clerk.

October 14, 1896.

No. 5.

LANDS granted by the Department of Railways and Canals, during the Fiscal Year ended 30th June, 1896.

Date of Signature.	To whom granted.	Lot.	District.	County.	Area of land.	Amount paid.	Remarks.
May 15, 1896.	Canadian Pacific Ry. Co.	Between Ashcroft and Spence's Bridge	Kamloops Division	B. Columbia		\$ cts.	
do 13, 1896.	Grand Trunk Ry. Co.	Special grant of certain lands.	Thorold	Welland			Township of Grantham.
Mar. 18, 1896.	Lake Superior Power Co.	Pt. St. Mary's Island	Sault Ste. Marie	Algoma	10-10		With adjacent waters.

WALTER S. DOULL,
Law Clerk.

Department of Railways and Canals.

PART V.

CANAL STATISTICS

Department of Railways and Canals

CANAL STATISTICS

FOR

SEASON OF NAVIGATION 1895.

REVENUE.

The total revenue, exclusive of hydraulic rents for two years, is as follows :

For 1894	\$307,824 67
For 1895	283,211 41
	283,211 41

By comparing the statistics of 1894 with 1895, it will be seen that the gross revenue has decreased \$24,613.26.

The increases and decreases are as follows :—

	Increase.	Decrease.
On the Welland Canal.....		\$21,018 18
“ St. Lawrence Canals.....		3,699 70
“ Chambly Canal.....	\$4,732 19	
“ Rideau Canal.....		150 51
“ Ottawa Canals.....		2,096 64
“ St. Peter's Canal.....		2,210 51
“ Trent Valley Canals.....	58 35	
“ Murray Canal.....		228 26
	\$4,790 54	\$29,403 80
Total.....		24,613 26
Total decrease.....		24,613 26

In compliance with the renewed request of forwarders and shippers of Montreal for a continuance of the reduction of tolls on certain agricultural products, His Excellency the Governor General in Council on 1st April, 1895, authorized a reduction of canal tolls, as follows :—

For the season of 1895 the canal tolls for the passage of the following food products, wheat, indian corn, pease, barley, rye, oats, flax-seed and buckwheat for passage eastward through the Welland Canal, shall be ten cents per ton, and for passage eastward through the St. Lawrence canals only, ten cents per ton, payment of the said tolls of ten cents per ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals.

In consequence of the reduced rates of tolls as above, being applicable to the said food products, irrespective of their destination, the reduced rate of ten cents a ton only was collected, and therefore no refunds were made on these articles for 1895.

It may be observed, however, that the reduction of tolls from twenty to ten cents per ton on the articles referred to, for passage through the Welland Canal, amounts to \$39,369.60.

QUANTITY OF GRAIN PASSED DOWN THE WELLAND CANAL.

The quantity of barley, corn, oats, pease, rye and wheat passed down the Welland Canal, from ports west of Port Colborne for a period of fourteen years is as follows :—

QUANTITY PASSED DOWN TO MONTREAL.		QUANTITY ON WHICH FULL TOLLS WERE PAID.	
		To ports in Ontario.	Quantity from U. S. Ports to U. S. Ports.
	Tons.	Tons.	Tons.
1882.....	180,694	.....	63,881
1883.....	186,814	10,650	121,876
1884.....	142,194	12,153	104,537
1885.....	96,569	11,909	117,346
1886.....	203,940	9,881	151,551
1887.....	185,034	11,838	134,868
1888.....	160,358	25,599	169,664
1889.....	267,769	19,075	213,766
1890.....	228,513	16,899	245,932
1891.....	295,509	6,805	202,710
1892.....	261,954	8,942	201,540
1893.....	* 501,806	25,555	222,958
1894.....	273,651	16,699	203,979
1895.....	231,491	32,096	133,823

The tolls on grain for passage through the Welland Canal, prior to 1884, were 20 cents a ton, since that date, however, reductions have been made by Orders in Council from year to year as follows :—Upon the urgent request of forwarders and others interested in the grain trade, a reduction was made of one-half the usual rate of tolls on grain passing down the Welland Canal and the St. Lawrence Canals to Montreal; and in 1885 tolls were reduced to 2 cents a ton, and thereafter from year to year, including 1891.

In 1892 the tolls were reduced to 2 cents a ton on grain passed down the Welland and St. Lawrence Canals and exported, and in such cases only.

In 1893, by Order in Council of 13th February, the tolls were reduced to ten cents a ton on grain passing eastward through the Welland Canal irrespective of its destination, and the same rate of tolls for 1894 were allowed by O. C., 16th April, 1894.

For the year 1895 (O. C., April 1st, 1895,) the same rate of tolls was allowed as was granted for the year 1894.

The rate through the St. Lawrence Canals only, was 10 cents a ton.

It may be remarked that goods having paid full tolls on the Welland Canal are allowed to pass down the St. Lawrence Canals to Montreal free from payment of any further tolls.

During the last decade the quantity of agricultural products, as above passed down the Welland and St. Lawrence Canals to Montreal, has increased from 203,940 tons in 1886 to 231,491 tons in 1895; and the quantity passed down the Welland Canal, from United States ports to United States ports, has decreased from 151,551 to 133,823 tons for the same years.

* Of the quantity of grain passed down to Montreal there were transhipped at Ogdensburg in 1891 17,817 tons, in 1892 4,341 tons, in 1893 71,445 tons, in 1894 23,030 tons and in 1895 18,987 tons.

Department of Railways and Canals.

The quantity of barley, corn, oats, pease, rye and wheat, arrived at Montreal via Grand Trunk and Canadian Pacific Railways for a period of 13 years, is reported as follows:—

	Tons.
For 1883	98,672
1884	142,231
1885	160,821
1886	165,613
1887	191,760
1888	113,794
1889	94,943
1890	119,208
1891	184,410
1892	291,680
1893	147,610
1894	60,666
1895	51,114

The quantity of the same articles passed down the whole length of the St. Lawrence Canals to Montreal, for the same period was:—

	Tons.
For 1883	263,368
1884	174,496
1885	134,824
1886	272,133
1887	237,881
1888	166,191
1889	275,414
1890	242,571
1891	320,434
1892	302,899
1893	532,084
1894	288,015
1895	247,550

Comparative shipments of grain by the St. Lawrence route, and rail and water via the state of New York, are as follows:—

QUANTITY OF GRAIN TO SEA-BOARD BY COMPETING ROUTES.

The quantity of grain and pease passed down the whole length of the St. Lawrence Canals to Montreal, is as follows:—

	Tons.
For 1894	288,015
1895	247,550
Showing a decrease of	40,465

The quantity of grain and pease carried to Montreal via Canadian Pacific and Grand Trunk Railways, is reported as follows:—

	Tons.
For 1894	60,666
1895	51,114
Showing a decrease of	9,552

The quantity of grain arrived at tide-water by New York Canals, is reported as follows :—

	Tons.
For 1894	1,163,788
1895	380,431
Showing a decrease of	783,357

The quantity of grain carried to tide-water by the New York railways, is reported as follows :—

	Tons.
For 1894	2,686,440
1895	2,341,079
Showing a decrease of	345,361

The increases and decreases for 1895 as compared with 1894 on the several routes, competing for the carrying trade to the sea-board, are as follows :—

	Increase.	Decrease.	Increase.	Decrease.
	Tons.	Tons.	Per cent.	Per cent.
On the St. Lawrence Canals		40,465		14·02
do Canadian Pacific and Grand Trunk Railways		9,552		15·75
do New York Canals		783,357		67·31
do do Railways		345,361		10·25

By reference to Appendix U, it will be seen that the quantity of freight from ports west of Port Colborne to the United States ports, Oswego, Ogdensburg, &c., has increased from 165,543 tons in 1884 to 247,035 tons in 1895, and the quantity to Ontario ports, between Port Dalhousie and Cornwall, has increased from 100,425 tons in 1884 to 111,946 tons in 1895. The quantity passed down to Montréal shows an increase from 168,715 tons in 1884 to 266,659 tons in 1895.

TRANSHIPMENT OF GRAIN.

The quantity of grain passed down the Welland Canal in Canadian and United States vessels to Kingston for twelve years, is as follows :—

In Canadian vessels there were in-

	Tons.
1884, 111 cargoes, with an aggregate quantity of	70,475
1885, 75 do do	45,639
1886, 244 do do	143,330
1887, 284 do do	178,233
1888, 182 do do	143,025
1889, 208 do do	165,117
1890, 203 do do	184,275
1891, 209 do do	190,664
1892, 158 do do	159,018
1893, 146 do do	148,962
1894, 125 do do	159,145
1895, 123 do do	136,617

Department of Railways and Canals.

In United States vessels there were in-

	Tons.
1884, 117 cargoes with an aggregate quantity of.....	75,787
1885, 79 do do	55,982
1886, 97 do do	62,222
1887, 19 do do	12,477
1888, 60 do do	43,667
1889, 114 do do	108,358
1890, 35 do do	35,560
1891, 77 do do	90,153
1892, 89 do do	109,812
1893, 257 do do	328,269
1894, 84 do do	106,236
1895, 56 do do	73,987

Four vessels took cargoes of 1,344 tons through to Montreal intact in 1895, two cargoes of 810 tons in 1894, none in 1893, two in 1892 of 924 tons, and three in 1891 of 1,441 tons. Six vessels lightened a portion of their cargoes in 1895, against 19 in 1894, 34 in 1893, 25 in 1892, and 44 in 1891. 169 vessels discharged the whole of their cargoes at Kingston in 1895 against 188 in 1894, 369 in 1893, 220 in 1892 and 293 in 1891.

The quantity of grain transhipped at Port Colborne in 1895 and the four previous years is given below.

The total number of grain laden vessels lightened at this port in 1895 was 162, against 59 the previous year.

The quantity of the grain lightened was as follows :—

Articles.	1891.	1892.	1893.	1894.	1895.
	Bush.	Bush.	Bush.	Bush.	Bush.
Wheat	16,665	68,736	47,558	104,827	322,662
Corn	482,902	576,289	759,000	260,657	870,705
Rye	13,318	2,467	11,540	Nil	Nil
Oats	257,000	102,529	35,353	63,412	71,648
Barley					21,003

The quantity discharged at this port from vessels which did not enter the canal was as follows :

Articles.	1891.	1892.	1893.	1894.	1895.
	Bush.	Bush.	Bush.	Bush.	Bush.
Wheat	16,628	Nil	Nil	Nil	Nil
Corn	Nil	Nil	Nil	Nil	Nil
Rye	Nil	Nil	Nil	Nil	Nil
Oats	Nil	Nil	Nil	Nil	Nil

WELLAND CANAL.

The total quantity of freight passed on the Welland Canal during the season of 1895 was 869,595 tons; of this quantity 17,569 tons were way or local freight.

East and west bound freight.

There were 635,712 tons of freight passed eastwards, and 233,883 tons passed westwards.

The total quantity of freight passed through the whole length of the Welland Canal during the season of 1895 was 852,026 tons.

Of this quantity 230,100 tons were west bound and 621,926 east bound freight.

Of the east bound freight Canadian vessels carried 274,561 tons and United States vessels carried 347,365 tons; and of the west bound freight Canadian vessels carried 15,516 tons, and United States vessels carried 214,584 tons.

Of the total quantity of through freight Canadian vessels carried 290,077 tons, and United States vessels carried 561,949 tons.

ST. LAWRENCE CANALS.

East and west bound freight.

Of the total quantity of freight passed through the canals during 1895 there were 596,771 tons passed eastward and 231,457 tons passed westward.

The total quantity of through freight was 496,944 tons; of this quantity 469,735 tons were east bound and 27,209 tons were west bound.

Of the total quantity of (way) or local freight, 127,036 tons were east bound and 204,248 tons west bound freight.

THROUGH TRAFFIC BETWEEN MONTREAL AND PORTS ON LAKES ERIE, MICHIGAN, &c.

The total quantity of freight passed eastward and westward through the Welland and St. Lawrence Canals, from Lake Erie to Montreal, during fifteen years, is as follows:—

	Eastward. to Montreal. Tons.	Westward. from Montreal. Tons.
1881.....	169,213	37,190
1882.....	108,835	24,488
1883.....	205,394	27,488
1884.....	168,715	9,425
1885.....	132,968	16,115
1886.....	244,514	16,801
1887.....	213,834	14,075
1888.....	183,899	19,310
1889.....	298,197	25,370
1890.....	231,746	31,951
1891.....	309,593	14,060
1892.....	263,144	9,452
1893.....	508,016	16,545
1894.....	292,191	9,439
1895.....	266,659	10,555

Department of Railways and Canals.

FREIGHT FROM UNITED STATES PORTS TO UNITED STATES PORTS.

The total quantity of freight passed eastward and westward through the Welland Canal, from United States ports to United States ports, for a period of fourteen years, is as follows:—

	Eastward. Tons.	Westward. Tons.	Total. Tons.
1882	110,286	172,520	282,806
1883	174,912	257,699	432,611
1884	163,998	243,081	407,079
1885	168,212	216,297	384,509
1886	224,916	239,562	464,478
1887	189,427	151,074	340,501
1888	221,062	213,689	434,751
1889	297,353	266,231	563,584
1890	318,259	215,698	533,957
1891	306,257	247,543	553,800
1892	300,733	240,332	541,065
1893	384,559	247,108	631,667
1894	361,319	230,948	592,267
1895	255,259	214,520	469,779

The total quantity of freight passed through the Welland Canal from United States ports to United States ports shows a decrease of 122,488 tons as compared with the previous year; and an increase of 186,973 tons as compared with 1882.

The following statement shows the aggregate number of vessels, and the total quantity of freight passed through the Welland Canal, and the quantity passed between United States ports during the years 1867 to 1895 inclusive :

Fiscal year.	Aggregate number of Vessels.	Total quantity transported on the Welland Canal.	Quantity passed from United States ports to United States ports.
	No.	Tons.	Tons.
1867	5,405	933,260	453,386
1868	6,157	1,161,821	641,711
1869	6,069	1,231,903	688,700
1870	7,356	1,311,956	747,567
1871	7,729	1,478,122	772,756
<i>Season of Navigation.</i>			
1872	6,063	1,333,104	606,627
1873	6,425	1,506,484	656,208
1874	5,814	1,389,173	748,557
1875	4,242	1,038,050	477,809
1876	4,789	1,099,810	488,815
1877	5,129	1,175,398	493,841
1878	4,429	968,758	373,738
1879	3,960	865,664	284,043
1880	4,104	819,934	179,606
1881	3,332	686,506	194,173
1882	3,334	790,643	282,806
1883	3,267	1,005,156	432,611
1884	3,138	837,811	407,079
1885	2,738	784,928	384,509
1886	3,589	980,135	464,478
1887	2,785	777,918	340,501
1888	2,647	878,800	434,753
1889	2,975	1,085,273	563,584
1890	2,885	1,016,165	533,957
1891	2,594	975,013	553,800
1892	2,615	955,554	541,065
1893	2,843	1,294,823	631,667
1894	2,412	1,008,221	592,267
1895	2,222	869,595	469,779

The total quantity of freight passed through the several divisions of the canals during the season of 1895 is as follows:—

	Farm Stock.	Forest, Produce of Wood.	Manu- factures.	Merchan- dise.	Agricultural Products.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Welland	26	121,846	25,438	232,537	489,748	869,595
St. Lawrence	2,730	111,533	59,312	338,793	315,860	828,228
Chambly	316	226,197	7,447	103,611	21,456	359,027
Ottawa	998	532,084	148	4,827	3,163	541,220
Rideau	15	55,563	3,031	26,342	3,802	88,753
St. Peter's		712	39	6,944	2,133	9,828
Murray	18	4,446	821	4,224	1,815	11,324
Trent Valley	48	30,899	440	678	201	32,266

The total quantity of freight moved on the Welland Canal was 869,595 tons, of which 489,748 tons were agricultural products.

On the St. Lawrence Canals the total quantity of freight moved was 828,228 tons, of which 315,860 were agricultural products, and 338,793 tons were merchandise.

On the Ottawa Canals the total quantity of freight moved was 541,220 tons; of this quantity 532,084 tons were the produce of the forest.

STATISTICAL COMPARISON OF VARIOUS UNITED STATES ROUTES.

The statistical comparisons heretofore given in respect to the quantities of the principal articles carried through the Welland Canal, and those carried over routes in the United States, in competition with that work, have been continued to date.

By reference to statement H, as to the quantity of vegetable food carried to tide-water, it will be observed that the quantity carried by the New York Canals was 602,505 tons in 1895, 1,400,129 in 1894, 1,452,563 in 1893, 937,999 in 1892, and 1,092,355 in 1891.

The quantities of vegetable food carried by the New York Central, Erie and New York, West Shore and Buffalo Railways being:—

	Tons.		Tons.
In 1895	3,798,574	In 1887	*3,847,766
1894	4,281,056	1886	*3,802,262
1893	5,107,426	1885	4,105,594
1892	5,913,613	1884	3,639,805
1891	*3,565,381	1883	4,422,461
1890	4,336,199	1882	3,888,557
1889	3,654,984	1880	4,732,385
1888	3,197,634	1869	1,087,809

Flour and grain only.

Department of Railways and Canals

The following figures are an abstract of the quantities of vegetable food carried to tidewater by the canals and railways of the state of New York, during twenty-seven years.

	Canals.	Railways.	Total.	Proportions by Canals.
	Tons.	Tons.	Tons.	
1869	1,302,613	1,087,809	2,390,342	545
1870	1,295,010	1,766,457	3,061,467	423
1871	1,850,198	2,205,589	4,055,787	456
1872	1,674,320	1,870,614	3,544,934	472
1873	1,745,171	2,036,992	3,782,163	461
1874	1,767,598	2,791,517	4,559,115	387
1875	1,306,550	2,345,241	3,648,791	357
1876	1,064,293	2,875,803	3,940,096	270
1877	1,498,984	2,493,683	3,992,667	375
1878	1,912,734	3,695,764	5,608,498	341
1879	1,833,399	4,353,617	6,187,016	296
1880	2,371,090	4,732,385	7,103,475	333
1881	1,116,561	4,983,722	6,100,283	183
1882	1,118,776	3,885,557	5,004,333	223
1883	1,379,000	4,422,461	5,801,461	237
1884	1,236,986	3,639,805	4,876,791	253
1885	1,063,310	4,105,594	5,168,904	205
1886	1,489,886	3,802,262	5,292,148	281
1887	1,539,403	3,847,766	5,387,169	285
1888	1,166,958	3,197,734	4,364,692	267
1889	1,296,896	3,654,984	4,951,880	262
1890	1,167,901	4,336,199	5,504,100	212
1891	1,092,355	3,565,381	4,657,736	234
1892	937,999	5,913,013	6,851,012	137
1893	1,452,563	5,107,426	6,599,989	224
1894	1,400,129	4,281,056	5,681,185	327
1895	602,205	3,798,574	4,401,079	159

COMPARATIVE STATEMENT OF TRAFFIC BY RAILWAYS AND CANALS VIA THE STATE OF NEW YORK.

On reference to the returns made by the railways to the state authorities of New York, and to the canal statistics submitted to the state legislature, I find that of the total tonnage of freight carried by the canals and railways, the state canals carried :—

	Per cent.		Per cent.
In 1859	68·9	In 1882	19·0
1869	47·0	1883	18·7
1870	38·9	1884	19·0
1871	38·9	1885	17·1
1872	40·1	1886	16·9
1873	34·9	1887	16·3
1874	31·7	1888	18·8
1875	28·4	1889	15·1
1876	24·6	1890	13·9
1877	28·3	1891	13·4
1878	27·1	1892	9·8
1879	23·7	1893	10·1
1880	25·1	1894	10·2
1881	18·5	1895	9·7

The quantity of freight carried by the canals and railways was less in 1895 by 1,746,073 tons than the quantity carried in 1894 and an increase of 23,717,165 tons over 1869.

The quantities carried were as follows—

	Total Tonnage.	Proportion by Canals.
In 1859.....	5,485,076	·6890
1869.....	12,453,174	·4705
1870.....	15,148,274	·3895
1871.....	15,844,152	·3896
1872.....	16,631,609	·4012
1873.....	18,200,208	·3497
1874.....	18,283,547	·3174
1875.....	17,101,758	·2841
1876.....	16,948,627	·2462
1877.....	17,489,770	·2833
1878.....	19,017,301	·2719
1879.....	22,590,766	·2373
1880.....	25,706,586	·2512
1881.....	27,857,394	·1859
1882.....	28,693,054	·1905
1883.....	30,167,119	·1877
1884.....	26,293,844	·1905
1885.....	27,543,948	·1718
1886.....	31,168,744	·1698
1887.....	34,029,791	·1632
1888.....	26,244,610	·1883
1889.....	35,466,042	·1514
1890.....	37,624,199	·1394
1891.....	38,524,179	·1343
1892.....	43,618,569	·0982
1893.....	42,953,233	·1009
1894.....	37,916,412	·1024
1895.....	36,170,339	·0967

Average freight rates, grain, Chicago to Buffalo:—

Year.	Wheat	Year.	Wheat.
1878.....	3·1	1888.....	2·7
1879.....	4·7	1889.....	2·5
1880.....	5·7	1890.....	1·9
1881.....	3·2	1891.....	2·5
1882.....	2·5	1892.....	2·2
1883.....	3·5	1893.....	1·6
1884.....	2·1	1894.....	1·2
1885.....	2·0	1895.....	1·9
1886.....	3·6		
1887.....	4·1	Average eighteen years...	2·8

Department of Railways and Canals

COMPARATIVE Statement of the Commerce through the U. S. St. Mary's Falls Canal, and Canadian Sault Ste. Marie Canal, for the Seasons of 1894 and 1895.

	Traffic for 1895.		Total Traffic for 1895.		Increase Amount.	Decrease. Amount.
	United States Canal.	*Canadian Canal.	Season of 1895.	Season of 1894.		
Vessels.....	16,793	1,191	17,984	14,491	3,493	
Lockages.....	7,039	699	7,738	6,431	1,307	
Tonnage registered.....	16,089,778	749,626	16,839,404	13,110,366	3,729,038	
" freight.....	14,471,648	595,837	15,067,485	13,195,860	1,871,625	
Passengers.....	30,910	2,326	33,236	27,236	6,000	
Coal (hard).....	424,627	24,910	449,537	532,870	83,333	
" (soft).....	2,001,141	122,763	2,123,904	2,284,314	140,410	
Flour.....	8,732,795	165,366	8,898,161	8,965,773	67,612	
Wheat.....	41,573,692	4,518,075	46,091,767	34,869,483	11,222,284	
Grain (excluding wheat).....	7,834,870	707,340	8,542,210	1,545,008	6,997,202	
Manufactured and pig iron.....	100,337	2,176	102,513	60,659	41,854	
" Barrels.....	263,079	7,994	271,073	237,461	33,612	
" Salt.....	107,137	305	107,452	99,573	7,879	
Copper.....	7,850,065	214,290	8,064,355	6,548,876	1,515,479	
Iron ore.....	729,253	11,762,144	12,491,397	722,788	11,768,609	
" M ft., B.M.....	100		100	412	312	
Lumber.....	23,410	500	23,910	21,417	2,493	
Silver ore.....	419,673	38,706	458,379	451,185	7,194	
Building stone.....						
+Unclassified freight.....						

*Only opened on September the 9th, 1895.

†Included in unclassified freight for :—

	1895.
Wool.....	2,250 Tons.
Hides.....	397 "
	1894.
Wool.....	1,468 Tons.
Hides.....	382 "

The United States canal was open to navigation during the season of—

1889.....	234 days.
1890.....	228 do
1891.....	225 do
1892.....	233 do
1893.....	219 do
1894.....	234 do
1895.....	231 do

The Canadian canal was open to navigation during the season of—

1895.....	87 days.
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The average number of vessels passing per day for the whole season of 1895 wa seventy-seven.

R. DEVLIN,
Compiler of Canal Statistics.

OTTAWA, NOV. 18, 1896.

EXPORTS by Lake from the port of Chicago during 1895. From Report of Board of Trade, Chicago.

Commodities.	Quantity.	Value.
		\$ cts.
Corn..... Bushels	2,102,075	959,039 00
Oats..... do	25,056	5,763 00
Wheat..... do	222,000	140,050 00
Steel rails..... Tons	370	6,775 00
Coal..... do	122	638 00
Total.....		1,112,265 00

NOTE—Nothing exported in foreign vessels.

SHIPMENTS of Grain (in Transit and Export) by Lake from Chicago during 1895.
From Report of Board of Trade, Chicago.

	CORN, BUSHELS.			OATS, BUSHELS.			WHEAT, BUSHELS.	Totals.
	Transit.	Export.	Total.	Transit.	Export.	Total.	Export.	
Kingston, Ont.....		1,604,642	1,604,642				202,000	1,806,642
Midland, Ont.....		398,225	398,225				20,000	418,225
Pt. Edward, Ont.....	90,799		90,799	15,948	25,056	41,004		131,803
Sarnia, Ont.....	320,857		320,857	1,000,756		1,000,756		1,321,613
Walkerville, Ont.....		99,208	99,208					99,208
Totals.....	411,656	2,102,075	2,513,731	1,016,704	25,056	1,041,760	222,000	3,777,491

Department of Railways and Canals.

GRAIN FREIGHTS BY LAKE, SEASON OF 1895.

The following were the current rates of freight on wheat and corn from Buffalo to Chicago, Kingston, Ogdensburg and Montreal (steam); also to New York by Lake and Erie Canal; for each week during the season of navigation (from Report, Board of Trade, Chicago):—

1895.	TO BUFFALO.		TO KINGS- TON.	TO OGDENS- BURG.	TO MONTREAL, (STEAM).		ERIE CANAL, BUFFALO TO NEW YORK.		CHICAGO TO NEW YORK, LAKE AND CANAL, INCLUDING BUFFALO CHARGES.	
	Wheat per Bushel	Corn per Bushel	Corn per Bushel	Corn per Bushel.	Wheat per Bushel	Corn per Bushel	Wheat per Bushel.	Corn per Bushel.	Wheat per Bushel.	Corn per Bushel.
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
April 6.			2½							
do 13.	1½	1¼								
do 20.	1½	1								
do 27.	1½	1		3½	5½					
May 4.	1½	1½	2½	4	5½					
do 11.	1½	1½					2 to 2½	1½ to 2	4½ to 4½	3½ to 4
do 18.	1½	1					1½ to 2	1½	3½ to 4	3½
do 25.	1½	1½	2½	2½			1½	1½	4	3½
June 1.	1½	1½		3			1½	1½	4½	3½
do 8.	1½	1½		3			1½	1½	4	3½
do 15.	1	1		2½			1½	1½	3½	3½
do 22.	1	1	2½				1½	1½	3½	3½
do 29.	1	1					1½	1½	3½	3½
July 6.	1	1					1½	1½	3½	3½
do 13.	1	1				4½	1½	1½	3½	3½
do 20.	1	1	2½				1½	1½	3½	3½
do 27.	1½	1½					2½	2	4½	4
Aug. 3.	1½	1½	2½				2½ to 2½	1½ to 2	4½ to 4½	3½ to 4
do 10.	1½	1½	2½				2 to 2½	1½ to 1½	4½ to 4½	4½ to 4½
do 17.	1½	1½					2	1½	4½	4½
do 24.	1½	1½					2	1½	4½	4½
do 31.	1½	1½					1½	1½	4½	4½
Sept. 7.	1½	1½	3½	3½			1½ to 2½	1½ to 2	4½ to 5	4½ to 4½
do 14.	2	1½					2 to 2½	1½ to 1½	4½ to 5	4½ to 4½
do 21.	2½	2					2 to 2½	1½ to 2½	5½ to 5½	4½ to 5½
do 28.	2½	2		3½			2½ to 2½	2½ to 2½	5½ to 5½	5 to 5½
Oct. 5.	2½	2½					2½	2½	5½	5½
do 12.	3	2½		4½			2½	2½	6½	5½
do 19.	4	2½					2½	2½	7½	7½
do 26.	3	2½					2½	2½	6½	5½
Nov. 2.	3	2½					2½	2½	6½	5½
do 9.	3	2½					3	2½	6½	6½
do 16.	3	2½		6			3	2½	6½	6½
do 23.	2½	2½								
do 30.	2½	2½								
Dec. 7.	2½	2½								
do 14.	2½	2½								

Lake Freights from Chicago to Buffalo on Wheat and Corn (as reported by Secretary of the "Merchants' Exchange," Buffalo, N.Y.)

STATEMENT showing the dates of the changes in the ruling rates of lake freight, on wheat and corn from Chicago to Buffalo, during 1895.

1895.			1895.		
	Wheat, bush.	Corn, bush.		Wheat, bush.	Corn, bush.
Opening.	Cts.	Cts.	Opening.	Cts.	Cts.
April 5.....	1½	1	Aug. 16.....		1½
do 15.....	1	1	do 19.....	2	1½
do 30.....	1½	1½	do 28.....		1½
May 6.....	1½	1	Sept. 6.....		2
do 8.....	1½	1	do 7.....	2	1½
do 10.....	1½	1½	do 12.....	2½	2
do 15.....	1½	1	do 13.....	2½	2½
do 16.....	1½	1½	do 14.....		2½
do 22.....	1½	1	do 16.....		2
do 23.....	1½	1½	do 21.....		2½
do 27.....	1½	1½	do 24.....		2½
June 1.....	1½	1½	Oct. 4.....		2½
do 7.....	1½	1½	do 7.....		2½
do 8.....		1½ to 1½	do 8.....		3
do 10.....		1½	do 9.....		3½
do 14.....	1	1	do 10.....		4
July 15.....	1 to 1½	1	do 11.....		3½
do 16.....	1 to 1½	1	do 12.....		3½
do 17.....	1	1	do 16.....		3½
do 26.....	1½	1	do 17.....		3
do 29.....	1½	1½	do 22.....		2½
do 30.....	1½	1½	do 23.....		2½
Aug. 1.....		1½ to 1½	do 28.....	3	2½
do 2.....		1½	Nov. 21.....		2½
do 3.....	1½	1½	do 26.....		2
do 8.....	1½	1½	do 30.....		2½
do 9.....	1½	1½	Dec, 2 to close.....	3	2½
do 13.....	1½	1½			

NOTE.—Corn from Chicago to Kingston ranged from 2¼ to 3¾ cents, and wheat from 2½ to 2½ cents per bushel during the season. Corn to Port Huron, 1 to 2 cents, and to Odgensburg in April, 2½ cents per bushel. Barley to Oswego in September, 4 cents, and to Cape Vincent in October, 5½ cents per bushel. Wheat to Toledo, 1½ cents to 3¼ cents per bushel; corn to Oswego in July, 2¼ cents per bushel; wheat to Cleveland in August, 2 cents, and in September, 2¾ cents per bushel; wheat to Detroit in August, 1½ cents per bushel.

Rates from Milwaukee about the same as from Chicago.

Department of Railways and Canals

AVERAGE LAKE FREIGHTS.

The following statement shows the average rates of lake freights on wheat and corn between Chicago and Buffalo during each month in the past ten years, the highest and lowest rate on wheat in each year, and the average rate on wheat each year, in cents, per bushel :—

(Per Report of the Secretary of Merchants' Exchange, Buffalo.)

Grain, Bushels.	May.	June.	July.	August.	Sept.	Oct.	Nov.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
1886 { Wheat	3·1	2·7	2·7	3·2	4·5	4·8	4·3
{ Corn	2·8	2·5	2·5	2·9	4·2	4·6	4·0
Highest rate, wheat, 1886, 5½c.; lowest, 2c.; average for the season, 3·6c.							
1887 { Wheat	3·4	5·1	3·8	3·5	4·1	4·7	3·9
{ Corn	3·1	4·7	3·5	3·3	3·8	4·4	3·6
Highest rate, wheat, 1887, 6c.; lowest, 3c.; average for the season, 4·1c.							
1888 { Wheat	2·1	1·9	2·2	3·2	3·5	2·4	2·5
{ Corn	1·8	1·7	1·9	2·9	3·2	2·1	2·3
Highest rate, wheat, 1888, 4c.; lowest, 2c.; average for the season, 2·7c.							
1889 { Wheat	2·2	2·0	2·1	2·7	3·0	3·0	2·5
{ Corn	2·0	1·8	1·9	2·4	2·7	2·7	2·3
Highest rate, wheat, 1889, 3·6c.; lowest, 2c.; average for the season, 2·5c.							
1890 { Wheat	1·8	2·2	2·3	1·5	2·0	1·8	2·0
{ Corn	1·6	2·0	2·0	1·3	1·8	1·6	1·8
Highest rate, wheat, 1890, 2½c.; lowest, 1·5c.; average for the season, 1·9c.							
1891 { Wheat	1·4	1·2	2·1	2·7	3·3	2·2	4·1
{ Corn	1·2	1·1	2·0	2·5	3·0	2·1	3·8
Highest rate, wheat, 1891, 5¼c.; lowest, 1c.; average for the season, 2·4c.							
1892 { Wheat	1·9	1·8	2·0	2·3	2·3	2·3	2·6
{ Corn	1·7	1·6	1·8	2·1	2·1	2·1	2·3
Highest rate, wheat, 1892, 3c.; lowest, 1c.; average for the season, 2·2c.							
1893 { Wheat	1·3	1·8	1·2	1·3	1·7	2·1	2·0
{ Corn	1·2	1·6	1·1	1·2	1·5	1·9	1·8
Highest rate, wheat, 1893, 2¾c.; lowest, 1c.; average for the season, 1·6c.							
1894 { Wheat	1·4	1·2	0·9	1·0	1·4	1·1	1·3
{ Corn	1·2	1·1	0·9	0·9	1·3	1·0	1·3
Highest rate, wheat, 1894, 3c.; lowest, ¾c.; average for the season, 1·2c.							
1895 { Wheat	1·2	1·2	1·1	1·6	2·1	3·0	3·0
{ Corn	1·1	1·1	1·0	1·4	1·9	2·9	2·7
Highest rate, wheat, 1895, 3c.; lowest, 1c.; average for the season, 1·9c.							

Lake Freights from Duluth to Buffalo on Wheat (as reported by the Secretary of the Merchants' Exchange, Buffalo, N. Y.)

The following statement shows the weekly ruling lake freight rates on wheat from Duluth to Buffalo, during the season of 1895 :—

1895.		Wheat Bushels.	1895.		Wheat Bushels.
		Cts.			Cts.
April 1 to 16		Not quoted.	Week ending August 12		2½
Week ending April 27		2½	do do 19		2½
do May 4		2½	do do 26		2½
do do 11		3	do Sept. 3		3½
do do 18		2½	do do 10		3½
do do 25		3	do do 16		4
do June 1		3	do do 23		4
do do 8		2½	do do 30		4
do do 15		3½	do Oct. 7		4
do do 22		2½	do do 14		5 to 6
do do 29		2	do do 21		6 to 5½
do July 6		2	do do 28		5½ to 6
do do 13		2½	do Nov. 4		6
do do 20		2½	do do 11		6
do do 27		2½	do do 18		to 5½
do Aug. 3		2½	do do 25 to close		6

In 1885, the range of freight on wheat, Duluth to Buffalo, was 1½ to five cents ; in 1886, 3¼ to 8 cents ; in 1887, 5 to 8 cents ; in 1888, 2 to 5 cents ; in 1889, 2 to 5 cents ; in 1890, 2 to 5 cents ; in 1891, 1½ to 9½ cents ; in 1892, 2½ to 4 cents ; in 1893, 1½ to 3½ cents ; in 1894, 1¼ to 3 cents, and in 1895, 2 to 6 cents per bushel.

The first departure by lake at Duluth in 1895 was on April 27th ; and the first arrival on April 30th. In 1894, season opened on April 20th ; in 1893, on May 8 ; in 1892, on April 21st ; in 1891, on April 30th ; in 1890, on April 23rd ; in 1889, on April 20th ; in 1888, on May 12th ; in 1887, on May 8th ; and in 1886, on May 4th.

Wheat was shipped to Kingston, Canada, per bushel, during the season 1887, at 6½ to 7½ cents ; in 1888 at 4 to 5 cents ; in 1889, at ——— ; in 1890, 5½, 5½, 4½, 4½, 4 cents ; in 1891, during May, 3½, 3½, 2½ cents ; during June 3 cents ; and on July 25th 2½ cents ; in 1892, 5 cents in April ; 5, 5½ cents in May ; 4 cents in June ; 4½ cents in July ; 3 cents in August ; 6 to 6½ cents in October. In 1893, ranged from 5½ to 4½ cents in April ; 4½ to 4½ cents in May ; 4 to 3½ cents in June ; 2½ to 3 cents in July ; 3½ to 3½ cents in September ; no figures quoted after that date. In 1894, ranged from 3¼ to 3½ cents in May ; 3½ cents in June ; 2½ cents in July ; 2½ to 3¼ cents in August ; 4 cents in September, and 4½ cents in October. On August 25th and November 3rd, 1894, wheat to Ogdensburg at 3¼ cents and 4½ cents respectively. In 1895, wheat was shipped to Kingston from 3¼ cents to 8½ cents, according to time of year.

Department of Railways and Canals

LAKE FREIGHT RATES FROM TOLEDO TO BUFFALO ON WHEAT.

The following statement shows the ruling rates of lake freights on wheat from Toledo to Buffalo during the season of 1895, on the dates specified; (as reported by the Secretary of the Merchants' Exchange, Buffalo) :—

Date, 1895.	Wheat, bush.	Date, 1895.	Wheat, bush.
	Cts.		Cts.
Opening to May 17th	1½	October 12th to 22nd	2½
May 18th to July 29th	1	do 23rd to 27th	2
July 30th to August 7th	1½	do 28th to 30th	2½
August 8th to September 18th	1½	do 31st to November 3rd	2½
September 19th to October 11th	2	November 4th to close	2½

The range for 1886 was 1½ to 3 cts.; for 1887, 2¼ to 3 cts.; for 1888, 1½ to 2½ cts.; for 1889, 1½ to 2 cts.; for 1890, 1½ to 2 cts.; for 1891, 1 to 3 cts.; for 1892, 1½ to 2½ cts.; for 1893, 1 to 2 cts.; for 1894, 1 to 2 cts.; and for 1895, 1 to 2½ cts. per bushel.

From Toledo to Ogdensburg, wheat and corn shipped at 6 to 7 cts. in 1887; at 4½ to 6 cts. for wheat and 5 cts. for corn in 1888; and 5 to 5½ cts. for wheat in 1889 per bushel.

From Toledo, on October 8th, 1887, corn shipped to Kingston at 3½ cts. and on November 12th at 4½ cts. per bushel. In 1888, corn Toledo to Kingston at 4½ to 3 cts.; and wheat at 3½ to 3 cts. per bushel. In 1889, wheat Toledo to Kingston at 3 cts., and in 1891, rye Toledo to Kingston at 3 cts. per bushel. From Toledo, on June 2, 1887, wheat shipped to Montreal by propeller at 6½ cts.; on June 14th corn at same price; but on September 26th the rate on corn was only 5 cts. per bushel. In 1888, corn Toledo to Montréal at 6 to 5½ cts., and wheat at 5½ cts. per bushel. From 1889 to 1895 no shipments to Montreal or other places in Canada reported.

CANAL FREIGHTS FROM BUFFALO TO NEW YORK.

The following table shows the changes in the ruling rates of freight to New York, from Buffalo, on the days specified in 1895 (as reported by the Secretary, Merchants' Exchange, Buffalo) :

Date.	Wheat, bush.	Corn, bush.	Date.	Wheat, bush.	Corn, bush.
	Cts.	Cts.		Cts.	Cts.
1895.			1895.		
May 3			Aug. 7	2	1¾
do 6	2½	2	do 24	1½	1½
do 9	2	1½	Sept. 3	2½	2
do 13	2	1½	do 9	2½	1½
do 15	1½	1½	do 11	2	1½
do 20	1½	1½	do 18	2½	2
July 16	2	1½	do 20	2½	2½
do 23	2½	1½	do 23	2½	2½
do 25	2½	2	do 25	2½	2½
Aug. 1	2½	1½	Nov. 8 to close	3	2½

The freight on oats varied from 1 to 2½ cts. per bushel.

Pine lumber, per 1,000 feet, was carried from Buffalo and Tonawanda to New York as follows: Opened at \$1.75; changed on June 8th to 12th to \$1.60 and \$1.65; and October 3rd to the close, \$2. Rates to Albany, 50 cents per 1,000 feet less than on preceding figures.

AVERAGE CANAL FREIGHTS.

BUFFALO TO NEW YORK.

The following statement shows the average rates of canal freights on wheat and corn between Buffalo and New York during each month in the past ten years, and the highest and lowest rates on wheat, and average rate on wheat in each:—

Grain.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
1886 { Wheat	5·7	3·8	4·0	5·4	6·0	5·5	4·8
{ Corn	5·1	3·4	3·6	4·8	5·5	5·0	4·5
Highest rate, 1886, 6·5c. ; lowest, 3c. ; average for the season, 5c.							
1887 { Wheat	5·1	4·5	3·8	4·0	4·5	4·8	5·8
{ Corn	4·6	4·1	3·4	3·6	4·1	4·4	5·3
Highest rate, wheat, 1887, 7c. ; lowest, 3·5c. ; average for the season, 4·6c.							
1888 { Wheat	3·4	2·5	2·5	4·1	3·9	3·7	3·5
{ Corn	3·1	2·3	2·3	3·8	3·6	3·4	3·2
Highest rate, wheat, 1888, 4·5c. ; lowest, 2c. ; average for the season, 3·4c.							
1889 { Wheat	4·0	3·8	4·0	4·4	5·0	5·0	5·0
{ Corn	3·6	3·4	3·6	3·9	4·5	4·5	4·4
Highest rate, wheat, 1889, 5c. ; lowest, 3·7c. ; average for the season, 4·8c.							
1890 { Wheat	3·9	3·8	3·6	3·8	3·9	4·0	3·5
{ Corn	3·5	3·4	3·2	3·4	3·5	3·6	3·1
Highest rate, wheat, 1890, 4·2c. ; lowest, 3c. ; average for the season, 3·8c.							
1891 { Wheat	2·8	2·9	2·8	3·8	4·2	4·6	4·0
{ Corn	2·5	2·6	2·5	3·5	3·8	4·2	3·6
Highest rate, wheat, 1891, 4½c. ; lowest, 2·5c. ; average for the season, 3·5c.							
1892 { Wheat	2·7	2·2	2·4	3·0	3·8	4·7	4·6
{ Corn	2·4	2·0	2·2	2·6	3·4	4·4	4·3
Highest rate, wheat, 1892, 6c. ; lowest, 2½c. ; average for the season, 3·5c.							
1893 { Wheat	4·8	4·8	4·6	4·6	4·0	4·7	4·8
{ Corn	4·4	4·4	4·3	4·2	3·6	4·3	4·5
Highest rate, wheat, 1893, 5c. ; lowest, 3·6c. ; average for the season, 4·6c.							
1894 { Wheat	3·1	2·9	3·3	3·4	3·6	2·9	3·0
{ Corn	2·8	2·6	3·0	3·1	3·3	2·6	2·7
Highest rate, wheat, 1894, 4c. ; lowest, 2·6c. ; average for the season, 3·2c.							
1895 { Wheat	1·9	1·7	2·0	2·0	2·1	2·5	2·7
{ Corn	1·7	1·5	1·7	1·7	2·0	2·2	2·5
Highest rate, wheat, 1895, 3c. ; lowest, 1·9c. ; average for the season, 2·2c.							

NOTE.—Canal free of tolls since 1882.

Department of Railways and Canals.

FREIGHT, TOLLS, ELEVATING AND STORAGE RATES COMPARED.

The following statement shows the receipts of grain and flax-seed at Buffalo, the average canal freight on wheat, and the tolls on wheat to New York, and the elevating and storage rates at Buffalo for a series of years (as reported by Secretary, Merchants' Exchange, Buffalo):

Year.	Grain received.	Average Canal Freight on Wheat.	Tolls on Wheat.	Elevating, including Storage.
	Bush.	Cts.	Cts.	Cts.
1870.....	32,208,039	11 2	3 1	1 1/2
1871.....	61,319,313	12 6	3 1	1 1/2
1872.....	58,703,666	13 0	3 1	1 1/2
1873.....	65,498,955	11 4	3 1	1 1/2
1874.....	55,660,198	10 0	3 1	1 1/2
1875.....	52,833,451	7 9	2 0	1
1876.....	44,207,121	6 6	2 0	1
1877.....	61,822,292	7 4	1 0	1
1878.....	78,828,443	6 0	1 0	1
1879.....	75,089,768	6 8	1 0	1
1880.....	105,133,009	6 5	1 0	1
1881.....	56,389,827	4 7	1 0	1
1882.....	51,501,503	5 4	1 0	1
1883.....	65,722,080	4 9	None.	1
1884*.....	58,011,800	4 2	do	1
1885*.....	52,671,090	3 8	do	1
1886*.....	75,570,850	5 0	do	1
1887*.....	87,073,570	4 6	do	1
1888*.....	73,977,390	3 4	do	1
1889*.....	92,290,550	4 8	do	1
1890*.....	91,994,680	3 8	do	1
1891*.....	135,315,510	3 5	do	1
1892*.....	138,872,560	3 5	do	1
1893*.....	140,796,410	4 6	do	1
1894*.....	105,435,577	3 2	do	1
1895*.....	121,225,497	2 2	do	1

NOTE.—Prior to 1870 tolls 6 21 cents per bushel, and the elevating charge 2 cents per bushel.

*Including flax-seed.

AVERAGE FREIGHT CHARGES PER BUSHEL

For the transportation of wheat and corn from Chicago to New York for a series of years.

(From Report of Board of Trade, Chicago.)

	CORN.			WHEAT.		
	By lake and canal.	By lake and rail.	By all rail.	By lake and canal.	By lake and rail.	By all rail.
1858	127		3619	1550		3861
1859	1570		3248	1663		3480
1860	a 0833		3248	a 095		3480
1861	a 1062		3881	a 1210		4158
1862	a 0957		4480	a 1062		4800
1863	a 063		4592	a 072		4920
1864	a 09		5600	a 0952		60
1865	a 0864		4188	a 0894		4488
1866	a 1075		4312	a 1377		4620
1867	a 0511		4176	a 08		4475
1868	a 0604		3532	a 0802		3784
1869	a 0584	2355	3320	a 0651	2520	3557
1870	a 16	2220	28	a 0677	2250	30
1871	a 0754	2372	2968	a 0687	2542	3180
1872	a 1072	2660	3266	a 1110	2950	3499
1873	a 0816	2298	2893	a 0917	2461	3102
1874	a 0382	1388	2450	a 0400	1709	2625
1875	a 034	1303	2240	a 0378	1389	2400
1876	b 0875	1079	1574	b 0982	1136	1686
1877	b 0959	1406	1890	b 1109	1546	2050
1878	b 0883	1053	1652	b 0996	1209	1770
1879	b 1049	1220	1456	b 1187	1313	1774
1880	b 1341	1443	1748	b 1313	1580	1980
1881	b 0777	0942	1340	b 0867	1049	1440
1882	b 0672	1028	1350	b 0723	1091	1447
1883	b 0803	11	1512	b 0901	1163	1620
1884	b 0655	085	1232	b 07	10	1320
1885	b 063	0801	1232	b 0654	0902	1320
1886	b 0845	1120	14	b 0910	12	1500
1887	b 0850	1120	1470	b 0950	12	1575
1888	b 0671	1026	1354	b 0705	1114	1450
1889	b 0632	0819	126	b 0692	0897	1500
1890	b 0593	0732	1136	b 0676	0852	1430
1891	b 0632	0753	1400	b 0695	0857	1500
1892	b 0595	0721	1296	b 0645	0759	1380
1893	b 0718	0797	1365	b 0766	0848	1463
1894	b 0493	0650	1232	b 0511	0700	1320
1895	b 0450	0640	1029	b 0486	0696	1189

a To Buffalo only. b Including Buffalo charges and tolls.

Department of Railways and Canals.

FOREIGN FREIGHT RATES.

ANNUAL average Freight Rates on Grain, Flour and Provisions (per 100 lbs.),
from Chicago to European Ports, by all Rail to Sea-board and thence by steamers.

Shipped to	Articles.	1895.	1894.	1893.	1892.
		\$	\$	\$	\$
Liverpool.....	Grain.....	3200	3250	3410	3287
do.....	Sacked flour.....	3400	3316	3515	3625
do.....	Provisions.....	4181	4406	4547	4575
Glasgow.....	Grain.....	3419	3463	3585	3550
do.....	Sacked flour.....	3625	3503	3625	3906
do.....	Provisions.....	4969	4659	4828	4969
London.....	Grain.....	3329	3288	3760	3462
do.....	Sacked flour.....	3513	3493	3794	3681
do.....	Provisions.....	4603	4575	4828	4688
Antwerp.....	do.....	4828	4688	4828	5025
Hamburg.....	do.....	5000	5000	5250	5000
Amsterdam.....	do.....	5000	5000	5000	5500
Rotterdam.....	do.....	4800	5000	5000	5500
Copenhagen.....	do.....	5531	5531	5531	6094
Stockholm.....	do.....	6656	6656	6656	7219
Stettin.....	do.....	5531	5531	5531	6094
Bordeaux.....	do.....	6413	6250	6000	6200

LAKE FREIGHTS ON COAL FROM BUFFALO TO CHICAGO AND OTHER PORTS.

The following statement shows the ruling freight rates on coal per net ton, in cents, from Buffalo to the Ports named, during the season of 1895, for the week ending on the dates specified.

Week ending.	Chicago.	Milwaukee.	Duluth and Superior Ports.	Green Bay.	Gladstone.	Sheboegan.	Toledo.	Detroit.	Racine.	Saginaw.	Bay City.	Washburn.	Ashland.
April 27.....	Cts. 40 to 30	Cts. 30	Cts. 25 to 15	Cts. 20	Cts. 20	Cts. 25	Cts. 20	Cts. 20	Cts. 40	Cts. 35	Cts. 20	Cts. 20	Cts. 25
May 4.....	30	30	15	15	15	25	25	25	40	35	20	25	25
do 11.....	30	30	15	30	15	25	25	25	40	35	25	25	25
do 18.....	30	30	15	30	15	25	25	25	40	35	25	25	25
do 25.....	30 to 35	30	15	30	15	25	25	25	40	35	25	25	25
June 1.....	30 to 40	35	15	35	20	25	25	25	40	35	30	25	25
do 8.....	40	35	15	35	20	25	25	25	40	35	30	25	25
do 15.....	40 to 50	35 to 45	20	45	20	25	25	25	50	35	25	25	25
do 22.....	50	45	20	45	20	25	25	25	50	35	30	25	25
do 29.....	50	45	20	45	20	25	25	25	50	35	30	25	25
July 6.....	50	45	25	45	25	25	25	25	50	35	25	25	25
do 13.....	50	45	25	45	25	25	25	25	50	35	25	25	25
do 20.....	50	45	25	45	25	25	25	25	50	35	25	25	25
do 27.....	50	45	25	45	25	25	25	25	50	35	25	25	25
Aug. 3.....	50	45	25	45	25	25	25	25	50	35	25	25	25
do 10.....	50	45	25	45	25	25	25	25	50	35	25	25	25
do 17.....	50	45	25	45	25	25	25	25	50	35	25	25	25
do 24.....	50	45	25	45	25	25	25	25	50	35	25	25	25
do 31.....	50	45	25	45	25	25	25	25	50	35	25	25	25
do.....	50	45	25	45	25	25	25	25	50	35	25	25	25
Sept. 7.....	65	60	30	60	30	25	25	25	50	35	25	25	25
do 14.....	70	65	30	60	30	25	25	25	50	35	25	25	25
do 21.....	75	65	30	65	30	25	25	25	50	35	25	25	25
do 28.....	75	65	30	65	30	25	25	25	50	35	25	25	25
do.....	75 to 90	65 to 80	30	65	30	25 to 30	25	25	50	35	25	25	25
Oct. 5.....	90	80	30	80	30	25	25	25	50	35	25	25	25
do 12.....	90	80	30	80	30	25	25	25	50	35	25	25	25
do 19.....	90	80	30	80	30	25	25	25	50	35	25	25	25
do 26.....	90	80 to 85	30	85	30	25	25	25	50	35	25	25	25
Nov. 2.....	90	80 to 85	30	85	30	25	25	25	50	35	25	25	25
do 9.....	90	85	30	85	30	25	25	25	50	35	25	25	25
do 16.....	90	85	30	85	30	25	25	25	50	35	25	25	25
do 23.....	90	85	30	85	30	25	25	25	50	35	25	25	25
do 30.....	90 to 75	80 to 85	30	85	30	25	25	25	50	35	25	25	25
Dec. 7, to close.	95 to 90	85	30	85	30	25	25	25	50	35	25	25	25

NOTE.—All coal carried on the lakes is loaded and unloaded free of expense to the vessel.

Department of Railways and Canals

TOTAL VALUES of Merchandise Received from British North America for Immediate Transit across United States Territory, for Immediate Transhipment in Ports of the United States to British North America, and so shipped, during each year from 1873 to 1895 inclusive.

YEAR ENDING 30TH JUNE.	COUNTRIES FROM WHICH RECEIVED.						COUNTRIES TO WHICH SHIPPED.					
	British North America.						British North America.					
	Nova Scotia, New Brunswick, and Prince Edward Island.	Quebec, Ontario, Manitoba and the North-west Territories.	British Columbia.	Newfoundland and Labrador.	Total.	\$ cts.	Nova Scotia, New Brunswick, and Prince Edward Island.	Quebec, Ontario, Manitoba and the North-west Territories.	British Columbia.	Newfoundland and Labrador.	Total.	\$ cts.
1873	495,289	12,894,164	5,240	.....	13,394,693	5,282,290	21,320,174	181,720	.....	26,784,184	\$ cts.
1874	449,655	13,616,344	97,691	.....	14,163,690	7,150,036	19,843,169	317,534	.....	27,310,739	\$ cts.
1875	443,570	17,342,933	256,074	.....	18,042,577	8,999,696	20,283,639	517,060	.....	20,800,295	\$ cts.
1876	261,443	22,134,275	195,047	1,137	22,591,902	9,102,600	14,638,358	658,836	94	24,419,888	\$ cts.	
1877	169,658	12,692,619	218,418	.....	12,471,695	2,879,422	15,551,238	544,018	2,475	18,977,153	\$ cts.
1878	163,978	11,627,114	12,966	.....	12,204,058	851,268	11,436,470	524,013	934	12,912,685	\$ cts.
1879	194,129	11,606,832	290,079	56	12,081,095	889,539	11,520,877	476,824	2,947	12,889,587	\$ cts.	
1880	215,131	16,782,315	137,271	.....	17,134,717	1,643,716	14,866,663	531,436	288	17,042,103	\$ cts.
1881	171,383	16,758,108	73,555	.....	17,002,046	1,778,836	20,857,827	719,268	333	23,356,264	\$ cts.
1882	164,990	28,285,083	113,018	87	28,543,178	2,732,665	34,005,845	855,784	1,190	37,505,464	\$ cts.	
1883	561,791	29,204,031	36,973	25	29,803,820	2,455,557	35,878,389	971,307	7,335	39,312,568	\$ cts.	
1884	656,233	12,574,953	188,041	.....	13,419,227	1,740,900	19,171,466	1,475,833	5,186	22,939,385	\$ cts.
1885	933,306	12,290,483	308,691	633	13,523,613	1,635,442	16,448,942	1,615,293	781	19,700,468	\$ cts.	
1886	1,165,973	9,303,864	353,104	32,079	10,861,020	2,040,298	16,369,429	1,825,178	6,174	20,241,079	\$ cts.	
1887	1,684,730	9,606,175	213,816	.....	11,504,721	1,621,748	19,930,296	635,841	70	22,187,955	\$ cts.
1888	1,525,048	6,417,701	372,934	27,134	8,542,817	1,781,028	13,459,169	370,222	1,137	13,611,656	\$ cts.	
1889	2,596,233	8,356,178	294,859	89,853	11,336,123	2,494,787	18,993,967	666,627	2,704	22,146,975	\$ cts.	
1890	3,070,957	12,449,772	306,897	174,584	16,001,910	5,277,210	21,140,198	913,106	4,690	27,336,275	\$ cts.	
1891	3,859,079	15,310,945	422,806	187,640	19,780,470	5,605,614	21,696,992	547,144	34,273	27,863,023	\$ cts.	
1892	4,383,062	12,405,704	201,373	328,116	23,928,255	2,079,733	24,189,181	428,188	6,962	26,704,114	\$ cts.	
1893	1,069,697	16,404,425	89,565	381,986	17,885,573	2,052,357	20,282,400	409,055	26,289	22,720,111	\$ cts.	
1894	1,070,676	15,649,881	348,069	273,467	17,342,093	1,831,415	17,860,668	463,471	6,640	20,182,216	\$ cts.	
1895	1,199,782	17,774,106	411,557	286,415	19,621,862	1,834,747	19,320,714	568,991	7,844	21,722,294	\$ cts.	

TOTAL VALUES of Merchandise received from the Principal and other Foreign Countries for immediate Transit across United States Territory or for Immediate Transhipment in Ports of the United States to other foreign countries, and so shipped, for each Year from 1868 to 1895 inclusive.

Year ending June 30.	Countries from which received.										Countries to which shipped.					Total Value of Merchandise received and shipped.
	Great Britain and Ireland.	Germany.	British North American Possessions.	Mexico.	Cuba.	Other Countries.	Great Britain and Ireland.	Germany.	British North American Possessions.	Mexico.	Cuba.	Other Countries.				
1868	10,684,576	132,074	4,864,209	14,967	4,263,621	1,576,157	2,025,023	3,212,123	14,375,419	481,643	116,521	1,304,875	21,516,604			
1869	10,891,698	150,382	5,852,678	60,715	2,373,474	1,767,037	2,693,625	1,547,602	15,063,821	448,300	72,875	1,290,861	21,095,984			
1870	10,210,455	302,806	7,215,973	103,977	3,309,227	2,049,422	2,946,053	2,116,249	16,689,037	321,331	136,915	983,275	23,191,860			
1871	13,473,915	322,110	7,954,060	344,179	1,307,573	1,913,200	4,031,319	1,033,307	18,406,475	346,872	345,224	1,211,840	23,375,037			
1872	17,633,231	227,232	9,276,169	174,104	2,227,422	1,847,162	2,743,494	2,263,309	24,042,790	358,151	179,570	1,797,496	40,099,185			
1873	19,144,815	250,704	13,394,693	286,607	3,737,904	1,284,462	5,144,175	5,622,325	26,784,184	235,113	319,771	1,983,617	40,099,185			
1874	18,832,900	211,907	14,163,690	151,920	4,563,869	1,926,390	3,391,201	3,866,642	27,310,739	665,214	590,493	1,096,387	38,850,076			
1875	18,367,276	325,648	18,042,577	115,527	1,750,368	1,785,947	7,229,912	1,495,285	29,860,295	1,135,004	248,368	757,429	40,686,283			
1876	14,304,197	290,489	22,591,902	226,315	2,962,903	1,686,780	11,791,910	2,958,558	24,419,888	1,129,440	600,061	1,163,508	42,062,656			
1877	13,782,085	337,897	12,471,695	158,852	1,095,451	1,481,683	7,758,501	1,108,298	18,977,153	329,577	306,311	776,933	29,256,773			
1878	10,084,510	378,768	12,204,068	146,822	3,041,957	1,481,683	9,577,050	2,292,572	12,889,587	330,968	174,757	1,305,908	27,337,148			
1879	8,795,340	521,917	12,091,095	223,320	1,964,042	1,521,153	8,173,951	3,638,477	17,042,103	300,148	224,848	1,272,032	25,045,967			
1880	10,311,139	620,704	17,134,747	239,655	3,606,099	1,942,405	9,122,079	2,729,246	23,353,264	671,008	177,340	1,648,121	33,857,749			
1881	14,898,052	721,344	17,092,046	217,444	2,642,550	2,222,122	11,692,806	5,336,361	39,312,568	800,225	319,611	2,282,552	58,005,459			
1882	18,911,637	755,560	28,543,178	380,100	5,682,926	3,812,058	11,089,865	7,758,994	39,312,568	800,225	319,611	2,282,552	58,005,459			
1883	20,232,222	1,149,195	29,802,820	281,309	3,126,069	4,276,712	11,089,865	5,288,389	2,490,488	2,928,385	221,061	2,461,146	36,814,392			
1884	14,038,694	948,901	13,419,227	408,124	3,655,668	4,345,878	7,235,519	3,771,524	19,700,458	1,262,515	119,376	2,246,146	34,435,538			
1885	11,064,186	1,140,548	13,523,613	308,293	4,853,354	3,545,544	8,510,097	3,803,566	20,241,979	452,700	2,751,423	3,561,358	33,343,269			
1886	13,142,644	1,462,414	10,861,020	216,078	6,797,879	4,538,229	10,052,210	4,353,992	15,611,656	3,766,476	608,121	3,997,596	47,403,253			
1887	17,977,200	1,670,952	11,504,721	111,635	8,390,853	4,720,760	6,853,195	5,651,043	22,146,975	4,781,110	892,158	5,768,287	69,599,426			
1888	13,707,240	1,817,511	8,342,817	129,497	6,890,846	4,534,262	9,233,659	4,681,064	27,335,678	4,944,149	1,215,399	6,450,301	57,497,917			
1889	19,080,640	2,382,456	16,902,123	286,654	9,094,736	5,032,610	10,656,466	5,097,434	27,883,023	5,032,318	1,966,861	7,985,977	69,599,426			
1890	20,879,851	2,735,546	16,090,364	689,050	9,759,256	5,898,763	11,968,908	3,640,940	26,704,114	4,963,919	1,472,980	9,269,451	67,949,837			
1891	21,334,783	2,930,571	23,928,255	1,383,455	11,064,445	8,426,669	18,511,287	6,995,637	22,720,216	4,643,455	2,034,549	12,069,492	71,507,575			
1892	20,367,322	3,466,885	17,885,573	1,031,171	14,426,669	10,131,171	18,394,865	11,154,933	20,182,216	4,543,455	2,586,919	16,645,187	67,949,837			
1893	19,641,639	3,717,740	17,342,068	1,838,367	9,916,742	19,031,011	18,394,865	11,154,933	20,182,216	4,543,455	2,586,919	16,645,187	67,949,837			
1894	18,531,083	4,122,899	19,621,862	2,515,091	10,420,277	10,465,981	20,562,325	6,684,735	21,722,294	4,512,293	1,951,985	10,243,561	65,677,193			

Department of Railways and Canals

FOREIGN CARRYING TRADE.

VALUE of the Imports and Exports of the United States carried respectively in cars and other land vehicles, in American vessels and in foreign vessels during each Fiscal Year, from 1857 to 1895 inclusive, with the percentage carried in American vessels (coin and bullion are included from 1857 to 1879, inclusive,) as method of transportation of specie and merchandise cannot be separately stated.

Year ending June 30.	IMPORTS.			EXPORTS.			TOTAL IMPORTS AND EXPORTS.				Percentage carried in American vessels.
	In cars and other land vehicles	In American vessels.	In Foreign vessels.	In cars and other land vehicles	In American vessels.	In Foreign vessels.	In American vessels.	In Foreign vessels.	Total.		
										\$	
1857	259,116,170	101,773,971	251,214,857	111,745,825	510,331,027	213,519,796	723,850,823	70.5			
1858	203,700,018	78,913,134	243,491,288	81,153,133	447,191,304	160,066,267	607,257,571	73.7			
1859	216,123,428	122,644,702	249,617,953	107,171,509	465,741,381	229,816,211	695,557,592	66.9			
1860	228,164,855	134,001,399	279,082,902	121,089,394	507,247,757	255,040,793	762,288,550	66.5			
1861	201,544,065	134,106,098	179,972,733	69,372,180	381,516,788	203,478,278	584,995,066	65.2			
1862	92,274,100	113,497,629	126,421,318	104,517,667	241,872,471	218,015,286	439,710,714	50.0			
1863	109,744,680	143,175,340	132,127,891	199,890,691	241,872,471	343,056,031	584,928,502	41.4			
1864	74,395,116	174,170,336	93,017,756	262,839,588	184,061,486	485,793,548	669,855,034	27.5			
1865	112,040,305	333,471,763	213,671,466	351,754,928	325,711,861	685,226,691	1,010,938,552	32.2			
1867	117,269,586	300,622,036	180,625,368	280,708,368	297,834,904	581,330,403	879,166,307	33.9			
1868	122,966,225	248,659,583	175,106,948	301,886,941	297,981,573	560,546,074	848,527,647	36.1			
1869	136,802,024	300,512,231	153,154,748	285,979,781	289,986,772	586,492,012	876,448,784	33.1			
1870	153,237,077	309,140,510	199,732,264	329,930,932	352,969,401	638,927,488	991,896,869	31.6			
1871	163,285,710	363,020,644	190,378,462	392,801,932	353,664,172	755,822,576	1,132,472,258	31.2			
1872	177,286,302	445,416,783	169,044,799	393,929,579	345,341,101	839,346,362	1,212,328,233	28.5			
1873	174,739,884	471,806,765	171,666,768	494,915,866	346,306,592	966,723,651	1,340,689,221	26.8			
1874	14,513,335	176,027,778	174,424,216	533,865,971	350,451,994	939,206,106	1,312,690,640	26.7			
1875	13,083,859	157,872,726	156,385,066	501,838,949	314,257,792	884,788,517	1,119,434,544	25.8			
1876	12,148,667	143,369,704	167,686,467	492,215,487	311,076,171	813,354,987	1,142,904,312	27.2			
1877	10,697,640	151,834,067	164,826,214	530,354,703	316,680,281	859,920,536	1,194,045,627	26.5			
1878	12,963,999	146,499,282	166,561,324	669,583,564	313,050,906	876,991,129	1,210,519,369	26.9			
1879	11,983,623	143,690,353	128,425,639	600,769,633	219,423,685	1,202,015,692	2,002,708,609	22.6			
1880	15,149,213	139,631,146	109,029,209	720,770,521	20,981,393	258,346,577	1,224,265,434	17.18			
1881	17,193,213	133,631,146	116,955,324	777,162,714	25,452,521	250,586,470	1,269,002,983	16.22			
1882	22,854,946	130,266,826	96,962,919	641,480,967	34,973,317	227,229,745	1,212,978,769	15.44			
1883	23,063,048	136,002,280	104,418,844	694,331,348	48,092,892	240,420,500	1,238,506,024	15.60			
1884	20,140,294	136,046,267	98,652,828	615,287,007	46,714,068	233,699,035	1,127,798,199	16.60			
1885	21,149,476	118,964,852	82,001,691	636,004,765	46,332,750	197,865,743	1,073,911,113	14.76			
1886	24,555,683	118,842,617	78,406,680	581,973,437	43,700,350	194,349,503	1,314,960,966	15.01			
1887	27,562,059	121,365,493	72,991,253	621,802,292	49,951,725	194,366,746	1,468,502,979	13.80			

VALUE of the Imports and Exports of the United States carried respectively in cars and other land vehicles, etc.—*Concluded.*

Year ending June 30.	IMPORTS.			EXPORTS.			TOTAL IMPORTS AND EXPORTS.				Percentage carried in American vessels.
	In cars and other land vehicles	In American vessels.	In Foreign vessels.	In cars and other land vehicles	In American vessels.	In Foreign vessels.	In cars and other land vehicles	In American vessels.	In Foreign vessels.	Total.	
1886	32,209,459	123,525,298	568,222,357	23,147,368	67,332,175	606,474,964	54,356,827	190,857,473	1,174,697,321	1,419,911,621	13.44
1889	38,227,861	120,782,910	586,120,881	28,436,517	83,022,198	630,942,660	66,664,378	203,805,108	1,217,063,541	1,487,533,027	13.70
1890	40,621,361	124,948,948	623,740,100	32,949,802	77,562,138	747,376,644	73,576,263	202,451,086	1,371,116,744	1,647,139,693	12.29
1891	40,932,755	127,471,678	676,511,763	31,923,439	78,968,047	773,589,324	72,856,194	206,459,725	1,450,101,087	1,729,397,006	11.94
1892	39,726,595	139,139,891	648,535,976	33,220,629	81,033,844	916,023,675	72,947,224	220,173,735	1,564,559,651	1,857,680,610	11.85
1893	44,121,094	127,095,434	695,184,394	43,862,947	70,670,073	733,132,174	87,984,041	197,765,607	1,428,316,568	1,714,066,116	12.2
1894	29,623,095	121,561,193	503,810,334	49,221,427	73,707,023	769,212,122	78,844,522	195,268,216	1,273,022,456	1,547,135,194	13.3
1895	33,201,988	108,229,615	590,538,362	49,902,754	62,277,581	695,357,830	83,104,742	170,507,196	1,285,896,192	1,589,508,130	11.7

NOTES.—1. The amounts carried in cars and other land vehicles, were not separately stated prior to July 1, 1870. 2. Exports are stated in mixed gold and currency values from 1862 to 1879, inclusive.

Department of Railways and Canals.

STATEMENT showing the Total Values of Foreign Merchandise transported in the In-Transit and Transshipment Trade of the United States with the British North American Possessions during each year from 1871 to 1895.

Year ending 30th June.	Received for transit and transshipment from British North American Possessions.			Shipped in transit to or transshipment for British North American Possessions.		
	By Land.	By Water.	Total.	By Land.	By Water.	Total.
	\$	\$	\$	\$	\$	\$
1871.....	6,035,585	1,918,475	7,954,060	15,624,591	2,781,884	18,406,475
1872.....	8,237,859	1,038,310	9,276,169	19,357,342	4,685,448	24,042,790
1873.....	11,700,787	1,693,906	13,394,693	20,178,666	6,605,518	26,784,184
1874.....	12,695,590	1,468,100	14,163,690	20,572,299	6,938,430	27,510,739
1875.....	16,890,022	1,152,555	18,042,577	23,794,129	6,006,166	29,800,295
1876.....	21,301,262	1,290,640	22,591,902	19,369,958	5,049,930	24,419,888
1877.....	10,835,642	1,636,053	12,471,695	17,066,855	1,910,298	18,977,153
1878.....	10,314,534	1,889,524	12,204,058	11,914,321	998,364	12,912,685
1879.....	10,098,998	1,982,097	12,081,095	12,030,635	858,952	12,889,587
1880.....	15,265,177	1,869,570	17,134,747	16,388,673	653,430	17,042,003
1881.....	15,200,967	1,801,079	17,002,046	22,828,270	527,994	23,356,264
1882.....	24,665,029	3,878,149	28,543,178	36,613,465	982,019	37,595,484
1883.....	26,382,370	3,420,450	29,802,820	38,389,318	923,250	39,312,568
1884.....	13,043,498	375,729	13,419,227	22,120,587	818,798	22,939,385
1885.....	12,755,686	767,927	13,523,613	19,105,476	594,982	19,700,458
1886.....	9,593,344	1,267,676	10,861,020	19,428,867	812,212	20,241,079
1887.....	9,377,041	2,127,680	11,504,721	20,178,365	2,009,590	22,187,955
1888.....	6,309,024	2,033,793	8,342,817	13,347,876	2,063,780	15,411,656
1889.....	8,303,171	3,032,952	11,336,123	19,299,966	2,849,263	22,149,229
1890.....	13,524,298	2,477,612	16,001,910	24,788,152	2,547,052	27,335,201
1891.....	18,065,925	1,714,545	19,780,470	25,185,706	2,697,317	27,883,023
1892.....	21,346,413	2,581,842	23,928,255	23,989,746	2,714,368	26,704,114
1893.....	13,807,662	4,077,911	17,885,573	20,151,432	2,568,679	22,720,111
1894.....	13,501,664	3,840,429	17,342,093	17,974,332	2,207,884	20,182,216
1895.....	14,068,922	5,552,940	19,621,862	18,752,226	2,970,068	21,722,294

NOTE.—This movement forms no part of the import and export trade.

C.—TABLE showing the Tonnage of the undermentioned Articles moved on

YEARS.	VEGETABLE FOOD.						
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Vegetable Food.*
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869.....	71,051	670,534	256,475	99,012	92,309	13,489	99,743
1870.....	54,978	658,524	193,129	123,191	117,941	19,520	127,727
1871.....	41,211	748,549	672,057	113,992	129,891	34,563	109,935
1872.....	20,534	403,903	902,753	120,061	92,959	13,357	120,753
1873.....	19,307	803,064	637,296	70,586	70,023	30,160	114,735
1874.....	29,134	772,163	519,203	98,654	59,408	8,215	280,821
1875.....	17,635	744,293	282,031	104,475	62,717	8,309	86,090
1876.....	9,290	416,376	365,254	96,494	52,147	19,949	104,783
1877.....	8,923	448,043	723,458	139,453	66,045	35,948	77,114
1878.....	5,904	844,555	734,993	89,534	85,029	64,613	88,106
1879.....	7,164	949,466	621,180	96,144	23,164	59,210	77,071
1880.....	8,266	966,052	1,156,619	106,247	20,893	26,340	86,673
1881.....	6,926	444,832	475,823	81,587	30,321	15,484	61,588
1882.....	9,372	642,215	251,687	96,650	22,180	43,372	53,300
1883.....	9,047	573,740	522,978	58,787	51,607	95,246	67,595
1884.....	7,251	790,409	198,216	65,008	52,696	71,462	51,944
1885.....	6,869	565,922	359,982	64,587	8,234	10,211	47,505
1886.....	9,005	993,129	354,765	62,854	7,278	3,073	59,782
1887.....	4,089	936,840	446,617	75,458	35,365	6,717	47,678
1888.....	3,287	491,419	499,218	41,100	70,315	12,532	49,087
1889.....	4,429	484,141	592,550	66,110	63,674	36,329	49,663
1890.....	3,489	353,738	616,702	90,754	48,438	21,657	33,123
1891.....	3,126	756,101	142,141	71,903	16,362	68,771	33,951
1892.....	4,879	620,768	150,269	51,596	72,444	4,236	33,807
1893.....	2,367	1,093,927	252,283	49,651	24,714	6,518	20,656
1894.....	2,909	903,361	275,377	89,700	100,874	5,288	22,620
1895.....	2,240	280,550	94,403	77,868	87,839	205	59,400

* Apples, meal all kinds, pease, potatoes.

Department of Railways and Canals.

all Canals in the State of New York, during a series of twenty-seven years.

HEAVY GOODS.						
Total.	Railway Iron.	Other Iron.	Salt.	Coal.	Ores.	Total.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1,302,613	137,677	79,652	263,333	1,324,408	183,992	1,989,062
1,295,010	135,930	89,708	266,740	1,558,185	238,802	2,239,365
1,850,198	178,269	100,310	248,709	1,194,037	289,952	2,011,277
1,674,320	161,667	96,996	248,558	1,462,590	377,592	2,347,403
1,745,171	53,363	62,581	216,706	1,625,859	415,968	2,374,477
1,767,598	24,511	82,955	173,590	1,413,162	232,544	1,926,762
1,805,550	36,603	95,305	186,785	1,217,091	283,219	1,819,003
1,064,293	11,691	69,450	114,070	1,036,698	173,530	1,405,439
1,498,984	10,341	58,823	156,918	1,286,881	250,573	1,763,541
1,912,734	8,385	65,642	139,927	889,873	210,078	1,313,905
1,833,399	27,634	99,568	136,021	971,074	314,411	1,548,708
2,371,090	93,613	139,993	144,487	959,342	370,884	1,709,319
1,116,561	73,650	205,005	113,756	1,092,003	337,873	1,827,287
1,118,776	58,921	122,786	108,040	1,228,435	364,361	1,882,543
1,379,000	46,553	47,412	190,392	1,152,849	293,892	1,731,098
1,236,986	28,513	54,471	161,788	954,288	210,610	1,400,670
1,063,310	12,215	38,726	161,272	1,025,941	195,750	1,433,904
1,489,886	10,878	152,030	112,002	857,884	269,914	1,402,708
1,552,764	21,368	224,979	124,054	905,424	243,578	1,539,403
1,166,958	2,596	43,881	106,344	1,219,680	259,269	1,631,770
1,296,896	3,278	78,135	112,100	1,094,897	234,948	1,523,358
1,167,901	5,800	26,804	93,181	830,154	202,072	1,157,291
1,092,355	1,960	36,770	81,232	881,502	215,686	1,217,150
937,999	524	40,073	93,216	832,397	136,612	1,102,822
1,450,116	536	25,204	52,094	741,934	102,275	922,043
1,400,129	267	22,614	70,353	609,368	37,641	740,243
602,505	4,263	59,402	71,334	766,723	144,076	1,045,798

D.—TABLE showing the Tonnage of the undermentioned Articles, moved through

YEAR.	VEGETABLE FOOD.						
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles. †
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869*.....	45,674	313,825	120,599	20,951	.....	904	1,937
1872.....	26,651	239,998	254,902	6,035	7,752	64	2,745
1873.....	30,665	355,847	180,169	8,225	1,194	3	3,777
1874.....	24,019	413,212	181,151	18,871	5,954	513	8,677
1875.....	13,964	253,835	103,749	35,751	3,383	917	6,337
1876.....	15,778	201,906	144,501	18,455	24,496	1,454	3,198
1877.....	13,558	253,953	169,196	19,870	2,810	2,439	2,355
1878.....	9,121	191,982	185,931	10,979	3,088	.....	2,302
1879.....	10,710	274,570	144,506	4,655	1,239	440	2,444
1880.....	12,679	242,020	163,738	17,772	477	1,016	1,480
1881.....	9,959	127,832	101,075	24,509	.....	1,844	2,086
1882.....	12,261	215,056	54,799	20,126	611	3,226	403
1883.....	13,471	152,794	182,269	10,436	731	1,642	10,983
1884.....	13,683	144,851	118,811	7,155	10,746	1,320	9,168
1885.....	13,334	124,206	117,536	15,801	1,116	.....	1,912
1886.....	19,474	154,169	219,442	1,595	4,911	564	14,657
1887.....	23,949	221,927	114,938	9,574	12,050	.....	12,533
1888.....	16,983	160,963	194,886	5,906	26,629	811	13,608
1889.....	7,931	126,664	353,595	4,272	28,356	2,673	18,552
1890.....	14,461	118,002	327,394	10,830	27,728	1,549	20,876
1891.....	13,517	198,658	185,180	8,113	52,959	65,888	28,042
1892.....	17,046	232,019	192,548	6,433	37,173	9,392	32,815
1893.....	15,235	258,392	441,092	18,599	31,283	3,671	36,981
1894.....	33,628	270,993	169,233	28,353	27,962	567	60,673
1895.....	44,044	203,088	164,894	8,689	18,236	1,007	46,463

*Fiscal.

†Apples, meal, all kinds, pease, potatoes.

Department of Railways and Canals.

the Welland Canal, during a series of Twenty-five Years ended 31st Dec., 1895.

HEAVY GOODS.							
Total.	Railway Iron.	Other Iron.	Salt.	Iron and salt having paid full tolls on St. Lawrence Canals.	Coal.	Ores.	Total.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
503,860	68,064	16,924	91,575	37,153	103,126	58,781	275,623
538,147	26,217	17,141	50,540	44,243	186,932	98,605	423,678
579,880	6,923	20,754	40,850	17,157	339,016	118,685	543,387
647,397	6,032	12,068	23,309	9,579	323,503	56,825	431,316
417,936	1,517	7,588	13,509	9,962	321,306	43,683	397,565
409,788	51	7,997	30,300	20,327	288,211	81,654	378,540
464,181	9,630	9,696	9,173	3,983	323,869	42,758	399,109
403,403	10	11,518	3,980	12,686	295,318	15,229	338,741
438,564	2,782	5,797	7,174	17,796	192,957	19,164	245,670
442,182	5,360	4,812	413	22,273	109,986	34,139	176,983
269,395	4,585	7,013	10	30,682	128,113	18,785	189,188
306,482	.....	5,348	50	17,327	237,559	23,700	283,984
373,326	1,237	7,922	66	17,037	307,058	31,785	365,105
305,734	698	652	461	3,242	274,471	53,205	332,729
273,905	78	2,055	597	14,243	248,272	26,728	291,973
414,812	166	6,123	48	12,324	271,356	27,447	317,464
394,971	1,351	5,636	.....	6,715	145,193	13,866	172,761
419,786	93	3,220	316	13,617	223,871	16,872	257,989
542,043	47	2,479	1,254	20,269	268,305	2,435	294,789
519,291	.....	753	1,027	28,047	202,384	8,136	240,349
367,177	127	1,610	2,567	7,953	224,644	3,415	240,316
527,426	163	1,567	878	3,666	211,616	355	218,245
805,253	6	2,075	374	8,139	233,096	.....	243,690
591,409	.....	3,072	159	977	203,608	.....	207,816
486,421	185	6,245	54	2,819	158,866	1,140	169,309

E.—TABLE showing the Tonnage of the undermentioned Articles cleared at Buffalo and Tonawanda, for transit through the Erie Canal, for a series of twenty-seven years.

VEGETABLE FOOD.

Year.	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles *	Total.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
1869.....	5,609	490,904	219,874	1,978	63,728	2,150	2,193	786,436		
1870.....	8,258	502,158	165,577	19,944	89,156	10,593	6,906	802,592	2 05	
1871.....	5,607	570,849	579,709	19,810	106,391	27,622	5,705	1,315,693	67 59	
1872.....		330,032	866,169	41,515	73,572	5,900	88	1,317,276	67 50	
1873.....	6	737,167	611,675	8,636	51,615	22,441	634	1,432,174	82 10	
1874.....		650,161	459,728	3,192	44,079	112	237	1,157,509	47 18	
1875.....	5,859	695,315	273,006	1,156	36,609	2,242	3,372	1,017,559	29 38	
1876.....	231	377,317	356,064	6,334	24,488	12,205	4,691	783,331		0 39
1877.....	1,710	398,416	709,723	26,351	52,559	27,365	4,976	1,223,100	55 52	
1878.....	987	775,953	718,714	21,665	69,256	51,064	6,662	1,644,301	109 08	
1879.....	1,239	892,404	602,171	7,193	14,537	40,471	7,528	1,565,543	99 07	
1880.....	2,743	897,603	131,857	434	16,154	12,137	4,256	2,065,184	162 06	
1881.....	1,491	386,605	458,318	86	24,751	107	7,484	878,842	11 75	
1882.....	1,123	586,019	241,406	1,858	9,046	19,158	6,216	864,826	9 96	
1883.....	538	535,150	517,219	6,816	47,190	79,010	6,051	1,191,974	51 06	
1884.....	520	767,784	194,368	4,910	47,060	57,856	4,411	1,078,909	37 18	
1885.....	323	540,533	356,737	3,317	5,610	6,405	5,427	918,352	14 36	
1886.....	488	955,851	351,272	6,799	5,180		4,001	1,353,591	72 11	
1887.....	334	914,152	438,069	15,207	32,907	4,612	44,693	1,449,984	85 64	
1888.....	534	469,963	494,110	6,589	68,922	10,997	1,717	1,052,834	33 87	
1889.....	845	457,922	579,526	16,380	61,175	34,167	5,160	1,155,175	46 88	
1890.....	195	329,531	493,641	58,563	45,202	16,903	4,362	953,397	21 23	
1891.....	1,071	733,967	137,679	43,779	14,803	66,278	2,594	1,000,171	27 18	
1892.....	2,485	611,177	141,506	37,570	70,363	3,997	3,472	870,570	10 69	
1893.....	424	1,086,834	240,767	38,986	21,981	6,156	243	1,395,391	77 43	
1894.....	327	887,908	265,947	69,707	99,898	5,191	2,123	1,331,101	69 26	
1895.....	98	271,975	83,611	71,185	85,507	205	15	508,596		35 21

*Apples, meals all kinds, pease, potatoes.

Department of Railways and Canals

STATEMENT to Table E showing the shipments at Oswego, during the same period.

VEGETABLE FOOD.

Year.	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles *	Total.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
1869.....	7,361	141,360	28,585	66,794	1,113	8,569	14,033	267,815	.....	.....
1870.....	11,440	115,732	10,120	77,906	3,953	7,402	11,628	238,181	.....	11 06
1871.....	10,043	123,173	70,218	72,675	1,806	6,250	13,259	297,424	11 05	.....
1872.....	4,773	57,865	27,148	62,172	684	6,751	10,425	169,818	.....	36 59
1873.....	4,061	53,361	10,578	46,337	670	6,019	10,739	131,765	.....	50 80
1874.....		108,288	46,127	77,007	1,103	7,053	3,747	248,325	.....	9 14
1875.....	1,728	32,690	3,034	75,083	3,308	4,989	5,931	126,763	.....	52 67
1876.....	967	21,890	1,324	63,336	117	5,703	6,638	99,975	.....	62 67
1877.....	855	28,955	3,308	80,306	316	6,603	6 556	126,899	.....	52 61
1878.....	1,394	24,171	1,383	50,381	.....	10,598	5 222	93,149	.....	63 21
1879.....	734	25,740	9,268	71,693	.....	16,623	3,110	127,168	.....	52 51
1880.....	951	17,466	15,656	82,743	.....	12,593	5,996	135,410	.....	49 43
1881.....	758	25,352	8,064	62,793	200	14,444	4,027	115,638	.....	56 82
1882.....	813	20,274	4,401	70,862	416	22,265	7,773	126,804	.....	62 65
1883.....	432	22,634	535	32,557	.....	14,384	1,967	72,507	.....	73 00
1884.....	404	5,932	413	48,391	.....	12,173	2,819	70,132	.....	73 43
1885.....	519	6,484	22	45,264	.....	4,613	2,945	59,847	.....	77 62
1886.....	737	9,579	154	42,261	.....	1,671	4,814	59,216	.....	77 88
1887.....	790	675	2	44,580	.....	716	1,370	48,133	.....	82 02
1888.....	384	2,206	168	6,237	.....	.....	2,196	11,191	.....	95 82
1889.....	473	8,002	8,950	40,096	16	1,405	1,003	59,945	.....	77 61
1890.....	545	10,378	10,408	26,639	8	4,635	2,356	54,969	.....	79 47
1891.....	292	4,298	1,652	27,418	.....	2,130	3,620	39,410	.....	85 28
1892.....	273	4,806	5,657	5,283	.....	199	2,340	18,558	.....	93 07
1893.....	119	2,036	3,968	8,476	.....	237	2,784	17,620	.....	93 43
1894.....	8	10,293	10,514	17,160	.....	.....	2,609	40,584	.....	84 84
1895.....	66	3,073	7,352	1,900	1,816	.....	258	14,465	.....	94 23

*Apples, meal all kinds, pease, potatoes.

F.—TABLE showing the Tonnage of the undermentioned Articles cleared downward on the Welland Canal, during a series of Twenty-five Years, ended 31st December, 1895.

VEGETABLE FOOD.

Year.	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles.†	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869*	44,110	310,090	119,541	3,920		680	1,541	479,882
1872.	26,648	231,056	254,534	693	7,594	64	2,300	524,889
1873.	30,660	345,720	180,042	643	1,188	3	3,557	563,813
1874.	24,017	406,157	181,128	377	5,953		3,301	620,933
1875.	13,930	248,555	103,477	813	3,383	500	4,304	374,962
1876.	15,735	194,559	144,501	1,110	24,496	1,454	2,949	384,807
1877.	13,588	248,894	169,185	10,216	2,810	2,405	1,833	448,931
1878.	8,854	188,106	185,931	1,217	3,088		2,100	389,296
1879.	10,588	271,545	114,276	803	1,196		2,387	430,795
1880.	12,467	240,601	162,891		477		1,418	417,853
1881.	9,655	121,393	103,075	252		6	1,371	235,752
1882.	12,205	205,876	54,797	537		1,954	225	275,594
1883.	13,256	146,741	182,143	975	731	518	10,971	355,335
1884.	13,626	135,804	118,811	270	10,746	477	9,018	288,752
1885.	13,322	114,090	117,536	618	1,116		1,628	248,310
1886.	19,418	146,151	218,897		4,891		14,581	403,928
1887.	23,940	210,755	114,938	1,711	12,050		12,149	375,543
1888.	16,973	150,833	194,886	555	26,629	811	13,358	404,045
1889.	7,922	120,498	353,595	197	28,356	1,918	18,273	530,759
1890.	14,461	114,924	327,394	6,519	27,728	1,121	20,836	512,983
1891.	13,517	196,326	185,177	8,113	52,959	65,071	27,895	549,058
1892.	17,046	229,569	192,548	6,433	37,173	9,392	32,548	524,709
1893.	15,232	257,203	441,092	18,461	31,283	3,671	36,981	803,923
1894.	33,628	270,514	169,233	28,353	27,962		60,587	590,277
1895.	43,895	202,636	164,894	8,689	18,236		46,435	484,785

* Fiscal.

† Apples, meal all kinds, pease, potatoes.

Department of Railways and Canals.

G.—TABLE showing the Tonnage of the undermentioned Articles passed through the Welland Canal in transit between Ports in the United States during a series of Twenty-five Years, ended 31st December, 1895.

Year.	VEGETABLE FOOD.										HEAVY GOODS.					
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles,*	Total.	Railway Iron.	Other Iron.	Salt.	Coal.	Ores.	Total.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
1869	30,681	211,085	91,149	2,942	7,400	667	1,006	337,530	68,064	14,334	89,085	23,566	35,912	235,962		
1872	10,482	124,695	89,761	1,391	7,400	3	608	234,337	24,040	13,239	49,843	95,741	59,401	242,264		
1873	10,805	127,727	101,329	1,920	1,188	3	392	243,366	4,659	13,826	40,507	170,242	62,942	292,176		
1874	8,230	229,053	125,627	1,920	5,948	500	5,368	374,226	5,742	8,941	22,888	203,673	19,651	260,895		
1875	1,861	113,832	54,188	2,641	2,946	500	1,920	177,908	14	4,123	12,931	192,767	34,616	244,451		
1876	5,187	94,247	58,138	1,603	1,905	525	403	162,405	8,976	5,531	23,395	167,110	25,808	227,844		
1877	3,342	107,396	65,260	1,603	2,314	258	413	180,586	8,976	8,688	8,386	172,868	41,107	239,975		
1878	1,316	65,542	60,026	1,859	277	.....	341	128,361	2,405	10,713	3,892	150,583	13,535	178,723	
1879	159	53,791	33,401	1,551	464	.....	11	87,826	4,743	3,648	6,318	118,573	17,797	148,741	
1880	.....	30,611	16,122	1,551	296	.....	10	48,580	1,313	5,570	371	65,945	18,380	92,954
1881	.....	34,320	30,611	1,924	.....	.....	.....	65,285	.....	.....	.....	83,858	0,464	97,265
1882	107	30,227	32,433	537	.....	.....	14	64,002	1,209	4,076	.....	158,552	14,533	177,161
1883	2,041	54,382	66,128	735	731	684	8,579	132,496	1,209	6,901	8	196,462	24,891	229,471		
1884	1,715	40,956	53,707	735	9,874	.....	8,170	114,422	698	569	.....	210,790	15,100	227,187
1885	124	53,235	63,229	732	882	.....	13,201	118,203	156	1,594	.....	198,416	15,029	215,089
1886	7,591	53,258	94,048	732	882	.....	13,201	172,888	156	5,328	1	189,964	11,364	206,813	
1887	11,780	37,678	83,431	1,732	4,790	.....	10,859	157,530	156	4,466	.....	82,780	627	87,828
1888	8,563	39,999	102,974	2	26,510	179	11,598	189,825	63	1,601	56	173,259	2,309	177,288		
1889	5,017	39,229	147,045	2	27,492	.....	17,225	236,208	63	1,587	896	227,476	1,204	231,163	
1890	9,204	31,527	180,842	6,519	27,030	.....	20,497	275,619	.....	504	208	162,231	1,620	164,563
1891	6,802	32,097	127,494	8,113	52,823	.....	26,115	253,444	.....	292	705	186,572	1,773	189,342
1892	11,018	26,950	131,222	6,433	36,935	.....	31,992	244,550	.....	576	2	183,895	.....	184,473
1893	6,588	28,187	198,777	16,751	23,870	864	31,369	311,389	.....	344	.....	206,827	.....	207,171
1894	17,795	53,846	10,539	28,095	27,621	.....	60,462	198,378	.....	297	.....	188,521	.....	188,818
1895	10,169	27,881	100,512	7,994	17,020	.....	46,316	209,902	181	246	.....	149,490	.....	149,917

* Apples, meals all kinds, pease, potatoes.

H.—TABLE showing the Tonnage of Vegetable Food carried on each of the Lines of Canals and the two principal Railways, competing for the Carrying Trade between Lake Erie and Tidewater, for a series of Twenty-five Years, ended 31st December, 1895.

Year.	Total on New York Canals.	Total on Welland Canals.	Total on New York Central and Erie Railways.	Quantity cleared at Buffalo and Tonawanda by Erie Canal.	Quantity cleared at Oswego by Canal.	Quantity charged through the Welland Canal in transit between ports in the United States.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869*.....	1,302,613	503,860	1,087,809	786,436	267,815	337,530
1872.....	1,674,320	538,147	1,870,614	1,317,276	169,818	234,337
1873.....	1,745,171	579,880	2,036,992	1,432,174	131,765	243,366
1874.....	1,767,598	647,397	2,791,517	1,557,509	243,325	374,226
1875.....	1,305,550	417,936	2,343,241	1,017,559	126,763	177,908
1876.....	1,064,293	409,788	2,875,803	783,331	99,975	162,405
1877.....	1,408,984	464,181	2,493,683	1,223,100	126,899	180,586
1878.....	1,912,734	403,403	3,695,764	1,644,301	93,149	128,361
1879.....	1,833,399	438,564	4,353,617	1,565,543	127,168	87,826
1880.....	2,371,090	442,182	4,732,385	2,065,184	135,410	48,580
1881.....	1,116,561	269,395	4,983,722	878,842	115,638	65,285
1882.....	1,118,776	306,482	3,885,577	864,826	126,804	64,002
1883.....	1,379,000	372,236	4,422,461	1,191,974	72,507	132,496
1884.....	1,236,986	305,734	3,639,805	1,078,909	70,132	114,422
1885.....	1,063,310	273,905	4,105,594	918,352	59,847	118,203
1886.....	1,489,886	414,812	3,802,262	1,353,591	59,216	172,888
1887.....	1,552,764	394,971	3,847,766	1,449,984	48,133	157,530
1888.....	1,166,958	419,786	3,197,734	1,052,834	11,191	189,825
1889.....	1,296,896	542,043	3,654,984	1,155,175	59,945	236,208
1890.....	1,167,901	519,291	4,336,199	953,397	54,969	275,619
1891.....	1,092,355	367,177	3,565,381	1,000,171	39,410	253,444
1892.....	937,999	527,426	5,913,013	870,570	18,558	244,550
1893.....	1,452,563	805,250	5,107,426	1,395,391	17,620	311,389
1894.....	1,400,129	590,409	4,281,056	1,331,101	40,584	293,148
1895.....	602,505	486,421	3,798,574	508,596	14,465	209,802

Department of Railways and Canals

I.—STATEMENT showing the Quantity of Freight passed down the Welland Canal in Canadian and United States Vessels entering the Canal at Port Colborne during the Seasons of Navigation in 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894 and 1895.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	173	68,250	285	73,057	99	67,637	364	97,794	921	306,738
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	
1884.										
Wheat.....	38,859		11,618		5,461		75,474		131,412	
Corn.....	10,841		13,609		26,452		67,909		118,811	
Barley.....	90								90	
Rye.....	477								477	
Oats.....	872				7,963		1,911		10,746	
Coal.....	497		28,275		301		10,154		39,227	
Shingles, firewood and wood- enware.....	548		2,538		49		30		3,165	
Miscellaneous merchandise..	2,073		3,804		11,793		428		18,103	
Lumber..... Ft. B.M.	3,393,351		1,680,976		8,987,558		18,126,215		32,188,100	
Timber..... Cub. ft.	437,356		2,107,780				159,647		2,704,783	
Staves..... No.			75,000		33,741		301,267		410,008	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	199	67,461	347	80,828	81	35,613	350	106,873	977	290,775
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1885.										
Wheat.....	26,025		3,153		6,882		72,478		108,538	
Corn.....	16,046		2,462		20,589		78,439		117,536	
Barley.....			228						228	
Oats.....					217		665		882	
Pease.....	11								11	
Rye.....										
Coal.....	1,005		20,318				18,560		39,883	
Miscellaneous merchandise..	1,941		3,689		1,111		1,086		7,827	
Shingles, woodenware, &c...	223		9		53		58		343	
Sawed lumber..... Ft. B.M.	7,725,105		8,681,081		9,381,654		20,935,270		46,723,110	
Square timber..... Cub. ft.	601,516		2,849,526		20,692		113,682		3,585,416	
Staves..... No.	104,000		44,000		83,500				231,500	
Firewood..... Cords			783						783	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	261	95,928	426	123,297	118	86,937	358	108,344	1163	414,506
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1886.										
Wheat.....	38,984		30,834		2,937		70,019		142,774	
Corn.....	48,547		33,315		36,852		99,644		218,358	
Barley.....							572		572	
Oats.....	6		41		4,331		459		4,837	
Pease.....	450		158						608	
Rye.....										
Coal.....	4,007		45,018				11,647		60,672	
Miscellaneous merchandise..	2,936		6,728		23,687		281		33,622	
Shingles, woodenware, &c...	329				252		215		1,152	
Sawed lumber..... Ft. B.M.	6,915,390		15,719,631		8,953,478		18,405,961		49,994,460	
Square timber..... Cub. ft.	564,827		2,335,205				35,500		2,935,532	
Staves..... No.	221,280		697,933						919,213	
Firewood..... Cords			390						390	

I.—STATEMENT showing the Quantity of Freight passed down the Welland Canal in Canadian and United States Vessels, &c.—Continued.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	250	86,344	372	101,745	107	94,029	163	46,152	892	328,270
	Tons.		Tons.		Tons.		Tons.		Tons.	
1887.										
Wheat	80,757		81,652		200		46,186		208,796	
Corn	12,341		14,775		65,981		20,582		113,679	
Barley					9		575		584	
Oats			1,376		11,098		279		12,753	
Pease			362						362	
Rye										
Coal	1,436		25,165				2,108		28,709	
Miscellaneous merchandise ..	2,179		4,609		24,395		415		31,598	
Shingles, wooden ware, &c. . .	1,716		1,081		26				2,823	
Sawed lumber..... Ft. B. M.	2,894,767		12,329,728		4,161,349		15,091,355		34,477,199	
Square lumber..... Cub. ft.	498,770		1,285,594						1,784,364	
Staves..... No.			266,697						266,697	
Firewood..... Cords	299		466						765	
	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.
	242	86,838	339	93,450	114	104,505	219	60,500	914	345,293
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1888.										
Wheat	45,481		60,379		1,353		40,779		147,992	
Corn	38,620		14,251		71,988		71,175		196,024	
Barley										
Oats	672				24,967		1,311		26,950	
Pease			54		57				111	
Rye					71		632		703	
Corn	1,603		20,064				4,208		25,897	
Miscellaneous merchandise ..	2,165		3,291		22,719		3,722		31,875	
Shingles, woodenware, &c. . .	66		84		141		6		297	
Sawed lumber..... Ft. B. M.	5,262,700		11,977,905		4,451,360		12,539,672		34,230,637	
Square timber..... Cub. Ft.	687,728		1,555,307		19,000				2,262,035	
Staves..... No.	106,972		211,436				34,000		352,408	
Firewood..... Cords	179		201						380	
	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.
	317	106,048	427	118,071	208	172,873	268	92,442	1220	489,434
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1889.										
Wheat	38,127		28,054		1,679		46,767		114,627	
Corn	60,218		43,819		152,858		96,700		353,595	
Barley										
Oats	320				25,347		2,145		27,812	
Pease										
Rye	948		634		336				1,918	
Coal	3,976		21,148		712		1,664		27,500	
Miscellaneous merchandise ..	6,339		5,749		25,082		3,030		40,200	
Shingles, woodenware, &c. . .			1				51		52	
Sawed lumber..... Ft. B. M.	5,789,226		11,632,330		11,792,850		21,026,211		50,240,617	
Square timber..... Cub. Ft.	924,645		2,934,989						3,859,634	
Staves..... No.	35,700		194,649						220,349	
Firewood..... Cords.			46						46	

Department of Railways and Canals

I.—STATEMENT showing the Quantity of Freight passed down the Welland Canal in Canadian and United States Vessels, &c.—Continued.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	342	110,056	443	117,400	202	204,542	142	50,622	1129	482,620
	Tons.	Tons.		Tons.		Tons.		Tons.		Tons.
1890.										
Wheat	43,308		35,633		7,514		32,239		118,694	
Corn	63,095		51,439		172,756		40,104		327,394	
Barley					3,304		3,215		6,519	
Oats	479		73		27,030				27,582	
Pease					14				14	
Rye	1,121								1,121	
Coal	1,049		21,732				615		23,396	
Miscellaneous merchandise	3,146		5,683		32,194		2,510		43,533	
Shingles, woodenware, &c.	15		1,266		8				1,289	
Sawed lumber,	5,921,240	Ft. B.M.	5,167,201		10,274,335		14,290,800		35,653,576	
Square timber	1,141,194	Cub Ft.	3,395,832						4,537,026	
Staves	12,255	No.	19,947						32,202	
Firewood	15	Cords.	566						581	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	256	107,575	173	68,061	241	241,317	130	50,063	800	467,016
		Tons.		Tons.		Tons.		Tons.		Tons.
1891.										
Wheat	62,859		56,953		36,425		33,853		190,090	
Corn	20,510		9,550		137,852		17,039		184,951	
Barley					5,444		4,061		9,505	
Oats					50,212		1,076		51,288	
Pease	390								390	
Rye	29,581		11,296		16,361		7,343		64,581	
Coal	158		20,388				3,851		24,397	
Miscellaneous merchandise	8,369		6,007		37,537		2,578		54,491	
Shingles, woodenware, &c.							4		4	
Sawed lumber,	4,268,874	Ft. B.M.	4,648,824		8,067,351		18,745,628		35,730,677	
Square timber	449,406	Cub. ft.	566,109						1,015,515	
Staves	1,000	No.							1,000	
Firewood		Cords								
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	239	100,324	186	73,140	245	248,837	134	52,087	804	474,388
		Tons.		Tons.		Tons.		Tons.		Tons.
1892.										
Wheat	74,578		54,764		60,364		36,898		226,604	
Corn	17,477		7,369		146,080		21,631		192,548	
Barley					3,995		2,438		6,433	
Oats					36,935				36,935	
Pease	524								524	
Rye	5,066				3,718		608		9,392	
Coal	775		13,350				1,365		15,490	
Miscellaneous merchandise	2,139		2,786		44,117				49,042	
Shingles, woodenware, &c.	1				45		9		55	
Sawed lumber,	6,278,253	Ft. B.M.	7,504,256		10,494,692		26,832,564		51,109,765	
Square timber	754,213	Cub. ft.	1,421,260		2,601		1,310		2,179,384	
Staves	46,800	No.	32,838						79,638	
Firewood		Cords								

I.—STATEMENT showing the Quantity of Freight passed down the Welland Canal in Canadian and United States Vessels, &c.—Continued.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	193	100,107	143	58,652	390	375,682	236	122,326	962	656,767
	Tons.		Tons.		Tons.		Tons.		Tons.	
1893.										
Wheat.....	83,447		31,185		72,671		68,628		255,931	
Corn.....	23,817		12,946		313,246		91,083		441,092	
Barley.....	1,527		183		16,189		562		18,461	
Oats.....	223				27,903		3,038		31,164	
Pease.....										
Rye.....					3,216		455		3,671	
Coal.....	638		13,580				5,849		20,067	
Miscellaneous merchandise.....	6,179		286		44,976		1,647		53,088	
Shingles, woodenware, &c.....			15		22				37	
Sawed lumber..... Ft. B. M.	13,750,267		2,748,941		17,359,573		41,863,852		75,722,633	
Square timber..... Cub. ft.	836,048		1,437,893		5,133				2,279,074	
Staves..... No.			18,484						18,484	
Firewood..... Cords.										
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	199	104,649	112	57,668	287	279,621	144	63,770	742	505,708
	Tons.		Tons.		Tons.		Tons.		Tons.	
1894.										
Wheat.....	98,583		54,444		79,715		37,095		268,840	
Corn.....	10,368		5,614		122,211		31,040		169,233	
Barley.....	258				28,095				28,353	
Oats.....	175		107		27,621				27,903	
Pease.....										
Rye.....										
Coal.....	1,483		1,892		61		11,109		14,545	
Miscellaneous merchandise.....	16,949		664		83,198		1,977		102,788	
Shingles, woodenware, &c.....	22								22	
Sawed lumber..... Ft. B. M.	8,423,295		279,330		11,719,664		31,891,456		52,313,745	
Square timber..... Cub. ft.	771,328		1,578,981						2,350,309	
Staves..... No.										
Firewood..... Cords.										

Department of Railways and Canals.

I.—STATEMENT showing the Quantity of Freight passed down the Welland Canal in Canadian and United States Vessels, &c.—*Concluded.*

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL .	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	209	108,776	151	73,895	205	223,743	101	41,327	666	447,741
	Tons.	Tons.		Tons.	Tons.		Tons.		Tons.	
1895.										
Wheat	72,895		68,935		29,345		30,723		201,898	
Corn	16,854		3,724		126,943		17,369		164,890	
Barley	798		162		7,729				8,689	
Oats	1,531		246		16,442				18,219	
Pease										
Rye										
Coal	2		3,984				4,426		8,412	
Miscellaneous merchandise ..	37,356		2,361		67,705		1,324		108,746	
Shingles, woodenware, &c. . .	20				863		1,079		1,962	
Sawed lumber	1,057,146		248,071		9,385,890		14,929,734		25,620,841	
Ft. B.M.										
Square timber ..	1,027,913		2,049,368				35,000		3,112,281	
Cub. ft.										
Staves										
No.										
Firewood										
Cords.										

STATEMENT showing the Quantity of Through Freight passed up the Welland Canal, in Canadian and United States Vessels, during the Season of 1895.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	210	109,401	157	75,086	219	238,165	101	42,982	687	465,634
Tons.		Tons.		Tons.		Tons.		Tons.		
1895.										
<i>Class 3.</i>										
Cement and water lime.....	1,860									1,860
Fish	4									4
Iron, pig.....	56									56
Iron, all other.....	2,522				32					2,554
Salt.....	940									940
Steel.....	555									555
Articles not enumerated.....	778		491		1,813					3,082
<i>Class 4.</i>										
Crockery and earthenware....	16				25					41
Marble.....					860					860
Nails.....	1,226									1,226
Paint.....	82				12					94
Pitch and tar.....	98									98
Sugar.....	1,460				6,621					8,081
Tin.....	436									436
Merchandise not enumerated.	2,544		2		52,851					55,397
<i>Class 5.</i>										
Produce of wood.....	95		2		31					128
<i>Special Class.</i>										
Coal.....	1,104		461		116,118		2,769			150,452
Stone unwrought.....							3,096			3,096
Kryolite or chemical ore.....			784				356			1,140
Total.....	13,376		1,740		178,363		36,221			230,100

Canadian steam vessels carried.....	13,776
Canadian sailing do do.....	1,740
United States steam vessels carried.....	178,363
United States sailing do do.....	36,221

Department of Railways and Canals.

WELLAND CANAL THROUGH FREIGHT RECAPITULATION.

WELLAND CANAL—WEST-BOUND FREIGHT.

The total quantity of Through Freight passed up the Welland Canal in Canadian and United States vessels during the Season of Navigation in 1895, is as follows :

Summary.	Tons.	Tons.
In Canadian steam vessels	13,776	
do sail do	1,740	
Total quantity in Canadian vessels		15,516
In United States steam vessels	178,363	
do sail do	36,221	
Total in United States vessels		214,584
Grand total quantity of freight passed up the Welland Canal in Canadian and United States vessels		230,100

STATEMENT of the Quantity of Through Freight passed on the Welland Canal, during the Season of Navigation in 1895.

Summary.	Tons.	Tons.
In Canadian steam vessels, up	13,776	
do do down	151,820	
Total in Canadian steam vessels		165,596
In Canadian sail vessels, up	1,740	
do do down	122,741	
Total in Canadian sail vessels		124,481
Total quantity in Canadian vessels		290,077
In United States steam vessels, up	178,363	
do do down	265,849	
Total in United States steam vessels		444,212
In United States sail vessels, up	36,221	
do do down	81,516	
Total in United States sail vessels		117,737
Total quantity in United States vessels		561,949
Total in Canadian and United States vessels		852,026
In Canadian vessels	East bound.	West bound.
In United States vessels	274,561	15,516
	347,365	214,584
Total	621,926	230,100

Department of Railways and Canals.

UNITED STATES STEAM VESSELS.

April 24	John Duncan	997	225	37	0	16	0	14	5	13	5	57,000	2,946	82	182	29	29	280	285	301	320	140	140
do	24 Pueblo	1,054	225	36	0	19	0	15	4	14	10	63,000	11,522	323	142	38	38	470	470	879	879	320	320
do	26 Walter Vail	642	200	13	3	13	3	13	10	13	10	47,525	4,704	362	142	56	56	470	470	879	879	140	140
do	29 George Spencer	1,043	235	37	2	18	8	14	10	15	0	62,705	12,911	131	182	29	29	470	470	879	879	140	140
do	28 G. W. Morley	737	192	34	0	21	0	14	2	13	8	30,809	4,366	131	182	29	29	470	470	879	879	140	140
do	29 A. G. Lindsay	1,111	194	37	6	21	8	13	10	13	7	50,000	4,635	131	182	29	29	470	470	879	879	140	140
do	30 Iron Age	968	226	34	4	16	8	14	5	14	11	55,234	10,927	396	182	29	29	470	470	879	879	140	140
May	1 Elfinmere	796	190	34	0	21	0	15	7	15	1	50,000	12,095	398	182	29	29	470	470	879	879	140	140
do	2 F. H. Prince	1,548	240	42	0	16	8	14	0	14	0	59,354	6,080	171	108	29	29	470	470	879	879	140	140
do	4 Saucos	837	205	34	5	17	7	14	0	14	0	40,500	3,576	171	108	29	29	470	470	879	879	140	140
do	4 Nicaragua	911	257	37	0	14	0	14	0	14	0	60,000	3,675	194	111	29	29	470	470	879	879	140	140
do	6 Gov. Smith	1,547	240	42	0	16	8	14	7	15	1	55,830	6,913	194	111	29	29	470	470	879	879	140	140
do	7 H. R. James	1,553	240	42	0	16	8	13	14	8	7	53,000	7,254	204	182	29	29	470	470	879	879	140	140
do	9 Omaha	940	215	34	6	18	9	14	8	14	7	60,000	9,161	257	182	29	29	470	470	879	879	140	140
do	11 Denver	1,029	222	37	0	19	0	15	1	15	4	60,011	10,888	305	182	29	29	470	470	879	879	140	140
do	13 Topetska	1,111	228	36	0	19	2	14	7	15	1	60,011	9,493	266	182	29	29	470	470	879	879	140	140
do	13 John Rugee	950	216	35	1	18	7	14	7	15	0	56,536	9,372	263	182	29	29	470	470	879	879	140	140
do	20 J. J. Hill	787	187	42	0	15	6	15	3	15	0	48,541	9,344	262	182	29	29	470	470	879	879	140	140
do	20 J. R. Langdon	1,550	210	42	0	16	8	13	6	14	6	17,654	3,535	99	108	29	29	470	470	879	879	140	140
do	27 Denver	1,029	222	37	0	19	0	15	0	14	9	57,000	7,198	202	108	29	29	470	470	879	879	140	140
do	28 H. R. James	1,553	240	42	0	16	8	14	7	15	0	50,000	9,074	255	108	29	29	470	470	879	879	140	140
June	3 John Rugee	950	216	35	1	18	7	13	10	13	10	59,638	9,979	280	182	29	29	470	470	879	879	140	140
do	3 Omaha	940	215	34	6	18	9	14	11	14	9	50,000	10,152	285	182	29	29	470	470	879	879	140	140
do	10 A. G. Lindsay	1,111	198	37	6	21	8	13	6	13	11	60,000	10,152	285	182	29	29	470	470	879	879	140	140
do	11 F. H. Prince	1,548	240	42	0	16	8	13	6	14	9	50,000	10,152	285	182	29	29	470	470	879	879	140	140
do	14 A. McVittie	1,553	240	42	0	16	8	13	6	14	3	30,000	10,721	301	182	29	29	470	470	879	879	140	140
do	17 H. R. James	1,553	240	42	0	16	8	14	4	14	10	30,000	10,721	301	182	29	29	470	470	879	879	140	140
do	18 Gov. Smith	1,547	240	42	0	16	8	14	8	14	10	50,000	2,170	61	182	29	29	470	470	879	879	140	140
do	18 John Rugee	950	216	31	1	18	7	14	0	14	0	30,000	2,384	67	182	29	29	470	470	879	879	140	140
do	23 Kate Buttironi	693	174	31	0	20	0	16	8	13	7	57,190	13,298	373	182	29	29	470	470	879	879	140	140
do	26 J. R. Langdon	1,550	240	42	0	16	8	13	0	14	0	50,000	14,635	410	182	29	29	470	470	879	879	140	140
do	29 A. G. Lindsay	1,111	198	37	6	21	8	14	1	14	1	61,731	14,635	410	182	29	29	470	470	879	879	140	140
do	30 F. H. Prince	1,548	240	42	0	16	8	15	0	15	3	34,497	3,036	86	182	29	29	470	470	879	879	140	140
July	1 W. L. Frost	1,203	250	37	0	15	0	13	6	13	11	60,000	12,115	323	182	29	29	470	470	879	879	140	140
do	3 A. McVittie	1,553	240	42	0	16	8	14	9	15	0	60,154	6,344	187	182	29	29	470	470	879	879	140	140
do	5 H. R. James	1,553	240	42	0	16	8	13	6	14	10	47,000	6,344	187	182	29	29	470	470	879	879	140	140
do	8 Gov. Smith	1,547	240	42	0	16	8	14	11	15	1	55,000	13,304	373	182	29	29	470	470	879	879	140	140
do	11 Wm. J. Averill	1,425	265	36	6	16	5	14	0	14	2	17,200	2,651	75	76	76	76	470	470	879	879	140	140
do	14 W. A. Haskell	1,441	265	37	0	16	5	14	10	15	0	60,000	11,128	312	182	29	29	470	470	879	879	140	140
do	14 J. R. Langdon	1,550	240	42	0	16	8	14	1	15	1	50,930	14,287	401	182	29	29	470	470	879	879	140	140
do	15 A. G. Lindsay	1,111	198	27	6	21	8	15	2	15	6	60,000	12,111	340	182	29	29	470	470	879	879	140	140
do	21 F. H. Prince	1,548	240	42	0	16	8	14	6	14	11	45,904	9,771	274	182	29	29	470	470	879	879	140	140
do	23 A. McVittie	1,553	240	42	0	16	8	14	6	14	11	50,088	12,068	338	182	29	29	470	470	879	879	140	140
do	24 H. R. James	1,553	240	42	0	16	8	13	8	14	7	50,000	4,949	139	182	29	29	470	470	879	879	140	140
do	28 Gov. Smith	1,547	240	42	0	16	8	14	4	14	6	42,000	6,954	195	182	29	29	470	470	879	879	140	140
do	29 Omaha	940	215	34	6	18	9	14	0	13	9	52,000	3,148	89	182	29	29	470	470	879	879	140	140
do	31 W. J. Averill	1,425	265	36	6	16	5	14	1	14	6	25,000	3,985	89	182	29	29	470	470	879	879	140	140

J.—STATEMENT of Large Class Vessels Lightened at Welland Railway-Elevator at Port Colborne; showing the Tonnage, Dimensions, Depth of Water and Cargoes passed through the Enlarged Welland Canal during the Season of Navigation in 1895—Continued.

CANADIAN STEAM VESSELS—Concluded.

Date of Arrival.	Names of Vessels.	Grain Cargo and Rolling Freight through the Canal.								Total Cargo through the Canal.	Depth of Water through the Canal Midship.	Destination.		Cost of Lighterage per bushel.	Time occupied in Lighterage.	
		Wheat.	Corn.	Barley.	Oats.	Wheat.	Corn.	Barley.	Oats.			Rolling freight	From			To
		Bush.	Bush.	Bush.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Ft. in.	Cts.	H. M.			
1895.																
Aug. 4	Rosedale	53,399			1,602						12 3	1,602	14	1 45		
do 12	Algonquin	63,383			1,902						13 9	1,902	11	1 15		
do 20	Bannockburn	54,962			1,649						13 6	1,649	11	2 5		
do 21	Rosedale	53,623			1,608						12 3	1,608	13	1 0		
Sept. 8	do	53,970			1,619						13 6	1,619	13	2 0		
do 11	Bannockburn	55,287			1,659						13 5	1,659	13	2 0		
do 24	Algonquin	62,700			1,882						13 6	1,882	21	2 10		
do 26	Rosedale	54,463			1,634						13 6	1,634	21	2 10		
do 30	Bannockburn	30,348			910						13 7	1,663	13	1 50		
Oct. 10	Arabian	37,126		7,263	1,114	175	578				13 2	1,114	23	1 50		
do 12	Tecumseh	28,626			859						13 6	859	23	1 50		
do 16	Bannockburn	53,712			1,611						12 11	1,611	21	2 10		
do 27	Arabian	36,127			1,084						12 11	1,084	11	1 30		
Nov. 4	Bannockburn	49,525			1,486						12 11	1,486	21	4 15		
do 14	Arabian	35,618			1,069						12 10	1,069	21	2 0		
do 21	Bannockburn	49,970			1,439						13 0	1,439	23	3 15		
do 21	Winnipeg	44,525			1,336						12 10	1,336	23	2 15		
do 21	Selkirk	44,423			1,332						12 11	1,332	23	1 30		
do 24	Myles	34,261			1,028						12 11	1,028	23	4 25		
do 27	Tecumseh	27,421			823						13 0	823	23	1 15		
do 30	Algonquin	58,006			1,741						13 0	1,741	23	3 0		
do 30	Rosedale	47,385			1,422						12 11	1,422	31	2 15		
Dec. 4	Arabian	36,321			1,090						12 11	1,090	2	1 35		
do 4	Bannockburn	50,843			1,526						13 0	1,526	31	1 30		
		1,116,034		7,263	33,485	175	578					34,238				

Department of Railways and Canals.

UNITED STATES STEAM VESSELS—Continued.

April 24	John Duncan.....	54,054	1,514	1,514	13	7	Chicago	Kingston.	1 30
do	do	51,478	1,442	1,442	13	9	do	Ogdensburg.	3 35
do	24 Pueblo.....	42,821	1,285	1,285	13	1	do	do	1 25
do	26 Walter Vail.....	49,794	1,395	1,395	13	5	do	Kingston.	3 15
do	29 George Spencer.....	35,443	993	993	13	2	do	do	1 5
do	29 G. W. Morley.....	45,345	1,270	1,270	13	4	do	do	1 5
do	29 A. G. Lindsay.....	44,307	1,241	1,241	13	4	do	Ogdensburg.	3 45
do	30 Iron Age.....	37,964	1,063	1,063	13	5	do	Kingston.	3 30
May	1 Effluere.....	53,274	1,492	1,492	13	6	do	do	1 45
do	2 F. H. Prince.....	36,924	1,108	1,108	13	6	do	do	1 0
do	4 Sances.....	50,325	1,690	1,690	13	6	do	do	1 10
do	4 Nicaragua.....	10,087	283	283	13	6	do	Ogdensburg.	4 25
do	6 Gov. Smith.....	48,576	1,361	1,361	13	5	do	do	2 45
do	7 H. R. James.....	48,839	1,368	1,368	13	5	do	do	2 25
do	9 Omaha.....	49,112	1,376	1,376	13	7	do	Kingston.	3 15
do	11 Denver.....	50,518	1,415	1,415	14	0	do	do	3 0
do	13 Topoka.....	47,164	1,321	1,321	13	7	do	Ogdensburg.	2 35
do	15 John Ruege.....	39,197	1,098	1,098	13	9	do	Kingston.	3 20
do	20 J. J. Hill.....	14,119	396	396	13	6	do	Ogdensburg.	1 15
do	20 J. R. Langdon.....	10,000	300	300	13	6	do	Kingston.	2 20
do	27 Denver.....	49,802	1,395	1,395	14	0	do	Kingston.	2 45
do	28 H. R. James.....	40,926	1,146	1,146	13	8	do	Ogdensburg.	2 45
do	3 John Ruege.....	49,709	1,316	1,316	13	11	do	do	30
June	do	39,848	1,331	1,331	13	6	do	do	2 0
do	10 A. G. Lindsay.....	19,279	1,116	1,116	13	6	do	do	4 5
do	11 F. H. Prince.....	47,830	1,212	1,212	13	8	do	do	3 15
do	14 A. McVittie.....	48,089	826	826	13	8	do	do	1 5
do	17 H. R. James.....	43,892	1,229	1,229	13	6	do	do	4 15
do	18 Gov. Smith.....	50,096	1,340	1,340	13	8	do	do	3 50
do	18 John Ruege.....	47,616	1,774	1,774	13	8	do	do	50
do	23 Kate Buttroni.....	43,892	1,297	1,297	13	7	do	Kingston.	30
do	26 J. R. Langdon.....	31,461	1,403	1,403	13	6	do	Ogdensburg.	3 35
do	29 A. G. Lindsay.....	48,089	881	881	13	9	do	do	1 35
do	30 F. H. Prince.....	40,656	1,346	1,346	13	4	do	do	3 45
do	1 W. L. Frost.....	41,696	1,189	1,189	13	6	do	do	1 20
July	3 A. McVittie.....	14,549	408	408	13	6	do	do	5 35
do	5 H. R. James.....	48,872	1,369	1,369	13	6	do	do	2 0
do	8 Gov. Smith.....	36,643	1,116	1,116	13	6	do	do	2 0
do	11 Wm. J. Averill.....	47,889	1,297	1,297	13	6	do	do	2 0
do	14 W. A. Haskell.....	38,020	1,026	1,026	13	6	do	do	3 5
do	14 J. R. Langdon.....	45,051	1,341	1,341	13	8	do	do	4 90
do	15 A. G. Lindsay.....	48,852	1,012	1,012	13	3	do	do	3 30
do	21 F. H. Prince.....	48,852	285	285	13	6	do	do	3 35
do	23 A. McVittie.....	36,133	1,065	1,065	13	6	do	do	2 0
do	24 H. R. James.....	45,051	1,262	1,262	13	6	do	do	3 35
do	28 Gov. Smith.....	48,852	1,982	1,982	13	6	do	do	3 35
do	28 Omaha.....	31,015	1,367	1,367	13	6	do	do	4 5
do	31 W. J. Averill.....	48,852	1,488	1,488	13	11	do	do	1 15

J.—STATEMENT of Large Class Vessels Lightened at Welland Railway Elevator at Port Colborne ; showing the Tonnage, Dimensions, Depth of Water and Cargoes passed through the Enlarged Welland Canal during the Season of Navigation in 1895.—Continued.

UNITED STATES STEAM VESSELS—Concluded.

Date of Arrival.	Names of Vessels.	Registered Tonnage.		Dimensions.			Depth of Water on Arrival.		Original Cargo to Canal.				Lighterage over Welland Railway.			Lighterage in Tons.						
		Tons.	Ft.	Length overall	Width of beam	Depth of hold.	Forward.	Aft.	Wheat.	Corn.	Barley.	Oats.	Rolling freight	Wheat.	Corn.	Barley.	Oats.	Wheat.	Corn.	Barley.	Oats.	
1895.	4 W. A. Haskell.	1,441	265	37	0	16	6	14	3	14	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Aug.	5 J. R. Langdon.	1,550	240	42	0	16	8	11	0	15	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	8 F. H. Prince.	1,548	240	42	0	16	8	14	3	15	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	9 A. McVittie.	1,553	240	42	0	16	8	12	6	14	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	12 H. R. James.	1,553	240	42	0	16	8	13	6	14	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	14 John Rugee.	950	216	35	1	18	7	14	0	14	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	15 John Duncan.	997	225	37	8	16	7	13	9	14	5	54,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	16 Omaha.	940	215	34	6	18	9	13	11	13	8	52,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	15 Gov. Smith.	1,647	240	42	0	16	8	14	10	15	1	25,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	19 W. J. Averill.	1,425	265	36	6	16	5	14	6	14	7	35,013	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	20 Denver.	1,029	222	37	0	19	0	14	0	14	0	49,950	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	21 J. R. Langdon.	1,550	240	42	0	16	8	13	10	14	8	65,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	22 St. Lawrence.	1,030	239	41	1	20	0	14	1	14	1	61,773	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	23 Nicaragua.	911	257	37	0	14	0	13	11	14	2	16,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	30 A. McVittie.	1,553	240	42	0	16	8	14	3	14	7	10,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sept.	1 H. R. James.	1,553	240	42	0	16	8	14	10	14	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	2 John Rugee.	950	216	35	1	18	7	14	10	14	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	3 Gov. Smith.	1,647	240	42	0	16	8	13	9	15	5	17,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	8 Pueblo.	1,054	225	36	0	19	0	14	10	14	10	60,416	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	10 J. R. Langdon.	1,550	240	42	0	16	8	14	0	15	1	52,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	14 F. H. Prince.	1,548	240	42	0	16	8	14	0	15	1	53,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	14 Omaha.	940	215	34	6	18	9	14	5	14	7	58,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	14 Omaha.	1,035	237	35	0	19	8	15	3	14	11	58,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	15 Montague.	1,029	222	37	0	19	0	14	11	15	1	47,390	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	17 Denver.	1,029	222	37	0	16	8	14	7	14	3	55,701	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	18 A. McVittie.	1,553	240	42	0	16	8	14	9	14	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
do	18 John Rugee.	950	216	35	1	18	7	14	9	14	9	55,654
do	19 H. R. James.	1,553	240	42	0	16	8	14	5	15	2

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do	27 J. R. Langdon	1,550	240	42	0	16	8	14	0	14	11	57,956	286	15,617	438	
do	30 W. A. Haskell	1,441	265	37	0	16	6	14	5	14	6	25,000	882	8,601	241	
Oct.	1 Pueblo	1,054	225	36	0	19	0	13	10	13	8	60,000	784	2,477	60	
do	3 F. H. Prince	1,548	240	42	0	16	8	14	12	14	4	30,243	784	11,377	319	
do	3 Monteaigle	1,035	237	35	0	19	8	13	10	14	0	58,914	784	11,750	283	
do	3 Omaha	940	215	34	6	18	9	14	5	14	3	56,000	784	11,750	334	
do	6 A. McVittie	1,553	240	42	0	16	8	14	4	15	3	30,899	535	11,817	494	
do	7 H. R. James	1,553	240	42	0	16	8	14	3	14	4	30,899	388	17,609	262	
do	9 John Rugee	950	216	35	1	18	7	14	3	14	10	51,000	388	9,337	494	
do	14 Gov. Smith	1,547	240	42	0	16	8	14	9	15	0	53,375	857	12,217	348	
do	16 J. R. Langdon	1,570	240	42	0	16	8	14	1	14	6	40,000	857	18,204	510	
do	20 W. A. Haskell	1,441	265	37	0	16	6	14	3	14	6	40,000	615	16,588	465	
do	21 W. J. Averill	1,425	265	36	6	16	5	14	4	14	4	26,093	945	11,366	318	
do	21 Omaha	940	215	34	6	18	8	13	9	15	0	31,071	817	13,027	365	
do	23 F. H. Prince	1,548	240	42	0	16	8	13	9	15	0	50,018	602	4,268	120	
do	26 A. McVittie	1,553	240	42	0	16	8	13	3	14	5	47,200	602	13,485	378	
do	27 Pueblo	1,054	225	36	0	19	0	13	7	13	5	28,000	952	10,107	284	
do	28 H. R. James	1,553	240	42	0	16	8	14	3	15	0	58,000	952	10,107	163	
do	31 John Rugee	950	216	35	1	18	7	13	11	14	6	29,690	731	14,396	404	
Nov.	5 Gov. Smith	1,547	240	42	0	16	8	14	6	14	7	52,000	473	11,272	316	
do	5 Denver	1,029	222	37	0	19	0	14	9	14	9	51,060	473	17,041	473	
do	7 J. R. Langdon	1,550	240	42	0	16	8	13	7	14	3	56,000	482	15,126	425	
do	10 F. H. Prince	1,548	240	42	0	16	8	14	3	14	5	30,330	482	15,076	425	
do	14 W. J. Averill	1,425	265	36	6	16	5	14	3	14	7	47,111	581	15,210	426	
do	15 A. McVittie	1,553	240	42	0	16	8	14	3	14	7	26,566	987	13,307	373	
do	18 H. R. James	1,553	240	42	0	16	8	14	4	14	7	43,190	487	12,657	365	
do	21 John Rugee	950	216	35	1	18	7	13	6	14	0	30,661	276	10,788	302	
do	24 Gov. Smith	1,547	240	42	0	16	8	14	4	14	7	59,910	1,345	5,199	173	
do	27 Omaha	940	215	34	6	18	9	14	3	14	3	30,036	195	15,863	445	
do	29 J. R. Langdon	1,550	240	42	0	16	8	14	1	14	6	46,985	714	6,442	181	
do	29 Monteaigle	1,035	237	35	0	19	8	14	7	14	8	55,001	477	15,514	466	
do	2 F. H. Prince	1,548	240	42	0	16	8	13	7	14	9	50,500	429	14,183	398	
Dec.	6 W. A. Haskell	1,441	265	37	0	16	6	12	10	14	2	26,766	760	13,146	369	
												470,600	12,874	894,483	21,002	1,218
												4,152,969	33,307	66,332	25,078	506
												200,000	1,996	1,218	173	1,218

J.—STATEMENT of Large Class Vessels Lightened at Welland Railway Elevator at Port Colborne; showing the Tonnage, Dimensions, Depth of Water and Cargoes passed through the Enlarged Welland Canal during the Season of Navigation in 1895—Continued.

UNITED STATES STEAM VESSELS—Concluded.

Date of Arrival.	Names of Vessels.	Grain Cargo and Rolling Freight through the Canal.								Total Cargo through the Canal.	Depth of Water through the Canal Midship.	Destination.		Cost of Lighthouse per bushel.	Time occupied in Light-erage.
		Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.	Rolling freight.	From.			To.			
		Bush.	Bush.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Ft. in.	Chicago.	Ogdensburg.	Cts.	H. M.
1895.															
Aug.	4 W. A. Haskell.		35,786		1,009		527		1,530		13 7	Chicago.	Ogdensburg.	13	1 25
do	5 J. R. Langdon.		19,982		559		772		1,331		12 5	do	do	11	1 40
do	8 F. H. Prince.		40,567		1,136		509		1,645		13 7	do	do	12	3 20
do	9 A. Mc Vittie.		42,113		1,180		337		1,517		13 2	do	do	13	1 80
do	12 H. R. James.		41,253		1,156		451		1,607		13 7	do	do	13	1 80
do	14 John Rugee.		46,255		1,296				1,296		13 6	do	do	13	1 15
do	15 John Duncan.	49,461		1,484					1,484		13 6	Duluth.	Kingston.	13	2 0
do	15 Omaha.		48,610		1,361				1,361		13 6	Chicago	do	13	1 0
do	15 Gov. Smith.	17,142		515		574		574	1,610		13 6	do	Ogdensburg.	13	3 10
do	19 W. J. Averill.		25,800		724		746		1,470		13 6	do	do	13	2 25
do	20 Denver.		45,469		1,274				1,274		13 4	do	Kingston.	13	2 0
do	21 J. R. Langdon.		41,679		1,168		440		1,608		13 4	do	Ogdensburg.	13	3 15
do	22 St. Lawrence.	59,245		1,778					1,728		13 4	Duluth.	Owego.	13	1 50
do	23 Nicaragua.	37,674		1,728					1,728		13 4	do	Kingston.	13	1 80
do	30 A. Mc Vittie.	8,697		261					1,509		13 3	Chicago	Ogdensburg.	13	3 10
Sept.	1 H. R. James.	5,990		180					1,560		13 6	do	do	13	2 40
do	2 John Rugee.		46,411		1,300		331		1,300		13 6	do	do	13	1 25
do	3 Gov. Smith.		8,749		245		1,053		1,629		13 0	do	do	13	3 45
do	8 Pueblo.		48,500		1,359				1,569		13 5	do	do	13	2 45
do	10 J. R. Langdon.		38,240		1,071		496		1,569		13 3	do	do	13	4 15
do	14 F. H. Prince.		40,735		1,141		294		1,435		13 5	do	do	13	3 15
do	14 Omaha.		44,746		1,252				1,252		12 11	do	Kingston.	13	4 0
do	15 Montague.		42,073		1,179				1,179		13 3	do	do	13	11 20
do	17 Denver.		45,102		1,263				1,263		13 6	do	Ogdensburg.	13	4 20
do	18 A. Mc Vittie.		34,878		977		532		1,509		13 3	do	do	13	5 0
do	18 John Rugee.		45,760		1,282				1,282		13 5	do	do	13	3 5
do	19 H. R. James.		41,980		1,176		371		1,547		13 5	do	do	13	3 50

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do	27	J. R. Langdon.....	42,339	1,186	286	1,472	12 10	do	do	13	4 50
do	30	W. A. Haskell.....	16,399	1,460	882	1,342	13 5	do	do	13	3 0
Oct.	1	Pueblo.....	57,523	1,381	882	1,381	13 5	Oswego.....	Oswego.....	2	1 15
do	3	F. H. Prince.....	9,000	216	784	1,529	13 11	Ogdensburg.....	Ogdensburg.....	21	3 30
do	3	Monteagle.....	47,164	1,132	784	1,132	13 8	Oswego.....	Oswego.....	21	3 50
do	3	Omaha.....	44,103	1,236	535	1,235	13 8	Ogdensburg.....	Ogdensburg.....	21	4 0
do	6	A. McVittie.....	13,290	373	388	1,512	13 0	do	do	23	8 0
do	6	A. McVittie.....	41,663	1,167	388	1,555	13 1	do	do	23	4 30
do	7	H. R. James.....	41,158	1,153	857	1,153	13 3	do	do	2	4 0
do	9	John Ruger.....	21,796	611	857	1,468	13 0	do	do	21	6 5
do	14	Gov. Smith.....	23,412	656	615	1,271	12 9	do	do	23	3 55
do	16	J. R. Langdon.....	18,044	506	945	1,358	13 0	do	do	23	3 55
do	20	W. A. Haskell.....	14,737	413	817	1,323	13 0	do	do	23	3 40
do	21	W. J. Averill.....	45,750	1,282	817	1,282	12 11	do	do	23	2 05
do	21	Omaha.....	33,715	945	602	1,547	13 0	do	Oswego.....	2	5 15
do	23	F. H. Prince.....	17,893	501	952	1,453	12 9	do	Ogdensburg.....	2	4 45
do	26	A. McVittie.....	15,294	429	731	1,230	12 10	do	Oswego.....	23	1 55
do	27	Pueblo.....	40,726	1,141	320	1,480	13 0	do	Ogdensburg.....	2	4 05
do	28	H. R. James.....	34,019	953	473	1,141	12 10	do	do	2	3 15
do	31	John Ruger.....	40,874	1,143	473	1,426	13 0	do	do	21	5 50
Nov.	5	Gov. Smith.....	15,254	428	487	1,143	12 8	do	do	21	4 10
do	5	Denver.....	31,901	1,143	482	1,387	13 0	do	do	23	4 50
do	7	J. R. Langdon.....	13,259	482	581	1,475	10 6	do	do	23	5 0
do	10	F. H. Prince.....	30,533	872	987	1,359	13 0	do	do	23	5 55
do	14	W. J. Averill.....	19,893	558	487	1,529	13 0	do	do	21	3 15
do	15	A. McVittie.....	44,047	1,172	276	1,429	13 11	do	do	23	5 15
do	18	H. R. James.....	28,594	661	195	1,172	13 0	do	do	2	2 0
do	21	John Ruger.....	40,818	945	477	1,429	12 10	do	do	2	5 25
do	24	Gov. Smith.....	37,354	1,143	477	1,422	12 8	do	do	2	3 35
do	27	Omaha.....	21,036	589	760	1,143	12 11	do	do	21	6 0
do	29	J. R. Langdon.....	178,998	11,656	33,307	1,475	12 10	do	do	23	5 20
do	29	Monteagle.....	404,268	11,656	33,307	1,349	12 9	do	do	23	3 30
Dec.	2	F. H. Prince.....	178,998	4,298	760	1,349	12 9	do	do	2	3 30
do	6	W. A. Haskell.....	3258,486	11,656	33,307	152,678	do	do	33	1 45

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UNITED STATES SAILING VESSELS—*Concluded.*

April 26	Baltic	55,038							13	6	Chicago	Ogdensburg	14	1 10
do 29	F. D. Ewen	48,955							13	6	do	Kringston ..	14	1 15
do 29	B. L. Pennington ..	63,994							13	5	do	Ogdensburg	14	4 10
do 29	Iron City	37,815							1,792			do	13	1 55
May 4	Grampan	56,838							1,059			do	13	2 25
do 4	Dundee	56,235							1,706			do	13	1 30
do 4	Paisley	59,566							1,688			do	13	1 25
Nov. 30	Baltic	53,755							1,668			do	13	1 25
		217,066	215,130						1,506			do	2	3 20
	Grand Total...	2,851,602	3632,568	192,995	12,412	85,562	98,959	4,635	12,412	33,307	284,875			

K.—STATEMENT showing the Quantity of Freight passed Eastward, from Lake Erie, through the whole length of the Wel'and and St. Lawrence Canals, to Montreal, during the Seasons of Navigation in 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894 and 1895.

Articles.	Tons.												
	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.
<i>Class 3.</i>													
Iron, pig									371				79
do all other	5		7	15		418						195	1,766
Steel												1	394
Stone for cutting										54			28
Apples			513	49	33							50	989
Barley		38										258	70,286
Corn	109,191	55,552	44,401	116,517	24,609	66,443	195,350	189,798	52,539	53,689	278,864	60,661	30,916
Flour	5,089	9,659	2,874	2,934	6,140	3,865	6,341	3,065	3,324	2,874	5,514	16,503	65
Meal, all kinds	1,188		16	125	87	100	148	222	67	16		4	1,654
Oats		872					320	479				175	
Pease		726	11	608	362				390	524			
Rye		433						1,120	64,978	9,119			3,669
Seeds, all kinds		518	42	33		12	1,284	2	75				
Tobacco, raw		2					3		1				
Wheat		76,379	84,822	86,815	160,063	93,915	70,815	75,515	159,785	194,281	208,212	212,557	158,643
All other agricultural products, vegetable			1		17		798	3	2			29	
Hides, skins, horns and hoofs		77											
Horses		6		1	1	2	2	3	2	20		1	1
Lard and lard oil			2	22		54	2		100	2			
Pork		318	30	936	418	265	1,220	221	201			717	
All other agricultural products, animals			4	68	29	39	32	117		103			
Total, Class 3.	193,393	152,171	100,058	208,148	191,759	165,113	276,813	220,545	281,762	260,757	507,321	291,151	264,740
<i>Class 4.</i>													
Ashes		3		44	113	85	107	70	40	17		19	34
Furniture		6		6	9	2		1	2	1		2	
Glass, all kinds		10				3		1	1				
Motasses				28									100
Nails		1											
Oil		78	7	6	14		4	6					6

L.—STATEMENT showing the Quantity of Freight passed Westward from Montreal, through the whole length of the St. Lawrence and Welland Canals to Lake Erie, during the Seasons of Navigation in 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894 and 1895.

Articles.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 3.</i>													
Bricks	78	200	44	66	3	187	84	252	469	1,570	3,169	1	24
Cement and water lime	508	219	117	498	1,740	1,177	823	62	2,380	240	1,570	2,281	1,859
Clay, lime and sand.	56			1	134	95	3	8	206	426	465	253	
Fish.				1	95	1	80	26	7			512	
Gypsum.			13										
Iron, railway.	8,725	2,031	12,366	6,629	153	9,148	15,513	20,003	2,855	1,171	6,576	20	56
do pig.	2,460	43	23	10	368	573	250	20	112	74	25	114	1,231
do all other	528	366	290	76	1,997	297	290	584	585	387	548	843	1,932
OSalt.	5,324	802	1,574	5,609	4,197	3,599	4,216	7,440	4,391	2,034	986	248	528
Steel	3	142		1	423	3	3	1					
Stone for cutting			7					12		145			
Flour.	21							48		3			124
Hay												15	
Meals	5					31							
Oats	264												
Potatoes.					4								
Seeds, all kinds						24	215	100				33	25
Agricultural products not enumerated, vegetables.						35	19		52			5	26
Hides and skins.	25	1	1				2						26
Horses			3		3					16			
Lard and lard oil.		45	3					72					1
Pork					4			33					
Wool				6	4	77		13	2	13		10	
All other articles not enumerated.								1	2				
Total, Class 3.	17,994	3,707	14,428	12,896	8,702	15,244	21,485	28,574	11,071	6,076	11,776	4,087	4,904
<i>Class 4.</i>													
Ashes, pot and pearl.			226	20				10	31	88			12
Crockery and earthenware	137	47	10	40	164		112	11	251	8	98	107	
Dye woods, &c.	2			1	4								
Furniture.	4	1			1					3			

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Glass, all kinds.....	156	160	32	39	53	77	71	23	30	152	365	175	394
Manilla.....	5	17	7	5	1	1	11
Molasses.....	3	.....	23	23	1	7	56	.....	.....	32	43	42	20
Nails.....	1,085	160	205	389	147	578	736	453	560	276	472	500	1,149
Oil, in barrels.....	122	80	10	82	28	22	9	11	64	2	44	8	31
Paint.....	103	161	24	36	80	59	49	24	61	15	70	8	75
Pitch and tar.....	50	1	.....	5	1	.....	.....	13	22	15	26	152	67
Rosin.....	21	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
Soda, ash.....	1,801	1,427	164	975	1,116	1,196	766	554	377	352	68	94	84
Stone, wrought.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	14	.....	.....
Sugar.....	375	290	64	316	207	98	7	551	412	1,320	2,218	2,724	1,430
Tin.....	1,669	1,832	10	549	2,225	198	480	40	23	27	34	327	396
Turpentine.....	1	1	.....	1	1	1	1	2	.....	.....	.....	.....	.....
White lead.....	3	3	.....	3	4	2	4	19	3	6	35	2	7
Whiting.....	19	.....	9	.....	7	.....	33	34	50	71	31	1	113
Whisky, beer, &c.....	791	364	259	174	287	228	124	350	294	220	26	53	77
Merchandise not enumerated.....	2,608	1,001	712	1,008	619	1,259	1,422	1,180	810	538	799	900	1,268
Total, Class 4.....	8,987	5,687	1,725	3,678	5,373	4,066	3,873	3,277	2,989	3,394	4,769	5,352	5,651
<i>Class 5.</i>													
Barrels, empty.....	179	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lumber, sawn, in vessels.....	318	.....	.....	227	.....	.....	2	.....	.....	.....	.....	.....	.....
Woodenware.....	.....	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, Class 5.....	497	3	2	227	.....	.....	.....	.....	.....	.....	.....	.....	.....
<i>Special Class.</i>													
Coal.....	40	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand Total.....	27,488	9,425	16,155	16,801	14,075	19,310	25,370	31,951	14,060	9,470	16,545	9,489	10,555

M.—STATEMENT showing the Quantity of Freight passed Eastward through the Welland Canal, from United States Ports to United States Ports, during the Seasons of Navigation from 1883 to 1895 inclusive.

Articles.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 3.</i>													
Bricks.....				41									
Cement and water lime.....				31		4							
Fish.....					2								
Iron, railway.....	1								1			5	
do all other.....	142	40		45			520	1	10	1	102		181
Salt.....	90			1					494				214
Steel.....	8					3							
Stone for cutting.....	38	15											
Apples.....	735												
Barley.....	66,128	53,707	63,229	93,503	1,709	2	147,045	6,519	8,113	6,433	16,751	28,095	7,904
Corn.....	2,041	1,715	124	7,591	83,431	102,974	5,017	180,842	127,494	131,222	198,777	105,329	100,512
Flour.....					11,780	8,563		9,294	6,802	11,018	6,588	17,795	10,169
Hay, pressed.....		13											
Meal, all kinds.....	8,579	8,170		13,201	10,726	11,598	17,224	20,482	26,046	31,724	36,352	60,390	46,316
Oil cake.....	1											29	
Oats.....	731	9,874	882	4,790	12,050	26,510	27,492	27,080	52,823	36,935	23,870	27,621	16,442
Potatoes.....								1					
Rye.....						179					864		
Seeds, all kinds.....	662	511		226	44	48	151	135	256	50	16		14
Wheat.....	54,282	40,956	53,235	53,258	37,678	39,999	39,229	31,527	32,087	26,950	28,187	53,846	27,881
Agricultural products, vegetable.....	3			2	2			14	42				
Hides and skins, &c.....	60	73		414	170	59							8
Horses.....	1	6		1	2		1	1	3		2	4	
Lard and lard oil, &c.....	5	7		13	14	19	32	30	10		1		6
Meats, other than pork.....	12	4		1	18	14	3	15	2	29			30
Pork.....	163			106	108	19	21	88	73	1	52	56	87
Sheep.....		1											
Wool.....	95			1,125	86	18	452		1,237	70	80	1,484	1,536
Total, Class 3.....	138,782	115,092	117,470	174,359	157,820	189,986	237,188	275,893	255,553	244,433	311,647	294,654	211,300
<i>Class 4.</i>													
Agricultural implements.....	1				9								
Crockery and earthenware.....	1					1		1					
Furniture.....	25	16		21	24	30	30	21	7		6		2

N.—STATEMENT showing the number of Vessels and their Cargoes of Wheat, from ports west of Port Colborne to Montreal ; the quantity transhipped at Kingston, and the quantity of each Cargo through the St. Lawrence Canals, during the Season of Navigation in 1895.

Names of Vessels.	Original Cargo through the Welland Canal.	Quantity transhipped at Kingston.	Cargo through the St. Lawrence Canals.
	Tons.	Tons.	Tons.
Canadian steamer "Shickluna"	480	223	257
Canadian sail "Dunmore"	1,305	670	635
do "Selkirk"	1,474	783	691
do "Winnipeg"	1,472	791	681
Total	4,731	2,467	2,264

Number of cargoes of wheat	4
Quantity through Welland Canal to Kingston	4,731 tons
do transhipped at Kingston	2,467 do
do taken to Montreal in vessels in which it arrived at Kingston.	2,264 do

N.—STATEMENT showing the number of Vessels and their Cargoes of Corn, from ports west of Port Colborne to Montreal ; the quantity transhipped at Kingston, and the quantity of each Cargo through the St. Lawrence Canals, during the Season of Navigation in 1895.

Names of Vessels.	Original Cargo through the Welland Canal.	Quantity transhipped at Kingston.	Cargo through the St. Lawrence Canals.
	Tons.	Tons.	Tons.
Canadian steamer "Acadia"	448	.....	448
do "Arabian"	1,157	616	541
do "Cuba"	252	.....	252
do "Melborne"	392	.....	392
do do	252	.....	252
do "Niagara"	701	362	339
Total	3,202	978	2,224

Number of cargoes of corn	6
Quantity through the Welland Canal to Kingston	3,202 tons
do transhipped at Kingston	978 do
do taken to Montreal in vessels in which it arrived at Kingston	2,224 do

Department of Railways and Canals.

RECAPITULATION of the Number of Vessels passed down the Welland Canal with Cargoes of Grain for Montreal, the Quantity transhipped at Kingston, and the Quantity taken to Montreal, for the season of 1895.

	Number of Cargoes.	Total Number.
Wheat.....	4	
Corn.....	6	
Total		10
	Tons.	Tons.
Quantity of wheat through the Welland Canal bound for Montreal	4,731	
do corn do do	3,202	
Total through Welland Canal.....		7,933
Quantity of the above transhipped at Kingston, viz :—		
Wheat	2,467	
Corn	978	
Total transhipped.....		3,445
Quantity of the above cargoes taken to Montreal in vessels in which it arrived at Kingston, viz :—		
Wheat	2,264	
Corn.....	2,224	
Total quantity to Montreal.....		4,488
Total.....		7,933

O.—STATEMENT showing the Quantity of Grain passed down the Welland Canal to Kingston in Canadian and United States Vessels, entering the Canal at Port Colborne, during the Season of Navigation in 1895.

	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	79	56,210	44	33,337	43	38,934	13	9,664	179	138,145
	Tons.	Fons.		Tons.		Tons.		Tons.		Tons.
Barley	798		162							960
Corn	15,489		3,193		38,422		4,663			61,767
Oats	1,476		178							1,654
Pease										
Rye										
Wheat	56,949		58,372		17,857		13,045			146,223
Total	74,712		61,905		56,279		17,708			210,604

79 cargoes in Canadian steam vessels, total quantity..... 74,712 tons
 44 do do sail do 61,905 do
 43 do United States steam vessels, total quantity..... 56,279 do
 13 do do sail do do 17,708 do

Department of Railways and Canals

P.—STATEMENT of the total Quantity of Grain arrived at Kingston in Vessels which passed down the Welland Canal during the season of Navigation in 1895.

Summary.	Tons.	Tons.
Canadian steam vessels—79 cargoes of grain	74,712	
do sail do 44 do	61,905	
Total in Canadian vessels		136,617
United States steam vessels—43 cargoes of grain	56,279	
do sail do 13 do	17,708	
Total in United States vessels		73,987
Total in Canadian and United States vessels		210,604
Distributed as follows:—		
10 cargoes arrived at Kingston in Canadian vessels with an aggregate quantity of	7,933	
Transhipped at Kingston	3,445	
Quantity taken to Montreal in vessels in which it arrived at Kingston		4,488
Vessels arrived at Kingston and discharged all their cargoes as follows:—		
113 cargoes in Canadian vessels	128,684	
56 do United States vessels	73,987	
Aggregate quantity discharged	202,671	
Quantity transhipped to Montreal	200,213	
Total quantity transhipped from Kingston to Montreal		203,658
Quantity remaining at Kingston		2,458
Total		210,604

Q.—COMPARATIVE STATEMENT of the quantity of Grain passed down the Welland Canal to Kingston for the Seasons of Navigation in 1894 and 1895.

	1894.		1895.	
	No. of Cargoes.	Tons.	No. of Cargoes.	Tons.
Quantity arrived at Kingston in Canadian vessels	125	159,145	123	89,547
do do United States vessels.	84	106,236	56	48,598
Total	209	265,381	179	138,145
Quantity transhipped at Kingston in Canadian vessels for Montreal		240,557		203,658
Quantity taken to Montreal in vessels in which it arrived at Kingston		9,554		4,488
Quantity remaining at Kingston		10,806		2,458
Quantity transhipped to Cardinal		3,888		
Quantity taken to elevator at Ogdensburg, N. Y., and transhipped to Montreal.		576		
Total		265,381		210,604

4 vessels took their cargoes through to Montreal intact in 1895, against 2 in 1894.
 6 vessels discharged part of their cargoes in 1895, against 19 in 1894.
 169 do all of their cargoes in 1895, against 188 in 1894.

R.—STATEMENT showing the number of Vessels, their Tonnage, number of Passengers, and Tons of Freight passed down the Rapids of the St. Lawrence Canals during the Season of Navigation in 1895.

Destination.	No. of Sec.	No. of Vessels	Tonnage of Vessels	No. of Passengers.	Class Three.	Class Four.	Class Five.	Tolls.
Prescott to Montreal	4	49	24,053	5,066	100	263		\$ cts.
do Lachine	3	20	8,564	1,998	310	71		754 40
do Valleyfield	2	21	11,197	926	966	192		244 20
Dickinson's Landing to Montreal	3	23	15,634				4	179 96
Valleyfield do	2	53	32,448	1,379	8	35		88 83
do do to Lachine	1	184	19,102	1,856	1,184	393	37	195 22
Lachine to Montreal	1	292	62,118	18,128	514	275		152 78
Total		642	173,116	29,353	3,082	1,233	37	534 38
								2,149 77

Department of Railways and Canals.

S.—THE quantity of Coal passed through the Welland Canal during a series of years from 1885 to 1895, inclusive, and the amount of Tolls collected thereon, is as follows:—

Year.	From Canadian Ports to Canadian Ports.	From United States Ports to United States Ports.		From United States Ports to Canadian Ports.		Total Tons.	Amount of Tolls Paid. — Rate 20 cents a ton.
	Up.	Up.	Down.	Up.	Down.		
	Tons.	Tons.	Tons.	Tons.	Tons.			$ cts.
1885.....		193,442	4,974	10,321	31,350	240,087	48,017 40
1886.....		184,564	5,400	22,187	49,724	261,875	52,375 00
1887.....		81,617	1,163	26,775	25,968	135,523	27,104 60
1888.....		172,381	878	17,365	27,183	217,807	43,561 40
1889.....		226,352	1,124	12,036	25,931	265,443	53,188 60
1890.....	80	116,616	615	17,280	22,781	202,372	38,222 30
1891.....		185,190	1,382	17,374	20,698	224,644	44,928 20
1892.....		183,244	651	12,391	15,330	211,616	42,284 13
1893.....		204,704	2,123	8,325	17,944	233,096	46,619 20
1894.....		187,794	727	1,269	13,947	203,737	40,789 93
1895.....	4	148,887	603	1,565	7,807	158,866	31,773 05

NOTE.—Tolls on soft coal passed down the Welland Canal, during the season of 1890, were reduced from 20 to 10 cents a ton, per O.C. 11th May, 1890, for the season of 1890 only, the rate for 1891, 1892, 1893, 1894 and 1895 being 20 cents a ton for passage either eastward or westward.

T.—STATEMENT showing the quantity of Coal passed through the whole length of the St. Lawrence Canals during the seasons from 1885 to 1895, inclusive.

Year.	Quantity passed up Free of Tolls.	Quantity passed down to Montreal.	Total Quantity passed up and down.	Amount of Tolls on Quantity passed down to Montreal.
	Tons.	Tons.	Tons.	\$ cts.
1885.....	5,035	122,829	127,864	18,424 35
1886.....	3,301	118,802	122,103	17,820 70
1887.....	7,579	121,618	129,197	18,242 70
1888.....	8,341	123,050	131,391	18,423 90
1889.....	5,360	124,290	129,650	18,604 90
1890.....	6,538	135,168	141,706	20,275 20
1891.....	7,951	141,701	149,652	21,255 15
1892.....	7,543	157,134	164,677	23,570 10
1893.....	2,285	147,139	149,424	22,070 85
1894.....	16,213	169,552	185,765	25,432 80
1895.....		165,151	165,151	24,772 65

NOTE.—Coal is allowed to pass free up the St. Lawrence Canals.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, showing the Quantity to Montreal, the Quantity to Canadian Ports between Port Dalhousie and Cornwall, and the Quantity to United States Ports, Oswego, Ogdensburg, &c., on the south side of Lake Ontario, for the years 1884 to 1895, inclusive.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
	Tons.	Tons.	Tons.
1884.			
Ashes, pot and pearl	36	10	.....
Agricultural products, not enumerated, vegetable		7	.....
do do animal		2	.....
Agricultural implements		9	.....
Barley	38	52	.....
Coal		32,598	4,293
Corn	55,552	9,552	53,707
Cattle		1	.....
Fish		13	.....
Flour	9,659		1,715
Furniture	10	17	16
Glass, all kinds		10	1
Hay, pressed			13
Horses		2	6
Hides, horns and hoofs			73
Iron, all other		8	40
Kryolite and chemical ore, and other ore, except iron		10	.....
Lard and lard oil		2	7
Meal, all kinds		5	8,170
Meats, other than pork		28	4
Marble			26
Nails	1		1
Oats	872		9,874
Oil, in barrels	78	354	255
Pease	433		.....
Pork	318		.....
Rye	477		.....
Salt		364	.....
Stone, intended for cutting		2,059	15
do wrought	317	190	7
Seeds, all kinds		111	511
Sheep			1
Spirits, beer, &c.		11	26
Turpentine	1		.....
Wheat	84,322	2,549	40,975
All other goods and merchandise not enumerated	37	104	480
Barrels, empty	37	3	1
Firewood, in vessels		930	.....
Lumber, sawn, in vessels	7,531	85	45,239
Staves and headings, barrel		22	.....
do do pipe	200	487	.....
do do West India	863	406	.....
Shingles		7	76
Timber, square	7,365	50,414	.....
Woodenware and wood, partly manufactured	68	3	11
Total	168,715	100,425	165,543

A refund of 10 cents per ton was allowed on wheat, corn, oats, barley and rye passed down to Montreal, per O. C. 28th May, 1884.

Department of Railways and Canals.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—Continued.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1885.	Tons.	Tons.	Tons.
Ashes, pot and pearl.....	97		
Apples.....	513		
Agricultural products, not enumerated, vegetable.....	1		
do do animal.....	2		
Barley.....			228
Coal.....		31,350	4,974
Corn.....	44,401	9,906	63,229
Crockery and earthenware.....	1		
Flour.....	2,874		124
Furniture.....	5	11	
Horses.....	2	1	
Iron, pig.....		100	
do all other.....	7		
Iron ore.....			987
Lard and lard oil.....		2	
Meal, all kinds.....	16		
Oats.....			882
Oil, in barrels.....	7	568	
Pease.....	11		
Paint.....		68	
Pork.....	30		
Salt.....		407	
Stone for cutting.....		3,749	
do wrought.....		8	
Seeds, all kinds.....	42	10	
Spirits, beer, &c.....		25	
Tallow.....	2	4	
Wheat.....	52,157	2,003	53,235
All other merchandise, not enumerated.....	28	8	2
Barrels, empty.....	128	8	
Firewood, in vessels.....		540	
Lumber, sawn.....	19,945	6,774	49,561
Staves and headings.....	856	604	
Shingles.....			111
Timber, square.....	11,767	69,616	
Woodenware.....	76		
Total.....	132,968	125,762	173,333

A refund of 10 cents per ton was allowed on wheat, corn, oats, pease, barley and rye passed down to Montreal, per O.C. 17th June, 1885, and a refund of 18 cents per ton from 1st July, 1885, per O.C. 4th July, 1885.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
	Tons.	Tons.	Tons.
1886.			
Ashes, pot and pearl	44	10	11
Apples	49		41
Agricultural products, not enumerated, vegetable		1	1
Bricks			41
Cement and water lime			26
Coal		49,724	5,400
Corn	116,517	8,871	93,503
Flour	2,934		7,591
Furniture	6	15	21
Glass, all kinds			2
Horses	1		1
Hides and skins, &c.			414
Iron, pig.		617	43
do all other.	15	12	1
Lard and lard oil	22	9	13
Meal, all kinds	125	18	13,201
Meats, other than pork	67	64	1
Marble		2	
Molasses	28	7	
Nails			4
Oats		41	4,790
Oil	6	28	6
Pease	608		
Pork	936	407	106
Paint	1	1	
Rags			13
Salt		20	1
Stone, for cutting		4,314	
do wrought		103	38
Seeds, all kinds	33	3	236
Sugar			3
Spirits, beer, &c.	8	12	21
Tabacco, raw	25		
Tallow	1	2	1
Wheat	86,815	969	53,258
Wool			1,125
Merchandise not enumerated	100	46	793
Barrels, empty	6	2	
Floats		20	
Lumber, sawn, in vessels	18,707	7,546	53,124
Masts, spars, &c.		22	
Staves and headings, barrel		57	
do do pipe	332	339	
do do West India	287	444	
Shingles		12	463
Timber, square	16,740	44,335	
Woodenware	101	45	2
Total	244,514	118,127	234,254

A refund of 18 cents per ton was allowed on wheat, corn, oats, pease, barley and rye, passed down to Montreal, per O. C. 21st April, 1886.

Department of Railways and Canals.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1887.	Tons.	Tons.	Tons.
Ashes, pot and pearl.....	113		
Apples.....	33		
Agricultural products, not enumerated, vegetable.....			2
Agricultural implements.....			9
Barley.....			1,709
Coal.....		25,968	1,163
Corn.....	24,609	6,898	83,431
Fish.....			2
Flour.....	6,140		11,780
Furniture.....	9	9	24
Horses.....	1	1	2
Hides, skins, &c.....			170
Iron, pig.....		1,137	
do all other.....		7	
Lard and lard oil.....		6	14
Meal, all kinds.....	87	42	10,726
Meats, other than pork.....	29	15	18
Nails.....	1		
Oats.....			12,050
Oil.....	14	190	8
Oil cake.....	17		
Pease.....	362		
Pork.....	418	86	108
Stone, for cutting.....		3,531	
do wrought.....	12	543	
Seeds.....		4	44
Sugar.....	15		1
Spirits.....		99	63
Wheat.....	160,063	4,940	37,678
Wool.....			86
All other merchandise not enumerated.....	72	123	468
Barrels, empty.....	88		24
Lumber, sawn.....	7,001	1,816	44,733
Staves and headings, barrel.....		27	
do pipe.....	184		
do West India.....	131	838	
Timber, square.....	14,390	21,351	
Woodenware and wood partly manufactured.....	45	1	2
Total.....	213,834	67,632	204,315

A refund of 18 cents per ton was allowed on wheat, corn, pease, barley and rye passed down to Montreal, per O.C. 21st March, 1887.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1888.	Tons.	Tons.	Tons.
Ashes, pot and pearl.....	85		
Apples.....		45	
Barley.....			2
Cement and water lime.....			4
Coal.....		27,183	878
Corn.....	66,443	25,469	102,974
Crockery and earthenware.....		4	1
Flour.....	3,865		8,563
Furniture.....	2	1	30
Glass, all kinds.....	3	2	
Hay, pressed.....		20	
Horses.....	2		
Hides and skins.....			39
Iron, pig.....		549	
do all other.....	418	490	
Lard and lard oil.....	54	12	18
Meal, all kinds.....	100		11,598
Meats, other than pork.....	39	6	14
Oats.....			26,510
Oil.....		3	
Pease.....		54	
Pork.....	265	61	19
Rags.....			14
Rye.....		632	179
Stone, for cutting.....		6,535	
do wrought.....		126	
Seeds, all kinds.....	12	1	48
Steel.....			3
Sugar.....		2	4
Spirits.....	3	2	151
Tallow.....			1
Wheat.....	93,915	14,365	39,999
Wood.....			18
All other goods and merchandise not enumerated.....	105	34	1,435
Barrels, empty.....	40		133
Lumber, sawn.....	5,174	4,515	45,818
Staves and headings, barrel.....	15	7	
do pipe.....	124		
do West Indies.....	1,623	13	
do salt barrel.....	1	1	
Shingles.....			6
Timber, square, in vessels.....	11,586	33,669	
Woodenware.....	25		8
Total.....	183,899	113,801	238,467

A refund of 18 cents per ton was allowed on wheat, corn, pease, barley and rye passed down to Montreal, per O. C. 20th April, 1888.

Department of Railways and Canals.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1889.	Tons.	Tons.	Tons.
Ashes, pot and pearl.	167	5	
Coal		25,931	1,124
Corn	195,350	11,200	147,045
Crockery and earthenware		1	1
Fish		5	
Flour	6,841		5,017
Furniture		4	30
Horses	2		1
Iron, pig		613	
do all other			520
Lard and lard oil		5	19
Meal, all kinds	148		17,224
Meats, other than pork	32	2	3
Molasses			88
Oats	320		27,492
Oil, in barrels	4	2	
Oil cake	798		
Potatoes			1
Pork	1,220	114	21
Rye	1,284	634	
Salt		316	
Stone, for cutting		6,784	
do wrought		11	2
do not suitable for cutting		375	1,681
Seeds, all kinds	3		151
Spirits, beer, &c	20	8	190
Tallow			13
Wheat	70,815	7,241	39,229
Wool			452
Merchandise	193	129	1,591
Barrels, empty			173
Lumber, sawn	6,118	4,669	71,055
Masts, spars, &c		220	
Railway ties		852	
Saw logs			158
Staves and headings, barrel		4	
do do pipe	202	304	
do do West India	68	559	
Shingles			51
Split posts, &c		17	
Timber, square	9,302	70,579	240
Woodenware, &c			2
Total	292,827	130,584	313,574

A refund of 18 cents per ton was allowed on wheat, corn, pease, barley and rye passed down to Montreal, per Order in Council 18th March, 1889.

U.—COMPARATIVE Statement of the Quantity of Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
	Tons.	Tons.	Tons.
1890.			
Ashes	70		
All other products, animal	14		
do vegetable	1		
Barley			6,519
Bricks			4
Coal		22,781	615
Corn	134,966	11,584	180,842
Fish	49		
Flour	3,065		9,204
Furniture	1	1	21
Glass, all kinds	1		
Horses	3		1
Iron, all other			1
Kryolite		1,280	1,620
Lard and lard oil		5	30
Meal	222		20,482
Meats			15
Oats	479	73	27,030
Oil, in barrels	6		
Oil cake	2		
Paint			3
Pease			14
Pork	221	19	88
Potatoes			1
Rye	1,120	1	
Salt		701	
Stone, for cutting		5,761	
do wrought		639	18
Seeds, all kinds	2		135
Spirits, &c.	26		228
Tallow	54		
Wheat	75,515	5,241	31,527
White lead			1
Merchandise	142	32	1,822
Barrels, empty			7
Firewood, in vessels		1,398	
Lumber, sawn, in vessels	3,195	3,767	47,590
do rafts	384		
Staves and headings, pipe		187	
do West Indies		36	
Shingles			14
Square timber, in vessels		73,112	
do rafts		17,683	
Woodenware	1		1
Corn	16,033		
Oats	400		
	16,433		*16,433
Total	235,972	144,301	311,400

*This quantity of grain was transhipped at Ogdensburg and passed down the St. Lawrence canals to Montreal.

A refund of 18 cents Welland Canal tolls was allowed on wheat, Indian corn, pease, barley, rye (and oats for export), when shipped for Montreal or some port east of that point, per Orders in Council 26th February and 5th May, 1890.

Department of Railways and Canals.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1891.	Tons.	Tons.	Tons.
Ashes.....	40		
Agricultural products.....	2		42
Barley.....			8,113
Corn.....	52,539	5,144	127,494
Coal.....		20,698	1,382
Flour.....	3,324		6,802
Fish.....			1
Furniture.....	2	2	7
Glass.....	1		1
Horses.....	2	2	3
Hay.....		21	
Iron, pig.....	371	128	
do all other.....		1,036	10
Lard and lard oil.....	100	16	10
Meal, all kinds.....	67		26,096
Meats, other than pork.....		1	2
Molasses.....		20	18
Oats.....			52,823
Oil.....			1
Pease.....	390		
Pork.....	201		73
Rags.....			60
Rye.....	64,978	969	
Seeds, all kinds.....	2		256
Salt.....		1,861	494
Stone for cutting.....		6,602	
do wrought.....		7	
Tobacco.....	1		
Tallow.....		9	8
Wheat.....	159,785	692	32,097
Staves, pipe.....		8	
Whisky and all other liquors.....	105	57	167
Wool.....			1,237
Merchandise.....	278	6	1,779
Kryolite.....		1,098	1,773
Lumber, in vessels.....	2,991	1,300	56,456
do in rafts.....	917		
Timber, square, in rafts.....	5,680	14,638	
Barrels.....			4
Corn.....	12,169	291,776	317,209
Wheat.....	5,648		
	17,817		*17,817
Total.....	309,593	54,315	299,392

* This quantity of grain was transhipped at Ogdensburg and passed down the St. Lawrence Canals to Montreal.

A refund of 18 cents a ton Welland Canal tolls on wheat, Indian corn, pease, barley, rye and (for export) oats, originally shipped for Montreal or some port east of Montreal, per Order in Council, 25th March, 1891.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed	Quantity passed	Quantity passed
	down to Montreal.	down to Canadian Ports between Port Dalhousie and Cornwall.	down to United States Ports.
1892.	Tons.	Tons.	Tons.
Ashes, pot and pearl.....	17	2	
Apples.....	54		
Barley.....			6,433
Corn.....	53,689	7,637	131,222
Coal.....		14,839	651
Flour.....	2,874		11,018
Fish.....	9		
Furniture.....	1		7
Hides and skins.....	20		
Horses.....	2		
Iron, railway.....		100	
do all other.....		765	1
Meal, all kinds.....	16		31,724
Meats, other than pork.....	94		29
Oats.....			36,935
Oil.....		7	
Pease.....	524		
Potatoes.....			1
Pork.....			44
Rye.....	9,119	273	
Salt.....		865	
Seeds, all kinds.....	75		50
Steel.....			1
Stone for cutting.....		1,264	
Sugar.....			20
Wheat.....	194,281	5,373	26,950
Whisky, beer, spirits, &c.....	6	15	46
Wool.....			7 ¹
Merchandise not enumerated.....	36	13	1,304
Barrels, empty.....	1		29
Lumber, sawn, in vessels.....	1,678	150	83,403
Square timber.....	440	42,768	440
Staves and headings, pipe.....	8	89	
do West India.....	200	76	
Shingles.....			25
Total.....	263,144	74,227	330,403
*Wheat.....	+4,341	-4,341	
Total.....	267,485	69,886	330,403

* This quantity of wheat was taken from Kingston to Ogdensburg and stored in elevators, and subsequently transhipped to Montreal.

A refund of 18 cents a ton, Welland Canal tolls, was allowed on wheat, Indian corn, pease, barley, rye, oats, flax seed and buckwheat, which passed down the whole length of the Welland and St. Lawrence Canals, to Montreal, or any port east of Montreal, and such products exported out of the country, and in such cases only.

Department of Railways and Canals.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—Continued.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1893.	Tons.	Tons.	Tons.
Ashes, pot and pearl.....	23		
Barley.....	600	1,110	16,751
Bricks.....		1,251	
Corn.....	278,564	5,752	156,776
Coal.....		17,944	2,123
Flour.....	5,514		6,588
Fish.....			5
Furniture.....			6
Horses.....	1	1	2
Iron, pig.....			100
do all other.....			2
Meal, all kinds.....		1,025	36,352
Meats, other than pork.....			1
Oats.....	9,761	1,090	20,313
Pork.....			52
Rye.....	3,669	1	1
Salt.....		286	
Seeds, all kinds.....			16
Wheat.....	209,212	17,602	29,117
Whisky, beer, &c.....	1		83
Wool.....			80
Merchandise not enumerated.....	4	2	1,693
Barrels, empty.....			9
Firewood (in rafts).....		15	
Lumber, sawn, in vessels.....	667	1,981	123,665
Shingles.....			13
Square timber.....		45,605	
Staves and headings, barrel.....		12	
do do pipe.....		7	
do do West India.....		53	
Total.....	508,016	93,737	393,748

There was no rebate allowed of the Welland Canal toll on grain passed down to Montreal during the season of navigation in 1893.

The tolls were, however, reduced by Order in Council of 13th February, 1893, as follows:—"For the season of 1893, the canal toll for the passage of the following food products: wheat, Indian corn, pease, barley, rye, oats, flax seed and buckwheat, for passage eastward through the Welland Canal be ten cents per ton; and for passage eastward through the St. Lawrence Canals only, ten cents per ton, payment of the said toll of ten cents a ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals."

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1894.	Tons.	Tons.	Tons.
Apples.....	50		
Ashes.....	19		
Barley.....	258		28,095
Bricks.....		552	
Coal.....		13,818	727
Corn.....	60,661	3,243	105,329
Dye woods and dye stuffs.....		4	2
Fish.....			5
Flour.....	16,503	41	16,880
Furniture.....	2	3	
Horses.....	1	2	4
Iron, pig.....	195	2,170	
do all other.....	1	183	
Meals.....	4		60,390
Nails.....			57
Oats.....	175	107	27,621
Oil cake.....	29		
do in barrels.....		27	
Pork.....	717		56
Salt.....		133	
Spirits, beer, &c.....		3	
Sugar.....			52
Wheat.....	212,557	13,349	42,934
White lead.....	16		
Wool.....			1,484
Merchandise not enumerated.....	314		2,889
Barrels, empty.....		16	
Sawn lumber, in vessels.....	683		86,545
Square timber do.....		47,030	
Woodenware.....	6		
Total	292,191	80,68	373,070

There was no rebate allowed of the Welland Canal toll on grain passed down to Montreal during the season of navigation in 1894.

The tolls were, however, reduced by Order in Council of 16th April, 1894, as follows:—"For the season of 1894, the canal tolls for the passage of the following food products: wheat, Indian corn, pease, barley, rye, oats, flax seed and buckwheat, for passage eastward through the Welland Canal be ten cents per ton; and for passage eastward through the St. Lawrence Canals only, ten cents per ton, payment of the said toll of ten cents a ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals."

Department of Railways and Canals

U.—COMPARATIVE Statement of the Quantity of Freight passed down the Welland Canal &c.—*Concluded.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1895.	Tons.	Tons.	Tons.
Apples	28		
Ashes	34	15	
Barley	959		7,730
Bricks		651	
Coal		7,809	603
Corn	70,235	2,912	91,743
Flour	30,916	1,824	10,265
Furniture		12	2
Glass		1	
Horses	1	1	
Hides, skins &c			8
Iron, railway			181
do pig	79	1,994	
do all other	1,766	1,408	214
Lard and lard oil			6
Meal all kinds	65		46,316
Meats other than pork			30
Molasses	100		
Oats	1,654	123	16,442
Oil in barrels	6	41	30
Pork			87
Paint	2		
Salt		36	
Stone for cutting		430	
Seeds all kinds			14
Steel	394		462
Sugar			59
Spirits, beer &c	101	84	15
Tobacco		16	
Wheat	158,643	29,061	17,908
Wool			1,536
Merchandise not enumerated	558	1,302	7,656
Barrels, empty	1		
Sawn lumber in vessels	1,117	492	43,286
Railway ties do			1,942
Shingles		19	
Square Timber in vessels		63,715	500
Total	266,659	111,946	247,035

*Of this amount 3,469 tons came down to Kingston in 1894—was stored there and taken to Montreal in 1895, and 245 tons came down to Ogdensburg in 1894, stored there and transhipped to Montreal in 1895.

U.—STATEMENT showing the quantity of Freight passed down the Welland Canal to Canadian Ports, &c.—*Continued.*

RECAPITULATION.

Articles.	Quantity passed to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports on the south side of Lake Ontario.
1884.			
	Tons.	Tons.	Tons.
Barley	38	52	53 707
Corn	55,552	9,552	9,874
Oats	872		
Rye	477		
Wheat	84,822	2,549	40,975
Total Grain	141,761	12,153	104,556
Other Articles	26,954	88,272	60,987
Total	168,715	100,425	165,543
1885.			
Barley			228
Corn	44,401	9,906	63,229
Oats			882
Pease	11		
Rye			
Wheat	52,157	2,003	53,235
Total Grain	96,569	11,909	117,574
Other Articles	36,399	113,853	55,759
Total	132,968	125,762	173,333
1886.			
Barley			
Corn	116,517	8,871	93,503
Oats		41	4,790
Pease	608		
Rye			
Wheat	86,815	969	53,258
Total Grain	203,940	9,881	151,551
Other Articles	40,574	108,246	82,703
Total	244,514	118,127	234,254
1887.			
Barley			1,709
Corn	24,609	6,898	83,431
* Oats			12,050
Pease	362		
Rye			
Wheat	160,063	4,940	37,678
Total Grain	185,034	11,838	134,868
Other Articles	28,800	55,794	69,447
Total	213,834	67,632	204,315

* There was no refund on oats for 1887, 1888 and 1889.

Department of Railways and Canals

U.—STATEMENT showing the Quantity of Freight passed down the Welland Canal to Canadian Ports, &c.—*Continued.*

RECAPITULATION—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports on the south side of Lake Ontario.
1888.	Tons.	Tons.	Tons.
Barley.....			2
Corn.....	66,443	25,469	102,974
Oats.....			26,510
Pease.....		54	
Rye.....			179
Wheat.....	93,915	14,365	39,999
Total Grain.....	160,358	40,520	169,664
Other Articles.....	23,541	73,281	68,803
Total.....	183,899	113,801	238,467
1889.			
Barley.....			
Corn.....	195,350	11,200	147,045
Oats.....	320		27,492
Pease.....			
Rye.....	1,284	634	
Wheat.....	70,815	7,241	39,229
Total Grain.....	267,769	19,075	213,766
Other Articles.....	25,158	111,509	99,808
Total.....	292,927	130,584	313,574
1890.			
Barley.....			6,519
Corn.....	150,999	11,584	180,842
Oats.....	879	73	27,030
Pease.....			14
Rye.....	1,120	1	
Wheat.....	75,515	5,241	31,527
Total Grain.....	228,513	16,899	245,932
Other Articles.....	7,459	127,402	81,901
Total.....	235,972	144,301	327,833
1891.			
Barley.....			8,113
Corn.....	52,589	5,144	127,494
Oats.....			52,823
Pease.....	390		
Rye.....	64,978	969	
Wheat.....	159,785	692	32,097
Total Grain.....	277,692	6,805	220,527
Transhipped at Ogdensburg to Montreal.....	† 17,817		- 17,817
Total.....	295,509		202,710
Other Articles.....	14,084	47,510	96,682
Grand Total.....	309,593	54,315	299,392

* Owing to a break in the Cornwall Canal, 14,921 tons of the above quantity of grain were transhipped to Montreal via Canadian Pacific and Grand Trunk Railways, and the refund of 18 cents per ton allowed
 † Of this quantity of grain, 16,433 tons were transhipped at Ogdensburg to Montreal.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—*Concluded.*RECAPITULATION.—*Concluded.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports on the south side of Lake Ontario.
1892.	Tons.	Tons.	Tons.
Barley.....			6,433
Corn.....	53,689	7,637	131,222
Oats.....			36,935
Pease.....	524		
Rye.....	9,119	273	
Wheat.....	194,281	5,373	26,950
Total grain.....	257,613	13,283	201,540
Quantity taken to Ogdensburg and transhipped to Montreal.....	* 4,341	4,341	
Total.....	261,954	8,942	201,540
Other Articles.....	5,531	60,944	128,863
Total.....	267,485	69,886	330,403
1893.			
Barley.....	600	1,110	16,751
Corn.....	278,564	5,752	156,776
Oats.....	9,761	1,090	20,313
Pease.....			
Rye.....	3,669	1	1
Wheat.....	209,212	17,602	29,117
Total grain.....	501,806	25,555	222,958
Other Articles.....	6,210	68,182	170,790
Total.....	508,016	93,737	393,748
1894.			
Barley.....	258		28,095
Corn.....	60,661	3,243	105,329
Oats.....	175	107	27,621
Pease.....			
Rye.....			
Wheat.....	212,557	13,349	42,934
Total grain.....	273,651	16,699	203,979
Other Articles.....	18,540	63,982	169,091
Total.....	292,191	80,681	373,070
1895.			
Barley.....	959		7,730
Corn.....	70,265	2,912	91,743
Oats.....	1,654	123	16,442
Rye.....			
Wheat.....	† 158,643	29,061	17,908
Total grain.....	231,491	32,096	133,823
Other Articles.....	35,168	79,850	113,212
Grand Total.....	266,659	111,946	247,035

*This quantity of wheat was taken from Kingston to Ogdensburg and stored in elevators and subsequently transhipped to Montreal.

†Of this amount 3,469 tons came down to Kingston in 1894, was stored there, and taken to Montreal in 1895, and 245 tons came down to Ogdensburg in 1894, stored there and transhipped to Montreal in 1895.

Department of Railways and Canals

V.—SUMMARY of Quantity of Freight passed down Welland Canal on which full Tolls were paid.

	Quantity passed down to Canadian Ports: Toronto, Hamilton, King- ston, Cornwall, &c.	Quantity passed down to United States Ports: Oswego, Ogdens- burg, &c., on south side of Lake Ontario.
1884.	Tons.	Tons.
Grain	12,153	104,556
Other articles	88,272	60,987
Total	100,425	165,543
1885.		
Grain	11,909	117,574
Other articles	113,853	55,759
Total	125,762	173,333
1886.		
Grain	9,881	151,551
Other articles	108,246	82,703
Total	118,127	234,254
1887.		
Grain	11,838	134,868
Other articles	55,794	69,447
Total	67,632	204,315
1888.		
Grain	25,599	169,664
Other articles	73,231	68,803
Total	98,880	238,467
1889.		
Grain	19,075	213,766
Other articles	111,509	99,808
Total	130,584	313,574
1890.		
Grain	16,899	* 245,932
Other articles	127,401	81,901
Total	144,300	327,833
1891.		
Grain	6,805	* 220,527
Other articles	47,510	96,682
Total	54,315	317,209

V.—SUMMARY of Quantity of Freight passed down Welland Canal on which full Tolls were paid—*Concluded.*

	Quantity passed down to Canadian Ports : Toronto, Hamilton, King- ston, Cornwall, &c.	Quantity passed down to United States Ports : Oswego, Ogdens- burg, &c., on south side of Lake Ontario.
	Tons.	Tons.
1892.		
Grain	8,942	201,540
Other articles.....	60,944	128,863
Total	69,886	330,403
1893.		
Grain	25,555	222,958
Other articles.....	68,182	170,790
Total	93,737	393,748
1894.		
Grain	† 16,699	‡ 203,979
Other articles.....	63,982	169,091
Grand total.....	80,681	373,070
1895.		
Grain	32,096	133,823
Other articles.....	79,850	113,212
Total	111,946	247,035

* Of this quantity of grain 16,433 were transhipped to Montreal in 1890; and 17,817 in 1891.

† Of this quantity of grain 3,469 tons were transhipped from Kingston to Montreal in 1895.

‡ Of this quantity of grain 245 tons were transhipped from Ogdensburg to Montreal in 1895.

There was no rebate allowed of Welland Canal tolls on grain passed down to Montreal during the season of 1895.

· RICHARD DEVLIN,

Compiler of Canal Statistics.

OTTAWA, November 18, 1896.

Department of Railways and Canals.

CANAL REVENUE

CANAL

COMPARATIVE STATEMENT for years

	January.	February.	March.	April.	May.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Welland Canal, 1894.....	84 00		10 00	11,124 51	27,769 61
do 1895.....				6,983 48	28,483 66
Increase.....					714 05
Decrease.....	84 00		10 00	4,141 03	
St. Lawrence Canals, 1894.....			75	1,355 23	11,962 36
do 1895.....				588 15	11,497 90
Increase.....					
Decrease.....			75	767 08	464 46
Chambly Canal, 1894.....				21 67	3,308 79
do 1895.....				13 81	3,736 20
Increase.....					427 41
Decrease.....				7 86	
Rideau Canal, 1894.....					1,161 39
do 1895.....				76 80	663 81
Increase.....				76 80	
Decrease.....					497 58
Ottawa Canals, 1894.....				200 58	6,202 29
do 1895.....				253 82	5,919 43
Increase.....				53 24	
Decrease.....					282 86
St. Peter's Canals, 1894.....	14 33		1 50	1 80	211 57
do 1895.....	2 52				
Increase.....					
Decrease.....	11 81		1 50	1 80	211 57
Trent Valley Canals, 1894.....				11 53	136 82
do 1895.....				6 57	99 19
Increase.....					
Decrease.....				4 96	37 63
Murray Canal, 1894.....				35 07	62 58
do 1895.....				7 83	57 38
Increase.....					
Decrease.....				27 24	5 20
Total, increase.....					
Total, decrease.....	95 81		12 25	4,819 93	357 84

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 18th November, 1896.

Department of Railways and Canals.

REVENUE.

ended 31st December, 1894 and 1895.

June.	July.	August.	September.	October.	November.	December.	Total.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
22,789 22	19,813 54	21,801 35	18,645 67	21,551 61	13,887 54	2,414 14	159,891 19
21,300 41	17,125 12	19,547 05	17,080 89	13,783 13	13,220 03	1,349 24	138,873 01
1,488 81	2,688 42	2,254 30	1,564 78	7,768 48	667 51	1,064 90	21,018 18
13,427 32	14,728 85	12,227 60	10,043 17	11,212 49	6,415 97	490 76	81,864 50
12,781 05	12,517 14	13,266 32	9,929 21	9,610 42	7,801 99	172 62	78,164 80
646 27	2,211 71	1,038 72	113 96	1,602 07	1,386 02	318 14	3,699 70
3,458 66	3,966 07	2,621 22	2,638 31	3,784 31	1,398 45		21,197 48
3,343 24	4,717 02	3,852 81	4,395 10	3,916 14	1,955 35		25,929 67
115 42	750 95	1,231 59	1,756 79	131 83	556 90		4,732 19
1,020 94	910 90	1,238 62	882 20	563 30	522 30		6,299 65
1,354 79	1,431 00	965 96	788 59	620 65	247 34		6,149 14
333 85	520 10	272 66	93 61	57 55	274 96		150 51
5,405 16	5,255 10	5,233 52	4,465 67	4,935 44	2,369 02		34,066 78
5,416 84	5,771 97	4,194 62	4,425 84	4,339 48	1,648 14		31,970 14
11 68	516 87	1,038 90	39 83	595 96	720 88		2,096 64
338 04	353 15	378 19	382 21	401 43	372 22	182 70	2,637 14
					201 79	222 32	426 63
338 04	353 15	378 19	382 21	401 43	170 43	39 62	2,210 51
175 53	241 98	209 02	218 43	105 13	13 29		1,111 73
158 18	213 99	250 51	211 13	164 97	65 54		1,170 08
17 35	27 99	41 49	7 30	59 84	52 25		58 35
120 57	141 45	120 90	86 43	102 25	86 70	25	756 20
96 76	100 15	118 75	76 03	54 45	14 70	1 89	527 94
23 81	41 30	2 15	10 40	47 80	72 00	1 64	228 26
2,284 17	3,534 65	1,634 40	455 30	10,166 52	89 39	1,341 78	24,613 26

Total for Year 1894	307,824 67
Total for Year 1895	283,211 41

RICHARD DEVLIN,
Compiler of Canal Statistics.

COMPARATIVE Statement showing the quantity of Vegetable Food and Lumber passed through the Canals during the Years ended 31st December, 1894 and 1895.

	VEGETABLE FOOD.										LUMBER.	TOTAL.
	FLOUR.	WHEAT.	CORN.	BARLEY.	OATS.	RYE.	ALL OTHER.	LUMBER.				
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.			
Welland Canal, 1894	33,628	270,993	169,233	28,353	27,962	567	60,673	88,546	679,955			
do 1895	44,044	203,088	164,894	8,689	18,236	1,007	46,463	45,760	532,181			
Increase	10,416	67,905	4,839	19,664	9,726	440	14,210	42,786	147,774			
Decrease												
St. Lawrence Canals, 1894	23,135	219,240	65,624	525	2,094	673	30,739	42,293	384,323			
do 1895	35,375	164,310	78,593	2,084	2,305	456	20,353	43,192	346,968			
Increase	12,240	12,969	12,969	1,559	211	217	10,386	899	37,655			
Decrease		54,930										
Chambly Canal, 1894	567			68	633		1,321	64,765	67,354			
do 1895	649			16	977		878	92,241	94,761			
Increase	82			52	344		443	27,476	27,407			
Decrease												
Rideau Canal, 1894	427	1,346	80	11	11	10	205	30,843	41,933			
do 1895	385	767	16	62	45		213	37,238	38,726			
Increase	42	579	64	51	34	10	8	2,605	3,207			
Decrease												
Ottawa Canals, 1894	27			2	428	22	521	401,526	402,526			
do 1895	63		1	1	249	2	223	368,108	368,713			
Increase	36		1	1	179	20	292	33,358	33,813			
Decrease												

Department of Railways and Canals

St. Peter's Canal, 1894	2,242	.....	.....	.....	.....	6,269	8,511
do 1895	687	.....	.....	.....	.....	441	1,128
Increase.....	1,555	.....	.....	.....	.....	5,828	7,383
Decrease.....	.....	.....	.....	.....	.....	.....	.....
Trent Valley Canals, 1894	.....	.....	.....	.....	.....	1,870	1,870
do 1895	201	.....	.....	.....	.....	2,712	2,913
Increase.....	.....	.....	.....	.....	.....	842	1,043
Decrease.....	.....	.....	.....	.....	.....	.....	.....
Murray Canal, 1894	228	.....	.....	.....	.....	370	4,224
do 1895	4	.....	.....	.....	.....	377	1,824
Increase.....	.....	.....	.....	.....	.....	.....	.....
Decrease.....	224	.....	.....	.....	.....	7	2,400
Total increase.....	20,953	.....	.....	.....	.....	.....	.....
Total decrease.....	.....	.....	.....	.....	.....	55,353	203,782
Total for year 1894.....							
do 1892.....							
Total for year 1894.....							
do 1892.....							

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 18th November, 1896

RICHARD DEVLIN,
Compiler of Canal Statistics.

APPENDIX A.

No. (A) 1.—GENERAL STATEMENT showing the Quantity of each Article transported on the Welland Canal, and the Amount of Revenue collected during the Season of Navigation in 1895.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to Canadian Ports.		From United States to United States Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Ashes, pot and pearl.												\$ 6 64	\$ 9 80	\$ 16 44
Apples	50	3					38		88	49	137	0 72	6 25	6 97
Agricultural products, not enumerated, vegetables.	14	26							14	54	68			
Agricultural products, not enumerated, animals.									3	400	403	0 45	20 00	20 45
Agricultural implements.														
Barley		785	1				76	7,904	77	8,689	8,689	11 55		11 55
Bricks	72								72	651	723	8 11	868 90	868 90
Bones									672		672	100 80		100 80
Brimstone														
Buckwheat.			89						327		327	27 81		27 81
Cement and water lime	238								274	250	524	31 10	12 50	43 60
Clay, lime and sand	100	250					174		150,452	8,414	158,866	30,090 40	1,682 65	31,773 05
Coal		4					148,887	603			164,894		16,489 10	16,489 10
Corn		284					100,512							
Cattle														
Cattle														
Cotton, raw									29		29	4 35		4 35
Crockery and earthenware.			4				25							
Dye wood and dye stuffs.														
Dye wood and dye stuffs.														
Fish			4						4		4	0 60		0 60
Flax and hemp									208		208	31 20		31 20
Flour	149	890					10,169		149	43,895	44,044	2 80	8,675 76	8,678 56
Furniture		10	4					2	1	24	28	0 60	3 05	3 65
Gypsum														
Gypsum														
Glass, all kinds.	1		2						3	1	4	0 45	0 20	0 65
Hay, pressed.			33						33		33	4 95		4 95
Hogs														
Horses														
Hides and skins, horns and hoofs	22	2							22	4	26	0 44	0 46	0 90
Hides and skins, horns and hoofs									63	8	71	9 45	1 60	11 05

No. (A) 1.—GENERAL STATEMENT showing the Quantity of each Article transported, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up. \$ cts.	Amount of Tolls, Down. \$ cts.	Total Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Floats.....														
Firewood, in vessels.....		7,755	81						81	7,755	7,886	68	370 76	371 44
Firewood, in rafts.....														
Hoops.....														
Hop poles.....	146	1,032	101	1,312	41,974	1,195			247	45,513	45,760	27 99	8,146 47	8,174 46
Lumber, sawn, in vessels.....														
do rafts.....														
Masts, spars and telegraph poles, in vessels.....														
Masts, spars and telegraph poles, in rafts.....														
Railway ties, in vessels.....				1,496							1,942		310 48	310 48
do rafts.....														
Saw-logs.....	147	1,008		705					147	1,713	1,860	6 88	74 48	81 36
Staves and headings, barrel do pipe.....				212						212	212		16 50	16 50
do W. India.....														
Staves, salt barrel.....								19		20			13 78	13 78
Shingles.....														
Split posts and fence rails, in vessels.....														
Split posts and fence rails, in rafts.....					500					64,215	64,215		9,626 48	9,626 48
Timber square, in vessels.....														
do rafts.....														
Traverses.....														
Woodenware and wood partly manufactured.....	1													
Total freight paying tolls.	4,973	97,626	2,525	4,126	214,265	262,535	1,565	271,375	223,328	635,712	859,040	40,380 10	81,562 17	121,842 27

No. (A) 2.—GENERAL STATEMENT showing the Quantity of each Article of Through Freight transported on the Welland Canal, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Floats.....														
Firewood, in vessels														
do rafts.....														
Hoops.....														
Hop poles.....														
Lumber, sawn, in vessels.....	2	414	59	1,312		41,974		1,195	61	44,895	44,956	10 92	8,077 17	8,068 09
do rafts.....														
Masts, spars, and telegraph poles, in vessels.....														
Mats, spars, and telegraph poles, in rafts.....														
Railway ties, in vessels.....				1,496		446				1,942	1,942		310 48	310 48
do rafts.....														
Saw-logs.....														
Staves and headings, barrel do pipe.....														
do do do.....														
do do West India.....														
Staves, salt barrel.....										19	19		13 50	13 50
Shingles.....														
Split posts and fence rails, in vessels.....														
Split posts and fence rails, in rafts.....														
Timber, square, in vessels.....		361				500		63,354		64,215	64,215		9,626 48	9,626 48
do rafts.....														
Traverses.....														
Woodenware and wood partly manufactured.....	1		31						32	32	32	12 80		12 80
Total freight paying tolls.....	1,442	85,161	2,273	2,808	214,265	262,585	1,565	271,372	219,545	621,926	841,471	40,196 75	80,828 91	121,025 66

Department of Railways and Canals.

Articles having paid full tolls
on the St. Lawrence Canals,
free:—

Articles having paid full tolls on the St. Lawrence Canals, free:—	No.	Tons	Value	No.	Tons	Value	No.	Tons	Value				
Agricultural products, vegetable.	6	26	.....	26	.....	26	.....	26	.....			
Bricks	15	18	.....	24	.....	24	.....	24	.....			
Cement and water lime	1	1,844	.....	1,859	.....	1,859	.....	1,859	.....			
Crockery and earthenware	7	11	.....	12	.....	12	.....	12	.....			
Glass, all kinds	19	387	.....	394	.....	394	.....	394	.....			
Hay	1	124	.....	124	.....	124	.....	124	.....			
Hides, skins, &c.	6	26	.....	26	.....	26	.....	26	.....			
Iron pig	56	56	.....	56	.....	56	.....	56	.....			
Iron, all other	1	1,812	.....	1,831	.....	1,831	.....	1,831	.....			
Lard and lard oil	1	1	.....	1	.....	1	.....	1	.....			
Molasses	1	19	.....	20	.....	20	.....	20	.....			
Nails	2	1,147	.....	1,149	.....	1,149	.....	1,149	.....			
Oils	2	30	.....	31	.....	31	.....	31	.....			
Paint	3	72	.....	75	.....	75	.....	75	.....			
Pitch and tar	84	67	.....	67	.....	67	.....	67	.....			
Salt	8	848	.....	932	.....	932	.....	932	.....			
Seeds, all kinds	3	25	.....	25	.....	25	.....	25	.....			
Soda ash	8	81	.....	84	.....	84	.....	84	.....			
Steel	13	528	.....	528	.....	528	.....	528	.....			
Sugar	3	1,162	.....	1,430	.....	1,430	.....	1,430	.....			
Tin	3	393	.....	396	.....	396	.....	396	.....			
Whiskey, &c.	2	75	.....	77	.....	77	.....	77	.....			
White lead	194	7	.....	7	.....	7	.....	7	.....			
Whiting		113	.....	113	.....	113	.....	113	.....			
Merchandise		1,074	.....	1,268	.....	1,268	.....	1,268	.....			
Grand total freight	1,797	85,161	12,218	2,808	214,520	262,585	1,565	271,372	230,100	621,926	852,026		
Total tons on vessels											7,992 80	7,830 08	15,822 88
do passengers											23 30	33 50	56 80
do free goods												
Total through tolls											48,212 85	88,692 49	136,905 34

RICHARD DEVLIN,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 18th November, 1896.

APPENDIX A—Continued.

No. (A) 3.—GENERAL STATEMENT showing the Quantity of each Article of Way Freight transported on the Welland Canal, and the Amount of Tolls collected during the Season of Navigation in 1895.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.		Amount of Tolls, Down.		Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		\$	cts.	\$	cts.		$	cts.
Ashes, pot and pearl.	50								50		50	0 94				0 94
Apples.	14	26							14	26	40	0 72		0 65		1 37
Agricultural products not enumerated, vegetable.										400	400			20 00		20 00
Agricultural products not enumerated, animal.																
Agricultural implements.	72								72		72	8 11				8 11
Barley.																
Bricks.																
Bones.																
Brimstone.																
Buckwheat.	237		89						326		326	27 66				27 66
Cement and water lime.	100	250							100	250	350	5 00	12 50	0 25	0 25	17 50
Clay, lime and sand.											2			0 10		0 25
Cora.		2									2					0 10
Corn.		4								4	5					0 10
Cattle.																
Cotton, raw.																
Crockery and earthenware.																
Dye wood and dye stuffs.																
Fish.																
Flax and hemp.	149	890							149	890	1,039	2 80	74 76	0 25	77 56	0 25
Flour.		10								10	10					0 25
Furniture.																
Gypsum.																
Glass, all kinds.																
Hay, pressed.																
Hogs.																
Horses.	22	2							22	2	24	0 44	0 06			0 50

No. (A) 3.—STATEMENT showing the Quantity of each Article of Way Freight transported, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up. \$ cts.	Amount of Tolls, Down. \$ cts.	Total Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Bark.....														
Barrels, empty.....														
Boat knees.....														
Floats.....														
Firewood, in vessels.....		7,755							81	7,755	7,836	0 68	370 76	371 44
do rafts.....														
Hoops.....														
Hop poles.....														
Lumber, sawn, in vessels.....	144	618		42					186	618	804	17 07	69 30	86 37
do rafts.....														
Masts, spars, and telegraph poles, in vessels.....														
Masts, spars, and telegraph poles, in rafts.....														
Railway ties, in vessels.....														
do rafts.....	147	1,008		705					147	1,713	1,860	6 88	74 48	81 36
Saw-logs.....				212						212	212		16 50	16 50
Staves and headings, barrel pipe.....														
do W. India.....														
Staves, salt barrel.....														
Shingles.....														
Split posts and fence rails, in vessels.....														
do rafts.....														
Split posts and fence rails, in rafts.....														
Timber, square, in vessels.....														
do rafts.....														
Traverses.....														
Woodenware and wood partly manufactured.....														
Total freight paying tolls.	3,531	12,465	252	1,318			3	3,783	13,786	17,569	183 35	733 26	916 61	

Department of Railways and Canals.

Total way tolls on vessels	242 15	316 01	558 16
do passengers	166 98	166 55	333 53
Total way tolls	592 48	1,215 82	1,808 30

RICHARD DEVLIN,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 18th November, 1896.

APPENDIX A—Continued.

No. (A) 4.—GENERAL STATEMENT showing the Quantity of each Article transported on the St. Lawrence Canals, and the Amount of Revenue collected during the Season of Navigation in 1895.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.		Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		\$	cts.			$	cts.
Ashes, pot and pearl.		32							1	32	33	0	20	6	40
Apples.	2	2,095							2	2,095	2,097	0	20	292	33
Agricultural products not enumerated, vegetable.	3,219	609	39						3,258	609	3,867	163	23	90	43
Agricultural products not enumerated, animal.	67	1,368		306					79	1,674	1,753	4	49	211	86
Agricultural implements.	57	6						12	57	6	1,63	7	45	1	10
Barley.	1	1,124							1	1,124	1,125	0	10	112	18
Bricks.	6,364	76	18					596	6,978	119	7,088	274	27	6	75
Bones.	1	173		313					1	489	490	0	04	44	45
Brinstone.	817							3	817		817	79	82		82
Buckwheat.	32	3,898							32	3,898	3,930	0	84	147	65
Cement and water lime.	7,024	103	1,665						8,689	103	8,792	933	27	4	63
Clay, lime and sand.	17,029	5,278						1,711	18,742	5,278	24,020	735	76	261	94
Coal.		45,748							14	187,513	187,527	0	53	26,128	80
Corn.	7	4,766							7	8,351	8,358	0	50	532	85
Cattle.	38	162						3,585	38	162	200	2	64	12	20
Cotton (raw)	117	8	10						127	8	135	22	13	1	60
Crockery and earthenware.	37	4						14	51	4	55	6	00	0	60
Dye wood and dye stuffs.	326	31	1						327	31	358	17	70	1	82
Fish	22								22		22	3	30		30
Flax and hemp	746	3,765							746	3,765	4,511	54	23	377	06
Flour	2,193	255	710						2,193	710	2,903	42	94	95	15
Furniture.	2,547	104							2,547	104	2,651	27	45	0	08
Gypsum	621	571	198						1,118	202	1,320	221	72	6	55
Glass (all kinds).	1	13							1	13	14	0	37	0	99
Hay (pressed).	1,891	379						1	1,891	380	2,271	75	35	23	07
Hogs.									26	5	31	3	90	0	40
Hides and skins, horns and hoofs		5	26												

Department of Railways and Canals.

Ice	52									52	6 68			6 68
Iron, railway	363	5								523	44 38	4 77		49 15
do pig	17,205	1,354								20,478	1,245 58	66 53		1,311 91
do all other														
Iron ore														
Kryolite chemical ore and other ore, except iron	20	246								266	2 23	11 82		14 05
Lard and lard oil	145	1,449	20							1,014	10 54	67 01		78 15
Meal, all kinds	25	9								34	2 50	1 02		3 52
Meats, other than pork	21									21	3 81			3 81
Marble	3	12								15	0 60	1 20		1 80
Manilla	336	49	20							734	71 65	2 45		74 10
Molasses	887	645	1,061							2,593	380 50	33 60		414 10
Nails	601									651	1 46	51 99		53 45
Oats	677	214	67							1,008	122 15	30 85		153 00
Oil (in barrels)	21	13								34	2 03	1 03		3 06
Oil cake	16,509									16,509		875 80		875 80
Pease	6	34								40	0 50	1 91		2 41
Potatoes	182	164								346	17 80	16 03		33 83
Pork	215	249	69							534	53 76	13 95		67 76
Paint	113	87	71							431	35 26	5 65		40 91
Pitch and tar	110	21								131	11 75	2 90		14 65
Rags	456									456		44 85		44 85
Rye														
Rye seed														
Flax seed	162	36								36	125 41	1 80		127 21
Rooin	2,750	33	918							3,716	407 62	2 39		410 01
Salt	8									8	0 82	0 81		0 81
Stone intended for cutting	213	4								688	35 52	0 20		35 72
do wrought														
do not suitable for cutting; unwrought	46	2,137								2,183	0 90	63 75		64 65
Seeds, all kinds	69	60	25							157	13 69	3 06		16 75
Sheep	544	13	234							244		18 42		18 42
Soda ash	1,922	73	528							778	155 13	0 65		155 78
Steel	1,999	77	1,236							1,823	254 19	2 79		256 98
Sugar	307	103	91							5,142	711 13	4 00		715 13
Spirits, beer, &c.	3	2								5	64 75	16 40		81 13
Tobacco (raw)	12									14	0 82	0 08		0 82
Tallow	384	6	377							767	149 20	0 30		149 50
Tin	6	41								47	1 08	2 05		3 13
Turpentine	543	3,081								5,667	81 46	503 33		584 78
Wheat	73									84	15 95			15 95
White lead	527	3								621	122 22	0 15		122 37
Whiting														
Wool										12	1 80			1 80
All other goods and merchandise not enumerated	6,106	2,950	1,187							11,576	1,248 69	458 48		1,707 17
Bark	4									4	0 66			0 66
Barrels, empty	196	60	44							300	39 49	5 56		45 05
Boat knees														

No. (A) 4.—STATEMENT showing the Quantity of each Article transported on the St. Lawrence Canals, etc.—*Continued.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Floats	3,355	4,184							3,355	4,184	7,539	66 15	73 24	139 39
Firewood, in vessels.	1,062	9,633							1,062	9,633	10,695	17 70	224 05	241 75
do rafts														
Hoopas														
Hop poles.														
Lumber, sawn, in vessels.	19,896	20,153	1,304	483					21,200	20,636	41,836	633 01	1,351 91	1,984 92
do rafts		117								117	117		5 25	5 25
Masts, spars and telegraph poles, in vessels														
Masts, spars and telegraph poles, in rafts		21,502							268	21,502	21,502	5 35	537 55	5 35
Railway ties, in vessels		268									268			
do rafts									3,337	8,751	12,128	77 66	199 98	277 64
Saw logs	3,377	8,751												
Staves and headings, barrel do														
do pipe														
do W. India		1								1	1		0 24	0 24
Staves, salt barrel.														
Shingles														
Split posts and fence rails, in vessels		1								1	1		0 20	0 20
Split posts and fence rails, in rafts	720	650							720	650	720	16 46		16 46
Timber, square, in vessels.	10	5,961							10	5,961	660	0 25	9 00	9 25
do rafts	70	8,192							70	8,192	6,031	1 75	156 28	158 03
Traverses											8,192		20 65	20 65
Woodenware and wood partly manufactured.	60	5							60	5	65	18 60	1 90	20 50
Total freight paying tolls.	105,837	181,220	11,989	1,102	279	922	7,714	146,848	125,819	330,092	455,911	9,035 05	33,294 79	42,329 84

APPENDIX A—Continued.
No. (A) 5.—GENERAL STATEMENT showing the Quantity of each Article of Through Freight transported on the St. Lawrence Canals, and the Amount of Tolls collected during the Season of Navigation in 1895.

Articles	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Ashes, pot and pearl.....		32							1	32	33	0 20	6 40	6 60
Apples.....		1,848								1,848	1,848		277 20	277 20
Agricultural products not enumerated, vegetable.....	313	600	39						352	600	952	52 80	90 00	142 80
Agricultural products not enumerated, animal.....		1,088								1,088	1,088		163 20	163 20
Agricultural implements.....		1,121								1,121	1,121		1 00	1 00
Barley.....	55	3	18						73	3	76	10 95	0 45	11 40
Bricks.....		58								61	61		9 15	9 15
Bones.....	3	669							3			0 45	0 45	0 45
Brimstone.....										669	669		66 90	66 90
Buckwheat.....														
Cement and water lime.....	2,480	501							4,073		4,073	610 95	75 15	610 95
Clay, lime and sand.....	26	42,933							26	501	527	3 90		79 05
Coal.....		2,029								165,151	165,151		24,772 65	24,772 65
Corn.....		1							1	3,516	3,516		351 60	351 60
Cattle.....		12								12	13	0 15	1 80	1 95
Cotton (raw).....														
Crockery and earthenware.....	30	8	10						49	8	57	9 80	1 60	11 40
Dye wood and dye stuffs.....	16	2							18	2	18	3 20	0 40	3 60
Fish.....	15								16		16	2 40		2 40
Flax and hemp.....	22								22		22	3 30		3 30
Flour.....	30	2,089							30	2,089	2,089	4 50	305 85	310 35
Furniture.....	128	367							128	367	495	25 60	73 40	99 00
Gypsum.....														
Glass (all kinds).....	464	2	571						1,035	2	1,037	207 00	0 40	207 40
Hay (pressed).....	147		198						345		345	51 75		51 75
Hogs.....														
Horses.....														
Hides and skins, horns and hoofs.....	15	31							15	32	47	2 25	4 80	7 05
			26						26		26	3 90		3 90

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Ice.....	39	155	89	5 85	5 85	28 20	0 80
Iron, railway.....	79	1,919	234	35 10	35 10	1 05	12 90
do pig.....	2,362	111	4,332	658 80	16 65	28 20	204 45
do all other.....							0 45
do ore.....							
Kryolite chemical ore and other ore, except iron.....	9	20	30	4 55	3 20		
Lard and lard oil.....	36	6	56	8 40	5 40		
Meal, all kinds.....	6		6	0 90	0 90		
Meats, other than pork.....							
Marble.....	3		3	0 60			
Manilla.....	19	20	39	7 80			
Molasses.....	627	1,061	1,697	339 40	1 80		
Nails.....	317	466	466	46 60	46 60		
Oats.....	125	67	516	103 20	26 40		
Oil (in barrels).....							
Oil cake.....			6,145	616 20	616 20		
Pease.....	6,145						
Potatoes.....	86		86	12 90	12 90		
Pork.....	152	10	221	44 20	2 00		
Paint.....	26	69	97	105	19 40		
Pitch and tar.....	24	71	24	32	4 80		
Rags.....	8		8	4 80	1 60		
Rye.....	446		446	44 60	44 60		
Flax seed.....	4		4	0 80			
Rosin.....	445	918	1,363	204 45	204 45		
Salt.....	3		3	0 45			
Stone intended for cutting.....							
do wrought.....							
do not suitable for cutting, unwrought.....	353		353	28 20	28 20		
Seeds, all kinds.....	7	25	93	13 95	1 05		
Sheep.....	61						
Soda ash.....	525	234	759	151 80	151 80		
Steel.....	1,121	628	1,649	247 35	247 35		
Sugar, beer, &c.....	1,125	1,256	2,381	476 20	476 20		
Tobacco (raw).....	46	91	212	27 40	15 00		
Tallow.....	2		2	0 30	0 30		
Tin.....	310	377	687	137 40	137 40		
Turpentine.....	3		3	0 60	0 60		
Wheat.....	543		5,308	587 95	587 95		
White lead.....	2,722	11	62	12 40	12 40		
Whiting.....	461	91	552	110 40	110 40		
Wool.....		12	12	1 80	1 80		
All other goods and merchandise not enumerated.....	2,876	1,187	5,634	812 60	314 20		
Bark.....	4		4	0 66	0 66		
Barrels, empty.....	133	6	183	34 12	0 80		

(A) 5.—GENERAL STATEMENT showing the Quantity of each Article of Through Freight transported on the St. Lawrence Canals, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up. \$ cts.	Amount of Tolls, Down. \$ cts.	Total Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Boat knees.....														
Ficots.....														
Firewood, in vessels.....		630								630			42 00	42 00
do rafts.....														
Hoops.....														
Hop poles.....														
Lumber, sawn, in vessels.....	134	11,043	1,304						1,438	11,043	12,481	129 30	993 00	1,122 30
do rafts.....														
Masts, spars and telegraph poles, in vessels.....														
Masts, spars and telegraph poles, in rafts.....														
Railway ties, in vessels.....														
do rafts.....														
Saw-logs.....														
Staves and headings, barrel do pipe.....														
do do W. India.....														
Staves, salt barrel.....														
Shingles.....														
Split posts and fence rails, in vessels.....														
Split posts and fence rails, in rafts.....		20								20			1 00	1 00
Timber, square, in vessels.....		57								57			5 68	5 68
do rafts.....														
Traverses.....														
Woodenware and wood partly manufactured.....	34									34		13 60	1 60	15 20
Total freight paying tolls.	15,292	77,290	11,917				125,786		27,200	203,076	230,285	4,627 73	28,973 53	33,601 26

APPENDIX A—Continued.

No. (A) 6.—GENERAL STATEMENT showing the Quantity of each Article of Way Freight transported on the St. Lawrence Canals, and the Amount of Tolls collected during the Season of Navigation in 1895.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up. \$ cts.	Amount of Tolls, Down. \$ cts.	Total Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Ashes, pot and pearl	2	247							2	247	249	0 20	14 93	15 13
Apples									2,906	9	2,915	110 43	0 43	110 86
Agricultural products not enumerated, vegetable.	67	280					12		79	586	665	4 49	48 66	53 15
Agricultural products not enumerated, animal.	57	1							57	1	58	7 45	0 10	7 55
Barley	1	3							1	3	4	0 10	0 08	0 18
Bricks	6,309	73					34		6,905	107	7,012	263 32	6 30	269 62
Bones	1	115					313		1	428	429	0 04	35 30	35 34
Brimstone	814								814		814	79 37		81 59
Buckwheat	32	3,229							32	3,229	3,261	0 84	80 75	81 59
Cement and water lime	4,544	103	72						4,616	103	4,719	322 32	4 63	326 95
Clay, lime and sand	17,003	4,777			2		1,711		18,716	4,777	23,493	731 86	186 79	918 65
Coal		2,815			14	587			14	22,362	22,376	0 53	1,356 15	1,356 68
Corn	7	2,737							7	4,835	4,842	0 50	181 25	181 75
Cattle	37	150							37	150	187	2 49	10 40	12 89
Cotton, raw	78								78		78	12 33		12 33
Crookery and earthenware	21						14		35		37	2 80	0 20	3 00
Dye wood and dye stuffs	311	31							311	31	342	15 30	1 82	17 12
Fish														
Flax and hemp														
Flour	716	1,726							716	1,726	2,442	49 73	71 21	120 94
Furniture	127	343							127	343	470	17 34	21 75	39 09
Gypsum	2,193	2							2,193	2	2,195	27 45	0 08	27 53
Glasses, all kinds	83	102							83	102	185	14 72	6 15	20 87
Hay, pressed	474	571							474	571	1,045	23 89	36 68	60 57
Hogs	1	9							1	9	10	37	0 39	0 75
Horses	1,876	348							1,876	348	2,224	73 10	18 27	91 37
Hides and skins, horns and hoofs											5		0 40	0 40

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Ice.....	13				13	0 83				0 83
Iron, railway.....	284	5			289	9 28	4 77			14 03
do pig.....	14,843	1,243			16,086	603 43	49 68			653 11
do all other.....										
do ore.....										
Kryolite chemical ore and other ore, except iron.....	11	225			236	0 8	8 62			9 50
Lard and lard oil.....	145	1,413			1,558	7 84	62 21			69 75
Meal, all kinds.....	25	3			28	2 50	0 12			2 62
Meats, other than pork.....	21				21	3 81				3 81
Marble.....	12				12		1 20			1 20
Manilla.....	317	49			605	63 85				66 30
Molasses.....	260	636	329		896	42 90	31 80			74 70
Nails.....	50	135			185	1 46	5 39			6 85
Oats.....	360	89	43		492	45 35	4 45			49 80
Oil, in barrels.....	21	13			34	2 03	1 03			3 06
Oil cake.....	10,364				10,364	259 60	259 60			259 60
Pease.....	6	34			40	0 50	1 91			2 41
Potatoes.....	182	78			260	17 80	3 13			20 93
Pork.....	63	239	1		303	0 61	11 95			21 56
Paint.....	87	79	160		326	15 86	4 05			19 91
Pitch and tar.....	86	13			99	6 35	1 30			8 25
Rags.....	10				10		0 25			0 25
Rye.....										
Flax seed.....	158	36			1,999	124 61	1 80			126 41
Rosin.....	2,305	33	15		2,353	203 17	2 39			205 56
Salt.....	5				5	0 37				0 37
Stone intended for cutting.....	213	4			692	35 52	0 20			35 72
do wrought.....										
do not suitable for cutting, unwrought.....	46	1,784			1,830	0 90	35 55			36 45
Seeds, all kinds.....	8	53	3		64	0 79	2 01			2 80
Sheep.....	244				244		18 42			18 42
So la ash.....	19	13			32	3 33	0 65			3 98
Steel.....	101	73			174	6 84	2 79			9 63
Sugar.....	874	77			2,791	234 93	4 00			238 93
Spirits, beer, &c.....	261	28			289	37 35	1 40			38 75
Tobacco, raw.....	3	2			5	0 80	0 08			0 88
Tallow.....	10				12	0 52				0 52
Tin.....	74	6			80	11 80	0 30			12 10
Turpentine.....	3	41			44	0 48	2 05			2 53
Wheat.....	359				359		26 83			26 83
White lead.....	22				22	3 55				3 55
Whiting.....	66	3			69	11 82	0 15			11 97
Wool.....										
All other goods and merchan- dise not enumerated.....	3,230	1,406	263	286	5,942	436 09	144 28			580 37
Bark.....	63	54			117	5 37	4 76			10 13
Barrels, empty.....										
Boat knees.....										

No. (A) 6.—GENERAL STATEMENT showing the Quantity of each Article of Way Freight transported on the St. Lawrence Canals—*Concluded.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Floats	3,355	4,184							3,355	4,184	7,539	\$ 66 15	\$ 73 24	\$ 139 39
Firewood, in vessels	1,062	9,063							1,062	9,063	10,065	17 70	182 05	199 75
do rafts														
Hoops														
Hop poles														
Lumber, sawn, in vessels	19,762	9,110		483					19,762	9,593	29,355	503 71	358 91	862 62
do rafts		117								117	117		5 25	5 25
Masts, spars and telegraph poles, in vessels														
Masts, spars and telegraph poles, in rafts														
Railway ties, in vessels	288													
do rafts									268	21,502	21,502	5 35	537 55	537 55
Saw-logs	3,377	8,751							3,377	8,751	12,128	77 66	199 98	277 64
Staves and headings, barrel pipe														
do do W. India														
Staves, salt barrel														
Shingles	1									1	1		0 24	0 24
Split posts and fence rails, in vessels	1									1	1		0 20	0 20
Split posts and fence rails, in rafts	720								720		720	16 46		16 46
Timber, square, in vessels	10	630							10	630	640	0 25	8 00	8 25
do rafts	70	5,904							70	5,904	5,974	1 75	150 60	152 35
Traverses		8,192								8,192	8,192		20 65	20 65
Woodenware and wood partly manufactured	26	1							26	1	27	5 00	0 30	5 30
Total freight paying tolls.	90,545	103,930	72	1,102	279	922	7,714	21,062	98,610	127,016	225,626	4,407 92	4,821 26	8,728 58

Department of Railways and Canals

	41	41	41	4 04
do all other				
do ore				
Kryolite chemical ore and other ore, except iron				
Lard and lard oil	6	6	6	0 60
Mess, all kinds				
Meats, other than pork	4	4	4	0 76
Marble				
Manilla				
Molasses				
Nails	249	249	249	21 41
Oats	6	6	6	1 05
Oil (in barrels)				
Oil cake	2	2	2	7 08
Pease	92	92	92	8 03
Potatoes	112	112	112	1 05
Pork	18	18	18	0 19
Paint	1	1	1	
Pitch and tar				
Rags	8	8	8	1 25
Rye	2	2	2	0 20
Flax seed				
Rosin				
Salt				
Stone intended for cutting	3	3	3	0 57
do wrought	3	3	3	0 79
do not suitable for cutting, unwrought	8	8	8	34 48
Seeds, all kinds				
Sheep	3	3	3	
Soda ash				
Steel	9	9	9	1 71
Sugar	8	8	8	1 43
Spirits, beer, &c				
Tobacco (raw)				
Tallow	6	6	6	0 48
Tin				
Turpentine				
Wheat				
White lead				
Whiting	8	8	8	0 78
Wool	353	353	381	57 38
All other goods and merchandise not enumerated	28	28	33	3 99
Bark				
Barrels, empty	33	33	33	
Boat knees				
Floats	20	59,440	59,460	495 70
Firewood, in vessels	42	23,376	23,418	784 89
do rafts	5	10,050	10,050	162 33
Hoops				
Hop poles				
Lumber, sawn, in vessels	5	366,632	366,637	26,519 39

No. (A) 7.—GENERAL STATEMENT showing the Quantity of each Article transported, &c., Ottawa Canals—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Lumber, sawn, in rafts.		412								412	412	10 38
Masts, spars, and telegraph poles, in vessels.		1								1	1	0 09
do do rafts												
Railway ties, in vessels.		335		520						855	855	158 91
do do rafts		689								689	689	36 68
Saw-logs	4	7,267							4	7,267	7,271	156 18
Staves and headings, barrel.												
do do pipe.												
do do West India.										46	46	17 43
Shingles.		46										
Split posts and fence rails, in vessels.												
do do rafts		2								2	2	0 57
Timber, square, in vessels.												
do do rafts		4,180								4,180	4,180	43 89
Traverses.												
Woodenware and wood partly manufactured.		20								20	20	0 05
Total freight paying tolls.	173	420,204		63,805					173	484,009	484,182	28,887 14
<i>Free per Order in Council, 27th June, 1890.</i>												
Floats.		32,746								32,746	32,746	
Firewood, in rafts.		5,173								5,173	5,173	
Lumber, sawn, in rafts.		1,119								1,119	1,119	
Railway ties, in rafts.		188								188	188	
Saw-logs.		11,426								11,426	11,426	
Staves and headings, barrel.		11								11	11	
Split posts etc., in rafts		737								737	737	
Timber, square, in vessels.		660								660	660	
Traverses		4,958								4,958	4,958	
Freight, grand total.	173	477,242		63,805					173	541,047	541,220	

Department of Railways and Canals.

Total tolls on vessels	2,905 07
do passengers	167 08
do Free goods	8841 05
Fines	
* Damages	
Other receipts	10 85
<hr/>	
Total Revenue exclusive of Hydraulic Rents	\$31,970 14
* Amount of damages not included in above	65 70

RICHARD DEVLIN,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 18th November, 1896.

APPENDIX A—Continued.

No. (A) 8.—GENERAL STATEMENT showing the Quantity of each Article transported on the Chambly Canal, and the amount of Revenue collected during the Season of Navigation in 1895.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ c.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Ashes, pot and pearl.....												
Apples.....		722					153				875	68 60
Agricultural products not enumerated, vegetable. do do animal												
Agricultural implements												
Barley.....							16				16	1 60
Bricks.....	28						498		28	498	526	50 74
Bones.....									1,018		1,018	101 80
Brinstone.....												
Buckwheat.....												
Cement and water lime.....												
Clay, lime and sand.....	89						140		89	140	140	14 00
Coal.....							3,491		95,680	3,580	95,680	397 92
Corn.....												
Cattle.....	17								17	88	105	3 93
Cotton, raw.....												
Crockery and earthenware.....												
Dye wood and dye stuffs												
Fish.....												
Flax and hemp												
Flour.....	622	27							622	27	649	21 86
Furniture.....												
Gypsum.....												
Glass, all kinds.....												
Hay, pressed.....	153	2,562							90	15,250	2,652	1,222 19
Hogs.....												
Horses.....	14	64							14	64	78	2 86
Hides and skins, horns and hoofs												
Ice.....												
Iron, railway.....												
do pig.....												
do all other.....	9								9		9	0 70

No. (A)8.—GENERAL STATEMENT showing the Quantity of each Article transported on the Chambly Canal, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.*		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Masts spars and telegraph poles, in vessels											38	\$ 2 50
do do rafts			38						38			
Railway ties, in vessels			2,581						2,581		2,581	206 22
do rafts												
Saw-logs												
do do												
Staves and headings, barrel												
do do pipe												
do do West India												
Staves, salt barrel												
Shingles	23										25	5 98
Split posts and fence rails, in vessels	1										1	0 14
do do rafts												
Timber, square, in vessels												
do do rafts												
Traverses												
Woodenware and wood partly manufactured.												
Total freight paying tolls	5,942	6,935	236,594				109,556		242,536	116,491	359,027	22,389 06
<p>Total tolls on vessels 3,455 92</p> <p>do passengers 75 69</p> <p>* Damages 9 00</p> <p>Other receipts</p> <p>Total revenue exclusive of hydraulic rents 25,929 67</p>												

* A amount of damages not included in above, \$26.50.

RICHARD DEVLIN,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
 OTTAWA, 18th November, 1896.

Department of Railways and Canals

APPENDIX A—Continued.

No. (A) 9.—GENERAL STATEMENT showing the Quantity of each Article transported on the Rideau Canal, and the Amount of Revenue collected during the Season of Navigation in 1895.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Ashes, pot and pearl.....		24								24	24	3 11
Apples.....	4	185							4	185	139	4 23
Agricultural products not enumerated, vegetable.....	8	10							8	10	18	0 56
do do animal.....	1	140							1	140	141	5 13
Agricultural implements.....	15	66							15	66	81	8 85
Barley.....	4	58							4	58	62	1 55
Bricks.....	112	239							112	239	351	9 93
Bones.....	7	5							7	5	12	0 39
Brimstone.....												
Buckwheat.....		2								2	2	0 05
Cement and water lime.....	355	17							355	17	372	9 51
Clay, lime and sand.....	3,000								3,000		3,000	70 10
Coal.....	2,649						15,892				18,541	840 06
Corn.....	2	14							2	14	16	0 40
Cattle.....												
Cotton (raw).....		8								8	8	0 20
Crockery and earthenware.....	22	28							22	28	50	4 47
Dye wood and dye stuffs.....	2								2		2	0 18
Fish.....	56								56		56	1 35
Flax and hemp.....												
Flour.....	71	314							71	314	385	9 65
Furniture.....	17	11							17	11	28	2 03
Gypsum.....	3								3		3	0 07
Glass (all kinds).....	42	11							42	11	53	4 73
Hay (pressed).....	1,684	19							1,684	19	1,703	45 91
Hogs.....												
Horses.....	6	7							6	7	13	0 58
Hides and skins, horns and hoofs.....	1								1		1	0 03
Ice.....												
Iron, railway.....	4								4		4	0 10
do pig.....	36								36		36	1 06
do all other.....	617	22							617	22	639	17 00

APPENDIX A—Continued.

No. (A) 10.—GENERAL STATEMENT showing the Quantity of each Article transported on the St. Peter's Canal, and the Amount of Revenue collected during the Season of Navigation in 1895.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Clay, lime and sand.....		315								315	315	3 15
Fish.....	5	285							5	285	290	2 90
Iron all other.....	39								39		39	0 39
Salt.....	4								4		4	0 04
Stone for cutting.....		640								640	640	6 40
Flour.....	425								687		687	6 87
Agricultural products.....	1,423	21			262				1,425	21	1,446	14 46
Other merchandise.....	735								750		750	7 50
Firewood (in vessels).....	30	241							30	241	271	2 71
Lumber.....	441								441		441	4 41
Coal.....	37	4,908							37	4,908	4,945	49 45
Total freight paying tolls.....	3,139	6,410					279		3,418	6,410	9,828	98 23
Total tolls on vessels.....											328 35	
Total revenue.....											426 63	

RICHARD DEVLIN,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
 OTTAWA, 18th November, 1896.

Department of Railways and Canals

APPENDIX A—Continued.
 No. (A) 11.—GENERAL STATEMENT showing the Quantity of each Article transported on the Trent Valley Canals, and the Amount of Revenue collected during the Season of Navigation in 1895.

Vessels.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Ashes, pot and pearl.....												
Apples.....												
Agricultural products not enumerated, vegetable do do animal.....											1	0 03
Agricultural implements.....											40	4 90
Barley.....											394	
Bricks.....												
Bones.....												
Brimstone.....												
Buckwheat.....												
Cement and water lime.....												
Clay, lime and sand.....												
Coal.....												
Corn.....												
Cattle.....											6	0 14
Cotton (raw).....												
Crockery and earthenware.....												
Dye wood and dye stuffs.....												
Fish.....												
Flax and hemp.....												
Flour.....												
Furniture.....												
Gypsum.....												
Glass (all kinds).....												
Hay (pressed).....											28	0 44
Hogs.....												
Horses.....												
Hides and skins, horns and hoofs.....												
Ice.....												
Iron, railway.....												
do pig.....											5	0 05
do do other.....												
Iron ore.....												

APPENDIX A—Continued.

No. (A) 12.—GENERAL STATEMENT showing the Quantity of each Article transported on the Murray Canal and the Amount of Revenue collected during the Season of Navigation in 1895.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.	¢ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.			
Ashes, pot and pearl													
Apples	171	168							171	166	277	5 34	
Agricultural products, not enumerated, vegetable	24	16							26	16	42	0 83	
do do animal	12	1	2						12	1	13	0 25	
Agricultural implements		20								20	20	0 50	
Barley	96	197							96	197	293	5 50	
Bricks													
Bones													
Brimstone		1								1	1	0 02	
Buckwheat	130	120							130	120	250	4 69	
Cement and water lime	19								19		19	0 87	
Clay, lime and sand													
Coal	15						258		273	262	535	10 05	
Corn													
Cattle													
Cotton, raw							4		4	4	4	0 08	
Crockery and earthenware							2		2	2	2	0 05	
Dye wood and dye stuffs													
Fish									1		1	0 02	
Flax and hemp													
Flour	171	121	15						186	126	312	8 12	
Furniture													
Gypsum													
Glass, all kinds	16	3							16	3	19	0 49	
Hay, pressed													
Hogs													
Horses	12		1						13	5	18	0 37	
Hides and skins, horns and hoofs			9						9		9	0 18	
Ice													
Iron, railway													

Department of Railways and Canals.

do pig.....	10	2	110					12	0 23
do all other	98							203	3 83
do ore									
Kryolite chemical ore and other ore, except iron									
Lard and lard oil	1	2						3	0 06
Meal, all kinds	10	10						10	0 18
Meats, other than pork		2						2	0 05
Marble									
Manilla									
Molasses									
Nails	7							7	0 18
Oats	18	81						100	2 53
Oil in barrels									
Oil cake	140	96						238	4 50
Pease									
Potatoes		2						2	0 04
Pork								2	0 05
Paint	2								
Pitch and tar									
Rags	12		4					16	0 40
Rye	330	44						374	7 06
Flax seed									
Rosin									
Salt								30	0 57
Stone intended for cutting									
do wrought									
do not suitable for cutting, unwrought	1,606							1,606	16 06
Seeds, all kinds	2							2	0 04
Sheep									
Soda ash	5							5	0 13
Steel									
Sugar	13		2					15	0 40
Spirits, beer, &c.	10	14						24	0 62
Tobacco, raw									
Tallow	10							10	0 19
Tin								1	0 03
Turpentine									
Wheat	60	201						261	4 90
White lead									
Whiting	78							78	1 97
Wool	13		7					23	0 45
All other goods and merchandise not enumerated	1,155	863	4					2,033	51 19
Bark									
Barrels, empty									
Boat knees									
Boats									
Firewood, in vessels			36					36	0 30
do rafts									
Hoops									
Hop poles									

No. (A) 12.—GENERAL STATEMENT showing the Quantity of each Article transported on the Murray Canal, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Lumber, sawn, in vessels	19								377		377	\$ 4 30
do rafts			358									
Masts, spars and telegraph poles, in vessels												
do do rafts												
Railway ties, in vessels												
do do rafts												
Saw-logs												
Staves and headings, barrel												
do do pipe												
do do West India												
Staves, salt barrel	1		12						13		13	1 05
Shingles												
Split posts and fence rails, in vessels												
do do rafts					4,020				4,020		4,020	50 25
Timber, square, in vessels												
do do rafts									2		2	0 10
Traverses	2											
Woodenware and wood partly manufactured												
Total freight paying tolls	4,253	5,926	561				258	326	5,072	6,252	11,324	188 60
Total tolls on vessels												199 70
do passengers												139 64
Total revenue exclusive of hydraulic rents												527 94

RICHARD DEVLIN,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS, etc
 OTTAWA, 18th November, 1896.

Department of Railways and Canals.

APPENDIX A—Continued.

No. (A) 13.—GENERAL STATEMENT showing the Quantity of each Article transported on the Sault Ste. Marie Canal, during the Season of Navigation in 1895.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	
	Ashes, pot and pearl.....	136		219						355			355
Apples.....											
Agricultural products not enumerated, vegetable.....											
do do animal.....			2						2		2
Agricultural implements.....			427		5,520		12		12		5,947
Barley.....											12
Bricks.....											
Bones.....											
Brimstone.....											
Buckwheat.....			144		43				187		187
Cement and water lime.....		2,650			515				515		3,165
Clay, lime and sand.....	64				108,703		13,996		122,763		122,763
Coal, soft.....	10				24,900				24,910		24,910
do hard.....											
Corn.....										2	2
Cattle.....	2										
Cotton, raw.....											
Crockery and earthenware.....											
Dye wood and dye stuffs.....			12					100	12	425	425
Fish.....											
Dye wood and dye stuffs.....											
Flax and hemp.....	4				12,009				4	18,374	18,378
Flour.....	12								12		12
Furniture.....											
Gypsum.....	50		17						67		67
Glass, all kinds.....	76								76		123
Hay, pressed.....											
Hogs.....											
Horses.....											
Hides and skins, horns and hoofs.....											
Ice.....											
Iron, railway.....	1										9
do pig.....							8				

No. (A) 13.-GENERAL STATEMENT showing the Quantity of each Article transported on the Sault Ste. Marie Canal &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	
	Iron, all other.	60	1,102	65		938	214,290	2		1,065		1,102	2,167
do ore											214,290
Kryolite chemical ore											305
Copper ore.	1		2			305			3		305
Lard and lard oil.											3
Meal, all kinds.	2	75				300			2	465	465
Meats, other than pork		15								15	17
Marble.											
Manilla											
Molasses	15								15		15
Nails	79		57		50				186		186
Oats.	29	35			20	163			49	198	247
Oil, in barrels.	182		2,857		5,291		500		8,880		8,880
Oil cake.											
Pease.	9								9		9
Potatoes	1								1		1
Pork.	2								2		2
Paint.											
Pitch and tar	10		1						11		11
Rags.											
Rye.						1,610				1,610	1,610
Flax seed		1,553				6,850		1,347		9,750	9,750
Rosin					815	466			1,142		1,142
Salt.	92		235				33		33	466	499
Stone intended for cutting	1								1		1
do wrought.											
do not suitable for cutting, unwrought											
Seeds, all kinds											
Sheep											
Soda ash.											
Steel.	50								50		50
Sugar	100		955		345				1,400		1,400
Spirit, beer, &c	82		42						124		124
Tobacco, raw											
Tallow											

APPENDIX

No. (A) 14.—STATEMENT of Traffic on the undermentioned Canals, and

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Class No. 1.</i>		\$ cts.		\$ cts.		\$ cts.
Canadian vessels, steam.....	352,680	3,984 99	715,726	4,170 26	80,644	250 83
United States vessels, steam.....	464,951	6,957 17	18,405	119 75	776	7 95
Canadian vessels, sail.....	165,947	3,525 97	926,257	11,064 26	51,464	736 78
United States vessels, sail.....	84,795	1,912 91	87,028	682 83	198,952	2,460 36
Total, class No. 1.....	1,068,373	16,381 04	1,747,416	16,037 10	331,836	3,455 92
<i>Class No. 2.</i>	No.		No.		No.	
Passengers.....	34,038	390 33	59,962	2,776 72	5,225	75 69
<i>Class No. 3.</i>	Tons.		Tons.		Tons.	
Bricks.....	723	138 31	7,088	281 02	526	50 74
Brimstone.....	672	100 80	817	79 82		
Cement and water lime.....	327	27 81	8,792	937 90	140	14 00
Clay, lime and sand.....	524	43 60	24,020	997 70	3,580	397 92
Fish.....	4	0 60	358	19 52		
Gypsum.....			2,195	27 53		
Iron, railway.....	185	36 28	52	6 68		
do pig.....	2,090	414 92	523	49 15		
do all other.....	4,155	786 89	20,478	1,311 91	9	0 70
Salt.....	54	8 59	3,716	410 01	355	23 04
Steel.....	883	175 25	1,823	256 98		
Stone, for cutting.....	430	86 00	8	0 82		
Apples.....	68	6 97	2,097	292 33	875	68 60
Barley.....	8,689	868 90	1,125	112 28	16	1 60
Buckwheat.....			3,930	148 49		
Corn.....	164,894	16,489 10	8,358	533 35		
Cotton, raw.....						
Flax and hemp.....	208	31 20	22	3 30		
Flour.....	44,044	8,678 56	4,511	431 29	649	21 86
Hay, pressed.....	33	4 95	1,390	112 32	17,911	1,222 19
Meals, all kinds.....	46,381	9,276 20	1,614	78 15		
Oil cake.....			34	3 06		
Oats.....	18,236	1,824 20	651	53 45	977	32 63
Pease.....			16,509	875 80		
Potatoes.....	14	1 05	40	2 41	3	0 11
Rye.....	1,007	151 05	456	44 85		
Flax seed.....						
Seeds, all kinds.....	14	2 80	157	16 75		
Tobacco, raw.....	16	3 20	5	0 38		
Wheat.....	203,088	20,284 90	5,667	584 78		
All other agricultural products, vegetable.....	403	20 45	3,867	253 66		
Bones.....			490	44 49	1,018	101 80
Cattle.....			200	14 84	105	3 93
Hogs.....			14	1 36		
Hides and skins, horns and hoofs.....	71	11 05	31	4 30	5	0 50
Horses.....	26	0 90	2,271	98 42	78	2 86
Lard and lard oil.....	6	1 20	266	14 05		
Meats, other than pork.....	30	6 00	34	3 52		
Pork.....	87	17 40	346	33 83	2	0 08
Sheep.....			244	18 42	133	4 67
Tallow.....	696	104 40	14	0 82		
Wool.....	1,536	307 20	12	1 80		
All other agricultural products, animal.....			1,753	216 35		
Total, class No. 3.....	499,594	59,910 73	125,978	8,377 89	26,382	1,947 23

Department of Railways and Canals.

A—Continued.

the Amount of Tolls collected during the Season of Navigation in 1895.

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
157,737	172 45	138,690	597 78	98,262	704 32	5,908	118 17	49,990	363 04
154	0 61	3	0 25	2,586	25 59				
4,228	23 39	134,895	1,937 03	54,798	656 38	10,508	210 18	35,325	137 70
295	3 25	15,528	370 01	13,206	271 35				
162,414	199 70	289,116	2,905 07	168,852	1,657 64	16,416	328 35	85,315	500 54
No.		No.		No.		No.		No.	
11,903	139 64	13,645	167 08	5,305	87 00			24,184	172 83
Tons.		Tons.		Tons.		Tons.		Tons.	
				351	9 93			434	4 90
1	0 02								
19	0 37	2	0 20	372	9 51				
		4,287	113 53	3,000	70 10	315	3 15		
1	0 02	3	0 26	56	1 35	290	2 90		
				3	0 07				
				4	0 10				
12	0 23			36	1 06				
203	3 83	41	4 04	639	17 00	39	0 39	5	0 05
30	0 57			2,018	52 86	4	0 04		
				53	1 34				
				15	0 37	640	6 40	150	1 50
277	5 34	17	1 02	139	4 23				
293	5 50	1	0 06	62	1 55				
250	4 69	7	0 09	2	0 05				
		1	0 10	16	0 40				
4	0 08			8	0 20				
		3	0 18						
4	0 08	63	5 96	385	9 65	687	6 87		
		1,084	103 79	1,703	45 91				
		6	0 60	7	0 18				
				5	0 13				
		249	21 41	45	1 07				
238	4 50	92	7 08	6	0 14				
		114	8 03	61	1 58				
374	7 06	2	0 20						
		8	0 79	1	0 03				
261	4 90			767	19 67			201	2 01
42	0 83	35	2 33	18	0 56	1,446	14 46		
		6	0 60	12	0 39				
		412	31 87					6	0 14
		24	1 88					28	0 44
9	0 18	11	0 94	1	0 03				
18	0 37	162	8 01	13	0 58				
3	0 06			20	0 50				
10	0 18			38	0 93				
2	0 04	18	1 05	356	8 66				
		400	34 48	2	0 05			14	0 14
10	0 19	6	0 48						
23	0 45	8	0 78	2	0 05				
13	0 25	1,432	126 09	141	5 13				
2,099	39 78	8,494	476 45	10,357	265 36	3,421	34 21	838	9 18

No. (A) 14.—STATEMENT of Traffic on the undermentioned

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Class No. 4.</i>		\$ cts.		\$ cts.		\$ cts.
Ashes, pot and pearl.....	137	16 44	33	6 60		
Agricultural implements.....	77	11 55	63	8 55		
Crockery and earthenware.....	29	4 35	135	23 73	5	0 50
Dye woods and dye stuffs.....			55	6 60		
Furniture.....	28	3 65	965	138 09		
Glass, all kinds.....	4	0 65	1,222	228 27		
Marble.....	860	129 00	21	3 81		
Manilla.....	25	3 75	15	1 80		
Molasses.....	464	74 47	734	74 10	696	69 40
Nails.....	106	12 11	2,593	414 10		
Oil, in barrels.....	286	46 63	1,008	153 00	39	3 81
Paint.....	21	3 25	534	67 76		
Pitch and tar.....	31	4 65	431	40 91	204	20 40
Rags.....			131	14 65	26	2 60
Rosin.....			2,003	127 21	2,252	225 20
Soda ash.....	21	3 15	791	155 78		
Sugar.....	6,735	1,009 93	5,142	715 13	3,570	357 00
Stone, wrought.....	84	10 50	692	35 72	151	15 10
Tin.....	51	6 21	767	149 50		
Turpentine.....			47	3 13		
White lead.....	5	0 75	84	15 95		
Whiting.....			621	122 37		
Whisky and all other spirits.....	859	138 46	501	81 15		
Merchandise, not enumerated.....	64,118	9,767 25	11,576	1,707 17	3,819	331 20
Total, class No. 4.....	73,941	11,246 75	30,164	4,295 08	10,762	1,025 21
<i>Class No. 5.</i>						
Bark.....			4	0 66		
Barrels, empty.....	36	6 76	300	45 05	6	0 20
Boat knees.....						
Floats.....			7,539	139 39	480	28 80
Firewood, vessels.....	7,836	371 44	10,695	241 75	130,831	4,323 40
do rafts.....						
Lumber, sawn, in vessels.....	45,760	8,174 46	41,836	1,984 92	92,229	5,446 12
do rafts.....			117	5 25	12	1 40
Hoops.....						
Railway ties, in vessels.....	1,942	310 48	268	5 35	2,581	206 22
do rafts.....						
Masts, spars and telegraph poles, in ves- sels.....					38	2 50
Masts, spars and telegraph poles, in rafts.....			21,502	537 55		
Square timber, in vessels.....	64,215	9,626 48	660	9 25		
do rafts.....	1	0 57	6,031	158 03		
Woodenware and wood partly manufac- tured.....	32	12 80	65	20 50		
Shingles.....	20	13 78	1	0 24	25	5 98
Split posts and fence rails in vessels.....			1	0 20	1	0 14
do do rafts.....			720	16 46		
Saw-logs.....	1,860	81 36	12,128	277 64		
Staves and headings, barrel.....	212	16 50				
do do pipe.....						
do do West India.....						
do do salt barrel.....						
Traverses.....			8,192	20 65		
Hop poles.....						
Total, class No. 5.....	121,914	18,614 63	110,059	3,462 89	226,203	10,014 76

Department of Railways and Canals.

Canals, and the Amount of Tolls collected, &c.—*Continued.*

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
		16	3 04	24	3 11				
20	0 50	10	1 90	81	8 85			1	0 03
2	0 05	3	0 57	50	4 47				
		1	0 19	2	0 18				
312	8 12	15	2 27	28	2 93				
19	0 49	4	0 76	53	4 73				
2	0 05	4	0 76	11	0 96				
				12	1 05				
				97	8 48				
7	0 18			138	12 94				
100	2 53	6	1 05	215	19 12				
2	0 05	1	0 19	19	1 71				
				43	3 76				
16	0 40	8	1 25	13	1 83				
5	0 13			33	2 89				
15	0 40	9	1 71	579	51 95				
		3	0 57	17	1 49			390	3 90
1	0 03			18	1 62				
				20	1 77				
78	1 97			29	2 56				
24	0 62	8	1 43	106	9 42				
2,033	51 19	381	57 38	1,172	107 79	750	7 50	138	4 07
2,636	66 71	469	73 07	2,760	253 63	750	7 50	529	8 00
				45	1 74			95	3 72
		33	3 99	37	2 59				
		59,460	495 70	1,120	19 60			5,540	43 04
36	0 30	25,418	784 39	15,186	278 98	271	2 71	12,665	149 85
		10,050	102 33					24	0 37
377	4 30	366,637	26,519 39	37,238	2,138 05	441	4 41	2,708	47 01
		412	10 38					4	0 06
		5	1 05						
		855	158 91	560	65 99			177	3 52
		689	36 68					180	7 12
		1	0 09					25	0 25
								879	9 36
4,020	50 25	4,180	43 89					550	11 00
2	0 10			1	0 09				
13	1 05	46	17 43	82	13 10			94	7 98
				1	0 08			173	1 86
		2	0 57					3	0 06
		7,271	155 18	350	8 11			7,466	65 18
		20	0 05	960	6 08			25	0 25
				21	3 00				
4,448	56 00	475,079	28,330 03	55,601	2,537 41	712	7 12	30,608	351 53

No. (A) 14.—STATEMENT of Traffic on the undermentioned

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Special Class.</i>		\$ cts.		\$ cts.		\$ cts.
Coal.....	158,866	31,773 05	187,527	26,129 33	95,680	9,401 86
Kryolite or chemical ore.....	1,140	57 00				
Iron ore.....						
Stone, unwrought, not suitable for cutting.....	3,585	340 11	2,183	64 65		
Ice.....						
Total, Special Class.....	163,591	32,170 16	189,710	26,193 98	95,680	9,401 86
Total freight and tolls.....	859,040	138,713 64	455,911	61,143 66	359,027	25,920 67
Timber and other wood, free.....			1,840	121 06		
Wheat, corn, flour, iron, salt, coal, etc., etc., free.....	10,555	1,583 25	370,477	33,806 22		
Grand Totals, passengers and tonnage of vessels not included..	869,595	140,269 89	828,228	95,070 94	359,027	25,920 67

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 18th November, 1896.

Department of Railways and Canals

Canals, and the Amount of Tolls collected, &c.—*Concluded.*

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
535	10 05	140	7 59	18,541	840 06	4,945	49 45		
				460	23 00				
				60	3 00				
1,606	16 06			488	12 66				
2,141	26 11	• 140	7 59	19,549	878 22	4,945	49 45		
11,324	527 94	484,182	31,959 29	88,267	5,679 26	9,828	426 63	31,975	1,042 08
		57,038	841 05					291	5 50
				486	12 97				
11,324	527 94	541,220	32,800 34	88,753	5,692 23	9,828	426 63	32,266	1,047 58

RICHARD DEVLIN,
Compiler of Canal Statistics.

APPENDIX

No. (A) 15.—SUMMARY STATEMENT of Traffic on the undermentioned Canals during of each description of property passed through,

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
		\$ cts.		\$ cts.		\$ cts.
Vessels of all kinds	1,068,373	16,381 04	1,747,416	16,037 10	331,836	3,455 92
Passengers.....	No. 34,038	390 33	No. 59,962	2,776 72	No. 5,225	75 69
<i>Forest, Produce of Wood.</i>						
	Tons.		Tons.		Tons.	
Bark.....			4	0 66		
Boat knees.....						
Floats.....			7,539	139 39	480	28 80
do.....	Free					
Firewood.....	7,836	371 44	10,695	241 75	130,831	4,323 40
do.....	Free					
Hoops and hop poles.....						
Lumber, sawed.....	45,760	8,174 46	41,953	1,990 17	92,241	5,447 52
do.....	Free		1,239			
Masts, spars, &c.....			21,502	537 55	38	2 50
Railway ties.....	1,942	310 48	268	5 35	2,581	206 22
do.....	Free					
Saw logs.....	1,860	81 36	12,128	277 64		
do.....	Free					
Staves, all kinds.....	212	16 50				
do.....	Free					
Shingles.....	20	13 78	1	0 24	25	5 98
Split posts and rails.....			721	16 66	1	0 14
do.....	Free					
Timber, square.....	64,216	9,627 05	6,691	167 28		
do.....	Free		600			
Traverses.....			8,192	20 65		
do.....	Free					
Total.....	121,846	18,595 07	111,533	3,397 34	226,197	10,014 56
<i>Farm Stock.</i>						
Cattle.....			200	14 84	105	3 93
Hogs.....			14	1 36		
Horses.....	26	0 90	2,271	98 42	78	2 86
do.....	Free		1			
Sheep.....			244	18 42	133	4 67
Total.....	26	0 90	2,730	133 04	316	11 46
<i>Produce of Animals.</i>						
Bones.....			490	44 49	1,018	101 80
Horns and hoofs, hides and skins, raw.....	71	11 05	31	4 30	5	0 50
do.....	Free					
Lard and lard oil.....	6	1 20	266	14 05		
do.....	Free					
Meats other than pork.....	30	6 00	34	3 52		
Pork.....	87	17 40	346	33 83	2	0 08
do.....	Free					
Tallow.....	696	104 40	14	0 82		
Wool.....	1,536	307 20	12	1 80		
Agricultural products not enumerated, animal.....			1,753	216 35		
Total.....	2,453	447 25	2,946	319 16	1,025	102 38

Department of Railways and Canals

A—Continued.

the Season of Navigation ended 31st December, 1895, showing the Total Quantity and the Amount of Tolls collected thereon.

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
162,414	199 70	289,116	2,905 07	168,852	1,657 64	16,416	328 35	85,315	500 54
No. 11,903	139 64	No. 13,645	167 08	No. 5,305	87 00	No.		No. 24,184	172 83
Tons.		Tons.		Tons.		Tons.		Tons.	
				45	1 74			95	3 72
		59,460	495 70	1,120	19 60			5,540	43 94
		32,746							
36	0 30	35,468	886 72	15,186	278 98	271	2 71	12,689	150 22
		5,173						291	
		5	1 05	21	3 00				
377	4 30	367,049	26,529 77	37,238	2,138 05	441	4 41	2,712	47 07
		1,119							
		1	0 09						
		1,544	195 59	560	65 99			904	9 61
		188						357	10 64
		7,271	155 18	350	8 11			7,466	65 18
		11,426							
		11							
13	1 05	46	17 43	82	13 10			94	7 98
		2	0 57	1	0 08			176	1 92
		737							
4,020	50 25	4,180	43 89					550	11 00
		5,618							
		20	0 05	960	6 08			25	0 25
		20							
4,446	55 90	532,084	28,326 04	55,563	2,534 73	712	7 12	30,899	351 53
		412	31 87					6	0 14
		24	1 88					28	0 44
18	0 37	162	8 01	13	0 58				
		400	34 48	2	0 05			14	0 14
18	0 37	998	76 24	15	0 63			48	0 72
		6	0 60	12	0 39				
9	0 18	11	0 94	1	0 03				
3	0 06			20	0 50				
10	0 18			38	0 93				
2	0 04	18	1 05	356	8 66				
10	0 19	6	0 48						
23	0 45	8	0 78	2	0 05				
13	0 25	1,432	126 09	141	5 13				
70	1 35	1,481	129 94	570	15 69				

No. (A) 15.—SUMMARY STATEMENT of Traffic on the undermentioned Canals

Articles.	Welland Canal.		St. Lawrence Canals.		Chamby Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Agricultural Products.</i>						
Agricultural products not enumerated, vegetable.	403	\$ 20 45	3,867	\$ 253 66		
do do Free	26					
Apples	68	6 97	2,097	292 33	875	68 60
do Free			28			
Barley	8,689	868 90	1,125	112 28	16	1 60
do Free			959			
Buckwheat			3,930	148 49		
Cotton, raw						
Corn	164,894	16,489 10	8,358	533 35		
do Free			70,235			
Flax and hemp	208	31 20	22	3 30		
Flour	44,044	8,678 56	4,511	431 29	649	21 86
do Free			30,864			
Hay, pressed	33	4 95	1,390	112 32	17,911	1,222 19
do Free	124		52			
Meals, all kinds	46,381	9,276 20	1,614	78 15		
do Free			65			
Manilla	25	3 75	15	1 80		
Oats	18,236	1,824 20	651	53 45	977	32 63
do Free			1,654			
Pease			16,509	875 80		
Potatoes	14	1 05	40	2 41	3	0 11
Rye	1,007	151 05	456	44 85		
Seeds, flax, clover and grass	14	2 80	157	16 75		
do do Free	25					
Tobacco, raw	16	3 20	5	38		
Wheat	203,088	20,284 90	5,667	584 78		
do Free			158,643			
Total	487,295	57,647 28	312,914	3,545 39	20,431	1,346 99
<i>Manufactures.</i>						
Ashes, pot and pearl	137	16 44	33	6 60		
do do Free			34			
Agricultural implements	77	11 55	63	8 55		
Barrels, empty	36	6 76	300	45 05	6	0 20
do Free			1			
Bricks	723	138 31	7,088	281 02	526	50 74
do Free	24					
Cement and water lime	327	27 81	8,792	937 90	140	14 00
do do Free	1,859					
Crockery and earthenware	29	4 35	135	23 73	5	0 50
do do Free	12					
Furniture	28	3 65	965	138 09		
Glass, all kinds	4	0 65	1,222	228 27		
do Free	394					
Iron, railway	185	36 23	52	6 68		
Iron, pig	2,090	414 92	523	49 15		
do Free	56		79			
Iron, all other	4,155	786 89	20,478	1,311 91	9	0 70
do Free	1,831		1,766			
Molasses	464	74 47	734	74 10	696	69 40
do Free	20		100			
Nails	106	12 11	2,593	414 10		
do Free	1,149					
Oil	286	46 63	1,008	153 00	39	3 81
do Free	31		6			
Oil cake			34	3 06		
Paint	21	3 25	534	67 76		

Department of Railways and Canals.

during the Season of Navigation ended 31st December, 1895, &c.—Continued.

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
42	0 83	35	2 33	18	0 56	1,446	14 46		
277	5 34	17	1 02	139	4 23				
293	5 50	1	0 06	62	1 55				
250	4 69	7	0 69	2	0 05				
4	0 08			8	0 20				
		1	0 10	16	0 40				
		3	0 18						
4	0 08	63	5 96	385	9 65	687	6 87		
		1,084	103 79	1,703	45 91				
		6	0 60	7	0 18				
				12	1 05				
		249	21 41	45	1 07				
238	4 50	92	7 08	6	0 14				
		114	8 03	61	1 58				
374	7 06	2	0 20						
2	0 04	8	0 79	1	0 03				
261	4 90			767	19 67			201	2 01
1,746	33 02	1,682	152 24	3,232	86 27	2,133	21 33	201	2 01
		16	3 04	24	3 11				
20	0 50	10	1 90	81	8 85			1	0 03
		33	3 99	37	2 50				
				351	9 93			434	4 90
19	0 37	2	0 20	372	9 51				
2	0 05	3	0 57	50	4 47				
312	8 12	15	2 27	28	2 93				
19	0 49	4	0 76	53	4 73				
				4	0 10				
12	0 23			36	1 06				
203	3 83	41	4 04	639	17 00	39	0 39	5	0 05
				97	8 48				
7	0 18			138	12 94				
100	2 53	6	1 05	215	19 12				
				5	0 13				
2	0 05	1	0 19	19	1 71				

No. (A) 15.—SUMMARY STATEMENT of Traffic on the undermentioned Canals

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Manufactures—Concluded.</i>		\$ cts.		\$ cts.		\$ cts.
Paint..... Free	75		2			
Pitch and tar.....	31	4 65	431	40 91	204	20 40
do..... Free	67					
Rosin.....			2,003	127 21	2,252	225 22
Soda ash.....	21	3 15	791	155 78		
do..... Free	84					
Spirits, whiskey, &c.....	859	138 46	501	81 15		
do..... Free	77		101			
Steel.....	883	175 25	1,823	256 98		
do..... Free	528		394			
Sugar.....	6,735	1,009 93	5,142	715 13	3,570	357 00
do..... Free	1,430					
Tin.....	51	6 21	767	149 50		
do..... Free	396					
Turpentine.....			47	3 13		
White lead.....	5	0 75	84	15 95		
do..... Free	7					
Whiting.....			621	122 37		
do..... Free	113					
Woodenware.....	32	12 80	65	20 50		
Total	25,438	2,935 27	59,312	5,437 58	7,447	741 95
<i>Merchandise.</i>						
Brimstone, crude.....	672	100 80	817	79 82		
Clay, lime and sand.....	524	43 60	24,020	997 70	3,580	397 92
Coal.....	158,866	31,773 05	187,527	26,129 33	95,680	9,401 86
do..... Free			104,876			
Dye woods and dye stuffs.....			55	6 60		
Fish.....	4	0 60	358	19 52		
Gypsum.....			2,195	27 53		
Ores, all kinds.....	1,140	57 00				
Marble.....	860	129 00	21	3 81		
Rags.....			131	14 65	26	2 60
Salt.....	54	8 59	3,716	410 01	355	23 04
do..... Free	932					
Stone, all kinds.....	4,099	436 61	2,883	101 19	151	15 10
All other goods and merchandise, not enumerated.....	64,118	9,767 25	11,576	1,707 17	3,819	331 20
do do..... Free	1,268		618			
Total	232,537	42,316 50	338,793	29,497 32	103,611	10,171 72
Grand totals, passengers and tonnage of vessels not included.	869,595	138,713 64	828,228	61,143 66	359,027	25,920 67

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 18th November, 1896.

Department of Railways and Canals.

during the Season of Navigation ended 31st December, 1895, & c.—*Concluded.*

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
				43	3 76				
5	0 13			33	2 89				
24	0 62	8	1 43	106	9 42				
				53	1 34				
15	0 40	9	1 71	579	51 95				
1	0 03			18	1 62				
				20	1 77				
78	1 97			29	2 56				
2	0 10			1	0 09				
821	19 60	148	21 15	3,031	182 06	39	0 39	440	4 98
1	0 02								
535	10 05	4,287	113 53	3,000	70 10	315	3 15		
		140	7 59	18,541	840 06	4,945	49 45		
				486					
1	0 02	1	0 19	2	0 18				
		3	0 26	56	1 35	290	2 90		
				3	0 07				
				520	26 00				
2	0 05	4	0 76	11	0 96				
16	0 40	8	1 25	13	1 85				
30	0 57			2,018	52 96	4	0 04		
1,606	16 06	3	0 57	520	14 02	640	6 40	540	5 40
2,033	51 19	381	57 38	1,172	107 79	750	7 50	138	4 07
4,224	78 36	4,827	181 53	26,342	1,115 24	6,944	69 44	678	9 47
11,324	527 94	541,220	31,959 29	88,753	5,679 26	9,823	126 63	32,266	1,042 08

RICHARD DEVLIN,
Compiler of Canal Statistics.

APPENDIX A—Continued.

No. (A) 16.—STATEMENT showing the Amount of Tolls accrued each month during the Season of Navigation ended 31st December, 1895.

Canals and Offices.	January	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
WELLAND CANAL.												
Chippawa.....		50	3 15	0 75	3 01	2 40	6 52	4 72	12 32			33 37
Colborne.....		3,992 43	16,117 26	14,896 15	12,160 61	13,036 90	11,093 25	8,630 63	8,172 90	1,086 14		89,014 46
Dalhousie.....		3,035 22	12,177 96	6,249 56	4,645 11	6,301 16	5,939 09	3,046 12	4,968 48	263 10		48,625 79
Dunnville.....		1 08	16 91	26 49	95 43	75 97	3 58	2 08	5 83			249 20
Maitland.....			18 85	5 83	0 25	1 91	3 58	0 25	5 83			36 50
Robinson.....		1 87	84 96	50 54	8 35	108 71	94 87	79 33	33 65			145 72
St. Catharines.....		42 88	54 57	51 10	143 90							608 60
Total Welland Canal.....		6,983 48	28,473 66	21,280 41	17,065 75	19,527 05	17,050 89	13,763 13	13,220 08	1,349 24		138,713 64
ST. LAWRENCE CANALS.												
Beauharnois.....			68 35	251 68	483 38	548 47	298 24	210 49	151 70			2,012 31
Cardinal.....		2 25	164 55	176 96	97 44	60 68	76 55	82 15	187 13			951 68
Cornwall.....		62 45	4,519 20	4,240 03	3,559 79	5,020 17	3,203 83	2,190 13	2,660 01	2 83		25,458 44
Kingston.....		491 28	1,438 75	2,345 52	1,407 51	529 83	1,001 54	2,045 19	1,281 04			10,540 66
Lachine.....		90	249 86	248 03	393 55	486 53	241 82	243 78	183 30			1,957 77
Montreal.....		4 37	3,207 47	3,322 36	3,340 05	3,292 93	2,629 67	2,592 67	1,933 28			20,322 80
Total St. Lawrence Canals.....		561 25	9,648 18	10,584 58	9,191 72	9,938 61	7,451 05	7,364 41	6,396 46	6 80		61,143 66
CHAMBLEY CANAL.												
Chambley.....			641 41	1,919 07	1,793 39	2,142 80	2,200 80	2,338 60	1,589 40			12,625 47
St. Johns.....			3,004 97	1,850 54	2,828 22	1,624 24	2,111 59	1,468 56	290 56			12,678 68
St. Ours.....		13 81	-89 82	73 63	95 41	80 77	80 71	108 98	73 39			616 52
Total Chambley Canal.....		13 81	3,736 20	3,343 24	4,717 02	3,847 81	4,393 10	3,916 14	1,963 35			25,920 67

Department of Railways and Canals.

OTTAWA CANALS.													
Ottawa	199 60	3,665 33	2,931 79	3,285 96	2,297 02	2,905 76	2,730 53	932 71					18,948 70
Carillon		22 21	21 88	12 94	14 62	9 29	14 63	1 40					96 97
Grenville	43 38	2,133 87	2,279 16	2,167 44	1,621 26	1,377 93	1,472 30	661 62					11,756 96
St. Anne's	2 84	97 37	184 01	366 63	261 72	132 86	119 82	52 41					1,156 06
Total Ottawa Canals.....	245 82	5,918 78	5,416 84	5,771 97	4,194 62	4,425 84	4,337 28	1,648 14					31,959 29
RIDEAU CANAL.													
Kingston Mills		74 40	334 97	297 27	266 11	252 22	142 14	30 18					1,397 29
Ottawa	2 80	442 11	839 14	880 65	564 28	423 16	391 61	169 82					3,713 57
Smith's Falls		49 20	115 28	141 88	101 87	88 25	54 46	17 46					588 40
Total Rideau Canal.....	2 80	565 71	1,289 39	1,319 80	932 26	763 63	588 21	217 46					5,679 26
ST. PETER'S CANAL.													
St. Peter's	2 52							201 84	222 27				426 63
TRENT VALLEY CANALS.													
Bobcaygeon		26 99	63 08	70 77	92 86	96 10	85 00	23 45					458 25
Buckhorn		0 25	6 50	20 16	34 70	49 35	24 75						135 71
Burlingh		4 25	5 50	15 05	16 75	14 40	13 45						73 15
Fenelon Falls		5 83	13 54	12 90	17 28	6 75	2 95	3 75					60 80
Hastings		4 75	3 78	4 50	9 80	5 21	4 95	2 00					34 99
Peterborough	6 57	27 12	54 78	60 61	69 12	33 32	18 87	8 79					279 18
Total Trent Valley Canals.....	6 57	69 19	147 18	183 99	240 51	205 13	149 97	39 54					1,042 08
MURRAY CANAL.													
Brighton	7 83	57 38	96 76	100 15	118 75	76 03	54 45	14 70	1 89				527 94
Grand Total.....	2 52	7,821 56	42,158 40	38,350 40	38,799 61	34,366 27	30,173 59	23,691 52	1,580 20				285,413 17

RICHARD DEVLIN,
Compiler of Canal Statistics.

**DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1895.**

APPENDIX A—Continued.
 No. (A) 17.—SUMMARY STATEMENT showing the Number, Tonnage and Nationality of Vessels passed through all the Canals during the Season of Navigation ended the 31st December, 1895, and the amount of Tolls collected thereon.

Vessels.	Total Number.		From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
WELLAND CANAL.														
Canadian vessels, steam.....	1,031		89,175	92,897		1,052				82,396	176,345		352,680	3,984 99
do sail.....	482		30,309	32,098		502				49,743	83,204		165,947	3,525 97
Total Canadian.....	1,513		119,484	124,995		1,554				132,139	259,549		518,627	7,510 96
United States vessels, steam.....	495		3	29	503	181,745			356	42,981	239,693		464,951	6,957 17
do sail.....	214		588	2	753	33,337	27,836		41	13,175	43,029	41,766	84,795	1,912 91
Total United States.....	709		591	31	1,256	255,128	209,581		397	56,156	282,722	267,024	549,746	8,870 08
Grand Total, Welland Canal.....	2,222		120,075	125,026	3,210	255,128	209,581		4,631	188,295	542,261	528,112	1,068,373	16,381 04
ST. LAWRENCE CANALS.														
Canadian vessels, steam.....	3,200		352,004	302,357		37				20,112	393,220		715,726	4,170 26
do sail.....	4,449		465,998	313,538		53,872			661	92,188	520,531	405,726	926,257	11,064 26
Total Canadian.....	7,649		828,002	615,895		37			661	112,300	913,751	728,232	1,641,983	15,234 52
United States vessels, steam.....	448		548	457	15	6,631	6,365		419	1,820	9,748	8,657	18,405	119 75
do sail.....	640		1,935	19,753	1,606	481	596		31,479	17,096	47,977	39,051	87,028	682 83
Total United States.....	1,097		2,483	20,210	1,621	7,112	6,961		31,898	18,916	57,725	47,708	105,433	802 58
Grand Total, St. Lawrence Canals.....	8,746		830,485	636,105	1,658	7,112	6,961		32,559	131,216	971,476	775,940	1,747,416	16,037 10
CHAMBLY CANAL.														
Canadian vessels, steam.....	472		38,487	41,534						504	38,606	42,038	80,644	250 83
do sail.....	630		7,093	7,656	100					22,534	21,174	30,290	51,464	736 78
Total Canadian.....	1,102		45,580	49,190	100					23,038	59,780	72,328	132,108	987 61

Department of Railways and Canals.

United States vessels, steam.....	20	67	2,506	378	205	381	445	381	776	7 95
do sail.....	2,140	1,170	2,506	90,644	205	104,427	91,814	107,138	198,952	2,460 36
Total United States.....	2,160	1,237	2,506	91,022	205	104,758	92,259	107,469	199,728	2,468 31
Grand Total, Chambly Canal.....	3,262	46,817	51,696	105,222	305	127,796	152,039	179,797	331,836	3,455 92
OTTAWA CANALS.										
Canadian vessels, steam.....	865	41,688	96,684		318		41,688	97,002	138,690	597 78
do sail.....	1,169	4,537	119,466		10,892		4,537	130,358	134,895	1,937 03
Total Canadian.....	2,034	46,225	216,150		11,210		46,225	227,360	273,585	2,534 81
United States vessels, steam.....	1	2,200	108		3		2,200	13,328	15,528	0 25
do sail.....	160	2,200	108		13,220		2,200	13,331	15,531	370 01
Total United States.....	161	2,200	108		13,223		2,200	13,331	15,531	370 26
Grand Total, Ottawa Canals.....	2,195	48,425	216,258		24,433		48,425	240,691	289,116	2,905 07
RIDEAU CANAL.										
Canadian vessels, steam.....	1,298	47,719	47,903	1,120		1,520	48,839	49,423	98,262	704 32
do sail.....	793	23,462	24,128	3,647		3,561	27,109	27,689	54,798	656 38
Total Canadian.....	2,091	71,181	72,031	4,767		5,081	75,948	77,112	153,060	1,360 70
United States vessels, steam.....	81	522	314	555	67	1,128	1,077	1,509	2,586	25 59
do sail.....	203	1,753	1,593	4,049	1,281	4,530	5,802	7,404	13,206	271 35
Total United States.....	284	2,275	1,907	4,604	1,348	5,658	6,879	8,913	15,792	296 94
Grand Total, Rideau Canal.....	2,375	73,456	73,938	9,371	1,348	10,739	82,827	86,025	168,852	1,657 64
St. PETER'S CANAL.										
Canadian vessels, steam.....	52	3,431	2,477				3,431	2,477	5,908	118 17
do sail.....	196	5,502	4,623			383	5,855	4,623	10,508	210 18
Total Canadian.....	248	8,933	7,100			383	9,316	7,100	16,416	328 35
United States vessels, steam.....										
do sail.....										
Total United States.....										
Grand Total, St. Peter's Canal.....	248	8,933	7,100			383	9,316	7,100	16,416	328 35

No. (A) 17.—SUMMARY STATEMENT showing the Number, Tonnage and Nationality of Vessels, &c.— *continued.*

Vessels.	Total Number.		From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Do n.		
TRENT VALLEY CANALS.														
Canadian vessels, steam	1,385	24,732	25,258										49,990	363 04]
do sail	562	17,329	17,996										35,325	137 50
Total Canadian	1,947	42,061	43,254										85,315	500 54
United States vessels, steam														
do sail														
Total United States.														
Grand Total, Trent Valley Canals.	1,947	42,061	43,254										85,315	500 54
MURRAY CANAL.														
Canadian vessels, steam	448	95,982	35,427		13,092				499	12,737		109,573	48,164	172 45
do sail	104	1,400	1,641		725				122	258		2,247	1,981	23 39
Total Canadian	552	97,382	37,068		13,817				621	12,995		111,820	50,145	195 84
United States vessels, steam	3				35					60		35	119	0 61
do sail	13	52	6		55					182		107	188	3 25
Total United States.	16	52	6		90					242		142	307	3 86
Grand Total, Murray Canal	568	97,434	37,074		13,907				621	13,237		111,962	50,452	199 70

Department of Railways and Canals.

No. (A) 17.—SUMMARY STATEMENT showing the Number, Tonnage and Nationality of Vessels, &c.—*Concluded.*
RECAPITULATION.

Vessels.	Total Number.		From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total T. ns.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
CANADIAN VESSELS.														
<i>Steam and Sail.</i>														
Welland.....	1,513	124,995	135,821	1,954					4,234	132,139	259,539	259,088	518,627	7,510 96
St. Lawrence.....	7,649	615,895	85,088	37					661	112,300	913,751	728,232	1,641,983	15,234 52
Chambly.....	1,102	45,580	14,200	100						23,038	59,780	73,328	132,108	987 61
Ottawa.....	2,034	46,225	216,150	11,210							46,225	227,360	273,585	2,534 81
Rideau.....	2,091	71,181	4,767							5,081	75,948	77,112	153,060	1,360 70
St. Peter's.....	248	8,933	7,100						383		9,316	7,100	16,416	328 35
Trent Valley.....	1,947	42,061	43,254								42,061	43,254	85,315	500 54
Murray.....	552	97,382	13,817	82					621	12,995	111,820	50,145	161,965	195 84
Total Canadian.....	17,136	1,258,848	1,165,633	13,383					5,859	285,553	1,518,440	1,464,619	2,983,059	28,653 33
UNITED STATES VESSELS.														
<i>Steam and Sail.</i>														
Welland.....	709	591	26,606	1,256	255,128	209,581	397	56,156	31,898	18,916	282,722	267,024	549,746	8,870 08
St. Lawrence.....	1,047	2,483	20,210	16,232	1,621	6,961		18,916			57,725	47,708	105,433	802 58
Chambly.....	2,160	1,237	2,506	91,022	265			104,758			92,259	107,469	199,728	2,468 31
Ottawa.....	161	2,200	108	13,223							2,200	13,331	15,531	370 26
Rideau.....	284	2,275	1,907	1,348				5,658			6,879	8,913	15,792	296 94
St. Peter's.....														
Trent Valley.....														
Murray.....	16	52	90	59				242			142	307	449	3 86
Total United States.....	4,427	8,838	24,768	138,554	262,240	216,542	32,295	185,730	441,927	444,752	1,900,367	1,903,371	3,869,738	41,465 3
Grand total, Canadian and United States.....	21,563	1,267,686	1,190,451	392,247	262,240	216,542	38,194	471,283	1,960,367	1,903,371	3,869,738	3,869,738	41,465 3	

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 18th November, 1896.

RICHARD DEVLIN,
Compiler of Canal Statistics.

APPENDIX A—Continued.

No. (A) 18.—COMPARATIVE STATEMENT of Grand Total Freight passed through the undermentioned Canals during the Seasons of Navigation of 1894 and 1895, and the Amount of Tolls collected on the same, including Tolls on Vessels and Passengers.

	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
1894.												
Welland.....	7,623	117,867	9,597	36,910	230,948	361,319	1,270	242,687	249,438	758,783	1,008,821	159,694 19
St. Lawrence.....	185,780	425,789	17,607	222	224	1,788	44,750	210,618	248,361	638,417	886,778	63,005 43
Chambly.....	11,371	7,934	157,086	.....	.....	.....	.....	101,217	168,457	109,151	277,608	21,149 65
St. Ridaeu.....	45,356	15,475	18,558	1,003	.....	.....	.....	14,087	63,914	30,565	94,479	5,886 39
Ottawa.....	353	510,298	.....	51,359	.....	.....	.....	.....	561,657	39,142	562,010	34,042 78
St. Peter's.....	16,318	39,142	.....	.....	.....	.....	.....	.....	16,318	39,142	55,460	2,637 14
Trent Valley.....	24,268	12,003	.....	.....	.....	.....	.....	.....	24,268	12,003	36,271	1,009 23
Murray.....	8,086	12,008	1,327	120	.....	.....	.....	.....	9,413	12,475	21,888	756 20
Grand total.....	299,155	1,140,606	204,175	89,614	231,172	363,107	46,020	568,866	780,522	2,162,193	2,942,715	288,131 01
1895.												
Welland.....	5,328	97,048	12,470	4,176	214,520	263,163	1,565	271,375	233,883	635,712	869,595	138,713 64
St. Lawrence.....	174,771	417,747	12,569	1,102	279	922	43,838	177,000	231,457	596,771	838,228	61,143 66
Chambly.....	5,942	6,935	236,594	.....	.....	.....	.....	109,556	242,536	116,491	359,027	25,920 67
Ottawa.....	38,882	12,819	18,193	2,959	.....	.....	.....	13,839	57,076	31,677	88,753	5,670 26
Ridaeu.....	173	477,242	.....	63,806	.....	.....	.....	.....	173	541,047	541,230	31,959 29
St. Peter's.....	3,139	6,410	.....	.....	.....	.....	.....	.....	3,418	6,410	9,828	426 63
Trent Valley.....	21,917	10,349	.....	.....	.....	.....	.....	.....	21,917	10,349	32,266	1,042 08
Murray.....	4,253	5,926	561	.....	.....	.....	.....	.....	5,072	6,252	11,324	527 94
Grand total.....	254,105	1,034,476	280,387	71,992	214,799	264,085	45,941	574,156	795,532	1,944,709	2,740,241	265,413 17

RICHARD DEVLIN,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 18th November, 1896.

Department of Railways and Canals.

APPENDIX A—Continued.

No. (A) 19.—STATEMENT of the Number and Tonnage of all kinds of Vessels passed through the Canals during the Season of Navigation in 1895.

WELLAND CANAL.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
8	8	64	4	32	4	32	3	24
10	2	20	9	90	3	30	2	20
15	2	30	2	30	3	45	1	15
20	1	20	1	20	3	60	1	20
25	5	125	1	25				
30	6	180						
35	7	245						
40			1	40	3	105	1	35
45	1	45	1	45	2	80	1	40
50	3	150	1	50	1	45		
55							1	50
60					1	55		
65	1	65	5	300	1	60	3	180
70	1	70					2	130
75	1	75						
85	1	85						
90	1	90	1	90				
95	1	95						
100			2	200			1	100
110			1	110			2	220
135			1	135				
145			3	435				
150			2	300				
160								
165	1	160	1	165				
190	1	165	1	190				
200			2	400				
205	2	400			1	205		
210								
220	1	210						
225	2	440						
230			1	225				
245			1	230				
250							1	245
250			1	250				
260	2	520					2	520
265							2	530
270							2	540
280			2	560	2	560	2	560
285							1	285
290			1	290			1	290
295			3	885			1	295
300	1	295					1	300
305	3	915					2	610
310			2	620			3	930
315							2	630
320			2	640	1	320	1	320
325			2	650			2	650
330			1	330			1	330
335			3	1,005				
340							1	340
355							1	355
360	1	360			3	1,095		
400					1	400	1	400
405	3	1,215						

APPENDIX A—Continued.

No. (A) 19.—STATEMENT of the Number and Tonnage of all kinds of Vessels,
&c.—Continued.

WELLAND CANAL—Continued.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
415	1	415						
440	2	880						
455	1	455	2	910				
460			1	460				
465	1	465						
470					1	470	2	940
485							2	970
490	1	490			1	490	1	490
500	2	1,000						
510	1	510						
515	1	515					1	515
530	1	530						
540					2	1,080		
545	2	1,090	1	545				
550					1	550		
560	1	560						
575	1	575						
585							1	585
590			1	590			2	1,180
595					1	595		
600	1	600					2	1,200
605					1	605		
615					2	1,230		
620					1	620	1	620
625					2	1,250		
630							1	630
640					2	1,280		
645			1	645				
655					1	655	1	655
660					1	660		
680							1	680
685			1	685				
695					1	695		
707							2	1,414
710					1	710		
719			1	719				
725					1	725		
740							1	740
769	1	769						
771	1	771						
775					1	775		
787					1	787		
796					1	796		
800					1	800		
802			1	802			2	1,604
837					1	837		
838							1	838
870							1	870
880					1	880		
904					1	904		
908			1	908				
911					1	911		
918					1	918		
929	1	929						

Department of Railways and Canals

APPENDIX A—Continued.

No. (A) 19.—STATEMENT of the Number and Tonnage of all kinds of Vessels,
&c.—Continued.

WELLAND CANAL—Concluded.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
940					1	940		
950					1	950		
962					1	962		
968					1	968		
977	1	977						
978					1	978		
985					1	985		
994							3	2,982
997					1	997		
1,013					1	1,013		
1,022					1	1,022		
1,029					1	1,029		
1,035	1	1,035			2	2,070		
1,038					1	1,038		
1,041			1	1,041				
1,053					1	1,053		
1,054					1	1,054		
1,083					1	1,083		
1,085							1	1,085
1,086							1	1,086
1,111					2	2,222		
1,172	1	1,172						
1,180					1	1,180		
1,185							1	1,185
1,189					1	1,189		
1,203					1	1,203		
1,206					1	1,206		
1,267	1	1,267						
1,425					1	1,425		
1,441					1	1,441		
1,547					1	1,547		
1,548					1	1,548		
1,550					1	1,550		
1,553					2	1,553		
1,565					1	1,565		
Total..	81	21,044	69	15,647	87	56,086	73	29,233

APPENDIX A—Continued.

No. (A) 20.—STATEMENT of the Number and Tonnage of all kinds of Vessels passed through the Canals during the Season of Navigation in 1895.

ST. LAWRENCE CANALS.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
8	27	216	16	128	4	32	2	16
10	11	110	19	190	2	20	1	10
15	12	180	2	30	1	15	1	15
20	3	60	11	220	3	60	2	40
25	11	275	5	125			1	25
30	8	240	10	300			2	60
35	6	210			1	35		
40	9	360	14	560	1	40	1	40
45	3	135	4	180	1	45		
50	7	350	6	300	3	150	3	150
55	3	165	2	110	1	55		
60	9	540	25	1,500	1	60		
65	2	130	1	65	1	65		
70	1	70	4	280			1	70
75	3	225	2	150	1	75		
80	1	80	6	480	1	80	2	160
85	1	85	5	425			6	510
90	3	270	7	630	1	90	11	990
95			9	855			48	4,560
100	3	300	21	2,100			81	8,100
105	4	420	9	945			23	2,415
110	3	330	8	880			9	990
115	2	230	9	1,035			6	690
120	3	360	8	960			8	960
125	1	125	4	500				
130	1	130	8	1,040				
135			5	675				
140	1	140	5	700				
145	2	290	10	1,450				
150			16	2,400				
155	2	310	34	5,270				
160			15	2,400			2	320
165	6	990	16	2,640				
170			6	1,020				
175			3	525				
180			5	900				
185			3	555				
190	1	190	4	760				
195			3	585				
200	3	600	2	400				
220			1	220				
230			5	1,150				
250			1	250				
255			1	255				
260			2	520				
265	1	265	3	795				
270			2	540				
275	1	275	1	275				
285							1	285
290			1	290				
300	1	290	3	900				
305	1	305	8	2,440				
310			3	930				

Department of Railways and Canals.

APPENDIX A—Continued.

No. (A) 20.—STATEMENT of the Number and Tonnage of all kinds of Vessels, &c.—
Continued.

ST. LAWRENCE CANALS—Continued.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
315			2	630				
320			3	960			2	640
325	1	325	2	650				
330			1	330				
335	1	335	3	1,005			1	335
340			4	1,360			1	340
345	2	690	2	690			1	345
350			2	700				
360			2	720				
365	1	365	3	1,095				
370			2	740				
375			2	750				
390			1	390				
395	1	395	1	395				
400	1	400						
415			2	830				
435	1	435	1	435			1	435
440	2	880	1	440			1	440
445	1	445	1	445				
450			1	450				
455	1	445						
475	1	475	1	475			1	475
490			1	490				
500	1	500	1	500				
510	2	1,020						
515			1	515				
516			2	1,032				
518			1	518				
520								
541			2	1,082				
543			1	543				
545								
567	1	545	1	567				
570								
575	1	575						
580								
585			1	585				
586			1	586				
590	2	1,180	1	590				
595	1	595						
600	1	600						
628			1	628				
630								
680								
681	1	680	1	681				
685								
695	1	695						
715	1	715						
719			1	719				
769			1	769				
771			1	771				
775								
780								

APPENDIX A—*Continued.*

No. (A) 20.—STATEMENT of the Number and Tonnage of all Kinds of Vessels, &c.—
Concluded.

ST. LAWRENCE CANALS — *Concluded.*

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
805								
929			1	929				
1,185								
1,285			1	1,285				
1,485								
Total.....	181	21,556	430	69,113	22	822	219	23,416

Department of Railways and Canals.

APPENDIX A—Continued.

No. (A) 21.—STATEMENT of the Number and Tonnage of all kinds of Vessels passed through the Canals during the Season of Navigation in 1895.

RIDEAU, OTTAWA AND CHAMBLY.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
8	56	448	215	1,720	11	88	21	168
10	9	90	23	230	2	20		
15	12	180	9	135	7	105		
20	8	160	9	180	1	20		
25	9	225	5	125			3	75
30	3	90	2	60				
35	1	35						
40	4	160	9	360	1	40	1	40
45			2	90				
50	5	250	7	350			2	100
55	2	110	3	165				
60	2	120	1	60				
65							2	130
70			1	70	2	140	8	560
75	3	225	4	300				
80	1	80	3	240			2	160
85	1	85	2	170	1	85	8	680
90	2	180	4	360			16	1,440
95	1	95	5	475	1	95	99	9,405
100	1	100	12	1,200			179	17,900
105	1	105	6	630			41	4,305
110			5	550			27	2,970
115			2	230			20	2,300
120	1	120	7	840			10	1,200
125	3	375	5	625			1	125
130			3	390				
135			2	270				
140	1	140	6	840			1	140
145	2	290	12	1,740				
150			16	2,400				
155	1	155	28	4,340				
160			15	2,400				
165			12	1,980				
170			4	680				
175			3	525				
180			2	360				
185			1	185				
190	1	190	2	380				
195			1	195				
200	1	200	2	400				
262	1	262						
289			1	289				
324	1	324						
332	1	332						
397	1	397						
691	1	691						
Total.....	136	6,214	451	26,539	26	593	441	41,698

APPENDIX A—Concluded.

No. (A) 22.—STATEMENT showing the Classified Tonnage of all kinds of Vessels passed through the Canals during the Season of Navigation in 1895.

WELLAND CANAL.

CANADIAN.				UNITED STATES.			
Class	Steam Vessels.	No.	Tonnage.	Sailing Vessels.	No.	Tonnage.	Total.
1	250 to 1,267 tons...	33	18,310	1 250 to 1,041 tons...	28	12,535	1 250 to 1,565 tons...
2	200 " 249 " " " " "	5	1,050	2 200 " 249 " " " " "	2	465	2 200 " 249 " " " " "
3	150 " 199 " " " " "	2	325	3 150 " 199 " " " " "	6	1,055	3 150 " 199 " " " " "
4	100 " 149 " " " " "	2	630	4 100 " 149 " " " " "	7	880	4 100 " 149 " " " " "
5	50 " 99 " " " " "	9	729	5 50 " 99 " " " " "	7	440	5 50 " 99 " " " " "
6	Under 50 " " " " " "	32	21,044	6 Under 50 " " " " " "	19	282	6 Under 50 " " " " " "
	Total	81	21,044	Total	69	15,647	Total
							56,086
							87
							55,369
							205
							199
							149
							99
							360
							154
							28,154
							245
							320
							360
							6
							9
							73
							29,233

ST. LAWRENCE CANALS.

1	250 to 715 tons...	29	13,440	1 250 to 1,285 tons...	82	33,475	1 250 to — tons...	1	250 to 475 tons...	9	3,295
2	200 " 249 " " " " "	3	600	2 200 " 249 " " " " "	8	1,770	2 200 " 249 " " " " "	2	200 " 249 " " " " "	2	320
3	150 " 199 " " " " "	9	1,490	3 150 " 199 " " " " "	105	17,055	3 150 " 199 " " " " "	3	150 " 199 " " " " "	2	13,155
4	100 " 149 " " " " "	20	2,325	4 100 " 149 " " " " "	87	10,285	4 100 " 149 " " " " "	4	100 " 149 " " " " "	71	6,440
5	50 " 99 " " " " "	30	1,915	5 50 " 99 " " " " "	67	4,795	5 50 " 99 " " " " "	5	50 " 99 " " " " "	10	206
6	Under 50 " " " " " "	90	1,786	6 Under 50 " " " " " "	81	1,733	6 Under 50 " " " " " "	6	Under 50 " " " " " "	219	23,416
	Total	181	21,556	Total	430	69,113	Total	822	Total	219	23,416

CANALS

CONSOLIDATED

Sec. 1.

No. 22.—RATES OF TOLLS ON THE CANALS

WELLAND, ST. LAWRENCE, RIDEAU, OTTAWA, CHAMBLY AND MURRAY CANALS.

(O.C., April 18, 1873.)

The Rates of Tolls are divided into Six Classes, as under, and are per ton, unless otherwise specified.	Welland Canal, westward.	Welland Canal, eastward.	Lake Erie to Montreal.	St. Lawrence Canals, each way.	Chambly Canal and St. Ours Lock, each way.	Rideau Canal, each way.	Ottawa Canals, and St. Ann's Lock, each way.	Ottawa to St. Johns each way.	Murray Canal, each way.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Class No. 1.</i>									
Vessel, steam..... per ton.	0 01½	0 01½	0 02¼	0 00¾	0 00¾	0 01½	0 00¾	0 01½	0 0¾
do sail and other.....	0 02¼	0 02¼	0 3¾	0 01½	0 01½	0 02¼	0 01	0 02½	0 1¾
<i>Class No. 2.</i>									
Passengers, 21 years of age and upwards....	0 10	0 10	0 20	0 10	0 05	0 08	0 02¼	0 09¾	0 1¼
Passengers, under 21 years each.....	0 05	0 05	0 10	0 05	0 02	0 04	0 01¾	0 04½	0 06¾
<i>Class No. 3.</i>									
Bricks, cement and water lime.....	15	0 20	0 20	0 15	0 10	0 07	0 06	0 19¾	0 1½
Clay, lime and sand.....									
Brimstone.....									
Corn.....									
Flour.....									
Iron, railway.....									
do pig.....									
do all other, including steel (O.C., Feb. 1, 1888).....									
Plaster, gypsum.....									
Salt.....									
Salt meats or fish, in barrels or otherwise... Agricultural products, vegetable, not enumerated..... Agricultural products, animal, not enumerated..... Stone, for cutting..... Wheat.....									
<i>Class No. 4.</i>									
All other articles, not enumerated.....	0 15	0 20	0 20	0 20	0 10	0 26	0 14	0 29	0 2½

Department of Railways and Canals.

REVENUE

TARIFF OF TOLLS

OF THE DOMINION OF CANADA, 1895.

TRENT VALLEY CANALS.

(O.C., July 25, 1888.)

1ST SECTION.	2ND SECTION.	3RD SECTION.	4TH SECTION.	THROUGH.	Peterborough to Hastings, each way.
Fenelon Falls to Bobcaygeon.	Bobcaygeon to Buckhorn.	Buckhorn to Burleigh.	Burleigh to Lakefield.	Fenelon Falls to Lakefield.	Tolls Chargeable at Peterborough and Hastings.
Tolls Chargeable at Fenelon Falls.	Tolls Chargeable at Bobcaygeon.	Tolls Chargeable at Buckhorn.	Tolls Chargeable at Burleigh.	Tolls Chargeable at Fenelon Falls.	
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
0 00 $\frac{3}{8}$ 0 00 $\frac{1}{4}$	0 00 $\frac{3}{8}$ 0 00 $\frac{1}{4}$	0 00 $\frac{3}{8}$ 0 00 $\frac{1}{4}$	0 00 $\frac{3}{8}$ 0 00 $\frac{1}{4}$	0 00 $\frac{3}{4}$ 0 01	0 00 $\frac{3}{8}$ 0 00 $\frac{1}{4}$
0 01 0 00 $\frac{1}{2}$	0 01 0 00 $\frac{1}{2}$	0 01 0 00 $\frac{1}{2}$	0 01 0 00 $\frac{1}{2}$	0 04 0 02	0 01 0 00 $\frac{1}{2}$
0 01	0 01	0 01	0 01	0 04	0 01
0 03	0 03	0 03	0 03	0 12	0 03

RATES OF TOLLS

WELLAND, ST. LAWRENCE, RIDEAU, OTTAWA, CHAMBLY AND MURRAY CANALS.

	Welland Canal, westward.	Welland Canal, eastward.	Lake Erie to Montreal.	St. Lawrence Canals, each way.	Chambly Canal and St. Ours Lock, each way.	Rideau Canal, each way.	Ottawa Canals and St. Ann's Lock, each way.	Ottawa to St. Johns, each way.	Murray Canal, each way.
<i>Class No. 5.</i>									
Bark.....	0 20	0 20	0 20	0 15	0 10	0 07	0 06	0 19 $\frac{1}{2}$	0 01 $\frac{1}{2}$
Barrels, empty, each.....	0 02	0 02	0 02	0 02	0 02	0 02	0 01	0 03 $\frac{1}{2}$	0 00 $\frac{1}{2}$
Boat knees, each.....	0 05	0 05	0 05	0 02	0 02	0 02	0 01	0 03 $\frac{1}{2}$	0 00 $\frac{1}{2}$
Floats, per 1,000 lineal feet.....	1 40	1 40	1 40	1 40	1 20	1 05	0 50	2 05	0 17 $\frac{1}{2}$
Firewood, per cord, in vessels.....	0 20	0 20	0 20	0 20	0 10	0 15	0 08	0 23	0 02 $\frac{1}{2}$
do do rafts.....	0 25	0 25	0 25	0 25	0 15	0 19	0 09	0 30 $\frac{1}{2}$	0 03 $\frac{1}{2}$
Hoops.....	0 25	0 25	0 25	0 20	0 15	0 15	0 10	0 30	0 02 $\frac{1}{2}$
Masts and spars, telegraph poles, per ton of 40 cubic feet, in vessels.....	0 15	0 15	0 15	0 05	0 05	0 08	0 07	0 13 $\frac{1}{2}$	0 00 $\frac{1}{2}$
Masts and spars, telegraph poles, per ton of 40 cubic feet, in rafts.....	0 20	0 20	0 20	0 10	0 10	0 15	0 10	0 22 $\frac{1}{2}$	0 01 $\frac{1}{2}$
Railway ties, in vessels, each.....	0 01	0 01	0 01	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 01 $\frac{1}{2}$	0 0 $\frac{1}{2}$
do rafts, each.....	0 02	0 02	0 02	0 01	0 01	0 02	0 01	0 02 $\frac{1}{2}$	0 00 $\frac{1}{2}$
Sawed stuff, boards, plank, scantling and sawed timber, per M. feet, board measure, in vessels.....	0 30	0 30	0 30	0 15	0 10	0 11 $\frac{1}{2}$	0 06 $\frac{1}{2}$	0 20	0 01 $\frac{1}{2}$
Sawed stuff, boards, plank, scantling and sawed timber, per M. feet, board measure, in rafts.....	0 60	0 60	0 60	0 30	0 20	0 19	0 09	0 36 $\frac{1}{2}$	0 03 $\frac{1}{2}$
Square timber, per M. cubic feet, in vessels.....	3 00	3 00	3 00	1 00	1 00	0 56	0 44	1 69	0 12 $\frac{1}{2}$
do do rafts.....	4 50	4 50	4 50	2 00	2 00	1 12	0 63	3 13	0 25
Wagon stuff, woodenware and wood, partly manufactured, per ton of forty cubic feet.....	0 40	0 40	0 40	0 40	0 25	0 30	0 20	0 55	0 05
Shingles, per M.....	0 06	0 06	0 06	0 06	0 04	0 04 $\frac{1}{2}$	0 02 $\frac{1}{2}$	0 08	0 00 $\frac{1}{2}$
Split posts and fence rails, per M., in vessels.....	0 40	0 40	0 40	0 40	0 20	0 23	0 12	0 42	0 05
Split posts and fence rails, per M., in rafts.....	0 80	0 80	0 80	0 80	0 40	0 38	0 17	0 77	0 10
Saw-logs, each, standard log.....	0 08	0 08	0 08	0 08	0 05	0 06	0 06	0 13	0 01
Staves and headings, barrel, per M.....	0 40	0 40	0 40	0 20	0 15	0 15	0 10	0 30	0 02 $\frac{1}{2}$
do do pipe do.....	1 50	1 50	1 50	1 00	1 00	0 75	0 50	1 75	0 12 $\frac{1}{2}$
do do W. India do.....	0 75	0 75	0 75	0 60	0 25	0 45	0 25	0 65	0 07 $\frac{1}{2}$
do do salt barrel, sawn or cut, per M.....	0 08	0 08	0 08	0 04	0 03	0 03	0 02	0 06	0 00 $\frac{1}{2}$
Traverses, per 100 pieces.....	0 50	0 50	0 50	0 50	0 40	0 38	0 15	0 67 $\frac{1}{2}$	0 06 $\frac{1}{2}$
Hop poles, per 1,000 pieces.....	2 00	2 00	2 00	2 00	1 50	1 50	0 65	2 65	0 25
<i>Special Class.</i>									
Gypsum, crude (per O. C., 28th Oct., 1882).....	0 15	0 05	....	0 05	West ward.....	....	....	....	....
Coal.....	0 20	0 20	0 20	0 15	0 10	0 08	0 05	0 17 $\frac{1}{2}$	0 01 $\frac{1}{2}$
Stone, unwrought, corded, and not suitable for cutting, per cord.....	0 75	0 75	0 75	0 60	0 37 $\frac{1}{2}$	0 28	0 24	0 77 $\frac{1}{2}$	0 07 $\frac{1}{2}$
Kryolite, iron ore or chemical ore.....	0 05	0 05	0 05	0 05	0 05	0 05	0 05	0 05	0 05
Ice.....	0 05	0 05	0 05	0 05	0 05	0 05	0 05	0 11	0 05

Department of Railways and Canals.

ON THE CANALS—*Continued.*

TRENT VALLEY CANALS.

1ST SECTION.	2ND SECTION.	3RD SECTION.	4TH SECTION.	THROUGH.	Peterborough to Hastings, each way.
Fenelon Falls to Bobcaygeon.	Bobcaygeon to Buckhorn.	Buckhorn to Burleigh.	Burleigh to Lakefield.	Fenelon Falls to Lakefield.	
Tolls Charge- able at Fenelon Falls.	Tolls Charge- able to Bobcaygeon.	Tolls Charge- able to Buckhorn.	Tolls Charge- able at Burleigh.	Tolls Charge- able at Fenelon Falls.	Tolls Charge- able at Peterborough and Hastings.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
0 01	0 01	0 01	0 01	0 04	0 01
0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 01	0 00 $\frac{1}{4}$
0 00 $\frac{1}{2}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 01	0 00 $\frac{1}{4}$
0 13	0 13	0 13	0 13	0 52	0 13
0 03	0 03	0 03	0 03	0 10	0 03
0 04	0 04	0 04	0 04	0 14	0 04
0 02	0 02	0 02	0 02	0 08	0 01
0 02	0 02	0 02	0 02	0 08	0 02
0 01	0 01	0 01	0 01	0 04	0 01
0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{1}{2}$	0 00 $\frac{3}{4}$
0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 01	0 00 $\frac{1}{4}$
0 03	0 03	0 03	0 03	0 10	0 03
0 04	0 04	0 04	0 04	0 14	0 04
0 07	0 07	0 07	0 07	0 28	0 07
0 14	0 14	0 14	0 14	0 56	0 14
0 04	0 04	0 04	0 04	0 16	0 04
0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 03	0 00 $\frac{3}{4}$
0 03	0 03	0 03	0 03	0 12	0 03
0 05	0 05	0 05	0 05	0 20	0 05
0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 03	0 00 $\frac{3}{4}$
0 02	0 02	0 02	0 02	0 08	0 02
0 10	0 10	0 10	0 10	0 40	0 10
0 05 $\frac{1}{2}$	0 05 $\frac{1}{2}$	0 05 $\frac{1}{2}$	0 05 $\frac{1}{2}$	0 22	0 05 $\frac{1}{2}$
0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 02	0 00 $\frac{1}{2}$
0 05	0 05	0 05	0 05	0 20	0 05
0 20	0 20	0 20	0 20	0 80	0 20
Free.	Free.	Free.	Free.	Free.	Free.
0 01	0 01	0 01	0 01	0 04	0 01
0 03 $\frac{1}{4}$	0 03 $\frac{1}{4}$	0 03 $\frac{1}{4}$	0 03 $\frac{1}{4}$	0 14	0 03 $\frac{1}{4}$
0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 04	0 00 $\frac{3}{4}$
Free.	Free.	Free.	Free.	Free.	Free.

St. Peter's Canal.

Sec. 2. On each and every vessel passing through the said canal, two cents per ton on the vessel and one cent per ton on the freight, each way. O. C. June 23, 1883. Con. O. C. Oct. 26, 1889, sec. 109.

SPECIAL REGULATIONS RELATING TO TOLLS ON SOME OF THE CANALS.

Sec. 3. Coal may pass up all canals, except the Welland Canal, free of toll. O. C. June 6, 1869. Con. O. C. Oct. 26, 1869, sec. 83.

Sec. 4. Logs, lumber or other produce may pass free of toll down the Chippawa Creek, between the Aqueduct and Port Robinson. O. C. May 18, 1863. Con. O. C. Oct. 26, 1889, sec. 84.

Sec. 5. (a) In view of the dam constructed across the Ottawa River at Carillon whereby the passage of the rapids at that point through the river is rendered difficult and at times impracticable, it appears necessary, owing to the continued difficulty attending passage through the slide built in the dam, that the Canal should be used by rafts, and until otherwise ordered, free passage be given to rafts through the Carillon Canal, subject to such regulations as the Department of Railways and Canals may find necessary in the interest of the traffic of the Canal to adopt. O. C. July 6, 1888.

Sec. 5. (b) "Save in cases for which special permission may be given the Grenville Canal is closed to the passage of rafts, or any portion of a raft of any kind whatever." O. C. June 27, 1890.

Sault Ste. Marie Canal.

Sec. 6. All vessels and freight shall be permitted to pass through the Sault Ste. Marie Canal free of toll upon such vessels and freight, until otherwise ordered.

Sec. 7. (a.) All goods having paid full toll through the whole line of the St. Lawrence Canals, or through the Lachine Canal, Ste. Anne's Lock, or Ottawa and Rideau Canals, shall be allowed to pass free through the Welland Canal; and if tolls have been paid at the Chambly Canal such tolls shall be refunded at Montreal or Kingston Mills; and having paid full tolls through the Welland Canal, they shall be allowed to pass free through the St. Lawrence Canals, or through the Ottawa and Rideau Canals, Ste. Anne's Lock, the Lachine Canal and the Chambly Canal; provided always:— That the articles to be entitled to the above exemptions shall go downwards through the whole length of the canal to Montreal or pass upward from Montreal through the whole length of the St. Lawrence Canals, or the Ottawa and Rideau Canal, to Lake Ontario.

(b.) All articles, goods or merchandise, not enumerated above, shall be charged to Class No. 4. O. C. April 18, 1873. Con. O. C. Oct. 26, 1889, sec. 86.

Sec. 8. Goods shipped to any port west of the St. Lawrence Canals, tolls upon which have already been paid for passage through such canals, may be re-shipped from such ports and be passed through the Welland Canal free of tolls, in the same way as if they had been shipped through direct in the first instance; and goods going eastward, having paid Welland Canal tolls, may be transhipped at any port on Lake Ontario, and thereafter pass free through the St. Lawrence Canals, as if they had been shipped through direct in the first instance. O. C. June 23, 1883. Con. O. C. Oct. 26, 1889, sec. 87.

Sec. 9. Iron ore, kryolite or chemical ore, may pass through one section, or through all the canal sections aforesaid, for 5 cents per ton.

Sec. 10. No let-passes shall be issued to steam tugs or other small vessels for less than 25 cents, as a minimum charge; but such vessels, not carrying freight or passengers, can obtain, on payment of \$30, a season "Let-Pass," which will pass them up and down the canals as often as desired. O. C. April 18, 1873. Con. O. C. Oct. 26, 1889, sec. 86.

Sec. 11. All vessels owned or chartered by persons having contracts for the enlargement or repair of any of the canals, and employed by them in removing earth or carrying materials necessary for the prosecution of such works, shall be entitled to pass through such canals free of toll upon such vessel and cargo. O. C. April 22, 1884. Con. O. C. Oct. 26, 1889, sec. 35.

Sec. 12. Government dredges and scows shall be permitted to pass through the canals free of tolls, but that such dredges and scows shall not be so passed as to interfere with the passage of other vessels of any kind whatever. O. C. May 18, 1891.

HARBOUR DUES.

Sec. 13. Vessels receiving or discharging freight at the premises of the Welland Railway, at Ports Colborne or Dalhousie, are to be free from harbour dues; but all other vessels discharging or receiving cargo at Port Dalhousie, Port Colborne or Port Maitland, shall pay on every ton of freight so received or discharged, two cents. O. C. April 18, 1873. Con. O. C. Oct. 26, 1889.

Department of Railways and Canals.

WAY RATES.

Sec. 14. The following way rates are to be levied on vessels and property passing the several subdivisions of the canals :--

Welland Canal.

	Rate.
1. From Port Maitland, Dunnville and Port Colborne to Port Robinson or Allanburg, not passing the lock, each way	1/2
2. From Chippawa Cut, or any part thereof, to Dunnville, Port Maitland or Port Colborne.	1/2
3. From Dunnville to Port Colborne.	1/2
4. From Thorold to St. Catharines or Port Dalhousie	1/2
5. From Maitland, Dunnville, Colborne or Port Robinson to Marshville and intermediate places	1/2
6. From Marshville or intermediate places to Port Maitland, Dunnville, Port Colborne and Port Robinson.	1/2
7. From Port Robinson to Allanburg or Thorold.	1/2
8. From Port Robinson to St. Catharines or Port Dalhousie.	1/2
9. From St. Catharines to Port Dalhousie.	1/2
10. From Dunnville to Maitland.	1/2
11. From Port Robinson through the Lock and Chippawa Cut.	1/2
12. From Port Colborne to Port Maitland.	1/2
13. From Chippawa Cut through Lock to Port Robinson.	1/2
14. From Colborne, Dunnville, Maitland and Marshville to Thorold.	1/2
15. From Colborne, Dunnville, Maitland and Marshville to St. Catharines.	1/2
16. Through the Chippawa Cut only.	1/2
17. Through the Port Robinson Lock only.	1/2

St. Lawrence Canals.

Sec. 15. The navigation is divided into four sections, viz., Cardinal, Cornwall, Beauharnois and Lachine. Tolls are to be levied on all vessels and property in proportion to the number of sections passed through.

Chambly Canal.

	Rate.
Sec. 16. Vessels and property passing from Sorel to Chambly, to pay	1/2
Vessels and property passing from Chambly to St. Johns, to pay	1/2

Ottawa Canals.

Sec. 17. The navigation is divided into three sections, viz., Grenville, Carillon and Ste. Ann's. Tolls are to be levied on all vessels and property in proportion to the number of sections passed through.

Rideau Canal.

Sec. 18. The navigation of this canal is divided into three sections, viz., Ottawa, Smith's Falls and Kingston Mills. Vessels and freight passing one section are to be charged one-third; two sections, two-thirds. O.C. April 18, 1873. Con. O.C. Oct. 26, 1889, secs. 77, 78, 79, 80 and 81.

Tay Canal to be part of the Rideau Canal and the following rates of tolls to be levied upon the said Tay Branch of the Rideau Canal system, viz. :—

Perth to Smith's Falls, 1 section, or one-third of Rideau Canal rates, each way.

Perth to Kingston, 2 sections, or two-thirds Rideau Canal rates, each way.

Perth to Ottawa Basin, 2 sections, or two-thirds Rideau Canal rates, each way.

Perth to River Ottawa, 3 sections, full Rideau Canal rates, each way. O.C. Sept. 27, 1890.

General.

Sec. 19. (a.) Any fraction of a ton freight is to be charged one ton, and portions of sections are to be charged as a whole section on all the above canals.

(b.) The passing of saw-logs or other lumber through any of the canals, or sections thereof, shall be at all times governed by the regulations for their management. O.C. April 18, 1873. Con. O.C. Oct. 26, 1889, sec. 82.

Sec. 20.—STANDARD FOR ESTIMATING WEIGHTS, FOR CANAL TOLLS.

	Tons.		Tons.
2,000 lbs. avoirdupois.	1	Stone, 12 cubic feet.	1
Per M. is per thousand feet		Stone, 1 cord.	7½
Per Mille is per thousand pieces.		Whisky, 4 barrels or 215 gallons.	1
Green fruit, 9 barrels are.	1	Empty barrels, 10.	1
Ashes, 3 barrels are.	1	Barrel hoops, 10 mille.	1
Bark, 4 cords.	1	Board and other sawed lumber, 600 feet board measure.	1
Beef, 7 barrels.	1	Boat knees, 4.	1
Biscuit and crackers, 9 barrels.	1	Firewood, 1 cord.	3
Bricks, common, 1,000.	2	Hop poles, 60 or cubic feet.	1
Butter, 22 kegs or 7 barrels.	1	Shingles, 12 M. or bundles.	1
Cattle, 3.	1	Split posts and fence rails, 1 mille.	1
Cement and water line, 7 barrels.	1	Staves and headings, pipe, 1 mille.	8
Fire-bricks, 1,000.	3	“ “ W. India, 1 mille.	4
Fish, 7 barrels.	1	“ “ barrel, 1 mille.	2½
Flour, 9 barrels.	1	“ “ salt barrel, 1 mille.	0½
Gypsum and manganese, 6 barrels.	1	Saw-logs, standard, 1.	0½
Horses, 2.	1	Square timber, 50 cubic feet.	1
Lard and tallow, 7 barrels or 22 kegs.	1	Telegraph poles, 10, or 40 cubic feet.	1
Liquors and spirits, 215 gallons.	1	Masts and spars, 40 cubic feet.	1
Liquors, all others, 215 gallons.	1	Railroad ties, 16, or 50 cubic feet.	1
Nuts, 9 barrels.	1	All other woodenware, or partly manufactured wood, 40 cubic feet as per tariff.	1
Oysters, 6 barrels.	1	Traverses, 40 cubic feet, or 5 pieces.	1
Pork, 7 barrels.	1	Floats, 50 lineal feet.	1
Salt, 7 barrels.	1		
Seeds, 9 barrels.	1		
Sheep, 20.	1		

NOTE.—By the Weights and Measures Act, chapter 104 of the Revised Statutes of Canada, section 14, all the following named articles are to be estimated by the cental of 100 lbs.

The weight equivalent to a bushel being as follows:—Wheat, 60 lbs.; Indian corn, 56 lbs.; rye, 56 lbs.; pease, 60 lbs.; barley, 48 lbs.; oats, 34 lbs.; beans, 60 lbs.; clover seed, 60 lbs.; timothy seed, 48 lbs.; buckwheat, 48 lbs.; flax seed, 50 lbs.; blue grass seed, 14 lbs.; hemp seed, 44 lbs.; malt, 36 lbs.; castor beans, 40 lbs.; potatoes, turnips, carrots, parsnips, beets and onions, 60 lbs.; bituminous coal, 70 lbs.

TOLLS AT SHEDS AT LACHINE CANAL BASIN.

Sec. 21. The following tolls shall be levied upon property stored at the sheds at the Lachine Canal Basin:—

		Cents.
Wheat and other grain, per week, per bushel.		1
Meal	do per barrel.	4
Pork, beef, butter and lard	do do	5
Muscovado sugar	do per hhd., 10 cents; per brl.	5
Liquors	{ do per pipe, 15 cents; per pun.	12
	{ do per hhd., 10 cents; per qr. cask.	7
Iron (bars)	do per ton.	24
Iron, pig	do do	12
Salt, except at the St. Gabriel sheds	do per 100 minots.	36
Salt at the St. Gabriel sheds, Montreal, after the first 48 hours	do per bag.	½
Bales, crates, cases, &c.	do per ton weight or measurement.	24
Coals	do per chaldron.	12

Sec. 22. (a.) No charge shall be made for property stored in the sheds of the Lachine Canal Basin for the first forty-eight hours, after which period, except in the case of flour, the foregoing rate of storage for the use of the sheds are to be raised, levied and collected.

(b.) Articles unenumerated are to be charged according to the above rates as nearly as the same can be computed.

(c.) All property stored in the sheds remaining after the first forty-eight hours will be liable to one week's storage, although it should only have been stored for a portion of the same, and so on for each succeeding week

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(d.) The labour of receiving property into the sheds and delivering the same shall be at the expense of and be furnished by the owners of the property or their agents.

(e.) All property stored in these sheds shall be at the risk of the proprietor from damage by fire or otherwise.

(f.) All dues for storage shall be paid before the removal of the property. O. C. August 21, 1846, October, 28, 1846. Con. O.C. Oct. 26, 1889, secs. 90 and 91.

Flour.

Sec. 23. (a.) Flour shall be allowed to remain in the sheds for two whole days free of charge.

(b.) If kept there beyond two days or 48 hours, such flour shall be liable to a charge of one cent per day per barrel for the first four days after the expiration of the 48 hours of the exemption.

(c.) Should the flour be kept in the sheds beyond four days at one cent per day per barrel, it shall be liable to pay two cents per day per barrel for every day subsequent to the expiration of such four days.

(d.) Any part of a day shall be considered as one day. O. C. May 31, 1856. Con. O.C. Oct. 26, 1889, sec. 92.

WHARFAGE DUES ON COAL FOR LOCAL CONSUMPTION IN MONTREAL.

Sec. 24. Coal for local consumption in Montreal, landed on canal property between Montreal Harbour and Côte St. Paul, from vessels other than sea-going, and entering the Lachine Canal from Montreal Harbour, shall be charged wharfage dues at the rate of five cents a ton.

Coal screenings shall be charged 3 cents a ton. Con. O.C. Oct. 26, 1889, sec. 93. O.C. May, 18, 1892.

CHARGES FOR WHARFAGE ON FIREWOOD ON WHARFS AND BANKS OF LACHINE CANAL.

Sec. 25. The following rates of tolls shall be collected as herein mentioned, that is to say :—

(a.) Firewood landed on wharfs or banks of the Lachine Canal, or in boats, barges or other craft occupying any of the basins between Wellington Street Bridge and Lock No. 3, four cents per cord, and for every day the wood is allowed to remain in either the canal or basin, or on the wharfs or banks after the first five days, an additional charge of four cents per cord. O. C. August 7, 1860. Con. O.C. Oct. 26, 1889, sec. 94.

(b.) The clause next preceding shall not only apply to the rates of toll to be collected on firewood on wharfs at Lachine and the Lachine Canal and basin, but are also extended and made applicable to the banks and grounds at Côte St. Paul and at Lachine. O. C. Jan. 27, 1862. Con. O.C. 1889, sec. 94.

CANAL BASINS IN MONTREAL PART OF MONTREAL HARBOUR.

Sec. 26. Whereas under existing regulations for the collection of canal tolls, eastern bound vessels having paid the charges one way in full through the Welland Canal are chargeable one Section Canal Toll if re-entering the Lachine Canal ;

And whereas vessels loaded with grain destined for the Montreal Harbour frequently unload only part of their cargoes on board sea-going vessels in that harbour, and re-enter the Lachine Canal for the purpose of unloading the balance of their cargoes either in elevators or mills located along the canal basins ;

It is ordered that the Lachine Canal basins, within the Montreal city limits, be considered as part of the Montreal Harbour, in so far only as regards the collection of tolls on the class of vessels above referred to, which re-enter that portion of the canal for the purpose of unloading the balance of their cargoes, but that the same shall not apply any further, as in the event of vessels returning to the harbour to take cargo, in which case the usual toll shall be charged against them on passing out of the canal a second time into the harbour. O. C. Aug. 8, 1878. Con. O.C. Oct. 26, 1889, sec. 95.

PHOSPHATES.

Sec. 27. Whereas vessels laden with grain for delivery in Montreal Harbour frequently carry also deck loads of phosphates, and being compelled to proceed at once to the harbour for the discharge of the grain, they pay tolls through to that point, subsequently re-entering the Lachine Canal for the storage of the phosphates, and in accordance with the existing regulations, paying canal dues a second time for such re-entry ;

It is ordered that the Lachine Canal basins, within the Montreal city limits, be considered as part of the Montreal Harbour, for the purpose of the unloading of phosphates carried by vessels in addition to their grain cargoes as described in this section ; it being, however, provided that in the event of their returning to the harbour to take cargo, the usual tolls shall be charged against such vessels on their passing out of the canal a second time. O. C. July 12, 1881. Con. O.C. Oct. 26, 1889, sec. 96.

WHARFAGE DUES IN ALL BASINS OF THE LACHINE CANALS ON SEA-GOING VESSELS.

Sec. 28. The Montreal Harbour Commissioners shall be allowed to retain the right of levying dues in respect of the old lower basin of the Lachine Canal, but the Government shall retain full control of the new works and basin of said canal and of the revenue that may be derived from their use.

All property delivered or received by sea-going vessels in the Lachine Canal basins at Montreal (except the old lower basin) shall be charged wharfage dues as follows :--

All goods, wares and merchandise not elsewhere specified.....	25 cents per ton.
Hay, straw, pig and scrap iron, pot and pearl ashes.....	20 do
Apples, crates and their contents, flour and meal, fish, meats, pitch, potatoes, tar, horses, neat cattle, sheep and swine.....	15 do
Ballast, clay, fire-bricks, gypsum, lime, marble, phosphate, sand, salt.....	10 do
Coal and coke, grain and seeds of all kinds.....	7½ do
Special—Bricks, 10 cents per 1,000 ; cordwood, 5 cents per cord ; lumber, 10 cents per 1,000 feet, board measure.	
Bullion specie.....	Free.
Coal screenings.....	3 do

Each entry shall pay not less than 5 cents.

All property landed on the canal wharfs for re-shipment, or transhipped in canal waters, shall pay one wharfage only.

Lumber upon which tolls have been paid for passage down the Lachine Canal, and which is re-shipped from the wharfs or vessels into sea-going vessels, shall pay wharfage dues equal to one section of canal tolls, viz., 3¾ cents per 1,000 feet board measure. O.C. Jan. 26, 1883. Con. O.C. Oct. 26, 1889, secs. 98, 99, 100 and 101. O.C. May 18, 1892.

Sec. 29.—Standard for Estimating Weights.

Ashes, pot or pearl.....	3 brls. to 1 ton.
Apples, flour, meal, potatoes.....	9 do 1 do
Fish, meat, pitch, tar.....	7 do 1 do
Horses.....	2 to 1 ton.
Neat cattle.....	3 to 1 do
Sheep.....	15 to 1 do
Swine.....	10 to 1 do

O. C. April 1, 1881. Con. O.C. Oct. 26, 1889, sec. 102.

TOLLS ON FLOATED TIMBER, ETC., ENTERING THE BASIN AT LACHINE.

Sec. 30. The following rates of tolls shall be collected on floated timber, lumber and firewood entering the basin at Lachine and Lachine Canal :—

Kinds of Timber.	For receiving Timber, &c., to include use of Basin and Wharf for one Month.	For each succeeding month during the Season of Navigation.	For Wintering in Basin or on Wharf.
	Cents.	Cents.	Cents.
Timber, square or round, of all kinds, above 12 x 12, per M cubic feet.....	25	20	35
Timber, round or flattened, of all kinds, under 12 x 12, per M lineal feet.....	20	15	30
Planks and boards to include all kinds of sawed lumber in rafts, per M feet, board measure.....	3	2	3
Saw-logs, 12 feet long, if longer in same proportion per log.....	1	½	2
Floats, per 100.....	10	5	10
Traverses, per 100.....	10	5	10
Fence posts and rails, per M.....	10	5	10
Staves, barrel, per M.....	8	4	8
do pipe do.....	8	4	8
do West India, per M.....	8	4	8
Firewood on bank of canal between Lock No. 3 and Lock No. 5, and also on wharfs in canal basin at Lachine.....	3	3	3

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Note.

Sec. 31. (a.) No allowance shall be made for fractional parts of a month or winter season.

(b.) The firewood shall be corded across the bank while being delivered from the boat in such manner and at such points as the superintending engineer may direct.

(c.) The rates on timber to take effect upon the completion of the booms in Lachine Canal. O. C. June 8, 1860. Con. O.C. Oct. 26, 1889, secs. 103 and 104.

CHARGES ON VESSELS WINTERING IN LACHINE CANAL.

Sec. 32. The following rate per ton shall be charged for wintering vessels in the Lachine Canal, viz. :—For each boat, barge, scow or other vessels of ten tons measurement or under, seventy cents per vessel for the entire winter, and every ten tons above the first ten, an additional rate of eight cents. O.C. Aug. 22, 1879. Con. O.C. Oct. 26, 1889, sec. 97.

CHARGES FOR WINTERING VESSELS IN RIDEAU CANAL.

Sec. 33. The winterage dues for vessels wintering in the canal basin, at Ottawa, or other points along the line of the Rideau Canal, shall be as follows :—

In canal basin, Ottawa, steamers per season.....	\$ 8 00
do do barges do	4 00
Inside locks do steamers do	50 00
do other stations do do	15 00

If the Minister of Railways and Canals deems it advisable, he is authorized to take security from parties wintering their vessels in locks against damage to Government property by fire. O. C. March 19, 1887. Con. O.C. Oct. 26, 1889, sec. 105.

CHARGES FOR WINTERING VESSELS IN THE OTTAWA RIVER CANALS AND LOCKS.

Sec. 34. The charge for vessels wintering on the Ottawa River canals and locks, and the same is hereby prescribed accordingly, namely :

In Carillon Canal, Steamers per season.....	\$ 8 00
Barges do	4 00
Grenville Canal, Steamers, for season.....	8 00
Barges do	4 00
Inside Locks, Ste. Anne, Carillon and Grenville Canals, Steamers, per season.....	25 00
Inside locks, Culbute Canal, per season.....	15 00

Such security against damage by fire to be taken by way of bond as, in the opinion of the Minister of Railways and Canals, may seem desirable. O.C. Oct. 14, 1892.

Sec. 35. No charges to be made for vessels wintering outside the locks of any government canal. O.C. Dec. 12, 1889.

CHARGES FOR REPAIRING VESSELS ON THE BANKS OF CANALS.

Sec. 36. (a.) Persons using the banks of the Lachine Canal as a site for the repair of their vessels shall be subject to a charge of four dollars, payable in advance, for each vessel ; the period during which such site may be occupied under any one payment being limited to six months, and permission for repairing being first obtained from the proper officer, in conformity with the existing canal regulations.

(b.) In the event of failure to remove vessels so occupying the banks at the expiration of the period named, no fresh permits having been obtained, such vessels may be sold under the 16th section of the canal regulations. O. C. March 5, 1880. Con. O.C. Oct. 26, 1889, sec. 106.

Sec. 37. Rules with respect to the repairing of vessels on the banks of the Lachine Canal, the Beauharnois and the Chambly :—

(a.) Repairs shall only be executed at such points as may be indicated and approved by the superintending engineer.

(b.) For each vessel hauled up or beached for repairs, a charge of one dollar, over and above all other charges, shall be made, carrying the privilege of remaining one month, a further sum of one dollar being charged for each additional month, or fraction of a month, the vessel may remain,

(c.) In cases, however, where a vessel hauled up for repairs upon the canal bank remains there throughout the winter, a charge of four dollars only shall be made (in addition to the ordinary winterage dues), the period covered being from the 1st of November to the 1st of June, inclusive.

(d.) Any vessel remaining on the canal bank after having wintered thereon shall be charged at the rate of one dollar a month or fraction of a month of her subsequent stay.

(e.) Any vessel remaining more than one year on the bank of the canal shall for such time as she may remain in excess of that period pay at the rate of two dollars a month or fraction of a month throughout the whole year.

(f.) All charges shall be payable at the collector's office in advance on the first day of each month.

(g.) These rules shall be understood as applying to all cases where the canal bank is used in any manner for the repairs of vessels, whether such vessels are actually hauled up or not. O. C. August 6, 1881. Con. O.C. Oct. 26, 1889, sec. 167.

DRY DOCK CHARGES.

Trent Valley Canal.

Sec. 38. The following tolls and dues shall be charged for the use of the dry dock at Bobcaygeon, and of any of the locks on the Trent Valley Canal, during the winter or other shorter period :—

For Vessels	Wintering.	Per day.	Per week.
Over 15 tons	\$30.00	\$4.00	\$12.00
15 tons and under	20.00	3.00	10.00

(O.C. Oct. 31, 1890.)

Rideau Canal.

Sec. 39. The following tariff of tolls and regulations shall be, and the same are hereby established for the use of the dry dock on the Rideau Canal at Ottawa :

(1) Steamers entering dock	\$ 8.00
Each day or portion of a day after day of entrance	2.50
(2) Barges entering dock	5.00
Each day or portion of a day after day of entrance	2.50
(3) Steam yachts or launches	5.00
Each day or portion of a day after day of entrance	2.50
(4) Boats wintering in the dry dock from the close to the opening of navigation.	50.00
For every day such boat remains in the dock after the opening of navigation.	8.00

(5) No vessel of any class shall be in the dock over six days after notice is given in writing by the lockmaster that the dock is required for another vessel unless a satisfactory agreement between all parties interested is arrived at.

(6) All entrance and discharge of vessels are covered by entrance fee.

(7) All drying off of vessels of all classes in the locks at Ottawa or Hartwell's during the season of navigation is prohibited unless for special reasons.

The owners of vessels of all classes to render the required assistance to open and close the gate under the supervision of the superintending engineer.

Vessel owners to supply all blocks, &c., to shove their boats up to make the necessary repairs, and all refuse to be properly cleared out to the entire satisfaction of the lockmaster before leaving the dock.

(O.C. Dec. 28, 1893.)

Sec. 40. The use of horses for towage purposes between the lower entrance of the Cornwall Canal and lock No. 20, be prohibited during the works of enlargement of that portion of the Cornwall Canal.

(O.C. Aug. 20, 1890.)

Sec. 41. As the prohibition of the use of horses for towing purposes, between the lower entrance of the Cornwall Canal and Lock No. 20 during the progress, of the works of canal enlargement, has entailed the use of tugs and consequently expenses to the parties concerned, that all tugs, used solely for the purposes of towing on the section in question, be permitted to pass free of toll, up and down the canal between the lower entrance of the canal and lock No. 20, until the completion of the enlargement of the works on that section. (O.C. Sept. 27, 1890.)

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SPECIAL RATES FOR SEASON OF 1895 ONLY.

Sec. 42. For season of 1895 the canal tolls for the passage of the following food products :-- Wheat, indian corn, pease, rye, oats, flax seed and buckwheat, for passage eastward through the Welland Canal be ten cents per ton ; and for passage eastward through the St. Lawrence Canals only, ten cents per ton ; payment of the said tolls of ten cents per ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals. O.C. April 1st, 1895.

Sec. 43. That for the current season of navigation of 1895, only in the case of steamers specially chartered for the conveyance of excursion parties going and returning the same day, a reduction amounting to one-half of the usual passenger tolls, be allowed for passage through the government canals. O.C. June 29th, 1895.

Department of Railways and Canals.

PART VI

RAILWAY STATISTICS

Department of Railways and Canals.

RAILWAY STATISTICS

OF THE

DOMINION OF CANADA

For the year ended 30th June, 1896

Compiled by Mr. Thomas Ridout, C.E., from sworn Returns furnished by the several Railway Companies.

COLLINGWOOD SCHREIBER,

Deputy Minister and Chief Engineer of Railways and Canals.

TABLE showing the growth of the Railways from year to year, since the opening of the first line in 1836.

Year.	Miles in Operation.	Year.	Miles in Operation.
1835	0	1866	2,278
1836	16	1867	2,278
1837	16	1868	2,278
1838	16	1869	2,524
1839	16	1870	2,617
1840	16	1871	2,695
1841	16	1872	2,899
1842	16	1873	3,613
1843	16	1874	3,832
1844	16	1875	4,331
1845	16	1876	4,804
1846	16	1877	5,218
1847	54	1878	5,782
1848	54	1879	6,126
1849	54	1880	6,858
1850	66	1881	7,194
1851	159	1882	7,331
1852	205	1883	8,697
1853	506	1884	9,577
1854	764	1885	10,273
1855	877	1886	10,773
1856	1,414	1887	11,793
1857	1,444	1888	12,184
1858	1,863	1889	12,585
1859	1,994	1890	13,151
1860	2,065	1891	13,838
1861	2,146	1892	14,564
1862	2,189	1893	15,006
1863	2,189	1894	15,627
1864	2,189	1895	15,977
1865	2,240	1896	16,270

Summary statement for year ended 30th June, 1896 :—

Miles of railway completed (track laid).....	16,387
do sidings.....	2,106
do iron rails in main line.....	250
do steel do.....	16,137
do do do double track.....	537
Capital paid (including the four following items).....	\$899,817,900
Government (Dominion and Provincial) bonuses paid.....	*\$157,600,100
do do loans paid.....	\$21,569,149
do (Provincial only) subscription to shares paid.....	\$300,000
Municipal aid paid.....	\$14,494,757
Miles in operation.....	16,270
Earnings.....	\$50,545,569
Working expenses.....	\$35,042,655
Net earnings.....	\$15,502,914
Passengers carried.....	14,810,407
Freight carried (tons).....	24,266,825
Train mileage.....	44,500,602
Passengers killed.....	11
Number of elevators.....	72
do guarded level crossings—public roads.....	166
do unguarded do do.....	11,000
do overhead bridges.....	413
do level crossings of other railways.....	235
do junctions with other railways.....	326
do do branch lines.....	235
do engines owned.....	1,980
do do hired.....	64
do sleeper and parlour cars owned.....	178
do do do hired.....	26
do first class cars owned.....	998
do do hired.....	44
do second class and immigrant cars owned.....	646
do do do hired.....	2
do baggage, mail and express cars owned.....	†625
do do do hired.....	25
do cattle and box freight cars owned.....	‡35,302
do do do hired.....	1,489
do platform cars owned.....	15,192
do do hired.....	401
do coal and dump cars owned.....	4,810
do do do hired.....	2

*In explanation of the fact that the total of bonuses shown as paid up to the 30th June, 1896, is less than the total for the previous year, notwithstanding the payment during the year of additional bonuses, it has to be noted that the sum of \$2,394,000, interest on which had been allowed the province of Quebec as an annual subsidy on account of the railway between Ottawa and Quebec (the capital not being paid) has now, as is shown by the public accounts, been treated as a liability, and placed as an item of the public debt. (See public accounts 1895-96, page X.) It consequently now disappears from the list of paid bonuses.

†Conductors' vans transferred this year from this item to that of box cars.

‡Comprising 34,138 box freight cars, 244 refrigerator cars, 845 conductors' vans and 75 tool cars.

Department of Railways and Canals.

NOMINAL Capital Paid, up to 30th June, 1896.

	Miles constructed.	Amount.	Per Mile.	Remarks.
		\$ cts.	\$ cts.	
Ordinary share capital.....	16,387	255,807,476 19	15,610 39	
Preference do.....	16,387	105,267,864 39	6,423 86	
Bonded debt.....	16,387	336,137,600 83	20,512 45	
Aid from Dominion Government.....	16,387	149,413,302 92	9,117 79	
do Ontario do.....	6,524	6,932,388 24	1,062 60	} Equal to an aver-Equal to an average of \$884.53 per mile on total mileage.
do Quebec do.....	3,220	14,522,898 86	4,510 21	
do New Brunswick Government.....	1,407	4,450,488 90	3,163 10	
do Nova Scotia do.....	914	1,487,108 53	1,627 03	
do Prince Edward Island Government.....	211			
do Manitoba Government.....	1,470	2,625,561 77	1,786 09	
do British Columbia Government.....	869	37,500 00	43 15	
do North-west Territories Government.....	1,772			
do Municipalities in Ontario.....	6,524	10,803,253 37	1,655 92	
do do Quebec.....	3,220	2,544,218 62	790 13	
do do New Brunswick.....	1,407	336,500 00	239 16	
do do Nova Scotia.....	914	177,685 00	194 40	
do do Prince Edward Island.....	211			
do do Manitoba.....	1,470	595,600 00	405 17	
do do British Columbia.....	869	37,500 00	43 15	
do do North-west Territories.....	1,772			
Capital from other sources.....	16,387	8,640,952 15	527 30	
Total paid Capital.....	16,387	899,817,899 77	54,910 47	

GOVERNMENT and Municipal Loans, Bonuses, &c., promised to Railways completed and under construction up to 30th June, 1896: -

Dominion Government.....	\$ 154,109,974 72
Ontario do.....	7,332,538 24
Quebec do.....	16,131,963 58
New Brunswick Government.....	4,469,729 90
Nova Scotia do.....	2,376,116 53
Manitoba do.....	2,626,611 77
British Columbia do.....	37,500 00
Municipalities in Ontario.....	11,331,642 78
do Quebec.....	4,309,074 00
do New Brunswick.....	356,500 00
do Nova Scotia.....	261,685 00
do Manitoba.....	595,600 00
do British Columbia.....	37,500 00
do North-west Territories.....	25,000 00
Total.....	\$ 204,001,435 52

FATAL ACCIDENTS for year ended 30th June, 1896.

	Passengers Killed.	Employees Killed.	Others Killed.	Total Killed.
Falling from cars or engines.....	6	12	5	23
Getting on or off trains in motion.....	4	6	9	19
At work making up trains.....				
Putting heads or arms out of windows.....		1		1
Coupling cars.....		14		14
Collisions and derailments.....		2		2
Striking bridges.....				
Walking or being on track.....	1	6	68	75
Explosions.....				
Other causes.....		5	22	27
Total.....	11	46	104	161

LAND GRANTS made by Governments to Railways, completed and under construction up to 30th June, 1896.

Name of Railway.	Government.	Acres Granted.	Acres Sold.	Amount Realized.
				\$
Alberta Railway and Coal Co.....	Dominion.....	320,000	} 834,048	1,101,733
North-west Coal and Navigation Co.....	do.....	708,400		
Calgary and Edmonton.....	do.....	2,176,000		
Canadian Pacific.....	do.....	26,772,800		
do.....	do.....		1,481,046	*
do.....	do.....		3,790,213	11,792,134
do.....	do.....		†6,793,014	10,189,521
		†Town sites (other than land grants) net proceeds		1,128,000
Great North-west Central.....	do.....	2,880,000	Nil	Nil
Manitoba and North-western.....	do.....	2,726,400	} 584,412	953,911
Saskatchewan and Western.....	do.....	96,000		
Manitoba South-western Colonization.....	do.....	1,377,280	259,719	1,174,607
Manitoba and South-eastern.....	do.....	704,000	Nil	Nil
Q'Appelle, Long Lake and Saskatchewan ..	do.....	2,220,800	{ 128,000	121,600
Winnipeg Great Northern.....	do.....	8,480,000			998,230
Wood Mountain and Qu'Appelle.....	do.....	1,536,000	Nil	Nil
Yarmouth and Annapolis.....	Nova Scotia.....	150,000		
Columbia and Kootenay.....	British Columbia.....	200,000	Town sites and land..	69,305
Esquimalt and Nanaimo.....	do.....	1,900,000	262,070	820,544
Nelson and Fort Sheppard.....	do.....	614,400	Nil	Nil
Kaslo and Slocan.....	do.....	198,240	160	400

* Again after efforts to obtain a statement of the amounts realized from the sale of these lands, the companies have failed to give the information—the return, therefore, in this respect is incomplete.

† Transferred back to the government at \$1.50 per acre.

‡ Outside of the grant of 26,772,800 acres.

Department of Railways and Canals

TABLE showing Location of the Railways of the Dominion of Canada, 30th June, 1896.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Alberta Railway and Coal Co.	From Lethbridge in District of Alberta, N.W.T., to Coutts, on International boundary, 3' gauge. The portion from Dunmore to Lethbridge 109½ miles was changed to 4'-8½" gauge and leased to Can. Pac. Ry., 29th Nov., 1893.	64	62
Albert Southern	Harvey Branch Junction to Alna, N.B.	16	00
Baie des Chaleurs	Metapedia Station on C.P.R. to Caplin	80	00
Bay of Quinté Railway and Navigation Co.	Deseronto, on Bay of Quinté, Lake Ontario to Deseronto Junction, Grand Trunk Railway	4	00
Berlin and Waterloo (electric)	Berlin to Waterloo	2	75
Buctouche and Moncton	Moncton, on Intercolonial Railway, to Buctouche, N.B.	32	00
Brockville, Westport and Sault Ste. Marie	Brockville to Westport, Ont.	45	00
Calgary and Edmonton	Calgary to Edmonton.	190	97
	do McLeod, District of Alberta.	104	10
Canada Atlantic	City of Ottawa to Junction with Grand Trunk at Lacolle. Crosses the St. Lawrence at Coteau by bridge. Connects with Grand Trunk Railway at Coteau and Lacolle	295	07
Central Counties	From Glen Robertson, on Canada Atlantic, to Hawkesbury, Ont.	21	00
	South Indian, on Canada Atlantic, to Rockland	17	00
Canada Southern	Main Line—Windsor, Ont., to Suspension Bridge	226	18
	Amherstburg Branch—Essex Centre to Amherstburg	16	83
	St. Clair Branch—St. Clair Junction to Courtright	62	63
	Fort Erie Branch—Fort Erie to Welland Junction	17	50
	Erie and Niagara Branch—Old Fort Erie to Niagara	30	60
	Oil Springs Branch—Oil Springs to Oil City	5	50
Leased	Sarnia, Chatham and Erie—Oil City to Petrolia	7	00
do	Leamington and St. Clair—Comber to Leamington	15	95
Canada Eastern	Late Northern and Western of New Brunswick—Gibson, opposite City of Fredericton to Chatham Junction, I.C.R.	107	00
	Chatham Junction to Chatham and Logieville via Nelson	20	00
	Blackville to Indiantown.	9	00
Canadian Pacific :		136	00
Owned	Main Line—Callander to Vancouver	2,560	90
(Canada Central)	do Ottawa to Callander	223	60
(Que., Mont., Ottawa & Occid.)	do Montreal to Ottawa	120	30
(do North Shore)	do Quebec to St. Martin's Junction	159	80
	Branches—Piles Junction to Grand Piles	26	90
	do Berthier Junction to Berthier	2	00
	do Joliette Junction to St. Félix	16	80
	do Ste. Thérèse Junction to St. Jérôme	13	60
	do do to St. Eustache	6	00
	do St. Lin Junction to St. Lin	15	00
	do Buckingham to Buckingham Village	4	20
	do Hull to Aylmer	7	50
Brockville & Ottawa Railway	do Carleton Jct. to Brockville	45	00
	do Sudbury to Sault Ste. Marie	182	50
	do Sudbury to Copper Mines	5	60
	do Winnipeg Junction to Emerson	64	80
	do Winnipeg Junction to Manitou	101	10
	do Rosenfeldt to Gretna	14	00
	do Winnipeg to West Selkirk	22	50
	do Air Line Junction to Stonewall	18	20
	do Kemnay to Estevan	156	20
	do Glenboro' to Souris	45	20
	do Deloraine to Napinka	18	10

TABLE showing Location of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Canadian Pacific—Continued.	Branches—Menteith Junction to Reston.	31 50	
	do North Portal to Pasqua.	160 50	
	do New Westminster Junction to New Westminster.	8 20	
Lake Temiscamingue Colonization	do Mattawa to Kippewa.	45 80	
	do Mission Junction to Mission.	10 10	
	do Revelstoke to Arrow Head.	27 80	
	do Vancouver to Coal Harbour.	1 20	
	do Three Forks to Sandon.	4 20	
	Total mileage owned.	4,119 10	
Leased lines.	Atlantic and North-west (in Canada)—		
	South end Lachine Bridge to Maine boundary, Que.	182 50	
	Renfrew to Eganville, Ont.	22 50	
	St. Lawrence and Ottawa—		205 00
	Ottawa to Prescott, Ont.	51 80	
	Chaudière Junction to Sussex St., Ottawa.	6 60	
	Ontario and Quebec—		58 40
	Mile End Junction to South End Lachine Bridge.	9 10	
	Montreal, Windsor St., to Toronto.	339 00	
	London to Windsor.	112 50	
	Toronto Junction to Strachan Avenue.	3 20	
	Leaside Junction to Union Station Toronto.	5 20	
	Credit Valley—		469 00
	Toronto Junction to St. Thomas.	116 10	
	Streetsville Junction to Melville Junction.	31 70	
	Cataract to Elora.	27 30	
	West Ontario Pacific—London to Woodstock.	175 10	
	Toronto, Grey and Bruce—		26 60
	Toronto Junction to Owen Sound.	116 90	
	Orangeville Junction to Teeswater.	69 40	
	Glenannan to Wingham.	5 00	
	Guelph Junction—		191 30
	Guelph Junction on Credit Valley Ry. to Guelph.	15 00	
	Montreal and Western—		70 00
	St. Jérôme to Labelle.		
	Montreal and Lake Maskinongé—		12 90
	St. Félix to St. Gabriel de Brandon.		
	Montreal and Ottawa—		23 60
	Vaudreuil to Point Fortune.		
	New Brunswick System (in Canada)—		
	Vanceboro' to McAdam Junction.	6 30	
	McAdam Junction to St. John.	83 80	
	Fairville to Carleton.	4 00	
	Fredericton Junction to Fredericton.	22 10	
	McAdam Junction to St. Stephen.	33 90	
	Watt do St. Andrew's.	27 50	
	McAdam do Woodstock.	51 80	
	Debec do Maine boundary.	5 00	
	Woodstock to Maine boundary.	59 40	
	Newbury Junction to Fredericton.	58 40	
	Aroostock do Edmunston.	57 20	
			409 40

Department of Railways and Canals

TABLE showing Location of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Canadian Pacific—Continued.			
Leased lines	Manitoba South-western Colonization—		
	Manitou to Deloraine.....	100 40	
	Winnipeg to Glenboro.....	102 40	
	Elm Creek to Carnian.....	12 40	
			215 20
	Columbia and Kootenay—		
	Nelson to Robson.....	27 70	
	Mouth of Kootenay River.....	0 80	
			28 50
	Shuswap and Okanagan—		
	From Junction with C.P.R. at Sicamous to Lake Okanagan.....		51 00
	Nakusp and Slocan—		
	Nakusp on Arrow Lake to Three Forks of Carpenter's Creek, B.C.....		36 90
	Alberta Railway—		
	Dunmore to Lethbridge, N. W. T.....		109 50
	Total mileage leased.....		2,097 40
	do owned.....		4,119 10
	do in Can. Pac. system.....		6,216 50
Canadian Government Railways..			
	Intercolonial—		
	Halifax to Lévis.....	675 00	
	Moncton to St. John.....	89 00	
	Truro to Trenton.....	44 00	
	New Glasgow to Mulgrave.....	82 00	
	Stellarton to Pictou.....	14 00	
	Trenton to Pictou Landing.....	7 00	
	Pt. Tupper to Sydney.....	91 00	
	North Sydney Junction to North Sydney.....	5 00	
	Branch Pt. du Chêne to Painsec Junction.....	11 00	
	do Dalhousie.....	7 00	
	do St. Charles.....	25 00	
	do Windsor Junction to Dartmouth.....	14 50	
	do Indiantown.....	14 00	
	do Oxford Junction to Brown's Pt.....	67 00	
	do Pugwash.....	5 00	
			1,150 50
	Prince Edward Island—		
	Main Line—Alberton to Charlottetown.....	105 30	
	Royalty Junction to Georgetown.....	41 00	
	Branch—Mount Stewart to Souris.....	38 40	
	do Alberton to Tignish.....	13 30	
	do Emerald to Cape Traverse.....	12 00	
			210 00
			1,360 50
Caraquet.....	From Gloucester Junction, Intercolonial Railway, 5 miles south of Bathurst Station, easterly along the south shore of Baie des Chaleurs to Shippigan Harbour, N. B.....		68 00
Carillon and Grenville.....	Carillon to Grenville, Que., connecting at both termini with Ottawa River Navigation Company's steamers (Gauge, 5 ft. 6 in.).....		13 00
Central Ontario.....	From Pictou, in Prince Edward County, Ont., to Coe Hill Iron Mines, Wollaston, County of Hastings; connects with Grand Trunk at Trenton, Midland Railway, 2 miles west of Stirling, and with Ontario and Quebec, in Township of Rawdon.....		104 00
Central Railway of New Brunswick.....	From Norton Station, on the Intercolonial Railway, to Chipman.....	45 00	
	From Hampton to Quaco (formerly St. Martin's and Upham Railway).....	30 00	
			75 00

TABLE showing Location of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Coast Line, Nova Scotia.....	Yarmouth to Lockeport, 98 miles, of which 13·75 miles have rails laid.....		13·75
Cumberland Railway and Coal Company (formerly Spring Hill and Parrsboro').....	Spring Hill Junction, Intercolonial Railway, to Spring Hill Coal Mines, N. S., and Parrsboro', on the Bay of Fundy.....	32·00	
	Spring Hill and Oxford Branch, from Spring Hill Mines to Oxford Village on the Oxford and New Glasgow Branch, I. C. R.....	14·00	46·00
Dominion Atlantic, comprising Windsor and Annapolis, Yarmouth and Annapolis and Cornwallis Valley and lease of Windsor Branch of Intercolonial.....	Windsor to Annapolis, N.S.....	84·00	
	Annapolis to Yarmouth.....	87·00	
	Branches—		
	Wilmot to Forbrook.....	3·50	
	From Kentville to Kingsport, on Basin of Minas (formerly Cornwallis Valley Railway).....	14·00	
	Windsor Branch of I. C. R.—Windsor to Windsor Junc., Intercolonial Railway, 14 miles from Halifax.....	32·00	220·50
Drummond County.....	Ste. Rosalie, Que., junction with Grand Trunk Railway, to St. Leonard, thence to Moose Park towards Chaudière.....	72·97	
	St. Leonard to Nicolet and Ball's Wharf, on the St. Lawrence.....	17·06	
	Mitchell to Burrill's Mill.....	50	90·53
Elgin and Havelock.....	From Elgin, County of Albert, N. B., to Petitcodiac Junction with Intercolonial Railway; thence to Havelock in County of King's.....		27·00
Erie and Huron.....	Rondeau, Lake Erie, Ont., to Sarnia, passing through the town of Chatham, Ont., connects with Canada Southern and Grand Trunk and Lake Erie and Detroit River Railways.....		76·75
Esquimalt and Nanaimo.....	Victoria to Wellington, Island of Vancouver.....		78·00
Fredericton and St. Mary's Railway Bridge.....	Over the St. John River, connecting the Fredericton Railway, at Fredericton, with the New Brunswick Railway and Canada Eastern Railway at St. Mary's.....		1·33
Grand Trunk (owned)—			
Main Line.....	From Point Edward to Point Lévis and Boundary Line, Vermont.....	719·33	
	From Niagara Falls to Windsor.....	229·32	948·65
Branches.....	Connections at Toronto with G. W. and N., and N. W. Montreal to Dorval.....	4·75	10·12
	Sarina Extension—Point Edward to Sarina.....	3·13	
	Montreal Landing to Wharfs.....	0·83	
	Arthabaska to Doucet's Landing, (Three Rivers Branch).....	35·34	
	Kingston—Main Line to Kingston City.....	2·25	
	Waterloo and Berlin to Galt.....	14·85	
	St. Mary's to London.....	22·00	
	St. Lambert to Boundary Line, N. Y., and St. Isidore to Province Line.....	65·50	
	Blackwell to St. Clair Tunnel.....	5·00	
	Port Dover to Warton, Durham and Port Rowan.....	189·75	
	Brosseaus to Dundee and Valleyfield.....	81·14	
	Jacques Cartier to Canadian Pacific Junction.....	6·54	
	Waterloo to Elmira.....	10·17	
	Belleville to Midland.....	163·96	

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TABLE showing Location of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Grand Trunk— Branches—Con.	Lindsay to Scarboro' Junction.....	60 35	
	do Haliburton.....	54 20	
	Whitby to Manilla.....	33 73	
	Lakefield Junction to Lakefield.....	11 66	
	North Hastings Junction to Eldorado.....	22 21	
	Blackwater to Cobocok.....	36 35	
	Port Hope to Onemee.....	32 05	
	Millbrook to Peterboro'.....	12 35	
	Stouffville to Lake Simcoe.....	26 46	
	Peterboro' to Chemong Lake.....	8 22	
	Coldwater to end of track.....	1 50	
	Connection, Merritton.....	0 17	
	do Stony Creek.....	2 08	
	Loop Gages (N. and N. W. Divn.).....	0 48	
	Hamilton to Toronto.....	36 64	
	Loop Junction Cut Branch.....	0 36	
	Connection, Burlington East.....	0 13	
	do do West.....	0 21	
	Harrisburg to Guelph.....	27 18	
	Connection do (W. G. and B.).....	0 11	
	Harrisburg to Brantford.....	7 76	
	Brantford Branch Junction with G. T.....	0 13	
	Komoka to Sarnia.....	50 85	
	Wyoming to Petrolia.....	4 71	
	Fort Erie to Glencoe.....	145 55	
	Connection, Welland Junction, East.....	0 26	
	do do West.....	0 50	
	do Canfield Junction.....	0 19	
	do Simcoe (G. B. & L. E.).....	0 24	
	East Y, St. Thomas.....	0 32	
	Allanburg to Clifton Junction.....	8 33	
	Port Colborne to Port Dalhousie.....	25 14	
	Glencoe to Kingscourt Junction.....	21 04	
	Guelph to Southampton.....	101 26	
	Palmerston to Kincardine.....	66 67	
	do connection.....	0 20	
	Hyde Park to Wingham Junction.....	68 88	
	Connection, Clinton Junction.....	0 13	
	Brantford Loop Line.....	34 78	
	Toronto Belt Line, Swansea to Carleton.....	4 37	
	do do Don to Fairbank Junction.....	8 33	
	Toronto to Gravenhurst.....	111 60	
	Allandale to Collingwood.....	31 76	
	Hamilton to Allandale.....	93 82	
	do to Port Dover.....	40 25	
	Collingwood to Meaford.....	20 50	
	Elmvale to Hillsdale.....	8 28	
	Beeton Junction to Collingwood.....	39 83	
	Gravenhurst to Nipissing Junction with C. P. R.....	111 37	
	Colwell to Penetanguishene.....	33 34	
Park Head to Owen Sound.....	12 42		
Cobourg to Harwood.....	15 00		
		2,049 58	
	Total owned.....		2,998 23
	Leased and partly owned— Buffalo and Lake Huron, Fort Erie to Goderich.....	162 00	
	Leased or rented— Wharf Branch, Montreal.....	1 75	
			163 75
	Total miles in Grand Trunk system.....		3,161 98

TABLE showing Location of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
St. Clair Tunnel and approaches.	Under the St. Clair River, between Sarnia and Port Huron—connecting the Grand Trunk Railway with railroads in State of Michigan. (Length of tunnel between portals 6,000 ft., cylindrical in section with clear inside diameter of 19 ft. 10 inches)		2·23
Great Eastern.....	Constructed from junction with South-eastern Railway at Yamaska to River St. Francis.....	6·00	
	Constructed from Nicolet to Junction with Grand Trunk Railway at St. Grégoire.....	7·00	13·00
Great Northern.....	From St. Jérôme to Moncalm.....	28·00	
	From junction with Lower Laurentian Railway westward to Ste. Flore.....	10·00	38·00
Great North-west Central.....	From junction with C.P.R. at Chater, westward to Hamiota.....		50·93
Hamilton, Grimsby and Beamsville (electric).....	Hamilton to Grimsby.....		17·00
Harvey Branch.....	Albert o Harvey Bank, N.B.....		3·00
Hereford.....	From International Boundary to Dudswell, County Wolfe connects with Canadian Pacific Railway at Cookshire, Maine Central at Intercolonial boundary, and with Quebec Central at Dudswell.....	48·50	
	Dudswell to Lime Quarries (Dominion Lime Company).....	4·80	53·30
Irondale, Bancroft and Ottawa..	From junction with Grand Trunk Railway, near Kinmount Station, to Baptiste Lake.....		45·00
Joggins, now Canada Coals and Railway Co.....	Maccan Station, I.C.R., to Joggins Mine.....		12·00
Kaslo and Slocan.....	From Kaslow to Sadon.....	28·80	
	From Junction to Cody.....	3·00	31·80
Kent Northern.....	Richibucto, N.B., to Intercolonial Railway.....	27·00	
St. Louis and Richibucto.....	Richibucto to St. Louis.....	7·00	34·00
Kingston and Pembroke.....	Main Line—Kingston to Renfrew.....	108·10	
	Glendower Branch—Bedford to Zanesville Mine.....	4·00	
	Robertsville Branch—To Robertsville Mines.....	1·00	
	Branches—To Doran's Mills, Charcoal Works, McLaren's Mills, Bethlehem Mines, Lavant Mills, Clyde Forks Mills, Wilson's Mine, Caldwell's Mills, William's Mine, Cameron's Bay.....	4·75	
	(Connects with Grand Trunk at Kingston, Canadian Pacific at Sharbot Lake and at Renfrew.)		112·85
Kingston, Napanee and Western.	Late Napanee, Tamworth and Quebec:—		
	Napanee to Tamworth.....	28·50	
	Yarker to Harrowsmith.....	7·00	
	Tamworth to Tweed.....	20·95	
	Harrowsmith to Sydenham.....	4·37	60·82
Lotbinière and Mégantic.....	Lyster Station, Grand Trunk, to Ste. Philomène.....		23·34
L'Assomption.....	L'Épiphanie Station, C.P.R. to L'Assomption..		3·00
Lake Erie, Essex and Detroit River.....	From Walkerville, Ont., to Ridgetown.....	84·05	
	Branch—Foster's to Decew's Mills.....	4·00	88·05
London and Port Stanley.....	London to Port Stanley on Lake Erie.....		23·75
Lower Laurentian (formerly St. Lawrence, Lower Laurentian and Saguenaw).....	From St. Tite, on C.P.R., to Rivière à Pierre, on Quebec and Lake St. John Railway.....		39·50

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TABLE showing Location of Railways, &c.—*Continued.*

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Manitoba and North-western . . .	Portage la Prairie to Yorkton	223·05	
	Shell River Branch—Binscarth to Russell	11·45	
	Leased—Saskatchewan and Western—Minnedosa to Rapid City	15·47	
			249·97
Manitoba and South-eastern	From Winnipeg south-easterly to west side of Lake of the Woods; 8 miles under construction		
Montfort Colonization	From junction from Montreal and Western near St. Sauveur to Montfort, and westward		21·00
Massawippi Valley	From Lennoxville to Vermont boundary, there connecting with Connecticut and Passumpsic Rivers Railway; also connects with Grand Trunk and C. P. R. at Lennoxville	32·00	
	Branch—Stanstead Junction to Stanstead	2·00	
			34·00
Montreal and Vermont Junction	From Junction with Stanstead, Shefford and Chambly Railway, 24 miles east of St. Johns, P. Q., to Junction with Vermont and Canada Railway, at Vermont boundary; also connects at Stanbridge with Lake Champlain and St. Lawrence Junction Railway		23·60
Montreal, Portland and Boston, now Montreal and Province Line	Junction with Grand Trunk at St. Lambert to Farnham	32·00	
	Marieville to St. Césaire	8·60	
			40·60
Montreal and Atlantic (formerly South-eastern)	Main Line—West Farnham to Richford on International Boundary	33·80	
	Northern Division—Sutton Junction to Sorel	95·50	
	Between Newport and Richford—Part of Line in Canada	10·80	
		140·10	
	Leased—Lake Champlain and St. Lawrence Junction—Stanbridge to St. Guillaume	61·40	
			201·50
	(Connects with Connecticut and Passumpsic, Grand Trunk and Stanstead, Shefford and Chambly Rys.)		
Montreal Park and Island (electric)	City of Montreal and Suburbs		14·43
Nelson and Fort Sheppard	From West Arm of Kootenay Lake, near Nelson, to Fort Sheppard on International boundary, B. C.		59·40
New Glasgow Iron, Coal and Railway Company, now Nova Scotia Steel Co.	From Ferrona Junction, I. C. R., to Sunny Brae		12·50
New Brunswick and Prince Edward Island	From Sackville Station, Intercolonial Railway, to Cape Tormentine		36·00
Niagara Falls Park and River Electric Railway	Queenston to Chippewa		13·68
Northern Pacific and Manitoba	Winnipeg to International boundary	65·94	
	Portage Junction to Portage la Prairie	52·52	
	Morris to Brandon	145·42	
	Connection with C. P. R. at Winnipeg	1·24	
			265·12
Nosbonsing and Nipissing	From Lake Nosbonsing to Lake Nipissing		5·50
Nova Scotia Central	From Middleton on the Windsor and Annapolis Railway to town of Lunenburg, on the Atlantic coast, N. S.		74·00
Nova Scotia Southern	Shelburne to New Germany, 10 miles under construction		
Ontario, Belmont and Northern	From Junction with Central Ontario Ry. to Iron Mines in Township of Belmont—10 miles under construction		
Orford Mountain	Eastman, on C. P. R., to Kingsbury, Que.		26·50
Oshawa Electric Railway	From Port Oshawa, Lake Ontario to Grand Trunk Ry. Stations and through town of Oshawa		8·50

TABLE showing Location of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Ottawa and Gatineau.....	Canadian Pacific Railway Junction at Hull, Que., to Gracefield.....		56·50
Ottawa, Arnprior and Parry Sound.....	Ottawa to Cache Lake.....		164·00
Ottawa Valley.....	Lachute, on C. P. R., to St. Andrews on Ottawa River.....		7·00
Parry Sound Colonization.....	From Scotia, on Northern and Pacific Junction Railway to Rose Point, Parry Sound.....		48·00
Philipsburg.....	Standbridge Station of Canadian Pacific and Central Vermont Railways, to Philipsburg, Mississquoi Co.....		6·75
Pontiac and Renfrew.....	From Wyman's Station, on Pontiac Pacific Junction Railway, to Bristol Iron Mines, County Pontiac, Que.....		4·25
Pontiac Pacific Junction.....	From Junction with Canadian Pacific Railway at Aylmer, Que., to Waltham.....		71·00
Port Arthur, Duluth and Western.....	Port Arthur to Gunflint, Lake on Minnesota boundary (Connects with the C. P. R. at Port Arthur and Fort William.).....		85·50
Qu'Appelle, Long Lake and Saskatchewan.....	From Canadian Pacific Railway at Regina, North-westerly to Long Lake and Prince Albert.....		253·96
Quebec and Lake St. John.....	Quebec to Roberval.....	191·00	
Quebec Central.....	Chambord Junction to Chicoutimi.....	51·00	
	Main Line—Sherbrooke to Harlaka Junction, Inter-colonial Railway, 5 miles from Lévis, Que.....	137·50	
	Chaudière Branch, Beauce Junction to St. Francis... ..	15·00	
	Angus Branch—East Angus to Angus Mills.....	1·00	
	Tring Mégantic—Tring Junction to Mégantic.....	60·00	
	(Connects with Grand Trunk, Canadian Pacific and Boston and Maine Rys. at Sherbrooke.).....		213·50
Quebec, Montmorency and Charlevoix.....	Hedleyville, Parish of St. Roch, Quebec, to Cap Tourmente.....		30·00
Stanstead, Shefford and Chambly.....	From Junction with Montreal and Vermont Junction Railway, near St. Johns, Que., easterly to Waterloo.....		43·00
Shore Line (formerly Grand Southern).....	St. John to St. Stephen, N.B.....		82·50
Stewiacke Valley and Lansdowne.....	Graham's Siding, Intercolonial Railway, to Upper Stewiacke, thence to Lansdowne (10 miles under construction).....		
St. Catharines and Niagara Central.....	St. Catharines, Ont., to Niagara Falls.....		12·35
St. John Bridge and Railway Extension.....	From St. John to Fairville, crosses St. John River at the Falls by a cantilever steel bridge, and connects Intercolonial Railway with New Brunswick Railway, C.P.R., included in Canadian Pacific System.....		2·00
St. John Valley and Rivière du Loup.....	From Fredericton, N.B., to Woodstock, N.B. (6 miles under construction).....		
Salisbury and Harvey (formerly Albert Railway).....	Salisbury to Albert, N.B.....	45·00	
St. Lawrence and Adirondack.....	From Junction with Canada Atlantic near Valleyfield to Intercolonial Boundary.....		19·80
St. Stephen and Milltown.....	St. Stephen to Milltown, N.B.....	4·14	
	Branch.....	50	
			4·64
South Shore (formerly Montreal and Sorel).....	From Junction with Grand Trunk at St. Lambert to Sorel, West.....		44·67
Sydney and Louisbourg (Dominion Coal Co).....	Sydney Harbour to Louisbourg Harbour.....	39·15	
	Branches to coal Mines.....	26·75	
			65·90
Thousand Islands.....	Gananoque on St. Lawrence River to Gananoque Station, G.T.R.....		4·33

Department of Railways and Canals.

TABLE showing Location of Railways, &c.—*Concluded.*

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Témiscouata	Rivière du Loup, Que., on Intercolonial, to Edmundston, N.B., on the New Brunswick Railway..... Branch—Edmundston to Connors, on St. John River.	81·00 32·00	113·00
Tilsonburg, Lake Erie and Pacific Tobique Valley	From Port Burwell on Lake Erie to Tilsonburg..... Perth Junction with C.P.R. to Plaster Rock.....	..... .....	16·00 28·00
Toronto, Hamilton and Buffalo, including Brantford, Waterloo and Lake Erie	Waterford Junction with Canada Southern Railway to West Brantford..... West Brantford to City of Hamilton	17 00 25·66	.....
	Hamilton to Welland Junction..... Branch—Chantler to Ridgeville.....	37·16 4·01	83·83
United Counties	Iberville Junction with Canadian Pacific Railway to St. Hyacinthe, thence to St. Robert Junction with Montreal and Atlantic, 4½ miles from Sorel.....	.....	61·00
Victoria and Sidney.....	City of Victoria to Sidney, Vancouver Island.....	.....	16·26
Winnipeg and Hudson Bay, now Winnipeg Great Northern.....	Winnipeg to Port Nelson on Hudson Bay..... (Constructed 40 miles, Winnipeg to St. Laurent on Lake Manitoba) .....	..... .....	40·00
Wood Mountain and Qu'Appelle.	From Canadian Pacific Railway, near Qu'Appelle Station, to Fort Qu'Appelle, thence north-easterly (17 miles under construction.)	.....	.....

Department of Railways and Canals

SUMMARY STATEMENTS

**RELATING TO MILEAGE, CHARACTERISTICS OF ROADS, ROLLING
STOCK, OPERATIONS, PASSENGERS AND FREIGHT CAR-
RIED, EARNINGS, OPERATING EXPENSES
AND ACCIDENTS.**

No. 2.—SUMMARY STATEMENT of Characteristics of

Number.	Name of Railway.	Length of Line.				Length of Siding.	Weight per Yard.	
		Completed (Rails laid.)	Under construc- tion.	Iron Rails.	Steel Rails.		Iron Rails.	Steel Rails.
		Miles.	Miles.	Miles.	Miles.				Miles.	Lbs.	Lbs.
1	Alberta Railway and Coal Co.	64.62			64.62	4.00		30 to 56
2	Alberta Southern	16.00			19.00	.48		56
	Harvey Branch	3.00						
3	Atlantic & Lake Superior, comprising—							
	Baie des Chaleurs	80.00						
	Great Eastern	13.00						
	Ottawa Valley	7.00						
4	Bay of Quinté Railway and Navigation Co.	4.00			64.82	7.00		50 & 56
	Kingston, Napanee & Western	60.82						
5	Berlin and Waterloo (electric)	2.75			2.75	.37		60
6	Brockville, Westport & Sault St. Marie	45.00			45.00	1.80		56
7	Buctouche and Moncton	32.00			32.00	.2		56
8	Calgary and Edmonton	295.07			295.07	9.38		56
9	Canada Atlantic	138.00			176.00	51.00		56 & 72
	Central Counties	38.00						
10	Canada Eastern	136.00			136.00	6.50		56½ to 60
11	Canada Southern	382.19			382.19	161.27		606.580
	Canadian Government Railways—							
12	Intercolonial	1150.50			1150.50	157.25		56 to 67
13	Prince Edward Island	210.00		83.50	126.50	16.00	38	50 & 52
14	Canadian Pacific Railway	4,119.10						
	Leased Lines—							
	Atlantic and North-west.	205.00						
	Columbia and Kootenay	28.50						
	Credit Valley	175.10						
	Manitoba South-western Colonization	215.20						
	Toronto, Grey and Bruce	191.30						
	Ontario and Quebec	469.00						
	Western Ontario Pacific	26.60						
	St. Lawrence and Ottawa	58.40						
	Fredericton	22.40						
	New Brunswick	175.00			6216.50	660.03		50 to 72
	New Brunswick and Canada	118.00						
	St. John Bridge and Railway Extension	2.00						
	St. John and Maine	92.00						
	Alberta Railway (Dunmore to Lethbridge)	109.50						
	Nakusp and Slocan	36.90						
	Shuswap and Okanagan	51.00						
	Montreal and Ottawa	23.60						
	Montreal and Western	70.00						
	Montreal and Lake Maskinongé	12.90						
	Guelph Junction	15.00						
	*Lake Temiscamingue Colonization		1.40					
15	Caraguet	68.00			68.00	3.25		50
16	Carillon and Grenville	13.00		13.00		.25	65	
17	Coast Line, Nova Scotia	13.75	25.00		13.75	.75		56
18	Cobourg Northumberland and Pacific		50.00					56
19	Central Ontario	104.00			104.00			42 & 56
20	Central of New Brunswick	75.00			75.00	2.50		50 & 56
21	Cumberland Railway and Coal Co. (including Springhill and Oxford Branch, 14 miles)	46.00			46.00	10.00		57

a 95.21 miles of double track. b 1.50 miles double track. c 14.20 miles double track.

*The 45.8 miles completed of Lake Temiscamingue Colonization Ry. is included in lines owned by Canadian Pacific Ry. Co.

Department of Railways and Canals.

Roads, &c, for the Year ended 30th June, 1896.

Number of Ties per Mile.	Nature of Rail Fastenings.	Number of Grain Elevators.		No. of Level crossings	No. of Overhead Bridges.		Height of Overhead Bridges above rail level.	No. Level Crossings of Other Railways.	No. of Junctions with other Railways.	No. of Junctions with branch lines.	Radius of Sharpest Curve.	Number of Feet per Mile of heaviest gradient.		Gauge of Railway.	
		Guarded.	Not Guarded.		Feet.	Number.						Feet.	Number.		
2640	Plain fishplates		2					2			573	53	3 00	1	
2640	Plain fishplates.		11					2			955	120	4 8½	2	
2640	Fishplates and bolts		34	3	22			4			717	67	4 8½	3	
3000	Plain and angle fishplates		39					12	4		400	90	4 8½	4	
2348	Angle bars and fishplates		16					2			482	160	4 8½	5	
2640	Fisher bridge joint		3						2		717	58	4 8½	6	
2640	Plain fishplates		16					1			955	74	4 8½	7	
2600	Angles and plain fishplates		148						2		1146	53	4 8½	8	
3000 & 2640	Plain fishplates	6	134	3	22	6	4	2			955	53	4 8½	9	
2640	Plain and angle fishplates	1	35			1	4	1			955	80	4 8½	10	
3000	Joint splice 4 and 6 bolts nut locks	6	416	21	22	15	9	10			913	75	4 8½	11	
2640	Angles and fishplates	9	429	29	18 to 35	6	24	21			694	65	4 8½	12	
2640	Plain and angle fishplates		960	2	17½						396	90	3 6	13	
2140 to 3168	Plain and angle fishplates	10	333447	61	18 to 24	51	66	61			319	237	4 8½	14	
2600	Plain fishplates		12					1			1000	60	4 8½	15	
1760	Chairs	1	8	1	17						1910	100	5 6	16	
2640	Angle bars		15					1			955	79	4 8½	17	
2640	Plain fishplates		94			3	4				955	105	4 8½	18	
2640	Plain fishplates		40						2		716	74	4 8½	20	
2640	Plain and angle fishplates		13					1			820	160	4 8½	21	

No. 2.—SUMMARY STATEMENT of Characteristics of

Number.	Name of Railway.	Length of Line.				Length of Siding.	Weight per Yard.	
		Completed (Rails laid.)	Under construc- tion.	Iron Rails.	Steel Rails.		Iron Rails.	Steel Rails.
		Miles.	Miles.	Miles.	Miles.				Miles.	Lbs.	Lbs.
22	Dominion Atlantic, comprising— Windsor and Annapolis..... 87 50 Cornwallis Valley 14 00 Yarmouth and Annapolis. 87 00 Windsor Branch, Intercolonial 32 00	220 50		16 50	204 00	10 50	67	56 to 60
23	Drummond County.....	90 53			90 53	5 00		56 & 60
24	Elgin and Havelock.....	27 00			27 00	2 00		56
25	Erie and Huron.....	76 75			76 75	4 80		54 & 56
26	Esquimaux and Nanaimo.....	78 00			78 00	2 00		50 & 54
27	Fredericton and St. Mary's Railway and Bridge Co.....	1 33		1 33		12		56
28	dGrand Trunk..... 884 25 Great Western..... 561 80 Brantford, Norfolk and Port Burwell..... 34 78 Buffalo and Lake Huron... 162 00 Grand Trunk, Georgian Bay and Lake Erie..... 172 75 Owen Sound Branch..... 12 42 London, Huron and Bruce Waterloo Junction..... 69 01 Waterloo Junction..... 10 25 South Norfolk..... 17 00 Wellington, Grey and Bruce..... 168 13 Northern..... 172 10 North Simcoe..... 33 34 Hamilton and North- western..... 173 90 Northern and Pacific Junc- tion..... 111 37 Toronto Belt Line..... 12 70 Midland..... 166 78 Grand Junction..... 85 40 Toronto and Nipissing..... 85 00 Lake Simcoe Junction..... 26 50 Victoria..... 53 25 Whitby, Port Perry and Lindsay..... 46 50 Cobourg, Blairton and Marmora..... 15 00 Jacques Cartier Union..... 6 50 Montreal and Chaplain Junction..... 61 75 Beauharnois Junction..... 19 50	3,161 98		36 78	3,125 20	677 25	56 to 65	56 to 80
29	Great Northern.....	38 00	10 00		38 00	2 50		56
30	Great North-west Central.....	50 93			50 93	1 99		56
31	Hamilton, Grimsby and Beamsville (electric).....	17 00			17 00	1 00		50 & 70
32	Hereford.....	53 30			53 30			56
33	Iroindale, Bancroft and Ottawa.....	45 00			45 00	2 50		56
34	Joggins, now Canada Coals and Ry. Co.....	12 00			12 00	2 00		56
35	Kaslo and Slovan.....	31 80	1 00		31 80	1 60		45
36	Kent Northern, including St. Louis and Richibucto.....	34 00		3 50	30 50	3 00	67	56
37	Kingston and Pembroke.....	112 85		9 75	103 10	21 00	50 to 84	56
38	L'Assomption.....	3 00			3 00	25		56
39	Lake Erie and Detroit River... 88 05 London and Port Stanley... 23 75	111 80			111 80	14 00		56 65

d 404 58 miles of double track.

Department of Railways and Canals.

Roads, &c., for the Year ended 30th June, 1896—Continued.

Number of Ties per Mile.	Nature of Rail Fastenings.	Number of Grain Elevators.		No. of Level crossings	No. of Overhead Bridges.	Height of Overhead Bridges above rail level.	No. Level Crossings of Other Railways.	No. of Junctions with Other Railways.	No. of Junctions with branch lines.	Radius of Sharpest Curve.	Number of Feet per Mile of heaviest gradient.	Gauge of Railway.	Number.
		Guarded.	Not Guarded.										
						Feet.				Ft.		Ft.	
2640	Plain and angle plates	1	109	2	22	3	2	637	79	4' 8½"	22		
2640	Plain and angle fishplates		46			2	4	717	69	4' 8½"	23		
2000	Plain fishplates		24			1	1	717	90	4' 8½"	24		
2640	Plain fishplates		111			5	6	661	52	4' 8½"	25		
2992	Angle fishplates		15	2	23			573	80	4' 8½"	26		
2564	Angle fishplates	6					2	1433	50	4' 8½"	27		
2640	Plain and angle fishplates	11	83	2736	238	156 to 28' 8"	65	71	164	1100 6600	53	4' 8½" c105	28
2640	Angle and fishplates			24			1	2		22½2	53	4' 8½"	29
2640	Plain fishplates	7		24				1		955	60	4' 8½"	30
2112	Strap and angle plates			16			1	3		50	4	4' 8½"	31
2800	Plain fishplates			28			2	1		955	66	4' 8½"	32
2640	Plain fishplates			14						1000	60	4' 8½"	33
3000	Plain fishplates			7						955	79	4' 8½"	34
2640	Angle fishplates			4						193	171	3' 0"	35
2432	Angle fishplates			10			1	1		1000	60	4' 8½"	36
2640	Plain and angle fishplates			56	3	16 & 21½	6	6		955	79	4' 8½"	37
2500	Plain fishplates			1						955	20	4' 8½"	38
2700 } 2600 }	Plain and angle fishplates	3	155	10	19'	6"	9	10		1433	53	4' 8½"	39
										716			

c branch lines.

No. 2.—SUMMARY STATEMENT of Characteristics of

Number.	Name of Railway.	Length of Line.				Length of Siding.	Weight per Yard.	
		Completed (Rails laid.)	Under construc- tion.	Iron Rails.	Steel Rails.		Iron Rails.	Steel Rails.
		Miles.	Miles.	Miles.	Miles.				Lbs.	Lbs.
40	Lotbinière and Megantic	23 34	7 00		23 34	50		56
41	Manitoba and North-western	234 50						
	Saskatchewan and Western	15 47			249 97	23 52		56
42	Manitoba and South-eastern		8 00					
43	Massawippi Valley	34 00			34 00	2 50		50 & 60
44	Montford Colonization	21 00			21 00	20		56
45	Montreal and Atlantic, formerly South-eastern	140 10						
	Lake Champlain and St. Lawrence Junction	61 40		13 90	187 60	31 80		56 to 72
46	Montreal Park and Island (Electric)	14 43	13 00		14 43	98		56
47	Montreal and Vermont Junction	23 60			23 60	2 00		60 to 72
48	Montreal, Portland and Boston (now Montreal and Province Line)	40 60		8 60	32 00	1 40	38	56
49	Nelson and Fort Sheppard	59 40			59 40	2 30		56
50	New Brunswick and Prince Edward Island	36 00			36 00	1 50		56
51	Niagara Falls Park and River (Elec- tric)	13 68			13 68	89		56
52	Northern Pacific and Manitoba	265 12			265 12	30 78		56
53	Nosbonsing and Nipissing	5 50			5 50	1 25		56
54	Nova Scotia Central	74 00			74 00	2 50		56
55	Nova Scotia Southern		10 00					
56	Nova Scotia Steel Co., formerly New Glasgow Iron Coal and Ry. Co.	12 50			12 50	3 00		56
57	Ontario, Belmont and Northern		10 00					
58	Orford Mountain	26 50			26 50	1 00		56
59	Oshawa Electric Railway	8 50			8 50			64
60	Ottawa, Arnprior and Parry Sound	164 00	46 00		164 00	13 00		72
61	Ottawa and Gatineau	56 50			56 50	2 00		56
62	Parry Sound Colonization	48 00			48 00	5 00		56 & 72
63	Philipsburg Ry. and Quarry Co.	6 75			6 75			56
64	* Pontiac and Renfrew	4 25			4 25	75		56
65	Pontiac Pacific Junction	71 00			71 00	3 50		56
66	Port Arthur, Duluth and Western	85 50			85 50	4 00		56
67	Qu'Appelle, Long Lake & Saskatchewan	253 96			253 96	6 86		56
68	Quebec Central	213 50			213 50	20 50		56 & 70
69	Quebec and Lake St. John	242 00			281 50	17 00		56 & 60
	Lower Laurentian	39 50						
70	Quebec, Montmorency and Charlevoix	30 00			50 00	2 00		56
71	Salisbury and Harvey	45 00		41 00	4 00	4 25	60	56
72	Shore Line, New Brunswick	82 50			82 50	2 50		50
73	Stanstead, Shefford and Chambly	43 00		12 00	31 00	2 00	60	60
74	St. Catharines and Niagara Central	12 35			12 35	1 00		56
75	St. Clair Tunnel Yard and Approach	2 23			2 23	11 00		100
76	St. John Valley and Rivière du Loup		6 00					
77	St. Lawrence and Adirondack	19 80	13 00		19 80	7 10		56 to 80
78	St. Stephen and Milltown	4 64			4 64	25		56
79	Stewiacke Valley and Lansdowne		10 00					
80	Sydney & Louisbourg (Dominion Coal Co)	65 90		10 13	55 77	28 00	50	56 & 8
81	South Shore (formerly Montreal & Sorel)	44 67			44 67	2 00		56
82	Temiscouata	113 00			113 00	5 00		56
83	Tilsonburg, Lake Erie and Pacific	16 00			16 00	1 25		56
84	Thousand Islands	4 33			4 33			5
85	Tobique Valley	28 00			28 00			56

f 7.60 miles of double track. g 11 43 miles of double track. * Not in operation. h Length of Tunnel 6000 feet, inside diameter, 19 ft. 10 in.

Department of Railways and Canals.

Roads, &c., for the Year ended 30th June, 1896.—Continued.

No. of Ties per Mile.	Nature of Rail Fastenings.	Number of Grain Elevators.		No. of Level crossings.	No. of Overhead Bridges.	Height of Overhead Bridges above rail level.	No. Level Crossings of other Railways.	No. of Junctions with other Railways.	No. of Junctions with branch lines.	Radius of Sharpest Curve.	Number of Feet per Mile of heaviest gradient.	Gauge of Railway.	Number.
		Guarded.	Not Guarded.										
2600	Plain fishplates		1					1		819	52 4 8 ¹ / ₂	40	
2700	Plain and angle fishplates	26	180					2	2	955	105 4 8 ¹ / ₂	41	
2800	Plain fishplates		1	20	1	19	1	2	1	478	76 4 8 ¹ / ₂	42	
2620	Plain fishplates			14	1	20				573	168 3	44	
2640	Fishplates and angle bars		163		2	1'96"	8	9	2	520	83 4 8 ¹ / ₂	45	
2640	Plain and angle fishplates		1	13			1	3		40	291 4 8 ¹ / ₂	46	
3000	Plain fishplates and bolts			51				3			52 4 8 ¹ / ₂	47	
3000	Plain fishplates and chairs			21			3	1	2		4 8 ¹ / ₂	48	
2640	Angle bars							1		473	132 4 8 ¹ / ₂	49	
2400	Plain fishplates		26					1		750	66 4 8 ¹ / ₂	50	
2640	Angle bars		1	16	2	14 & 22		2	1	115	300 4 8 ¹ / ₂	51	
2600	Angle bars	17	1	258			6	2	3	573	63 4 8 ¹ / ₂	52	
2800	Plain fishplates			1			1	1		955	132 4 8 ¹ / ₂	53	
2640	Angle bars			23	1	21			1	819	50 4 8 ¹ / ₂	54	
													55
2640	Angle bars		5					1	1	955	79 4 8 ¹ / ₂	56	
								1		716	80 4 8 ¹ / ₂	57	
2640	Plain fishplates		67					1		955	74 4 8 ¹ / ₂	58	
2640	Angle bars		28				1	1		80	211 4 8 ¹ / ₂	59	
2640	Angle bars		3	44	7	12	2	2		955	66 4 8 ¹ / ₂	60	
2640	Plain fishplates			44				1		573	106 4 8 ¹ / ₂	61	
3000	Angle bars		1	10				1		955	66 4 8 ¹ / ₂	62	
2640	Plain fishplates			3				1	1	955	52 4 8 ¹ / ₂	63	
2640	Plain fishplates							1		717	106 4 8 ¹ / ₂	64	
2640	Angle bars		52					1		1146	53 4 8 ¹ / ₂	65	
2640	Plain fishplates		5				3	1		573	95 4 8 ¹ / ₂	66	
2600	Angle bars		51					1		1146	65 4 8 ¹ / ₂	67	
2640	Fish and angle bars		115				2	7	2	882	76 4 8 ¹ / ₂	68	
2640	Plain and angle fishplates	1	2	85				4	2	717	105 4 8 ¹ / ₂	69	
2640	Plain fishplates		1	10				1		1433	42 4 8 ¹ / ₂	70	
2600	Plain fishplates			30	1	15		1		717	80 4 8 ¹ / ₂	71	
2992	Plain fishplates			15	5	23	3	3		573	85 4 8 ¹ / ₂	72	
2640	Plain fishplates			42	1	18	3	4		717	60 4 8 ¹ / ₂	73	
2640	Plain fishplates			20	3	22	2	2		717	79 4 8 ¹ / ₂	74	
	Angle bars										105 4 8 ¹ / ₂	75	
													76
3000	Angle bars		26	1	21' 6"		2	3		1146	57 4 8 ¹ / ₂	77	
	Fishplates		13				1	2		714	79 4 8 ¹ / ₂	78	
													79
2640	Angle bars		26	2		18		1	7	1433	70 4 8 ¹ / ₂	80	
2640	Plain fishplates		15					1		2292	53 4 8 ¹ / ₂	81	
2640	Plain and angle fishplates		38				1	2	1	819	79 4 8 ¹ / ₂	82	
2640	Angle bars		14	1	21			1		717	53 4 8 ¹ / ₂	83	
3000	Angle bars		8							660	84 4 8 ¹ / ₂	84	
2600	Plain fishplates		23	1	22' 6"			1		717	80 4 8 ¹ / ₂	85	

No. 2.—SUMMARY STATEMENT of Characteristics of

Number.	Name of Railway.	Length of Line.				Length of Siding.	Weight per Yard.	
		Completed (Rails laid.)	Under construc- tion.	Iron Rails.	Steel Rails.		Iron Rails.	Steel Rails.
		Miles.	Miles.	Miles.	Miles.		Miles.	Lbs.
86	Toronto, Hamilton and Buffalo (including Brantford, Waterloo and Lake Erie) ..	83·83	.....	.....	83·83	7·13	.....	56, 70, 80
87	United Counties	61·00	.....	.....	61·00	4·50	.....	56
88	Victoria and Sydney	16·26	.....	.....	16·26	1·20	.....	50
89	Winnipeg Great Northern (formerly Winnipeg and Hudson Bay)	40·00	.....	.....	40·00	2·00	.....	56
90	Wood Mountain and Qu'Appelle .....	.....	17·00	.....	.....	.....	.....	.....
		16,387·08	242·40	249·99	16,137·09	2,106·27	.....	.....

i 2½ miles double track.

Department of Railways and Canals

Roads, &c., for the Year ended 30th June, 1896—*Concluded.*

No. of Ties per Mile.	Nature of Rail Fastenings.	No. of Grain Elevators.		No. of Level crossings	No. of Overhead Bridges.	Height of Overhead Bridges above rail level.	No. Level Crossings of other Railways.	No. of Junctions with other Railways.	No. of Junctions with branch lines.	Radius of Sharpest Curve.	Number of Feet per Mile of heaviest gradient.	Gauge of Railway.	Number.
		Guarded.	Not Guarded.										
3000	Plain and angle fishplates	6	121	9	21	1	4	1	955	80	4	8 1/2	86
2640	Plain fishplates	50	13			4	5		717	52	4	8 1/2	87
2464	Plain fishplates	6					1		637	105	4	8 1/2	88
2640	Plain fishplates		6						2865	31	4	8 1/2	89
	.....												90
		72	166	11000	413		235	326	235				

No. 3.—SUMMARY STATEMENT of the different descriptions of

Number.	Name of Railway.	Length of Line.		Number of En- gines.		Number of Sleep- ing Cars.		Number of Palace or Drawing Room Cars.	
		Com- pleted.	Under Con- struc- tion.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.
		Miles.	Miles.						
1	Alberta Railway and Coal Co....	64	62	12				1	
2	Albert Southern.....	16	00	1					
	Harvey Branch.....	3	00						
3	Atlantic and Lake Superior comprising—								
	Baie des chaleurs.....	80	00						
	Great Eastern.....	13	00						
	Ottawa.....	7	00						
4	Bay of Quinté Railway and Navigation Co.	4	00						
	Kingston, Napanee and Western.....	60	82	3	2				
5	Berlin and Waterloo (Electric).....	2	75						
6	Brockville, Westport and Sault Ste. Marie.....	45	00	3					
7	Buctouche and Moncton.....	32	00	2					
8	Calgary and Edmonton.....	295	07						
9	Canada Atlantic.....	138	00	23	5			*2	2
	Central Counties.....	38	00						
10	Canada Eastern.....	136	00	9					
11	Canada Southern.....	382	19	129	6	†26		3	
	Canadian Government Railways—								
12	Intercolonial.....	1,150	50	204		15		5	
13	Prince Edward Island.....	210	00	21				1	
14	Canadian Pacific Railway.....	4119	10						
	Leased lines—								
	Atlantic and North-west.....	205	00						
	Columbia and Kootenay.....	28	50						
	Credit Valley.....	175	10						
	Manitoba South-western Colonization.....	215	20						
	Toronto, Grey and Bruce.....	191	30						
	Ontario and Quebec.....	469	00						
	Western Ontario Pacific.....	26	60						
	St. Lawrence and Ottawa.....	58	40						
	Fredericton.....	22	40						
	New Brunswick.....	175	00	6,216	50	584	10	84	*40
	New Brunswick and Canada.....	118	00						
	St. John Bridge and Railway Extension.....	2	00						
	St. John and Maine.....	92	00						
	Alberta Ry. (Donmore to Lethbridge)..	109	50						
	Nakusp and Slocan.....	36	90						
	Shuswap and Okanagan.....	51	00						
	Montreal and Ottawa.....	23	60						
	Montreal and Western.....	70	00						
	Montreal and Lake Maskinonge.....	12	90						
	Guelph Junction.....	15	00						
	Lake Temiscamingue Colonization.....				1	40			
15	Caraquet.....	68	00	2					
16	Carillon and Grenville.....	13	00	3					
17	Coast Line, N.S.....	13	75	2					
18	Cobourg, Northumberland and Pacific.....				25	00			
					50	00			
19	Central Ontario.....	104	00	8					
20	Central of New Brunswick.....	75	00	3	2				
21	Cumberland Ry. & Coal Co., including Springhill and Oxford Branch, 14 miles.....	46	00	8					

Department of Railways and Canals

Rolling Stock, for the Year ended 30th June, 1896.

Number of First Class Cars.		Number of Second Class and Emigrant Cars.		Number of Baggage, Mail and Express Cars.		Number of Cattle and Box Freight Cars.		Number of Platform Cars.		Number of Hopper and Dumping Cars.		Remarks.
Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	
3		1				*32		8		247		1 *Including 6 conductors vans and 1 tool car.
1						1		7	1			2 6 Iron water tank cars owned by Co., 3 snow ploughs, 1 flanger.
1		2		2		8		50				3 1 snow plough, 1 flanger.
2	2	2			3	1	*17	15	77	12		4 { *Including 3 conductors vans, also owned 1 snow plough and 2 flangers.
*7		1										5 *Including 3 motor cars.
1		1		1		20		17	7			6
2		1				6		29				7 1 snow plough.
												8 Rolling stock furnished by C. P. Ry.
6		5		5		‡471	1300	337		6		9 *Including 2 official cars. †1 tool car and 6 conductors vans.
5		2		2		*14		88				10 *Including 2 conductors vans, also owned 5 snow ploughs and 1 flanger.
41		21		30		2,113		280		‡89		11 ‡Including 40 oil tank cars and 5 boarding cars included in box. †Wagner sleeping and parlor cars passing through from other railways.
92		101		63		‡2,273		2,269		2,125		12 56 snow ploughs 21 flangers. ‡ Including 99 conductors vans.
15		13		7		‡178		125				13 ‡Including 3 conductors vans.
												14 *Including 15 dining cars, 10 parlor and 15 official and pay cars, also owned 82 snow ploughs and 44 flangers.
												‡Including 1 photograph, 3 observation, 1 exhibition, 1 street, 1 commissary, 1 school, 1 third class, 2 baggage, sleeper and passenger.
												§Including 182 refrigeration cars, 20 furniture, 4 charcoal, 6 oil tank cars.
+227		171		200		§11,354		3,987		90		Miscellaneous in construction and snow service not included in statement, 2 snow scrapers, 1 shovel car, 26 steam shovels, 19 derricks, 13 pile drivers, 2 auxiliary, 1 ballast plough, 1 rail saw, 36 dumps, 50 Rogers ballast, 19 boarding, 2 water, 1 store, 5 iron water tanks, 2 wrecking, 1 snow bank cutter, 1 steam hoist, making 182 miscellaneous.
1						2		15				15 1 snow plough.
3		2		1		2		2				16
3						2		5				17
												18
2		3		3		‡37		82				19 1 tool car, 1 snow plough, 1 flanger. ‡ Including 3 conductors vans.
3						4	2		20			20
2				2		2		28		286		21 1 snow plough and 1 flanger.

No. 3.—SUMMARY STATEMENT of the different descriptions of

Number.	Name of Railway.	Length of Line.		Number of Engines.		Number of Sleeping Cars.		Number of Palace or Drawing Room Cars.	
		Completed.	Under Construction.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.
		Miles.	Miles.						
22	Dominion Atlantic comprising Windsor and Annapolis.....	87 50							
	Cornwallis Valley.....	14 00							
	Yarmouth and Annapolis.....	87 00							
	Windsor Branch Intercolonial.....	32 50							
23	Drummond County.....	90 53		5					
24	Elgin and Havelock.....	27 00		2					
25	Erie and Huron.....	76 75		5					
26	Esquimalt and Nanaimo.....	78 00		5					
27	Fredericton and St. Mary's Railway and Bridge Co.....	1 33							
28	Grand Trunk.....	884 25							
	Great Western.....	561 80							
	Brantford, Norfolk and Port Burwell.....	34 78							
	Buffalo and Lake Huron.....	162 00							
	Grand Trunk, Georgian Bay & Lake Erie.....	172 75							
	Owen Sound Branch.....	12 42							
	London, Huron and Bruce.....	69 01							
	Waterloo Junction.....	10 25							
	South Norfolk.....	17 00							
	Wellington, Grey and Bruce.....	168 13							
	Northern.....	172 10							
	North Simcoe.....	33 34							
	Hamilton and North-western.....	173 90	3,161 98	722		4		9	
	Northern and Pacific Junction.....	111 37							
	Toronto Belt Line.....	12 70							
	Midland.....	166 78							
	Grand Junction.....	85 40							
	Toronto and Nipissing.....	85 00							
	Lake Simcoe Junction.....	26 50							
	Victoria.....	53 25							
	Whitby, Port Perry and Lindsay.....	46 50							
	Cobourg, Blairton and Marmora.....	15 00							
	Jacques Cartier Union.....	6 50							
	Montreal and Champlain Junction.....	61 75							
	Beauharnois Junction.....	19 50							
29	Great Northern.....	38 00	10 00		2				
30	Great North-west Central.....	50 93			1				
31	Hamilton, Grimsby and Beamsville (Electric).....	17 00							
32	Hereford.....	53 30			3				
33	Iroindale, Bancroft and Ottawa.....	45 00		3					
34	Joggins, now Canada Coal and Railway Co.....	12 00		2					
35	Kaslo and Slocan.....	31 80	1 00	2					
36	Kent Northern, including St. Louis and Richibucto.....	34 00		2	1				
37	Kingston and Pembroke.....	112 85		9					
38	L'Assomption.....	3 00		1					
39	Lake Erie and Detroit River.....	88 05							
	London and Port Stanley.....	23 75							
40	Lotbinière and Megantic.....	23 34	7 00	2					
41	Manitoba and North-western.....	234 50		4	5			1	
	Saskatchewan and Western.....	57 47							
42	Manitoba and South-eastern.....		8 00						
43	Massawippi Valley.....	34 00		7					
44	Montford Colonization.....	21 00		2					
45	Montreal and Atlantic, formerly South-eastern.....	140 10		8	2				
	Lake Champlain and St. Lawrence Junction.....	61 40							
46	Montreal Park and Island (Electric).....	14 43	13 00						
47	Montreal and Vermont Junction.....	23 60			9				
48	Montreal, Portland and Boston.....	40 60			2				
49	Nelson and Fort Sheppard.....	59 40		2					

Department of Railways and Canals

Rolling Stock, for the Year ended 30th June, 1896—*Continued.*

Number of First Class Cars.		Number of Second Class and Emigrant Cars.		Number of Baggage, Mail and Express Cars.		Number of Cattle and Box Freight Cars.		Number of Platform Cars.		Number of Hopper and Dumping Cars.		Remarks.
Owned.	Hired.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.	
15		10		11		\$140		195		22		22 2 snow ploughs and flangers, \$1 tool car included.
1		2		1		9		20				23 2 snow ploughs and 1 flanger.
1		1		1		1		8				24
9				4		28		15				25
10				3		†12		65		10		26 †Including 3 conductors vans.
												27
370		216		224		*17,006		5,292		1,225		28 *Including 55 refrigerator, 370 conductors vans, 64 tool cars, also owned 59 snow ploughs, 31 flangers.
	2			2								29 1 snow plough.
	2		2	2			*13		12			30 *Including 1 conductors van.
†9				4				10				31 †Electric motor cars—1 snow plough.
	2			1								32
						2		31				33
1		1				1						34 1 snow plough.
1						*16		5		5		35 2 snow ploughs, 2 flangers. *Including 1 caboose.
1				1		1		4				36 2 snow ploughs and 1 flanger.
5		5		5		22		150				37 2 snow ploughs and 2 scraper cars.
2				1								38
5		6		3		22		195				39
1		1		1				1				40 1 snow plough.
2	2	3		3	1	†59 †112		42	20			41 †Including 2 refrigerator cars, 4 boarding cars and 3 conductors vans.
												42
5				4		250						43
1				1				19				44 1 snow plough.
13		5		2		438		363				45
†12	†8								20			46 †Electric motor cars, also owned 2 snow ploughs.
	12			5								47
	4			1								48
2		1				2		20				49 1 flanger.

No. 3.—SUMMARY STATEMENT of the different descriptions of

Number.	Name of Railway.	Length of Line.		Number of Engines.		Number of Sleeping Cars.		Number of Palace or Drawing Room Cars.	
		Com-pleted.	Under Con-struction.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.
		Miles.	Miles.						
50	New Brunswick and Prince Edward Island.....	36 00		3					
51	Niagara Falls Park and River Electric Railway.....	13 68							
52	Northern Pacific and Manitoba.....	265 12		9				1	
53	Nosbonsing and Nipissing.....	5 50		1					
54	Nova Scotia Central.....	74 00		5					
55	Nova Scotia Southern.....		10 00						
56	Nova Scotia Steel Co., formerly New Glasgow Iron Coal and Railway Co.....	12 50		3					
57	Ontario, Belmont and Northern.....		10 00						
58	Orford Mountain.....	26 50			2				
59	Oshawa Electric Railway.....	8 50							
60	Ottawa, Arnprior and Parry Sound.....	164 00	46 00	4	8				
61	Ottawa and Gatineau.....	56 50		2	1				
62	Parry Sound Colonization.....	48 00		1	3				
63	Philipsburg Railway and Quarry Co.....	6 75		1					
64	Pontiac Pacific Junction.....	71 00		4					
65	Pontiac and Renfrew.....	4 25		1					
66	Port Arthur, Duluth and Western.....	85 50		4					
67	Qu'Appelle, Long Lake and Saskatchewan.....	253 96							
68	Quebec Central.....	213 50		13				2	
69	Quebec and Lake St. John.....	242 00	281 50	16		4			
	Lower Laurentian.....	39 50							
70	Quebec, Montmorency and Charlevoix.....	30 00		4					
71	Salisbury and Harvey.....	45 00		2					
72	Shore Line.....	82 50		5					
73	Stanstead, Shefford and Chambly.....	43 00		5					
74	St. Catharines and Niagara Central.....	12 35		1					
75	St. Clair Tunnel Yard and Approach.....	2 23		4					
76	St. John Valley and Rivière du Loup.....		6 00						
77	St. Lawrence and Adirondack.....	19 80	13 00	12					
78	St. Stephen and Milltown.....	4 64							
79	Stewiacke Valley and Lansdowne.....		10 00						
80	Sydney and Louisbourg (Dominion Coal Co.).....	65 90		19					
81	South Shore, formerly Montreal and Sorel.....	44 67		4					
82	Temiscouata.....	113 00		5				1	
83	Tilsonburg, Lake Erie and Pacific.....	16 00		1	1				
84	Thousand Islands.....	4 33		1					
85	Tobique Valley.....	28 00							
86	Toronto, Hamilton and Buffalo, formerly Brantford, Waterloo and Lake Erie.....	83 83		10					
87	United Counties.....	61 00		4	1				
88	Victoria and Sydney, B.C.....	16 26		2					
89	Winnipeg Great Northern, formerly Winnipeg and Hudson Bay.....	40 00							
90	Wood Mountain and Qu'Appelle.....		17 00						
		16,387 08	242 40	1982	64	109	26	69	2

Department of Railways and Canals

Rolling Stock, for the Year ended 30th June, 1896—*Concluded.*

Number of First Class Cars.		Number of Second Class and Emigrant Cars.		Number of Baggage, Mail and Express Cars.		Number of Cattle and Box Freight Cars.		Number of Platform Cars.		Number of Hopper and Dumping Cars.		Remarks.
Owned.	Hired.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.	
		1				2		33		50		1 snow plough.
*40				1				5		51		*Electric motor and trail cars.
3		5		3		†292		179		52		†Including 6 conductors vans and 1 boarding car.
								48		53		
		2		2		13		49		54		
										55		
1		1				2		15		†26		†Iron ore cars. 1 snow plough.
								2		57		
*5						1				58		
										59		*Including 1 motor car; 1 sweeper, 1 snow plough.
7		4		2		*22		100	67	60		2 snow ploughs and 1 flanger; * including 3 conductors vans.
2		9		1		†9		28		61		1 snow plough, 1 flanger; † including 1 conductors van.
2				2						32		
1				1						62		
1		1		1		5		52		63		
										64		1 snow plough and 1 flanger.
2				2		†14		80		65		
										66		†Including 4 conductors vans and 1 flanger owned.
										67		Road operated and rolling stock furnished by C.P.R.
8		8		5		*258		275		68		*Including 6 conductors vans and 1 tool car—5 snow ploughs.
6		10		10		*78		264		69		*Including 4 conductors vans and 1 tool car—6 snow ploughs, 1 flanger
4		18				5		23		70		1 snow plough.
1				1		†7		21		71		†Including 1 conductors van—1 snow plough 1 flanger.
5				3		7		61		72		1 snow plough and 1 flanger.
8				2						73		
1				1				2		74		
						†9				25		†Conductors vans.
										76		
		4				*6		61		77		*3 conductors vans and 3 tool cars.
										78		
										79		
2		3				†3		11		610		†Including 2 conductors vans—1 snow plough and 1 flanger.
3	1					2		50		81		
2		4		2		*49		54		82		†1 official car * including 7 refrigerator cars, 2 tool cars—4 snow ploughs, 2 flangers.
1	1			1		4			20	83		
				1				1		84		
										85		Rolling stock has been furnished by the Canadian Pacific Railway.
2	4	3		2	2	*4	17	36	96	86		*Including 2 conductors.
2				1		6		9		87		1 snow plough and 1 flanger.
1				1		3		15		88		
										89		
										90		
998	41	646	2	625	25	*35	302	1489	15,192	401	4,810	2

* Including 244 refrigerator cars, 75 tool cars, 845 conductors vans.

No. 4.—SUMMARY STATEMENT of the Operations of the Year

Number.	Name of Railway.	Mileage.	TRAIN MILEAGE.			
			Passenger Trains.	Freight Trains.	Mixed Trains.	Total Train Mileage.
1	Alberta Railway and Coal Co.	64·62			30,048	30,048
2	Albert Southern	19·00			5,600	5,600
3	Atlantic and Lake Superior, comprising— Baie des Chaleurs	80·00			12,800	12,800
	Great Eastern					
	Ottawa Valley					
4	Bay of Quinté Ry. & Navigation Co. 4·00 } Kingston, Napanee & Western. 60·82 }	64·82			131,182	131,182
5	Berlin and Waterloo (Electric)	2·75	66,000			66,000
6	Brockville, Westport and Sault Ste. Marie	45·00	1,000	1,150	27,675	29,825
7	Buctouche and Moncton	32·00			20,672	20,672
8	Calgary and Edmonton	295·07			69,061	69,061
9	Canada Atlantic	138·00				
	Central Counties	38·00				
10	Canada Eastern	136·00	91,688	77,750	43,118	212,556
11	Canada Southern	382·19	1,124,011	2,036,081	153,372	3,313,464
	Canadian Government Railways—					
12	Intercolonial	1,150·50	1,304,657	2,537,845		3,842,502
13	Prince Edward Island	210·00	85,276	154,158		239,434
14	Canadian Pacific Railway	4,119·10				
	Leased Lines—					
	Atlantic and North-west ..	205·00				
	Ontario and Quebec	469·00				
	Credit Valley	175·10				
	West Ontario Pacific	26·60				
	Toronto, Grey and Bruce ..	191·30				
	Guelph Junction	15·09				
	St. Lawrence and Ottawa ..	58·40				
	Montreal and Ottawa	23·60				
	Montreal and Western	66·90				
	Montreal and Lake Maski- nongé	11·00				
	New Brunswick	175·00				
	New Brunswick and Canada	118·00				
	St. John and Maine	92·00				
	St. John Bridge and Rail- way Extension	2·00				
	Fredericton	22·40				
	Manitoba South-western					
	Colonization	215·20				
	Columbia and Kootenay ..	28·50				
	Nakusp and Slocan	36·90				
	Shuswap and Okanagan ..	51·00				
	Alberta Railway, Dunmore to Lethbridge	109·50				
15	Caraquet	68·00			32,000	32,000
16	Carillon and Grenville	13·00	6,200	250		6,450
17	Central of Ontario	104·00		16,500	98,000	114,500
18	Central of New Brunswick ..	75·00			40,800	40,800
19	Cumberland Railway and Coal Co.	32·00			76,098	76,098
20	Dominion Atlantic, comprising— Windsor and Annapolis	87·50				
	Cornwallis Valley	14·00				
	Yarmouth and Annapolis ..	87·00				
	Windsor Branch of Intercol- onial	32·00				
21	Drummond County	90·53	40,936	4,800	46,800	92,536
22	Elgin and Havelock	27·00			16,794	16,794
23	Erie and Huron	76·75	63,052	54,643	42,624	160,319

Department of Railways and Canals.

and Mileage, for the Year ended 30th June, 1896.

Engine Mileage.	Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs. Handled.	Average Rate of Speed of Passenger Trains—Miles per hour.	Average Rate of Speed of Freight Trains—Miles per hour.	Number.	Remarks.
56,382	1,112	43,000	14	1	From Lethbridge to Coutts on International Boundary—the portion of this railway from Dunmore to Lethbridge, 109·50 miles, is operated by C.P.R. under lease. Only a portion of the Atlantic and Superior Ry. (Metapedia to Caplin, Baie des Chaleurs Section, 80 miles) operated during the year ended 30th June, 1896, and this 80 miles was only operated for three months.
5,600	1,000	8,375	.....	16	2
12,800	3,296	956	.....	15	3
131,182	53,875	168,102	20	20	4	
.....	205,000	.....	6	.....	5
31,685	30,755	15,067	20	20	6	
21,440	9,117	15,568	.....	16	7
70,008	10,361	23,001	.....	19	8
562,416	175,191	506,806	35	15	9	
218,932	54,137	95,090	30	18	10	
4,206,144	496,039	3,358,563	38	16	11	
4,714,661	1,471,866	1,379,618	25	15	12	
341,015	122,586	46,395	22	14	13	
18,444,865	3,036,619	4,576,632	28	14	14	3
						10 miles of Montreal and Western at Northern end is not under traffic. 1 90 miles of Montreal and Lake Maskinongé is omitted in C.P.R. traffic return.
32,000	5,600	10,234	.....	18	15
6,700	6,500	260	25	20	16	
114,500	52,504	90,754	25	20	17	
40,800	10,986	16,867	.....	15	18
140,441	19,281	439,525	20	20	19	
513,202	197,102	210,780	25	14	20	
93,850	23,773	108,935	20	15	21	
16,794	4,129	11,923	16	.....	22
179,843	97,734	115,777	25	15	23	

No. 4.—SUMMARY STATEMENT of the Operations of the Year

Number.	Name of Railway.	Mileage.	TRAIN MILEAGE.			
			Passenger Trains.	Freight Trains.	Mixed Trains.	Total Train Mileage.
24	Esquimalt and Nanaimo	78 00	80,578	43,006		123,584
25	Fredericton & St. Mary's R. & Bridge Co.	1 33				
26	Grand Trunk	884 25				
	Great Western	561 80				
	Brantford, Norfolk and Port Burwell	34 78				
	Buffalo and Lake Huron	162 00				
	Grand Trunk, Georgian Bay and Lake Erie	172 75				
	Owen Sound Branch	12 42				
	London, Huron and Bruce	69 01				
	Waterloo Junction	10 25				
	South Norfolk	17 00				
	Wellington, Grey and Bruce	168 13				
	Northern	172 10				
	North Simcoe	33 34	3,146 98	5,640,343	8,520,970	2,076,001
	Hamilton and North-western	173 90				16,237,314
	Northern and Pacific Junction	111 37				
	Toronto Belt Line	12 70				
	Midland	166 78				
	Grand Junction	85 40				
	Toronto and Nipissing	85 00				
	Lake Simcoe Junction	26 50				
	Victoria	53 25				
	Whitby, Port Perry & Lindsay	46 50				
	Cobourg, Blairton & Marmora	6 50				
	Jacques Cartier Union	6 50				
	Montreal and Champlain Junction	61 75				
	Beauharnois Junction	19 50				
27	St. Clair Tunnel	2 23				
28	Great Northern	38 00			17,184	17,184
29	Great North-west Central	50 93	112	2,827	11,648	14,587
30	Hamilton, Grimsby & Beamsville (Electric)	17 00			207,001	207,001
31	Hereford	53 30	33,742	72,058		105,800
32	Irondale, Bancroft and Ottawa	45 00			46,680	46,680
33	Joggins, now Canada Coal and Ry. Co.	12 00	1,000	1,500	15,000	17,500
34	Kaslo and Slocan	31 80			12,420	12,420
35	Kent Northern	27 00	34 00		18,366	18,366
	St. Louis and Richibucto	7 00				
36	Kingston and Pembroke	112 85	65,104		61,974	127,078
37	L'Assomption	3 60			5,778	5,778
38	Lake Erie and Detroit River	88 05	111 80	154,606	4,674	62,142
	London and Port Stanley	23 75				221,422
39	Lotbinière and Mégantic	23 34			12,258	12,258
40	Manitoba and North-western	234 50	219 97	34,915	31,022	40,636
	Saskatchewan and Western	15 47				106,573
41	Massawippi Valley	34 00	75,483	109,637		185,120
42	Montford Colonization	21 00	7,584	2,895	3,473	13,952
43	Montreal and Atlantic, formerly South-eastern	140 10	201 50	92,128	174,190	103,856
	Lake Champlain and St. Lawrence Junction	61 40				370,174
44	Montreal Park and Island (Electric)	14 43	42,653			42,653
45	Montreal, Portland and Boston, now Montreal and Province Line	40 60	37,510	19,553	10,597	67,660
46	Montreal and Vermont Junction	23 60	69,252	95,508	2,328	167,088
47	Nelson and Fort Sheppard	59 40	2,520	2,971	18,600	24,091
48	New Brunswick & Prince Edward Island	36 00	4,598	6,912	22,500	34,010
49	Niagara Falls Park and River Electric Ry.	13 68	221,535			221,535
50	Northern Pacific and Manitoba	265 12	94,579	93,915	34,870	223,364
51	Nosbonsing and Nipissing	5 50		11,810		11,810
		36				

Department of Railways and Canals.

and Mileage, for the Year ended 30th June, 1896—*Continued.*

Engine Mileage.	Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs. Handled.	Average Rate of Speed of Passenger Trains—Miles per hour.	Average Rate of Speed of Freight Trains—Miles per hour.	Number.	Remarks.
165,029	49,552	37,925	.....	.....	24	
					25	Included in Canada Eastern Railway which company run their trains across this bridge, paying toll.
20,925,432	5,077,671	7,587,148	30	20	26	The Cobourg, Blairton and Marmora. Not under traffic.
47,516					27	
17,240	7,183	8,943		20	28	
16,394	3,151	29,353	35	17	29	
	256,313	2,142	15		30	
105,800	16,089	105,155	20	12	31	
47,675	8,820	12,516	18		32	
28,170	9,283	57,559	20	15	33	
12,600	6,170	8,970	12		34	
18,366	5,525	11,426	18	18	35	
152,494	37,183	68,710	25	18	36	
5,778	6,855	930		15	37	
300,025	258,083	183,801	35	25	38	
17,860	4,262	14,958		25	39	
125,665	27,945	105,608	27	15	40	
185,120	77,157	160,014	25	12	41	Running powers on. Grand Trunk from Sherbrooke to Lennoxville, 3 miles.
14,039	7,150	3,598	15	13	42	
562,926	169,792	637,890	30	18	43	
	728,204		10		44	
67,660	58,911	31,972	30	12	45	
167,088	126,918	707,664	40	15	46	
25,577	7,650	18,237	20	15	47	
38,665	16,545	22,813	20	15	48	
221,535	474,552		9		49	
257,910	38,684	166,466	25	12	50	
12,260		194,400		20	51	

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No. 4.—SUMMARY STATEMENT of the Operations of the Year

Number.	Name of Railway.	Mileage.	TRAIN MILEAGE.			
			Passenger Trains.	Freight Trains.	Mixed Trains.	Total Train Mileage.
52	Nova Scotia Central.....	74 00			46,880	46,880
53	Nova Scotia Steel Co., formerly New Glasgow Iron, Coal and Railway Co.....	12 50			15,750	15,750
54	Orford Mountain.....	26 50	17,528	5,168	8,543	31,239
55	Oshawa Electric Railway.....	8 50			23,258	23,258
56	Ottawa and Gatineau.....	56 50	16,588	1,263	36,163	54,014
57	Ottawa, Arnprior and Parry Sound.....	164 00	138,593	74,056	23,110	235,759
58	Parry Sound Colonization.....	48 00			28,232	28,232
59	Philipsburg Ry. and Quarry Co.....	6 75			1,878	1,878
60	Pontiac Pacific Junction.....	70 60	1,348	3,567	45,584	50,499
61	Port Arthur, Duluth and Western.....	85 50	966		11,974	12,940
62	Qu'Appelle, Long Lake and Saskatchewan.....	253 96			53,254	53,254
63	Quebec and Lake St. John..... 242 00 } Lower Laurentian..... 39 50 }	281 50	84,868	127,058		211,926
64	Quebec Central.....	213 50	125,116	178,663	32,810	336,589
65	Quebec, Montmorency and Charlevoix.....	30 00	51,863	652		52,515
66	Salisbury and Harvey.....	45 00			28,584	28,584
67	Shore Line.....	82 50	8,125		60,390	68,515
68	Stanstead, Shefford and Chambly.....	43 00	33,847	33,072	10,870	77,789
69	St. Catharines and Niagara Central.....	12 35	12,000	2,000	6,000	20,000
70	St. Lawrence and Adirondack.....	19 80	38,339	48,904	15,091	102,834
71	Sydney and Louisbourg.....	65 90	35,000	75,500		110,500
72	South Shore, Que., formerly Montreal and Sorel.....	44 67	29,070		28,170	57,240
73	Témiscouata.....	113 00	9,876		82,164	92,040
74	Tilsonburg, Lake Erie and Pacific.....	16 00			15,000	15,000
75	Thousand Islands.....	4 33			19,908	19,908
76	Tobique Valley.....	28 00				
77	Toronto, Hamilton and Buffalo.....	83 83	107,088	50,544		157,632
78	United Counties.....	61 00	43,732	360	41,316	85,408
79	Victoria and Sydney, B.C.....	16 26			24,128	24,128
		16,270 04	15,846,645	23,299,776	5,354,181	44,500,602

Department of Railways and Canals.

and Mileage, for the Year ended 30th June, 1896—*Continued.*

Engine Mileage.	Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs. Handled.	Average Rate of Speed of Passenger Trains—Miles per hour.	Average Rate of Speed of Freight Trains—Miles per hour.	Number.	Remarks.
47,296	22,685	16,225	.....	20	52	
35,350	8,210	151,722	.....	15	53	
31,239	6,202	23,200	25	15	54	
23,258	87,519	16,389	.....	20	55	
54,029	44,262	18,793	30	20	56	
370,051	88,384	110,252	30	12	57	
32,372	7,188	13,334	.....	15	58	
1,878	1,864	1,077	.....	25	59	
50,768	16,756	13,316	30	20	60	
14,255	3,478	12,984	20	15	61	
53,386	3,097	11,592	17	.....	62	
266,231	128,846	144,390	22	12	63	
357,866	120,318	212,873	25	15	64	
53,159	213,303	7,179	21	21	65	
31,748	8,879	33,574	18	.....	66	
69,025	13,101	10,620	25	17	67	
77,789	140,222	678,350	23	12	68	
20,000	20,817	65,916	25	20	69	
112,277	36,096	96,181	30	20	70	Running powers on Grand Trunk Ry., Valleyfield to Ste. Martine, 33.7 miles.
115,000	65,977	1,024,636	25	20	71	do on Can. Pac. Ry. from Ste. Martine to Montreal, 14.10 miles
57,240	42,936	13,203	30	22	72	
92,040	15,752	23,362	22	16	73	
20,000	9,500	2,579	20	30	74	
19,908	19,485	15,751	20	20	75	
.....	.....	.....	.....	.....	76	
165,675	65,662	47,057	20	20	77	
86,908	24,757	53,066	30	18	78	Running powers on Montreal and Atlantic, Sorel to St. Robert Junction, 5 miles.
24,128	26,917	28,788	.....	25	79	
55,786,960	14,810,407	24,266,825	.....	.....	.....

No. 5.—SUMMARY STATEMENT of description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live Number.
			Barrels.	Tons.	Bushels.	Tons.	
1	Alberta Railway and Coal Co.	64.62	40	4	2,033	61	352
2	Albert Southern 16.00	19.00	100	10			
	Harvey Branch. 3.00						
3	Atlantic and Lake Superior, comprising—						
	Baie des Chaleurs. 80.00	80.00	1,298	129	350	7	19
	Great Eastern.						
	Ottawa Valley.						
4	Bay of Quinté Railway and Navigation Co. 4.00	64.82	36,530	3,653	155,964	4,289	6,100
	Kingston, Napanee & Western. 60.82						
5	Berlin and Waterloo (Electric).	2.75					
6	Brockville, Westport and Sault Ste. Marie	45.00	19,390	1,940	175,388	4,667	7,399
7	Buctouche and Moncton.	32.00					
8	Calgary and Edmonton.	295.07	21,500	2,150	107,418	2,483	12,746
9	Canada Atlantic 138.00	176.00	56,590	5,659	91,110	18,221	2,009
	Central Counties 33.00						
10	Canada Eastern.	136.00	57,470	5,747	93,792	1,600	562
11	Canada Southern.	382.19	1,810,720	181,072	20,866,643	453,941	890,000
	Canadian Government Railways—						
12	Intercolonial.	1,150.50	822,097	82,209	1,064,385	19,728	64,051
13	Prince Edward Island	210.00	25,241	2,524	308,196	5,323	5,681
14	Canadian Pacific Railway. 4,119.10						
	Leased lines—						
	Atlantic and North-west. . 205.00						
	Ontario and Quebec. 469.00						
	Credit Valley. 175.10						
	West Ontario Pacific. 26.60						
	Toronto, Grey and Bruce. . 191.30						
	Guelph Junction. 15.00						
	St. Lawrence and Ottawa. . 58.40						
	Montreal and Ottawa. 23.60						
	Montreal and Western. 66.90						
	Montreal & L. Maskinongé . 11.00						
	New Brunswick. 175.00	6,211.50	3,102,826	311,284	35,726,213	929,613	592,150
	New Brunswick & Canada. . 118.00						
	St. John and Maine. 92.00						
	St. John Bridge and Railway Extension . 2.00						
	Fredericton. 22.40						
	Manitoba & South-western Colonization. . 215.20						
	Columbia and Kootenay. . 28.50						
	Nakusp and Slocan. 36.90						
	Shuswap and Okanagan. . 51.00						
	Alberta Railway, Dummore to Lethbridge. 109.50						
	Tobique Valley. 28.00						
15	Caraqueet.	68.00	7,500	750	5,000	85	40
16	Carillon and Grenville.	13.00	70	7			320
17	Central Ontario.	104.00	11,908	1,167	197,960	4,949	4,674
18	Central of New Brunswick. . 75.00		1,500	150			
19	Cumberland Railway and Coal Co.	32.00	9,861	986	40,077	681	35
20	Dominion Atlantic, comprising—						
	Windsor and Annapolis. . 87.50						
	Cornwallis Valley. 14.00						
	Yarmouth and Annapolis. . 87.00	220.50	100,332	10,033			16,464
	Windsor Branch of Intercolonial. . 32.00						
21	Drummond County.	90.53	22,621	2,262	28,471	484	26
22	Elgin and Havelock.	27.00	6,932	693	26,223	459	1,038
23	Erie and Huron.	76.75	280,323	24,276	839,538	22,678	15,941
24	Esquimalt and Nanaimo.	78.00	3,040	304	10,600	312	3,382

Department of Railways and Canals

Freight carried for the Year ended 30th June, 1896.

Stock.	Lumber of all kinds except Firewood.		Firewood.		Manu- factured Goods.	All other Articles.	Total Weight Carried.	Number.	Remarks.
	Tons.	Feet.	Tons.	Cords.	Tons.	Tons.	Tons.		
120	797,883	1,063				*41,752	43,000	1	*Including 41,360 tons of coal.
	4,180,000	8,360				5	8,375	2	
15	303,000	537			155	113	956	3	
2,440	37,020,571	64,786	10,957	16,435	27,631	48,868	168,102	4	
								5	
1,357	582,233	903			4,561	1,639	15,067	6	
						15,568	*15,568	7	*Including merchandise, produce, logs, bark, ties and stone.
6,497	1,795,786	2,289	208	312	5,917	3,353	23,001	8	
5,122	192,044,214	247,126	18,666	39,507	20,341	170,830	506,806	9	
190	16,070,940	24,515	8,335	10,419	22,216	30,403	95,090	10	
160,056	125,500,000	247,591	26,150	47,071	568,218	1,700,614	3,358,563	11	
9,007	226,332,715	282,965	12,920	22,610	345,829	617,270	1,379,618	12	
929	2,309,418	3,293	2,287	4,369	29,957		46,395	13	
145,623	634,990,836	835,770	174,822	302,140	1,072,851	979,351	4,576,632	14	
20	4,000,000	5,500	200	300	550	3,029	10,234	15	
85					78	80	250	16	
2,337	9,042,000	9,042	12,781	22,367	36,025	*14,867	90,754	17	*Including 11,299 tons iron ore.
	8,200,000	12,384	900	1,020		3,313	16,867	18	
17	9,720,000	12,141			4,407	*421,293	439,525	19	*Coal.
2,377	15,366,800	23,050	3,620	6,330	35,940	*133,050	210,780	20	*Including apples, potatoes, hay and produce.
13	19,415,124	27,562	10,804	12,682	4,957	60,975	108,935	21	
379	5,042,400	8,404	1,137	947	676	365	11,923	22	
2,986	21,793,000	27,434	354	649	7,375	30,379	115,777	23	
698	4,893,454	8,275	4,239	4,710	689	22,937	37,925	24	

No. 5.—SUMMARY STATEMENT of description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live Number.
			Barrels.	Tons.	Bushels.	Tons.	
25	Fredericton and St. Mary's Railway and Bridge Co.	1 33					
26	Grand Trunk 884 25						
	Great Western 561 80						
	Brantford, Norfolk and Port Burwell 34 78						
	Buffalo and Lake Huron 162 00						
	Grand Trunk, Georgian Bay and Lake Erie 172 75						
	Owen Sound Branch 12 42						
	London, Huron and Bruce ... 69 01						
	Waterloo Junction 10 25						
	South Norfolk 17 00						
	Wellington, Grey and Bruce. 168 13						
	Northern 172 10						
	North Simcoe 33 44						
	Hamilton and North western. 173 90						
	Northern and Pacific Junction. 111 37	3,146 98	3,991,900	399,190	41,797,840	1,044,946	1,758,170
	Toronto Belt Line 12 70						
	Midland 166 78						
	Grand Junction 85 40						
	Toronto and Nipissing 85 00						
	Lake Simcoe Junction 26 50						
	Victoria 53 50						
	Whitby, Port Perry and Lind- say 46 50						
	Cobourg, Blairton and Mar- mora 6 50						
	Jacques Cartier Union 6 50						
	Montreal and Champlain Junc- tion 61 75						
	Beauharnois Junction 19 50						
27	St. Clair Tunnel 2 23						
28	Great Northern 38 00		12,530	1,253	24,663	419	
29	Great North-west Central 50 93		1,130	113	797,433	23,923	2,328
30	Hamilton, Grimsby and Beamsville Elec- tric 17 00						
31	Hereford 53 30		8,480	848	35,728	633	57
32	Irondale, Bancroft and Ottawa 45 00		4,768	458	18,179	320	146
33	Joggins, now Canada Coal and Ry. Co. ... 12 00		2,126	212	14,528	246	13
34	Kaslo and Slocan 31 80		320	32	2,400	72	184
35	Kent Northern 27 00						
	St. Louis and Richibuctou 7 00	34 00	5,861	586	7,500	2,142	24
36	Kingston and Pembroke 112 85		9,300	930	30,500	915	
37	L'Assomption 3 00		1,600	164			
38	Lake Erie and Detroit River 38 05						
	London and Port Stanley 23 75	111 80	16,996	1,835	1,025,920	22,388	17,039
39	Lotbinière and Mégantic 23 34				2,057	35	8
40	Manitoba and North-western 234 05						
	Saskatchewan and Western 15 47	249 97	72,234	7,223	2,812,940	72,884	15,488
41	Massawippi Valley 34 00		6,500	650	275,000	5,500	3,700
42	Montford Colonization 21 00		1,736	170	975	19	7
43	Montreal and Atlantic, formerly South-eastern 140 10						
	Lake Champlain and St. Law- rence Junction 61 40	201 50	265,025	26,502	2,066,955	95,399	11,507
44	Montreal Park and Island Electric 14 43						
45	Montreal, Portland and Boston 40 60		6,080	608	9,906	299	150
46	Montreal and Vermont Junction 25 60		386,210	38,621	5,079,103	152,374	637,700
47	Nelson and Fort Sheppard 69 40		1,500	150	18,150	363	4,260
48	New Brunswick and Prince Edward Island 36 00		21,838	2,183	19,669	351	919
49	Niagara Falls Park and River Electric Railway 13 68						

Department of Railways and Canals

Freight carried for the Year ended 30th June, 1896.—Continued.

Stock.	Lumber of all kinds except Firewood.		Firewood.		Manu- factured Goods.	All other Articles.	Total Weight Carried.	Number.	Remarks.
	Tons.	Feet.	Tons.	Cords.	Tons.	Tons.	Tons.		
								26	Included in Canada Eastern Railway.
351,634	445,399,000	890,798	118,566	177,849	779,761	3,942,970	7,587,148	26	
								27	
	82,000	120	1,270	2,222		4,929	8,943	28	
552	854,700	1,896	1,440	720	1,091	1,058	29,353	29	
						2,142	2,142	30	
676	5,291,600	76,374	328	310	1,733	24,581	106,156	31	
22	3,089,333	4,624	1,552	2,795	4,225	72	12,516	32	
6	1,620,275	932			1,872	*55,291	57,559	33	*Consisting of coal, stone and hay.
28	202,818	352			403	8,083	8,970	34	
12	1,186,000	1,180	804	804	6,702		11,426	35	
	18,330,000	27,495	7,646	14,115	23,875	1,380	68,710	36	
	158,000	237			23	506	930	37	
8,031	47,550,000	69,648	8,550	12,704	69,195		183,801	38	
6	3,628,000	6,350	100	100		*8,467	14,958	39	*Including pulp wood and bark.
6,636	4,525,090	5,368	988	1,218	9,004	3,275	105,608	40	
730	40,920,000	56,265			2,500	*94,369	160,014	41	*Including 24,000 tons copper matte.
2	1,229,000	2,150	605	1,059	40	158	3,598	42	
2,296	108,342,453	145,935	21,186	31,779	136,688	199,291	637,890	43	
								44	
62	1,552,000	1,941	12	16	572	*28,474	31,972	45	*Incl. 19,764 tons hay.
95,690	36,560,000	45,700	225	321	40,613	*334,345	707,664	46	*Incl. 87,630 tons hay.
330	290,000	411	11	10	2,450	*14,523	18,237	47	*Incl. hay and agri- cultural products, also ore and stone.
63	8,081,000	11,574	1,185	1,764	1,371	5,507	22,813	48	

No. 5.—SUMMARY STATEMENT of description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live Number.
			Barrels.	Tons.	Bushels.	Tons.	
50	Northern Pacific and Manitoba.....	265·12	7,600	760	3,010,783	87,392	1,491
51	Nosbonsing and Nipissing.....	5·50					
52	Nova Scotia Central.....	74·00	2,856	285			56
53	Nova Scotia Steel Co., formerly New Glasgow Iron, Coal and Railway Co..	12·50	1,660	166	9,600	163	1
54	Orford Mountain.....	26·50	4,981	498	37,251	723	160
55	Oshawa Electric Railway.....	8·50	260	26	9,854	271	
56	Ottawa and Gatineau.....	56·50	11,232	1,128	22,514	647	1,553
57	Ottawa, Arnprior and Parry Sound.....	164·00	13,660	1,366	157,361	4,406	6,265
58	Parry Sound Colonization.....	48·00					
59	Philipsburg Railway and Quarry Co.....	6·75			1,000		15
60	Pontiac Pacific Junction.....	70·60	6,425	643	60,955	1,143	3,518
61	Port Arthur, Duluth and Western.....	85·50					48
62	Qu'Appelle, Long Lake & Saskatchewan.....	253·96	8,649	865	143,823	3,889	3,991
63	Quebec and Lake St. John..... 242·00) Lower Laurentian..... 39·50)	281·50	45,680	4,568	60,029	1,201	1,855
64	Quebec Central.....	213·50	113,115	11,311	43,458	1,304	10,500
65	Quebec, Montmorency and Charlevoix..	30·00	3,363	336	7,503	195	56
66	Salisbury and Harvey.....	45·00	6,104	610	29,098	494	192
67	Shore Line.....	82·50	5,021	502	10,359	172	321
68	Stanstead, Shefford and Chambly.....	43·00	388,030	38,803	3,191,500	155,745	637,716
69	St. Catharines and Niagara Central.....	12·35	799	78	18,967	331	
70	St. Lawrence and Adirondack.....	19·80	5,300	530	49,160	1,229	365
71	Sydney and Louisbourg.....	65·90	6,000	600			90
72	South Shore, Que., formerly Montreal and Sorel.....	44·67			2,220	40	
73	Temiscouata.....	113·00	10,524	1,052	16,627	374	206
74	Tilsonburg, Lake Erie and Pacific.....	16·00	500	50			510
75	Thousand Islands.....	4·33	1,540	154	4,036	111	1,472
76	Tobique Valley.....	28·00					
77	Toronto, Hamilton and Buffalo.....	83·83	8,245	825	93,845	2,902	75
78	United Counties.....	61·00	18,250	1,825	65,235	1,109	160
79	Victoria and Sydney.....	16·26	810	81	9,383	201	977
		16,270·04	11,884,627	1,185,799	120,833,364	3,156,866	4,746,267

Department of Railways and Canals.

Freight carried for the Year ended 30th June, 1896.—*Concluded.*

Stock.	Lumber of all kinds except Firewood.		Firewood.		Manu- factured Goods.	All other Articles.	Total Weight Carried.	Number.	Remarks.
	Tons.	Feet.	Tons.	Cords.	Tons.	Tons.	Tons.		
820	7,203,000	10,854	4,871	9,742	5,048	51,850	166,466	50	Logs and lumber.
28	4,880,000	194,400 7,320	456	634	7,908		194,400 16,225	51 52	
1	1,496,000	1,870	120	240	998	*148,284	151,722	53	*Including ore, coal and pig iron.
11	8,805,100	9,792	5,841	*7,819	1,202	3,155	23,200	54	*Inc. 7,819 t. pulp wd.
	360,000	630	97	146	6,275	9,041	16,389	55	
495	662,500	994	*2,907	4,362	8,697	2,470	18,793	56	*Pulp wood.
2,514	34,500,000	52,440	918	1,670	720	47,136	110,252	57	
				7,560		5,774	13,334	58	
	175,000	109				*953	1,077	59	*In. marble, hay, straw
375	1,829,500	2,907	2,065	*3,365	3,077	1,806	13,316	60	*Pulp wood.
30	1,687,758	6,751	2,574	3,861	245	2,097	12,984	61	
1,396	1,100,672	1,395	848	1,271	1,309	467	11,592	62	
450	42,684,000	62,166	29,310	52,758	8,193	15,054	144,390	63	
2 253	86,470,000	129,705	528	992	4,700	*62,608	212,873	64	*Inc. ore, brick, pulp wood, lime, coal, asbestos, &c.
51	214,650	486	1,180	1,038	2,341	2,732	7,179	65	
96	11,261	14,026	2,330	4,353	381	*13,614	33,574	66	*Inc. plaster and hay.
118	5,525,000	5,525	125	189	1,735	2,379	10,620	67	
95,698	35,880,000	44,857	602	860	40,439	*301,948	678,350	68	*Inc. 83,244 tons hay.
	350,000	984	117	437	15,413	*48,673	65,916	69	*Inc. pulp wood.
182	17,666,439	26,499	79	53	1,112	66,576	96,181	70	
68	1,500,000	1,800			50	*1,022,118	1,024,636	71	*Inc. 1,008,536 t. coal.
	250,000	356	174	200	8,632	*3,975	13,203	72	*Including hay.
103	8,528,790	10,961	2,742	5,482	1,334	4,056	23,362	73	
45	450,000	646	50	33	1,725	80	2,579	74	For six months.
589	1,348,571	2,360			8,227	4,310	15,751	75	
								76	
10	909,726	1,585	711	993	6,863	33,879	47,057	77	
143	16,500,000	24,641	300	192	9,804	15,352	53,066	78	
73	632,000	1,160	5,250	10,500	1,613	15,160	28,788	79	
912,593	2,349,911,610	3,819,559	517,043	858,454	3,418,532	10,915,022	24,266,825		

No. 6.—SUMMARY STATEMENT of Earnings

Number.	Name of Railway.	Mileage.	Passenger	Freight	Mixed
			Traffic.	Traffic.	and Express
			\$ cts.	\$ cts.	\$ cts.
1	Alberta Railway and Coal Co.	64 62	3,071 88	33,437 42	213 81
2	Albert Southern.	19 00	194 10	3,358 84	.....
3	Atlantic and Lake Superior, comprising—				
	Baie des Chaleurs 80 00	80 00	2,416 59	1,862 94	1,224 78
	Great Eastern.				
	Ottawa Valley.				
4	Bay of Quinté Ry. and Navigation Co. 4 00	64 82	19,149 41	79,937 01	8,603 85
	Kingston, Napanee and Western. 60 82				
5	Berlin and Waterloo (Electric).	2 75	8,200 00	.....	.....
6	Brockville, Westport and Sault Ste. Marie.	45 00	12,513 60	14,679 70	1,405 41
7	Buctouche and Moncton.	32 00	3,941 11	9,199 10	14 61
8	Calgary and Edmonton.	295 07	35,022 70	54,504 06	5,072 52
9	Canada Atlantic 138 00	176 00	139,525 61	387,512 04	17,413 52
	Central Counties. 38 00				
10	Canada Eastern.	136 00	30,753 02	82,646 45	4,237 92
11	Canada Southern.	382 19	1,027,436 06	3,281,811 68	169,279 83
	Canadian Government Railways—				
12	Intercolonial.	1,150 50	971,426 26	1,788,813 18	*197,400 66
13	Prince Edward Island.	210 00	62,358 12	65,391 92	18,338 00
14	Canadian Pacific Railway 4,119 10				
	Leased Lines—				
	Atlantic and North-west. 205 00	6,211 50	4,759,900 46	12,946,016 54	953,111 43
	Ontario and Quebec 469 00				
	Credit Valley. 175 10				
	West Ontario Pacific 26 60				
	Toronto, Grey and Bruce. 191 30				
	Guelph Junction. 15 00				
	St. Lawrence and Ottawa. 58 40				
	Montreal and Ottawa. 23 60				
	Montreal and Western. 66 90				
	Montreal and Lake Maskinongé. 11 00				
	New Brunswick. 175 00				
	New Brunswick and Canada. 118 00				
	St. John and Maine. 92 00				
	St. John Bridge and Ry. Extension. 2 00				
	Fredericton. 22 40				
	Manitoba South-western Coloniza- tion. 215 20				
	Columbia and Kootenay. 28 50				
	Nakusp and Slocan. 36 90				
	Shuswap and Okanagan. 51 00				
	Alberta Railway, Dunmore to Lethbridge. 109 50				
15	Caraquet. ....					68 00	4,808 49	12,428 66	1,962 10
16	Carillon and Grenville.	13 00	1,677 67	194 82	.....
17	Central, Ontario.	104 00	25,873 30	62,232 53	8,840 83
18	Central of New Brunswick.	75 00	6,178 95	8,506 11	.....
19	Cumberland Railway and Coal Co.	32 00	8,374 40	13,896 43	2,260 27
20	Dominion Atlantic, comprising—				
	Windsor and Annapolis. 87 50	220 50	255,264 65	216,734 72	30,693 74
	Cornwallis Valley. 14 00				
	Yarmouth and Annapolis. 87 00				
	Windsor Branch of Intercolonial. 32 00				
21	Drummond County.	90 53	14,774 16	74,117 79	3,904 62
22	Elgin and Havelock.	27 00	1,389 74	5,739 53	703 62
23	Erie and Huron.	76 75	40,833 67	61,927 06	6,256 65
24	Esquimalt and Nanaimo.	78 00	52,439 00	43,931 32	2,939 04
25	Fredericton and St. Mary's Ry. and Bridge Co.	1 33	1,294 13	3,545 31	.....
26	Grand Trunk. 884 25				
	Great Western. 561 80				
	Brantford, Norfolk and Port Burwell. 34 78				
	Buffalo and Lake Huron. 162 00				

Department of Railways and Canals

for the Year ended 30th June, 1896.

Other Sources.	Total Gross Earnings.	Total Net Earnings.	Proportion of Earnings to Working Expenses.	Earnings per Train Mile.	Number.	Remarks.	
\$ cts.	\$ cts.	\$ cts.	p. c.	Cts.			
62,738 52	99,461 63	13,470 30	115	331 00	1	From Lethbridge to Coutts on International boundary—the portion of this railway from Dunmore to Lethbridge, 109 50 miles, is operated by the Canadian Pacific Railway under lease.	
.....	3,552 94	1,805 17	203	63 44	2		
.....	5,504 31	1,643 21	142	43 77	3		
2,447 40	110,137 67	32,392 77	141	84 56	4		
.....	8,200 00	1,320 00	119	12 42	5		
.....	28,598 71	1,783 19	106	95 88	6		
268 28	13,423 10	-1,292 13	91	64 93	7		
.....	94,599 28	37,042 81	164	136 00	8		
68,512 10	612,963 27	174,359 59	139	132 92	9		
4,526 54	122,163 93	44,451 22	157	57 47	10		
5,986 44	4,484,514 01	1,474,632 69	148	135 34	11		
.....	2,957,640 10	-55,187 52	98	76 97	12		* From mails and sundries.
388 50	146,476 54	-78,662 02	65	61 17	13		
1,516,356 56	20,175,384 99	7,973,024 49	165	140 45	14	Including portion of Alberta Railway and Coal Company's line from Dunmore to Lethbridge, 109 50 miles.	
.....	19,199 25	2,076 94	112	59 99	15	* Coal.	
.....	1,872 49	-2,437 64	43	29 03	16		
411 63	97,358 29	21,861 79	121	85 02	17		
261 67	14,946 73	-10,473 90	58	36 63	18		
*97,461 22	121,992 32	70,781 09	238	160 30	19		
.....	-	-	-	-	-		
57 74	502,750 85	135,289 59	136	97 96	20		
321 98	93,118 55	29,067 21	145	100 62	21	Receipts from tolls on trains run by Canada Eastern Railway.	
40 97	7,873 86	-2,207 86	78	46 88	22		
281 50	109,298 88	27,389 90	133	67 01	23		
4,249 46	103,558 82	-192,943 29	34	83 79	24		
.....	4,839 44	3,413 21	339	.....	25	
.....		

No. 6.—SUMMARY STATEMENT of Earnings

Number.	Name of Railway.	Mileage.	Passenger Traffic.		Freight Traffic.		Mixed and Express Freight.				
			\$	cts.	\$	cts.	\$	cts.			
26	Grand Trunk—Continued.										
	Grand Trunk, Georgian Bay and Lake Erie	172 75									
	Owen Sound Branch	12 42									
	London, Huron and Bruce	69 01									
	Waterloo Junction	10 25									
	South Norfolk	17 00									
	Wellington, Grey and Bruce	168 13									
	Northern	172 10									
	North Simcoe	33 34	314,698	5,002,983 04	10,576,532 66	817,975 23					
	Hamilton and North-western	173 90									
	Northern and Pacific Junction	111 37									
	Toronto Belt Line	12 70									
	Midland	166 78									
	Grand Junction	85 40									
	Toronto and Nipissing	85 00									
	Lake Simcoe Junction	26 50									
	Victoria	53 25									
	Whitby, Port Perry and Lindsay	46 50									
	Cobourg, Blairton and Marmora										
	Jacques Cartier Union	6 50									
	Montreal and Champlain Junction	61 75									
	Beauharnois Junction	19 50									
27	St. Clair Tunnel	2 23						*44,853 00	1175,847 00		
28	Great Northern	38 00						2,507 20	4,740 31		
29	Great North-west Central	50 93		3,365 45	35,907 33		153 03				
30	Hamilton, Grimsby and Beamsville (Electric)	17 00		31,499 23	4,037 16		438 00				
31	Hereford	53 30		10,114 69	35,540 21		1,298 52				
32	Irondale, Bancroft and Ottawa	45 00		4,552 10	9,444 38		770 63				
33	Joggins, now Canada Coals and Railway Co.	12 00		3,129 16	24,165 95		439 34				
34	Kaslo and Slocan	31 80		9,045 30	28,377 49						
35	Kent Northern	27 00	34 00	3,184 08	7,774 01	857 38					
	St. Louis and Richibucto	7 00									
36	Kingston and Pembroke	112 85		28,633 52	71,588 33		8,292 81				
37	L'Assomption	3 00		1,453 95	286 15		302 74				
38	Lake Erie and Detroit River	88 05	111 80	74,699 29	110,440 31	11,349 55					
	London and Port Stanley	23 75									
39	Lotbinière and Mégantic		23 34	1,552 25	7,363 26						
40	Manitoba and North-western	234 50	249 97	52,182 37	187,404 89	9,613 76					
	Saskatchewan and Western	15 47									
41	Massawippi Valley		34 00	55,523 49	103,312 44		1,971 90				
42	Montford Colonization		21 00	1,156 00	1,633 90		27 18				
43	Montreal and Atlantic, formerly South-eastern	140 10	201 50	105,585 12	239,531 29	11,554 80					
	Lake Champlain and St. Lawrence Junction	61 40									
44	Montreal Park and Island Electric		14 43	55,070 15							
45	Montreal, Portland and Boston		40 60	21,379 92	29,337 76		4,135 82				
46	Montreal and Vermont Junction		23 60	51,324 94	104,661 90		9,207 46				
47	Nelson and Fort Sheppard		59 40	14,986 54	30,001 12		1,315 91				
48	New Brunswick and Prince Edward Island		36 00	5,263 50	12,278 30		1,606 07				
49	Niagara Falls Park and River Electric Railway		13 68	56,559 39							
50	Northern Pacific and Manitoba		265 12	59,960 96	202,801 14		8,797 65				
51	Nosbonsing and Nipissing		5 50		43,540 00						
52	Nova Scotia Central		74 00	15,821 36	14,293 94		1,741 59				
53	Nova Scotia Steel Co., formerly New Glasgow										
	Iron, Coal and Railway Co.		12 50	1,771 45	14,831 50		314 00				
54	Orford Mountain		26 50	2,057 98	12,408 58		527 52				
55	Oshawa Electric Railway		8 50	4,392 15	4,869 95		1,004 81				
56	Ottawa and Gatineau		56 50	25,430 14	25,332 78		2,845 57				
57	Ottawa, Arnprior and Parry Sound		164 00	68,909 48	97,772 86		6,795 00				
58	Parry Sound Colonization		48 00	6,727 30	10,245 37		1,179 61				

Department of Railways and Canals

or the Year ended 30th June, 1896—*Continued.*

Other Sources.	Total Gross Earnings.	Total Net Earnings.	Proportion of Earnings to Working Expenses.	Earnings per Train Mile.	Number.	Remarks.
\$ cts.	\$ cts.	\$ cts.	p. c.	Cts.		
109,386 80	16,506,877 73	4,962,252 30	142	101 65	26	
†261 00	220,961 00	131,903 45	248	27	* Tolls on passenger cars. † Tolls on freight cars. ‡ Tolls on new locomotives.
.....	7,247 51	733 45	111	42 17	28	
727 26	40,153 07	11,227 43	142	275 26	29	
66 00	36,040 39	2,452 06	107	174 10	30	
.....	46,953 42	-11,299 17	80	44 38	31	
.....	14,767 11	7,728 80	209	31 63	32	
483 74	28,218 19	18,555 49	292	161 24	33	
302 25	37,725 04	-39,865 29	48	311 79	34	
.....	11,815 47	4,886 97	170	64 33	35	
6,373 00	114,887 66	7,743 52	107	90 40	36	
.....	2,042 84	53 36	102	35 35	37	
6,280 00	202,769 15	62,506 04	144	91 57	38	
.....	8,915 51	-5,659 76	61	72 73	39	
9,222 88	258,423 90	57,089 39	128	242 48	40	
4,166 67	164,974 50	31,052 46	124	89 11	41	
.....	2,817 08	-4,367 00	39	20 19	42	
11,423 30	368,094 51	36,564 89	111	99 55	43	
1,375 95	56,446 10	567 29	101	132 33	44	
107 00	54,960 50	16,517 55	142	81 23	45	
373 73	165,568 03	57,942 22	153	93 10	46	
.....	46,303 57	11,652 41	133	192 20	47	
5 70	19,153 57	4,375 80	129	56 31	48	
2,128 48	58,687 87	22,416 40	161	26 49	49	
.....	271,559 75	2,937 21	100	121 09	50	
.....	43,540 00	18,224 80	171	368 67	51	
871 01	32,727 90	4,587 08	116	69 81	52	
4,950 00	21,866 95	5,208 99	131	138 32	53	
.....	14,934 08	1,568 61	111	47 99	54	
1,633 00	11,899 91	-4,800 44	70	51 16	55	
327 87	53,936 35	8,547 32	118	99 85	56	
.....	173,477 34	43,465 38	133	73 57	57	
.....	18,152 28	4,221 78	130	64 29	58	

No. 6.—SUMMARY STATEMENT of Earnings.

Number.	Name of Railway.	Mileage.	Passenger	Freight	Mixed
			Traffic.	Traffic.	and Express Freight.
			\$ cts.	\$ cts.	\$ cts.
59	Philipsburg Ry. and Quarry Co.....	6 75	344 58	493 04	
60	Pontiac Pacific Junction.....	70 60	13,076 08	15,067 53	2,862 67
61	Port Arthur, Duluth and Western.....	85 50	1,613 32	6,696 78	
62	Qu'Appelle, Long Lake and Saskatchewan.....	253 96	13,696 70	35,338 87	2,269 64
63	Quebec and Lake St. John.....	242 00	58,206 80	130,943 37	10,667 30
	Lower Laurentian.....	39 50			
64	Quebec Central.....	213 50	127,145 66	227,047 50	11,656 77
65	Quebec, Montmorency and Charlevoix.....	30 00	40,692 50	6,885 91	967 99
66	Salisbury and Harvey.....	45 00	5,801 05	14,244 75	2,509 21
67	Shore Line.....	82 50	13,780 03	13,398 11	3,210 56
68	Stanstead, Shefford and Chambly.....	43 00	18,164 67	39,264 15	3,813 04
69	St. Catharines and Niagara Central.....	12 35	4,220 75	19,411 65	407 06
70	St. Lawrence and Adirondack.....	19 80	25,035 44	47,663 14	3,972 46
71	Sydney and Louisburg.....	65 90	20,362 41	195,030 22	
72	South Shore, formerly Montreal and Sorel.....	44 67	21,595 56	17,283 95	1,534 85
73	Témiscouata.....	113 00	15,227 22	29,120 14	10,458 82
74	Tilsonburg, Lake Erie and Pacific.....	16 00	1,404 27	1,501 30	120 92
75	Thousand Islands.....	4 33	3,940 16	8,915 87	1,717 79
76	Tobique Valley.....	28 00			
77	Toronto, Hamilton and Buffalo.....	83 83	21,284 96	40,066 22	766 50
78	United Counties.....	61 00	17,845 44	29,052 56	1,081 95
79	Victoria and Sydney.....	16 26	9,843 83	11,929 98	233 71
		16,270 04	13,747,773 01	32,368,082 47	2,396,644 33

Department of Railways and Canals.

for the Year ended 30th June, 1896—*Continued.*

Other Sources.	Total Gross Earnings.	Total Net Earnings.	Proportion of Earnings to Working Expenses.	Earnings per Train Mile.	Number.	Remarks.
\$ cts.	\$ cts.	\$ cts.	p. c.	Cts.		
	837 62	-2,307 01	36	44 60	59	
671 95	31,678 23	-13,265 09	70	62 73	60	
147 98	8,458 08	-3,741 68	69	65 36	61	
	51,305 21	10,690 05	126	96 34	62	
8,482 15	208,299 62	24,245 44	113	98 28	63	
889 30	366,739 23	111,864 75	143	108 95	64	
	48,546 40	12,796 06	135	92 27	65	
265 05	22,820 06	1,758 14	108	79 83	66	
279 39	30,668 09	2,343 02	108	44 76	67	
902 85	62,144 71	3,609 03	106	79 88	68	
3,048 07	27,087 53	1,448 91	105	135 43	69	
59 40	76,730 44	1,570 14	102	74 61	70	
68,273 17	283,665 80	135,830 51	191	256 71	71	
317 77	40,732 13	7,791 97	123	71 16	72	
	54,806 18	-2,939 06	94	59 54	73	
23 76	3,050 25	-565 75	84	20 33	74	
2,137 32	16,711 14	4,059 23	132	83 43	75	
					76	
22,784 00	84,901 68	24,473 82	140	53 32	77	
	47,979 95	7,998 81	120	56 17	78	
11 00	22,018 52	1,661 71	108	91 25	79	
2,033,069 31	50,545,569 12	15,502,914 60	.....	.....	.....

For six months, 1st January, 1896 to 30th June, 1896.

No. 7—SUMMARY STATEMENT of Operating

Number.	Name of Railway.	Mileage.	Maintenance of Line, Buildings, &c.		Working and Repairs of Engines.	
			\$	cts.	\$	cts.
1	Alberta Ry. and Coal Co.	64 62	8,854	48	15,583	51
2	Albert Southern	19 00	289	25	1,435	52
3	Atlantic and Lake Superior, comprising—					
	Baie des Chaleurs	80 00				
	Great Eastern		1,469	36	1,375	74
	Ottawa Valley					
4	Bay of Quinté Ry. and Navigation Co.	4 00				
	Kingston, Napanee and Western	60 82	15,935	79	24,395	73
5	Berlin and Waterloo (Electric)	2 75	180	00	2,500	00
6	Brockville, Westport and Sault St. Marie	45 00	11,621	14	5,729	78
7	Buctouche and Moncton	32 00	3,188	86	5,224	50
8	Calgary and Edmonton	295 07	20,019	96	17,852	75
9	Canada Atlantic	138 00				
	Central Counties	33 00	176 00	64,157 80	159,277 36	
10	Canada Eastern	136 00	18,473 48		34,353 71	
11	Canada Southern	382 19	542,391 40		743,213 35	
	Canadian Government Railways—					
12	Intercolonial	1,150 50	774,556 25		993,801 39	
13	Prince Edward Island	210 00	99,186 00		54,165 88	
14	Canadian Pacific Railway	4,119 10				
	Leased Lines—					
	Atlantic and North-west	205 00				
	Ottawa and Quebec	469 00				
	Credit Valley	175 10				
	West Ontario Pacific	26 60				
	Toronto Grey and Bruce	191 30				
	Guelph Junction	15 00				
	St. Lawrence and Ottawa	58 40				
	Montreal and Ottawa	23 60				
	Montreal and Western	66 90				
	Montreal and Lake Maskinongé	11 00	6,211 50	2,715,018 09	3,897,268 14	
	New Brunswick	175 00				
	New Brunswick and Canada	118 00				
	St. John and Main	92 00				
	St. John Bridge and Ry. Extension	2 00				
	Fredericton	22 40				
	Manitoba South-western Colonization	2,152 00				
	Columbia and Kootenay	28 50				
	Nakusp and Slokan	36 90				
	Shuswap and Okanagan	51 00				
	Alberta Railway, Dunmore to Lethbridge	109 50				
15	Caraquet	68 00	5,564 41		4,855 53	
16	Carillon and Grenville	13 00	2,016 38		2,125 00	
17	Central Ontario	104 00	30,046 16		19,393 43	
18	Central of New Brunswick	75 00	8,674 63		5,347 24	
19	Cumberland Ry. and Coal Co.	32 00	15,481 66		18,644 51	
20	Dominion Atlantic, comprising—					
	Windsor and Annapolis	87 50				
	Cornwallis Valley	14 00				
	Yarmouth and Annapolis	87 00	126,606 36		109,630 87	
	Windsor Branch of Intercolonial	32 00				
21	Drummond County	90 53	16,885 36		22,074 63	
22	Elgin and Havelock	27 00	4,028 18		3,116 65	
23	Erie and Huron	76 75	16,875 75		27,590 04	
24	Esquimalt and Nanaimo	78 00	64,990 32		31,380 54	
25	Fredericton and St. Mary's Railway and Bridge Co.	1 33	674 80			
26	Grand Trunk	884 25				
	Great Western	561 80				
	Brantford, Norfolk and Port Burwell	34 78				
	Buffalo and Lake Huron	162 00				
	Grand Trunk, Georgin Bay and Lake Erie	1 2 75				
	Owen Sound Branch	12 42				

Department of Railways and Canals.

Expenses for the Year ended 30th June, 1896.

Working and Repairs of Cars.	General Operating Expenses.	Total.	Cost of Operating per train mile.	Number.	Remarks.
\$ cts.	\$ cts.	\$ cts.	Cents.		
1,526 54	60,026 80	85,991 33	286 00	1	From Lethbridge to Coutts on International boundary—the portion of this railway from Dunmore to Lethbridge 109 50 miles is operated by Canadian Pacific Railway under lease.
.....	23 00	1,747 77	31 21	2	
131 50	884 50	3,861 10	301 64	3	
5,149 06	32,264 32	77,744 00	59 26	4	
2,200 00	2,000 00	6,880 00	10 42	5	
613 30	8,851 30	26,815 52	89 90	6	
709 46	5,592 41	14,715 23	71 18	7	
3,935 24	15,748 52	57,556 47	86 23	8	
33,560 12	181,608 40	438,603 68	95 11	9	
3,979 35	20,906 17	77,712 71	36 56	10	
311,856 40	1,412,420 17	3,009,881 32	98 37	11	
404,112 78	840,357 20	3,012,827 62	78 40	12	
16,555 02	55,231 66	225,138 56	94 03	13	
882,767 54	4,707,306 73	12,202,360 50	84 94	14	Including portion of Alberta Railway and Coal Company's line from Dunmore to Lethbridge, 109 50 miles.
1,199 63	5,502 74	17,122 31	53 50	15	
132 75	36 00	4,310 13	66 82	16	
5,136 64	20,920 27	75,496 50	65 93	17	
1,034 43	10,364 33	25,420 63	62 35	18	
5,136 36	11,948 70	51,211 23	67 29	19	
18,649 97	112,574 06	367,461 26	71 60	20	
2,021 99	23,069 36	64,051 34	69 21	20	
.....	2,936 89	10,081 72	60 03	22	
4,501 74	32,941 45	81,908 98	50 22	23	
6,856 71	193,274 54	296,502 11	239 91	24	
.....	751 43	1,426 23	.....	25

No. 7—SUMMARY STATEMENT of Operatin

Number.	Name of Railway.	Mileage.	Maintenance of Line, Buildings, &c.		Working and Repairs of Engines.	
			\$	cts.	\$	cts.
26	Grand Trunk—Continued.					
	London, Huron and Bruce.....	69 01				
	Waterloo Junction.....	10 25				
	South Norfolk.....	17 50				
	Wellington, Grey and Bruce.....	168 13				
	Northern.....	172 10	3,146 98	1,978,714 79	3,958,625 22	
	North Simcoe.....	33 34				
	Hamilton and North-western.....	173 90				
	Northern and Pacific Junction.....	111 37				
	Toronto Belt Line.....	12 70				
	Midland.....	166 78				
	Grand Junction.....	85 40				
	Toronto and Nipissing.....	85 00				
	Lake Simcoe Junction.....	26 50				
	Victoria.....	53 25				
	Whitby, Port Perry and Lindsay.....	46 50				
	Cobourg, Blairton and Marmora.....					
	Jacques Cartier Union.....	6 50				
	Montreal and Lake Champlain Junction.....	61 75				
	Beauharnois Junction.....	19 50				
27	St. Clair Tunnel.....		2 23	7,190 06	49,738 95	
28	Great Northern.....		38 00	1,220 00	3,457 91	
29	Great North-west Central.....		50 93	6,665 49	6,246 90	
30	Hamilton Grimsby and Beamsville (Electric).....		17 00	4,352 12	6,480 62	
31	Hereford.....		53 30	21,164 26	24,725 55	
32	Irondale, Bancroft and Ottawa.....		45 00	2,134 66	2,862 60	
33	Joggins, now Canada Coals & Ry. Co.....		12 00	3,217 19	3,717 49	
34	Kaslo and Slocan.....		31 80	23,144 67	7,552 64	
35	Kent Northern.....		34 00	1,850 00	2,453 50	
36	Kingston and Pembroke.....		112 85	34,375 40	33,742 51	
37	L'Assomption.....		3 00	255 16	893 55	
38	Lake Erie and Detroit River.....	88 05				
	London and Port Stanley.....	23 66	111 80	31,695 91	45,260 85	
39	Lotbinière and Mégantic.....		23 34	9,577 64	3,127 13	
40	Manitoba and North-western.....	234 50	249 97	63,300 08	48,598 74	
	Saskatchewan and Western.....	15 47				
41	Massawippi Valley.....		34 00	27,923 74	47,483 36	
42	Montford Colonization.....		21 00	1,165 43	3,294 01	
43	Montreal and Atlantic, formerly South-eastern.....	140 10	201 50	68,638 08	129,691 29	
	Lake Champlain and St. Lawrence Junction.....	61 40				
44	Montreal Park and Island (Electric).....		14 43	7,968 71	33,419 35	
45	Montreal, Portland and Boston.....		40 60	12,572 78	13,089 41	
46	Montreal and Vermont Junction.....		23 60	17,160 95	40,091 04	
47	Nelson and Fort Sheppard.....		59 40	16,591 25	6,630 65	
48	New Brunswick and Prince Edward Island.....		36 00	7,202 66	4,660 19	
49	Niagara Falls Park and River Electric Railway.....		13 68	2,988 60	*3,571 43	
50	Northern Pacific and Manitoba.....		205 12	94,912 97	65,575 13	
51	Nosbonsing and Nipissing.....		5 50	4,300 00	8,760 00	
52	Nova Scotia Central.....		74 00	12,742 97	8,680 12	
53	Nova Scotia Steel Co., formerly New Glasgow Iron, Coal and Ry. Co.....		12 50	4,227 69	10,937 64	
54	Orford Mountain.....		26 50	3,782 19	6,260 58	
55	Oshawa Electric Railway.....		8 50	1,728 04	6,304 52	
56	Ottawa and Gatineau.....		56 50	10,823 27	16,096 29	
57	Ottawa, Arnprior and Parry Sound.....		164 00	34,240 72	51,735 68	
58	Parry Sound Colonization.....		48 00	4,669 90	5,585 67	
59	Philipsburg Ry. and Quarry Co.....		6 75	350 95	1,410 86	
60	Pontiac Pacific Junction.....		70 60	17,220 31	12,897 55	
61	Port Arthur, Duluth and Western.....		85 50	3,237 59	2,962 09	
62	Qu'Appelle, Long Lake and Saskatchewan.....		253 96	12,139 92	15,361 73	
63	Quebec and Lake St. John.....	242 00	281 50	50,652 12	55,096 15	
	Lower Laurentian.....	39 50				
64	Quebec Central.....		213 50	65,638 44	63,548 36	

Department of Railways and Canals

Expenses for the Year ended 30th June, 1896—Continued.

Working and Repairs of Cars.	General Operating Expenses.	Total.	Cost of Operating per train mile.	Number.	Remarks.
\$ cts.	\$ cts.	\$ cts.	Cents.		
1,176,390 04	4,430,895 38	11,544,625 43	71 09	26	
	32,128 54	89,057 55		27	
114 74	1,721 41	6,514 06	37 90	28	
675 70	15,337 55	28,925 64	198 29	29	
9,368 33	13,387 26	33,588 33	162 26	30	
2,233 30	10,129 48	58,252 59	55 05	31	
620 10	1,420 95	7,038 31	15 07	32	
622 44	2,105 58	9,662 70	55 21	33	
1,123 68	45,769 34	77,590 33	624 72	34	
125 00	2,500 00	6,928 50	37 72	35	
4,544 20	34,482 03	107,144 14	84 31	36	
9 45	831 32	1,989 48	34 43	37	
8,389 31	54,917 04	140,263 11	63 34	38	
	1,870 50	14,575 27	118 90	39	
26,489 91	62,945 78	201,334 51	188 90	40	
14,334 66	44,180 28	133,922 04	71 80	41	
514 36	2,210 28	7,184 08	51 49	42	
16,456 86	116,743 39	331,529 62	89 55	43	
8,130 89	6,359 86	55,878 81	131 00	44	
4,041 38	8,739 38	38,442 95	56 81	45	
26,514 12	23,859 70	107,625 81	64 41	46	
793 80	10,635 46	34,651 16	143 83	47	
643 55	2,271 37	14,777 77	43 45	48	
3,616 10	26,095 34	96,271 47	118 50	49	
15,068 39	93,066 05	268,622 54	120 25	50	
3,275 00	8,980 20	25,315 20	214 35	51	
100 00	6,617 73	28,140 82	60 02	52	
153 93	1,338 70	16,657 96	105 76	53	
99 24	3,283 46	13,425 47	43 29	54	
462 33	8,205 46	16,700 35	71 80	55	
3,628 95	14,840 53	45,389 04	99 85	56	
4,996 17	39,039 39	130,011 96	55 14	57	
289 57	3,385 36	13,930 50	49 34	58	
	1,382 82	3,144 63	167 44	59	
3,654 56	11,170 90	44,943 32	88 99	60	
242 94	5,757 14	12,199 76	94 28	61	
2,723 13	10,390 38	40,615 16	76 26	62	
10,040 33	68,265 58	184,054 18	86 84	63	
23,574 87	102,112 81	254,874 48	75 70	64	

*Engines and power-house plant (electric.)

No. 7—SUMMARY STATEMENT of Operating

Number.	Name of Railway.	Mileage.	Maintenance of Line, Buildings, &c.		Working and Repairs of Engines.	
			\$	cts.	\$	cts.
65	Quebec, Montmorency & Charlevoix.....	30 00	8,822	22	12,540	59
66	Salisbury and Harvey.....	45 00	8,082	45	6,758	19
67	Shore Line.....	82 50	10,178	77	6,896	24
68	Stanstead, Shefford and Chambly.....	43 00	20,924	90	16,810	09
69	St. Catharines and Niagara Central.....	12 35	6,808	83	5,902	00
70	St. Lawrence and Adirondack.....	19 80	8,463	07	24,828	40
71	Sydney and Louisbourg.....	65 90	18,007	05	32,860	63
72	South Shore, formerly Montreal and Sorel.....	44 67	6,491	11	9,967	21
73	Temiscouata.....	113 00	21,996	45	15,650	04
74	Tilsonburg, Lake Erie and Pacific.....	16 00	1,176	00	1,980	00
75	Thousand Islands.....	4 33	2,146	60	4,052	74
76	Tobique Valley.....	28 00				
77	Toronto, Hamilton and Buffalo.....	83 83	5,251	20	23,554	89
78	United Counties.....	61 00	7,618	67	14,583	59
79	Victoria and Sydney, B. C.....	16 26	5,828	49	7,509	61
		16,270 04	7,370,718	39	11,194,857	28

Department of Railways and Canals

Expenses for the Year ended 30th June, 1896—*Concluded.*

Working and Repairs of Cars.	General Operating Expenses.	Total.	Cost of Operating per train mile.	Number.	Remarks.
\$ cts.	\$ cts.	\$ cts.	Cents.		
3,317 09	11,070 44	35,750 34	68 70	65	
1,115 79	5,105 49	21,061 92	73 68	66	
1,826 11	9,423 95	28,325 07	41 34	67	
5,004 93	15,795 76	58,535 68	75 24	68	
1,167 43	11,760 36	25,638 62	128 18	69	
1,391 89	40,476 94	75,160 30	73 08	70	
10,044 99	86,922 62	147,835 29	133 78	71	
648 22	15,833 62	32,940 16	57 54	72	
3,645 54	16,453 21	57,745 24	62 73	73	
.....	460 00	3,616 00	24 10	74	
537 75	5,914 82	12,651 91	63 55	75	
.....	.....	.....	.....	76	
1,354 83	30,266 94	60,427 86	38 33	77	
5,173 77	12,605 11	39,981 14	46 81	78	
.....	7,018 71	20,356 81	84 41	79	
3,121,056 20	13,356,022 65	35,042,654 52			For 6 months from 1st January, 1896, to 30th June, 1896.

No. 8.—SUMMARY OF ACCIDENTS

Number.	Name of Railway.	Mileage.	Passengers, Employees or Others.	Fell from Cars or Engines.		Jumping on or off Trains or engines when in motion.	
				Killed.	Injured.	Killed.	Injured.
1	Alberta Railway and Coal Co.	64 62					
2	Albert Southern 16 00; Harvy Branch 3 00	19 00					
3	Atlantic and Lake Superior Comprising— Baie des Chaleurs 80 00 Great Eastern Ottawa Valley)	80 00					
4	Baie of Quinté Ry. and Navigation Co. 4 00 Kingston, Napanee and Western 60 82)	64 82	Passenger			1	
5	Berlin and Waterloo (Electric)	2 75					
6	Brockville, Westport and Sault Ste. Marie	45 00					
7	Buctouche and Moncton	32 60					
8	Calgary and Edmonton	295 07					
9	Canada Atlantic 138 00 Central Counties. 38 00)	176 00	{ Passengers Employees Others				1
10	Canada Eastern	136 00	Others	1			
11	Canada Southern 359 24 Sarnia Chatham and Erie 7 00 Leamington and St. Clair 15 95)	382 19	{ Passengers Employees Others	1 1 2	1 6 2	1 1 2	1 1 2
	Canadian Government Railways— Intercolonial	1,150 50	{ Passengers Employees Others	1 1 1	1 2 2	1 2 1	1 6 6
13	Prince Edward Island	210 00	Employees		1		
14	Canadian Pacific Railway	6,211 50	{ Passengers Employees Others	5 5 3	5 25 5	3 3 4	8 10 16
15	Caraget	68 00					
16	Carillon and Grenville	13 00					
17	Central Ontario	104 00	Others				
18	Central of New Brunswick	75 00					
19	Cumberland Railway and Coal Co.	32 00					
20	Dominion Atlantic, comprising— Windsor Annapolis 87 50 Cornwallis Valley 14 00 Yarmouth and Annapolis 87 00 Windsor Branch of Intercolonial 32 00)	220 50	{ Passengers Employees Others		1 1		
21	Drummond County	90 53	Employees				
22	Elgin and Havelock	27 00					
23	Erie and Huron	76 75	Others				
24	Esquimalt and Nanaimo	78 00					
25	Fredericton and St. Mary's Railway and Bridge Co.	1 33					
26	Grand Trunk	3,146 98	{ Passengers Employees Others	2	6 2	1 3	3 10
27	St. Clair Tunnel	2 23					
28	Great Northern	38 00					
29	Great North-west Central	50 93					
30	Hamilton, Beamsville and Grimsby (Electric)	17 00	Employees				
31	Hereford	53 30					
32	Irondale, Bancroft and Ottawa	45 00					
33	Joggins, now Canada Coals and Railway Co.	12 00					
34	Kaslo and Slocan	31 80					
35	Kent Northern 27 00 St. Louis and Richibucto 7 00)	34 00					
36	Kingston and Pembroke	112 85					
37	L'Assomption	3 00					
38	Lake Erie and Detroit River 88 05 London and Port Stanley 23 75)	111 80	{ Passengers Employees				
39	Lotbinière and Mégantic	23 34					
40	Manitoba and North-western 234 50 Saskatchewan and Western 15 47)	249 97	Employees		1		

Department of Railways and Canals

for the Year ended 30th June, 1896.

At work on or near Track making up Trains.		Putting Arms or Heads out of Windows		Coupling Cars.		Collisions, or by Trains thrown from Track.		Walking, standing, lying or being on Track.		Ex-plosions.		Striking Bridges.		Other Causes.		Totals.		Number.
Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
																		1
																		2
																		3
																1		4
																		5
																		6
																		7
																		8
				1	2			1						2				9
								3	1							2		10
					24	1		3	1					10				11
								7	14				2			2		12
	4							1		1								13
								9	6					1				14
		1	1	5	91		13	4	3					5	2	8	23	15
							13	24	9					7	17	38	47	16
								1	1									17
																	1	18
									2									19
				1	3													20
								4									1	21
				1													1	22
									1									23
																		24
									2									25
				2	49		6	2	2					1			6	26
					1			17	5				1	14	15	5	82	27
															8	34	26	28
																		29
									1									30
																		31
																		32
																		33
																		34
																		35
																		36
									1									37
	1																1	38
					3													39
														4				40

No. 8.—SUMMARY OF ACCIDENTS

Number.	Name of Railway.	Mileage.	Passengers, Employees or Others.	Fell from Cars or Engines		Jumping on or off Trains or engines when in motion.	
				Killed.	Injured.	Killed.	Injured.
41	Massawippi Valley.....	34 00	Employees.....				
			Others.....				
42	Montford Colonization	21 00					
43	Montreal and Atlantic, formerly South-eastern. 140 10) Lake Champlain and St. Lawrence Junction. 61 40)	201 50	Employees.....	2			1
44	Montreal Park and Island (Electric).....	14 43	Others.....				
45	Montreal, Portland and Boston, now Province Line....	40 60					
46	Montreal and Vermont Junction.....	23 60	Employees.....		1		
			Others.....				1
47	Nelson and Fort Sheppard.....	59 40					
48	New Brunswick and Prince Edward Island.....	36 00					
49	Niagara Falls Park and River Electric Railway.....	13 68					
50	Northern Pacific and Manitoba	265 12	Employees.....				
			Others.....				
51	Nosbonsing and Nipissing	5 50					
52	Nova Scotia Central.....	74 00					
53	Nova Scotia Steel, Co., formerly New Glasgow Iron, Coal and Railway Co.....	12 50					
54	Orford Mountain	26 50					
55	Oshawa Electric Railway	8 50					
56	Ottawa and Gatineau.....	56 50					
57	Ottawa, Arnprior and Parry Sound.....	164 00	Employees.....		2		
			Others.....				1
58	Parry Sound Colonization	48 00					
59	Philipsburg Railway and Quarry Co.....	6 75					
60	Pontiac Pacific Junction.....	70 60	Employees.....				
61	Port Arthur, Duluth and Western.....	85 50					
62	Qu'Appelle, Long Lake and Saskatchewan.....	253 96					
63	Quebec and Lake St. John..... 242 00) Lower Laurentian..... 39 50)	281 50	Employees.....				
64	Quebec Central.....	213 50	Employees.....	1			
65	Quebec, Montmorency and Charlevoix.....	30 00					
66	Salisbury and Harvey.....	45 00					
67	Shore Line.....	82 50	Passengers.....				
68	Stanstead, Shefford and Chambly.....	43 00	Employees.....				
69	St. Catharines and Niagara Central.....	12 35					
70	St. Lawrence and Adirondack.....	19 80	Others.....				
71	Sydney and Louisburg.....	65 90	Employees.....		1		
72	South Shore, formerly Montreal and Sorel.....	44 67	Employees.....		1		
73	Temiscouata	113 00					
74	Thousand Islands.....	4 33					
75	Tilsonburg Lake Erie and Pacific.....	16 00					
76	Tobique Valley.....	28 00					
77	Toronto, Hamilton and Buffalo.....	83 83	Others.....				
78	United Counties.....	61 00	Passengers.....				
79	Victoria and Sydney B.C.....	16 26					
		16,270 04		23	65	19	65

Department of Railways and Canals.

for the Year ended 30th June, 1896—*Concluded.*

At work on or near Track making up Trains.		Putting Arms or Heads out of Wind'ws		Coupling Cars.		Collisions, or by Trains thrown from Track.		Walking, standing, lying or being on Track.		Ex-plosions.		Striking Bridges.		Other Causes.		Totals.		Number.
Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	3	41
.....	1	.....	1	42
.....	1	2	1	.....	.....	.....	.....	.....	.....	.....	.....	13	4	16	43
.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	44
.....	2	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	4	45
.....	2	46
.....	47
.....	48
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	49
.....	2	2	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	50
.....	51
.....	52
.....	53
.....	54
.....	55
.....	3	.....	.....	.....	1	.....	.....	.....	.....	.....	5	.....	11	56
.....	1	.....	.....	.....	.....	.....	.....	.....	2	57
.....	58
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	59
.....	60
.....	61
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	62
.....	63
.....	1	.....	64
.....	65
.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	66
.....	1	67
.....	1	.....	.....	68
.....	1	1	.....	.....	.....	.....	.....	.....	1	.....	69
.....	1	70
.....	71
.....	72
.....	73
.....	74
.....	75
.....	1	1	.....	.....	.....	.....	.....	.....	.....	1	76
.....	77
.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	78
.....	79
.....	6	1	2	14	205	2	46	75	52	.....	1	.....	3	27	174	161	619	

No. 9.—LINES OF RAILWAY owned by Coal and Iron Mines, for the Year ended 30th June, 1896.

Name.	Length of Rail-way.	Gauge.	No. of Engines.	No. of Waggons.	Remarks.	
NOVA SCOTIA.						
Acadia Coal Mining Co.	3·00	4·8½	2	25	Known as the Albion Mine Railway. Connecting Drummond Colliery with Inter-colonial Railway and Granton Wharf, Pictou Harbour, N.S. From Londonderry Station on I.C.R. to Acadia mines, with sidings. From East Mines Station to East mines, with sidings. From works to West mines, with sidings.	
Intercolonial Coal Mining Co.	8·00	4·8½	4	268		
Londonderry Iron Co.	5·75	4·8½	2	26		
	4·50	4·8½	...	...
	7·00	3·1	2	27		
CAPE BRETON.						
General Mining Association of London, England— Sydney Mines	5·15	4·8½	4	241	This railway is used for colliery purpose only.	
DOMINION COAL CO.—						
Main Line	40·00	4·8½	10	727		
Victoria Branch	5·00	4·8½	1	150		
Caledonia do	1·00	4·8½	1	119		
Glacie Bay	·50	4·8½	1	69		
Reserve	10·00	3·0	4	228		
Gowrie	1·50	4·6	2	150		
	63·15		23	1684		

Department of Railways and Canals

No. 10.—STATEMENT of Aid granted to Railways—Constructed and under Construction—by Governments, for the year ended 30th June, 1896.

Name of Railway.	Loan.		Total.		Bonus.		Total.		Subscription to Shares or Bonds.		Total.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
DOMINION GOVERNMENT.												
Albert (now Salisbury and Harvey).....												
Albert Southern.....												
Atlantic and North-west in Canada.....												
Bas de Chaleurs.....												
Bellefleur and North Hastings—Grand Junction (now in Grand Trunk).....												
Beauharnois Junction.....												
Brantford, Waterloo and Lake Erie (now Toronto, Hamilton and Buffalo).....												
Brookville, Westport and Sault Ste. Marie.....												
Buctouche and Moncton.....												
Canada Atlantic.....												
Canada Central.....												
Canada Eastern (formerly Northern and Western of New Brunswick).....												
Canadian Pacific.....												
do Revelstoke to Arrow Lake.....												
Caraqueet.....												
Central of New Brunswick.....												
Cobourg, Northumberland and Pacific.....												
Columbia and Kootenay.....												
Cornwallis Valley (now in Dominion Atlantic).....												
Cumberland Railway and Coal Company.....												
Drummond County.....												
Dominion Lime Company (now in Hereford Ry).....												
Elgin and Havelock.....												
Erie and Huron.....												
Esquimalt and Nanaimo.....												
Fredericton and St. Mary's Railway and Bridge Company.....												
Grand Trunk.....												
do Georgian Bay and Lake Erie, Owen Sound Branch.....												
Great Eastern.....												
Great Northern (exclusive of Ottawa Valley Section).....												
Guelph Junction.....												
Harvey Branch.....												
Hereford.....												
Intercolonial.....												

* \$14,665.45 rails. † Including \$93,612.54 rails to St. Martin's and Upham Ry. a Payable in half-yearly instalments of \$35,550 each for 20 years, commencing 1st July 1889. b Including \$24,439.84, rails to Chatham Branch. c Including \$44,252.82, rails.

No. 10.—STATEMENT of Aid Granted to Railways by Governments—Continued.

Name of Railway.	Loan.		Total.		Bonus.		Total.		Subscription to Shares or Bonds.		Total.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
DOMINION GOVERNMENT—Continued.												
International (Atlantic and North-west) C. P. R.												
Irontdale, Bancroft and Ottawa.											156,800 00	
Joggins (new Canada Coals and Railway Co.).											160,000 00	
Kent Northern											37,500 00	
Kingston, Napanee and Western											208,732 80	
Kingston and Pembroke.											48,000 00	
L'Assomption.											11,200 00	
Lake Erie and Detroit River.											338,731 00	
Lake Temiscamique Colonization											310,835 95	
Leamington and St. Clair (now in Canada Southern).											51,200 00	
Lotbiniere and Megantic.											96,000 00	
Lower Laurentian											217,600 00	
Midland of Nova Scotia (formerly Stewiacke Valley and Lansdowne).											300,000 00	
Montfort Colonization.											67,200 00	
Montreal and Lake Maskinonge.											41,280 00	
Montreal and Champlain Junction.											103,600 00	
Montreal and Ottawa.											192,000 00	
Montreal and Sorel (now South Shore)											93,757 57	
Montreal and Western.											361,270 00	
Nakusp and Slocan.											121,600 00	
New Brunswick and Prince Edward Island											113,440 00	
New Glasgow Iron and Coal Co.											39,840 00	
Northern and Pacific Junction.											1,320,000 00	
Nova Scotia Central.											235,200 00	
Nova Scotia Southern											240,000 00	
Ontario, Belmont and Northern											32,000 00	
Ontario and Quebec											195,000 00	
Orford Mountain.											84,800 00	
Oshawa.											22,400 00	
Ottawa, Amprior and Parry Sound.											430,400 00	
Ottawa and Gatineau.											284,128 00	
Ottawa Valley (formerly part of Great Northern)											21,500 00	
Parry Sound Colonization.											192,000 00	
Philipsburg Railway and Quarry Co.											21,600 00	
Pontiac Pacific Junction.											193,578 00	
Pontiac and Renfrew.											13,600 00	

† Rails, 58,334.27.

Department of Railways and Canals.

Port Arthur, Duluth and Western.....			271,200 00
Prince Edward Island.....			3,750,565 38
Quebec and Lake St. John.....			1,006,743 50
Quebec Central.....			348,342 00
Quebec, Montmorency and Charlevoix.....			96,000 00
Quebec, Montreal, Ottawa and Occidental, North Shore, Montreal to Quebec			1,954,000 00
do do			1,500,000 00
do do Montreal to Ottawa.....			11,440,000 00
do do			38,400 00
do do			22,400 00
St. Catharines and Niagara Central.....			65,001 60
St. Louis and Richibouco.....			375,000 00
St. John Bridge and Railway extension..	483,900 00		11,200 00
St. John Valley and Rivière du Loup (subsidy lapsed).			163,200 00
St. Lawrence and Adirondack.....			54,400 00
St. Clair Tunnel.....			87,808 00
St. Stephen and Milltown.....			645,360 00
Shuswap and Okanagan.....			24,400 00
South Norfolk.....			51,200 00
Sydney and Louisbourg—Dominion Coal Co.....			134,016 00
Temiscouata.....			14,656 00
Thousand Islands.....			204,800 00
Tilsonburg, Lake Erie and Pacific.....			32,800 00
Tobique Valley.....			60,000 00
Toronto, Grey and Bruce.....			500,000 00
United Counties.....			1,193,369 00
Waterloo Junction.....			60,000 00
West Ontario Pacific.....			15,964,533 05
Western Counties (now in Dominion Atlantic)			500,000 00
Windsor and Annapolis (now in Dominion Atlantic).....			1,193,369 00
+ Dominion Government pays to Quebec Government 5 per cent inter est per annum on these two amounts.			
			138,145,441 67
ONTARIO GOVERNMENT.			
Brantford, Norfolk and Fort Burwell, in Grand Trunk.....			68,000 00
Canada Atlantic.....			270,000 00
Canada Central.....			1,479,000 00
Canada Southern.....			147,858 65
Central Ontario.....			126,500 00
Cobourg, Blairton and Marmora.....		26,000 00	18,740 00
Credit Valley.....			531,000 00
Erie and Huron.....			83,000 00
Grand Junction and Belleville & North Hastings			224,660 00
Grand Trunk, Georgian Bay and Lake Erie.....			336,000 00
Hamilton and North-western.....			565,020 00
Irondale, Bancroft and Ottawa.....			135,000 00
Kingston and Pembroke.....			456,493 00
Kingston, Napanee and Western.....			90,000 00
London, Huron and Bruce.....			178,630 00
Midland.....			168,350 00
Montreal and Ottawa.....			100,000 00
Northern.....			196,188 00

No. 10.—STATEMENT of Aid granted to Railways by Governments—Continued.

Name of Railway.	Loan.		Total.		Bonus.		Total.		Subscription to Shares or Bonds.		Total.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
ONTARIO GOVERNMENT—Continued.												
North Simcoe.....												
Ontario, Belmont and Northern.....												
Ottawa, Arnprior and Parry Sound.....												
Parry Sound Colonization.....												
Fort Arthur, Duluth and Western.....												
Tilsenburg, Lake Erie and Pacific.....												
Toronto and Nipissing.....												
Lake Simcoe Junction.....												
Toronto, Grey and Bruce.....												
Victoria.....												
Wellington, Grey and Bruce.....												
Whitby, Port Perry and Lindsay.....												
			25,000	00								
												7,306,538 24
QUEBEC GOVERNMENT.												
Baie des Chaleurs (now in Atlantic and Lake Superior).....												
Beaubarnois Junction.....												
Canada, Atlantic.....												
Great Eastern (now in Atlantic and Lake Superior).....												
Great Northern.....												
Drummond County.....												
Hereford.....												
International (now Atlantic and North-west—C. P. R.).....												
Lake Champlain and St. Lawrence Junction.....												
Lake Temiscamungue Colonization Railway.....												
L'Assomption.....												
Lotbinière and Mégantic.....												
Lower Laurentian.....												
Missisquoi Valley (now Atlantic and North-west—C. P. R.).....												
Montford Colonization.....												
Montreal and Champlain Junction.....												
Montreal and Ottawa.....												
Montreal, Portland and Boston (now Montreal and Province Line).....												
Montreal and Sorel (now South Shore).....												
Montreal and Western.....												
Montreal and Lake Maskinonge.....												

Department of Railways and Canals.

Orford Mountain.....				154,000 00
Ottawa and Gatineau.....				665,620 00
Ottawa Valley (now in Atlantic and Lake Superior).....				25,300 00
Philpburg Ry and Quarry Co.....				25,720 00
Pontiac Pacific Junction.....				536,000 00
Pontiac and Renfrew.....				17,433 60
Quebec and Lake St. John.....				2,533,000 00
Quebec Central.....				1,055,648 14
Quebec, Montreal, Ottawa and Occidental, including North Shore		3,722,956 00		727,000 00
Quebec, Montmorency and Charlevoix.....				192,000 00
South-eastern (now Montreal and Atlantic).....				444,000 00
St. Lawrence and Adirondack.....				65,216 00
Temiscouata.....				241,500 00
United Counties.....				210,000 00
Waterloo and Megog (now Atlantic and North-west—C. P. R.).....				92,000 00
NEW BRUNSWICK GOVERNMENT.				
Albert (now Salisbury and Harvey).....				455,000 00
Albert Southern.....				52,500 00
Buctouche and Moncton.....				96,000 00
Caraget.....				180,000 00
Central of New Brunswick.....				139,000 00
Chatham Branch (now part of Canada Eastern).....				66,000 00
Fredericton.....				280,000 00
Grand Southern (now Shore Line).....				413,000 00
Harvey Branch.....				9,000 00
Kent Northern.....				135,000 00
New Brunswick.....				76,000 00
New Brunswick and Canada.....				575,000 00
New Brunswick and Prince Edward Island.....				99,708 90
Northern and Western (now Canada Eastern).....				344,000 00
Elgin, Petitodiac and Havelock (now Elgin and Havelock).....				107,500 00
St. Martin's and Upham (now Central of New Brunswick).....				145,600 00
St. John Bridge and Railway Extension.....				5,500 00
St. John and Maine.....				880,000 00
St. John Valley and Rivière du Loup.....				300,000 00
St. Louis and Richibucto.....				21,000 00
St. Stephen and Milltown.....				13,920 00
Temiscouata.....				66,000 00
Tobique Valley.....				70,000 00
NOVA SCOTIA GOVERNMENT.				
Coast Line.....				288,000 00
Cornwallis Valley (now in Dominion Atlantic).....				44,800 00
Joggins (now Canada Coals and Railway Co.).....				35,200 00
Midland Ry. of Nova Scotia (formerly Stewiacke Valley and Lansdowne).....				288,000 00
New Glasgow Iron, Coal and Railway Co. (now Nova Scotia Steel Co.).....				40,000 00
Nova Scotia Central.....				432,261 08
			12,409,007 58	
			3,722,956 00	
			4,169,728 90	300,000 00

No. 10.—STATEMENT of Aid granted to Railways by Governments—Concluded.

Name of Railway.	Loan.		Total.		Bonus.		Total.		Subscription to Shares or Bonds.		Total.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
NOVA SCOTIA GOVERNMENT—Concluded.												
Nova Scotia Southern							307,200 00					
Springhill and Parrsboro' (Cumberland Railway and Coal Co.)							173,650 00					
Sydney and Louisbourg, Dominion Coal Co.							87,808 00					
Western Counties (now in Dominion Atlantic)							679,197 45					
									2,376,116 53			
MANITOBA GOVERNMENT.												
Canadian Pacific												
Manitoba and North-western			649,934 27									
Manitoba South-western Colonization			900,000 00									
Northern Pacific and Manitoba												
Saskatchewan and Western			50,000 00									
Winnipeg and Hudson Bay, (now Winnipeg Great Northern)			256,000 00									
												1,855,934 27
BRITISH COLUMBIA GOVERNMENT.												
Canadian Pacific												
												37,500 00
												165,215,010 42
Total aid granted by Governments.....												300,000 00

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No. 10.—STATEMENT of Aid granted to Railways—Constructed and under Construction—by Municipalities, 30th June, 1896.

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscription to Shares or Bonds.	Total.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
ONTARIO.							
Deeronto	Bay of Quinté Ry. & Navigation Co.						
Town of Brockville	Brockville, Westport and Sault Ste. Marie				5,000 00		
Elizabethtown	do			36,000 00			
Rear of Yonge and Escott	do			7,000 00			
Rear of Leeds and Lansdowne	do			15,000 00			
Bastard and Burgess	do			5,000 00			
South Crosby	do			28,000 00			
Village of Newboro'	do			6,000 00			
North Crosby	do			4,000 00			
	do			15,000 00			
Various Municipalities.							
Renfrew	Buffalo and Lake Huron				116,000 00		
Horton	Canada Central, now Can. Pacific				986,000 00	30,000 00	
Admaston	do					7,500 00	
	do					5,000 00	42,500 00
County of Elgin.							
Township of Townsend	Canada Southern			200,000 00			
do	do			30,000 00			
do	Durham			15,000 00			
do	do			15,000 00			
Town of St. Thomas	do			25,000 00			
Township of Malden	do			15,000 00			
Town of Amherstburg	do			15,000 00			
South Norwich	do			15,000 00			
	do			7,500 00			
Sault Ste. Marie							
Northumberland and Durham	Canadian Pacific				322,500 00		
West Hawkesbury	Cobourg, Blairton and Marmora				20,000 00		
Vankleek Hill	Central Counties			15,000 00			
Dalketh	do			1,200 00			
Rockland	do			800 00			
Clarence	do			6,000 00			
	do			1,000 00			
Town of Trenton							
Wellington Village	Central Ontario			10,000 00			
Town of Picton	do			2,500 00			
County of Prince Edward	do			21,000 00			
	do			60,000 00			
					24,000 00		
							93,500 00

No. 10.—STATEMENT of Aid granted to Railways by Municipalities.—Continued.

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscription to Shares or Bonds.	Total.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
ONTARIO—Continued.							
Town of Cobourg and other Municipalities.....	Cobourg, Northumberland & Pacific						
County of Oxford.....	Credit Valley			200,000 00			
do Wellington.....	do			135,000 00	93,500 00		
do Peel.....	do			110,000 00			
do Halton.....	do			75,000 00			
City of Toronto.....	do			70,000 00			
do St. Thomas.....	do			350,000 00			
Town of Milton.....	do			50,000 00			
do Braampton.....	do			30,000 00			
do Ingersoll.....	do			20,000 00			
do Orangeville.....	do			10,000 00			
Village of Streetsville.....	do			15,000 00			
				20,000 00	1,085,000 00		
County of Kent.....	Erie and Huron.			155,000 00			
City of Chatham.....	do			30,000 00			
Town of Sarnia.....	do			16,000 00			
Village of Dresden.....	do			20,500 00			
do Blenheim.....	do			11,000 00			
do Wallaceburg.....	do			11,000 00			
Township of Sombra.....	do			14,000 00			
do Woodhouse.....	do						
	Grand Trunk, Georgian Bay and Lake Erie.			15,000 00			257,500 00
Town of Simcoe.....	do			10,000 00			
Township of South Norwich.....	do			10,000 00			
do North do	do			40,000 00			
Town of Woodstock.....	do			25,000 00			
Township of East Oxford.....	do			25,000 00			
do Woodstock.....	do			60,000 00			
Town of Woodstock.....	do						
do Stratford.....	do			120,000 00			
County of Perth.....	do			40,000 00			
Township of Mornington.....	do			10,000 00			
do Elms.....	do			15,000 00			
Town of Listowel.....	do			10,000 00			
Township of Wallace.....	do						

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Town of Palmerston.....	do	do	30,000 00		
Township of Minto.....	do	do	25,000 00		
Town of Harriston.....	do	do	20,000 00		
Township of Normanby	do	do	80,000 00		
do Bentinck.....	do	do	65,000 00		
do Brant.....	do	do	20,000 00		
do Elderslie.....	do	do	45,000 00		
do Arran.....	do	do	45,000 00		
do Amabel.....	do	do	43,000 00		
do Keppel.....	do	do	32,000 00		
do Albemarle.....	do	do	10,000 00		
Town of Mount Forest.....	do	do	22,000 00		
Township of Egrement.....	do	do	60,000 00		
Township of Glenelg.....	do	do	20,000 00		
Town of Durham.....	do	do	32,000 00		
Town of Owen Sound.....	Grand Trunk, Owen Sound Branch	do	75,000 00		929,000 00
Township of Sarawak	do	do	7,500 00		
do Keppel.....	do	do	3,000 00		
City of Belleville.....	Grand Junction.....	do	150,000 00		85,500 00
Village of Sterling.....	do	do	5,000 00		
Township of Rawdon.....	do	do	15,000 00		
do Seymour.....	do	do	35,000 00		
do Pery.....	do	do	8,000 00		50,000 00
do Asphodel.....	do	do			
City of Guelph.....	Guelph Junction.....	do	170,000 00	173,000 00	213,000 00
County of Frontenac.....	Kingston and Pembroke.....	do	318,000 00		
City of Kingston.....	do	do	3,000 00		
Village of Renfrew	do	do			
City of Kingston and other Municipalities.....	Kingston, Smith's Falls and Ottawa	do	99,733 00		491,000 00
City of Hamilton.....	Hamilton and North-western.....	do	11,289 00		
Village of Georgetown.....	do	do	30,974 00		
County of Peel.....	do	do	354,007 00		
do Simcoe.....	do	do	12,084 00		
Town of Collingwood.....	do	do	24,592 00		
Township of Innisfil.....	do	do	20,740 00		
do Woodhouse.....	do	do	2,600 00		
do Adjala.....	do	do	2,500 00		
do Essa.....	do	do	10,000 00		
do Tossorontio.....	do	do	5,000 00		
do Mulmur.....	do	do	8,000 00		
Village of Alliston.....	do	do	20,386 00		
Township of Nottawasaga.....	do	do			
City of Hamilton.....	Hamilton, Grimsby and Beamsville.....	do	20,000 00		599,806 00
Township of Saltfleet.....	do	do	3,000 00		23,000 00

No. 10.—STATEMENT of Aid granted to Railways by Municipalities—Continued.

Municipalities.	Name of Railway.	Loan.		Total.		Bonus.		Total.		Subscription to Shares or Bonds.		Total.	
		\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
ONTARIO—Continued.													
Township of South Colchester	Lake Erie and Detroit River							20,000	00				
do Garfield	do do							15,000	00				
Village of Kingsville	do do							10,000	00				
Township of Romney	do do							10,000	00				
Township of East Tilbury	do do							5,000	00				
do Raleigh	do do							10,000	00				
Village of Blenheim	do do							5,000	00				
do Ridgetown	do do							12,500	00			87,500	00
Township of East Gwillimbury	Lake Simcoe Junction							45,000	00				
do North	do do							20,000	00				
do Georgina	do do							20,000	00				
do Whitchurch	do do							15,000	00				
Village of Leamington	Leamington and St. Clair, in Canada Southern							12,000	00			100,000	00
Township of Mersea	do do							15,000	00				
Village of Comber	do do							6,000	00				
Township of London	London, Huron and Bruce							15,000	00				
do Stephen	do do							17,500	00				
do Osborne	do do							25,000	00				
do Hay	do do							15,000	00				
do Goderich	do do							15,000	00				
do F. Wawanosh	do do							25,000	00				
do Hallet	do do							25,000	00				
do Tuckersmith	do do							10,000	00				
do Turnberry	do do							5,000	00				
do Morris	do do							10,000	00				
do Stealey	do do							20,000	00				
Village of Clinton	do do							10,000	00				
do Exeter	do do							20,000	00				
do Kincardine	do do							10,000	00				
do Wigan	do do							9,000	00				
City of London	do do							100,000	00				
Township of Thorah	Midland							50,000	00				
Town of Port Hope	do do							30,000	00			311,500	00

No. 10.—STATEMENT of Aid granted to Railways by Municipalities—Continued.

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscription to Shares or Bonds.	Total.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
ONTARIO—Concluded.							
Township of Malahide.....	Tilsonburg, Lake Erie and Pacific			4,000 00			
do Houghton.....	do			3,000 00			
Town of Tilsonburg.....	do			10,000 00			
Village of Vienna.....	do			3,000 00			55,000 00
City of Toronto.....	Toronto and Nipissing.....			150,000 00			
Township of Scarborough.....	do			10,000 00			
do Markham.....	do			30,000 00			
do Uxbridge.....	do			50,000 00			
do Scott.....	do			10,000 00			
do Brock.....	do			50,000 00			
do Eldon.....	do			44,000 00			
do Bexley.....	do			15,000 00			
do Somerville.....	do			15,000 00			
Townships of Luxton, Digby and Langford.....	do			12,500 00			
Town of Uxbridge.....	do			2,000 00			388,500 00
Township of Albion.....	Toronto, Grey and Bruce			40,000 00			
do Caledon.....	do			45,000 00			
do Mono.....	do			45,000 00			
do Amaranth.....	do			30,000 00			
do Arthur.....	do			35,000 00			
Town of Orangeville.....	do			15,000 00			
do Mount Forest.....	do			20,000 00			
City of Toronto.....	do			350,000 00			
County of Grey (Group).....	do			300,000 00			
Town of Owen Sound.....	do			5,000 00			
Township of Minto.....	do			15,000 00			
do Howick.....	do			35,000 00			
do Gorrie and Wroxeter.....	do			5,000 00			
Village of Teeswater.....	do			5,000 00			
Township of Culross.....	do			38,000 00			
do Turnbury.....	do			5,000 00			988,000 00
City of Brantford.....	Toronto, Hamilton and Buffalo, comprising Brantford, Waterloo and Lake Erie.....			25,000 00			25,000 00

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Township of Oakland.....	do	do	9,000 00		
Village of Waterford.....	do	do	5,000 00		
City of Hamilton.....	do	do	225,000 00		
Township of South Grimsby.....	do	do	4,000 00		268,000 00
Victoria.....					
Town of Lindsay.....	do	do	85,000 00		
Village of Fenelon Falls.....	do	do	25,000 00		
Townships of Verulam and Somerville.....	do	do	22,000 00		
County of Haliburton.....	do	do	54,000 00		186,000 00
Waterloo Junction.....					
Township of Woolwich.....	do	do	28,000 00		
Section of Peel.....	do	do	7,000 00		
Village of Elmira.....	do	do	10,000 00		
do St. Jacobs.....	do	do	2,000 00		47,000 00
Wellington, Grey and Bruce.....					
Fergus.....	do	do	10,000 00		
Peel.....	do	do	40,000 00		
Elora.....	do	do	10,000 00		
Maryboro'.....	do	do	40,000 00		
Nichol.....	do	do	10,000 00		
Wallace.....	do	do	35,000 00		
Minto.....	do	do	65,000 00		
Bruce.....	do	do	278,000 00		
Howick.....	do	do	20,000 00		
Listowel.....	do	do	15,000 00		
Grey.....	do	do	35,000 00		
Elma.....	do	do	30,000 00		
Morris.....	do	do	30,000 00		
W. Wawanosh.....	do	do	18,000 00		
Ashfield.....	do	do	10,000 00		
Turnbury.....	do	do	28,000 00		
Kincardine.....	do	do	8,000 00		
West Ontario Pacific.....					
City of London.....	do	do	70,000 00		
Town of Whitby.....	do	do	15,000 00		
Township of Whitby.....	do	do	30,000 00		
do Reasch.....	do	do	2,000 00		
do Scugog.....	do	do	85,000 00		
County of Victoria.....	do	do	20,000 00		
Village of Port Perry.....	do	do	80,000 00		
Manufacturing Co.....	do	do	94 93		222,064 93
QUEBEC.....					
Caplin.....	do	do	5,000 00		
New Richmond.....	do	do	6,000 00		
Maria.....	do	do	6,000 00		
Carleton.....	do	do	6,000 00		
Nouvelle and Shoobred.....	do	do	6,000 00		
Base des Chaleurs.....				513,000 00	10,069,142 78
					749,500 00

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St. Isidore.....	do	1,500 00				
Dewitaville.....	do	750 00				
Municipality of Rigaud.....	Montreal and Ottawa.	2,000 00			21,774 00	
Parish of Rigaud.....	do	800 00				
Point Fortune.....	do	2,500 00				
Chambly Canton.....	Montreal, Portland and Boston.	15,000 00			5,300 00	
do Basin.....	do	10,000 00			25,000 00	
County of Pontiac.....	Pontiac Pacific Junction.	100,000 00				
Village of Shawville.....	do	1,000 00				
Village of St. Andrews.....	Ottawa Valley.	50,000 00			101,000 00	
Parish of Sherbrooke.....	Quebec Central.	25,000 00			10,000 00	
do Dudswell.....	do	25,000 00				
do Weston.....	do	3,000 00				
Township of Garthby.....	do				103,000 00	
City of Quebec.....	Quebec and Lake St. John					450,000 00
Town of Chicoutimi.....	do				12,000 00	
City of Montreal.....	Quebec, Montreal, Ottawa and Oc-					
	cidental	1,000,000 00				
do Quebec.....	do	1,000,000 00				
do Three Rivers.....	do	100,000 00				
County of Ottawa.....	do	200,000 00				
St. Sauveur de Québec.....	do	25,000 00				
Côte St. Louis.....	do	25,000 00				
Village of Ste. Thérèse.....	do	12,000 00				
Parish of do	do	12,000 00				
do St. Jérôme.....	do	10,000 00				
Village of do	do	15,000 00				
Ste. Scholastique.....	do	10,000 00				
St. Andrews.....	do	25,000 00				
St. Jérusalem d'Argenteuil.....	do				25,000 00	
County of Brome.....	South-eastern (now Montreal and			2,434,000 00		
	Atlantic)					
Township of Brome.....	do					50,000 00
do Sutton.....	do					50,000 00
do Fotton.....	do					63,000 00
do Farnham.....	do					25,000 00
Village of West Farnham.....	do					30,000 00
do East do	do					5,000 00
do Waterloo.....	do					5,000 00
do Drummondville.....	do					30,000 00
County of Drummond.....	do					15,000 00
Township of Wickham.....	do					90,000 00
do St. Germain.....	do					10,000 00
	do					15,000 00

No. 10.—STATEMENT of Aid granted to Railways by Municipalities—Concluded.

Municipalities.	Name of Railway.	Loan.		Total.		Bonus.		Total.		Subscription to Shares or Bonds.		Total.	
		\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
QUEBEC—Concluded.													
Township of Sorel	South-eastern (now Montreal and Atlantic)												
Village of Actonville	do										40,000 00		
do Roxton Falls	do										15,000 00		
Township of Roxton	do										15,000 00		
do Sheford	do										20,000 00		
do West Wickham	do										50,000 00		
											10,000 00		
Fraserville	Temiscouata												528,000 00
Municipality of Magog	Waterloo and Magog, now Atlantic and North-west, C.P.R.										15,000 00		15,000 00
NEW BRUNSWICK.													
Hillsboro', Hopewell and Harvey Parishes	Albert, now Salisbury and Harvey.							40,000 00					
Coverdale, Hillsboro', Hopewell and Harvey Parishes	do							30,000 00					
City of St. John	Canadian Pacific												70,000 00
City of Fredericton	Fredericton												40,000 00
County of York	do												80,000 00
Parish of St. George	Grand Southern, now Shore Line.	2,000 00											
do Fennfield	do	500 00											
Lepreaux	do	500 00											
Town of Fort Fairfield	New Brunswick			3,000 00									
do Lyndon	do												
City of Calais	New Brunswick and Canada.												23,000 00
do Houlton	do												
do St. Stephen	do												47,500 00
Town of Chatham	Northern and Western of New Brunswick, now Canada Eastern.												
Parish of Elgin	Elgin, Petitcodiac and Havelock.			20,000 00									13,000 00
													1,393,000 00

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City of St. John.....	St. John and Maine.....	23,000 00	273,500 00	60,000 00
NOVA SCOTIA.				
County of King's.....	Cornwallis Valley.....		27,685 00	
Counties of Yarmouth, Digby and Annapolis.....	Western Counties, now Dominion Atlantic.....		150,000 00	
County of Pictou.....	New Glasgow Iron, Coal and Railway Co.....		4,000 00	
do Shelburne.....	Nova Scotia Southern.....	50,000 00		
do Queen's.....	do.....	25,000 00		
do Lunenburg.....	do.....	5,000 00		
MANITOBA.				
City of Winnipeg.....	Canadian Pacific.....	200,000 00		
County of Selkirk.....	do.....	35,000 00		
Township of St. Andrews.....	do.....	35,000 00		
Town of Morris.....	do.....	100,000 00		
30				
County of Westborne.....	Manitoba and North-western.....	75,000 00	370,000 00	
Town of Portage la Prairie.....	do.....	50,000 00		
do Minnedosa.....	do.....	30,000 00		
Municipality of Shoal Lake.....	do.....	20,000 00		
do Birdie.....	do.....	40,000 00		
do Strathclair.....	do.....	600 00		
Rapid City.....	Saskatchewan and Western.....		215,600 00	10,000 00
BRITISH COLUMBIA.				
City of New Westminster.....	Canadian Pacific.....		37,500 00	
NORTH-WEST TERRITORIES.				
Qu'Appelle.....	Wood Mountain and Qu'Appelle.....		25,000 00	

No. 10.—STATEMENT of Aid granted to Railways constructed and under construction by Governments and Municipalities, 30th June, 1896.

	Loan.	Total.	Bonus.	Total.	Subscription to Shares or Bonds.	Total.	Grand Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Governments.</i>							
Dominion.....	15,964,533 05		138,145,441 67				154,109,974 72
Ontario.....	26,000 00		7,306,538 24				7,332,538 24
Quebec.....	3,722,956 00		12,409,007 58				16,131,963 58
New Brunswick.....			4,169,728 90		300,000 00		4,469,728 90
Nova Scotia.....			2,376,116 53				2,376,116 53
Manitoba.....	1,855,934 27		770,677 50				2,626,611 77
British Columbia.....			37,500 00				37,500 00
		21,569,423 32		165,215,010 42		300,000 00	187,084,433 74
<i>Municipalities.</i>							
Ontario.....	513,000 00		10,069,142 78		749,500 00		11,331,642 78
Quebec.....	2,434,000 00		492,074 00		1,393,000 00		4,309,074 00
New Brunswick.....	23,000 00		273,500 00		60,000 00		356,500 00
Nova Scotia.....			261,685 00				261,685 00
Manitoba.....			595,600 00				595,600 00
British Columbia.....			37,500 00				37,500 00
North-west Territories.....			25,000 00				25,000 00
		2,970,000 00		11,744,501 78		2,202,500 00	16,917,001 78
		24,539,423 32		176,959,512 20		2,502,500 00	204,001,435 52

Department of Railways and Canals.

PART VII

REPORT OF THE UNITED STATES DEEP WATERWAYS COMMISSION

Department of Railways and Canals.

REPORT OF THE UNITED STATES DEEP WATERWAYS COMMISSION.

On the 8th day of February, 1895, Senator William F. Vilas introduced the following joint resolution, authorizing a preliminary inquiry concerning deep waterways between the ocean and the Great Lakes, and providing commissioners therefor :

“ Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the President of the United States is authorized to appoint immediately after the passage of this joint resolution three persons, who shall have power to meet and confer with any similar committee which may be appointed by the Government of Great Britain or the Dominion of Canada, and who shall make inquiry and report whether it is feasible to build such canals as shall enable vessels engaged in ocean commerce to pass to and fro between the Great Lakes and the Atlantic Ocean, with an adequate and controllable supply of water for continual use, where such canals can be most conveniently located, and the probable cost of the same, with estimates in detail ; and if any part of the same should be built in the territory of Canada, what regulations or treaty arrangements will be necessary between the United States and Great Britain to preserve the free use of such canals to the people of this country at all times ; and all necessary facts and considerations relating to the construction and use of deep-water channels between the Great Lakes and the Atlantic Ocean.

The persons so appointed shall serve without compensation in any form, but they shall be paid their actual travelling and other necessary expenses, not exceeding in all ten thousand dollars, for which purpose the said sum of ten thousand dollars, or so much thereof as may be necessary, is hereby appropriated. The President may, in his discretion, detail as one of such persons an officer of the United States Navy or of the Army.

This resolution having passed the Senate (S. Res. 130) was favourably reported to the House by Mr. Wise from the Committee on Interstate and Foreign Commerce, and was incorporated in the sundry civil appropriation bill and became a law on March 2, 1895 (U. S. Pub. Doc. 122, p. 44). On November 4, the President announced appointments, under the law, of Commissioners : James B. Angell, of Ann Arbor, Mich. ; John E. Russell, of Leicester, Mass. ; Lyman E. Cooley, C. E., of Chicago, Ill.

Soon after the Government of the Dominion of Canada appointed Commissioners : Oliver A. Howland, M. P. P., of Toronto ; Thomas C. Keefer, C. E., of Ottawa ; Thomas Monro, C. E., of Coteau Landing.

The United States Commission met at Detroit, January 13, 1896, and organized with Mr. Angell as chairman and Mr. Russell as secretary. The time and place of meeting were chosen on account of the annual meeting of the Lake Carriers' Association. A week was spent in taking the testimony of ship owners, masters, and merchants, who were present at this meeting.

On the 18th of January a joint meeting was held with the Commissioners of the Dominion of Canada. The United States Commission made a plan of the work necessary to accomplish, so far as its means would allow, the purpose of the law. The exhibits of detailed reports, drawings, maps, and the report upon the technical work of examination will show what has been done. The material discovered in all quarters where search has been made has proved to be of far more importance than was conjectured, and the Commission has been directly led to make recommendations for the action of Congress.

The Canadian Commission has furnished all the matter, much of it of great importance, contained in the public offices of the Dominion, cordially responded to all inquiries, and made special surveys on the route from Lake St. Francis to Lake Cham-

plain by the Richelieu River, the results of which have been laid before our Commission. Examination of the statistics of lake traffic, increasing with a rapidity but little understood, except by those occupied in it, must lead the statesman to consider what assistance Government can give to promote an internal commerce of such direct benefit to the whole country.

The most profound economic changes of modern times have been brought about by the improvements in transportation. These began with small canals and later with railroad construction, in the first half of the century, and have proceeded with accelerating speed to the present time.

The railroad of to-day bears about the same relation to the transportation of thirty years ago as that did to the stage coach and freight wagon of the first quarter of the century. The general use of steel has given an efficiency and security to railway traffic far surpassing even the prophecies of enthusiasts. This has been accompanied by the utilization of steel in shipbuilding, which may be said to date from 1878, as in that year less than 2 per cent of steel was used in construction of ships in Great Britain. Minor inventions in the improvement of marine engines and locomotives have accompanied the greater changes, and resulted in affecting the living and exchanges of the whole world, and greatly broadening the line of separation between progressive and unprogressive peoples.

In the first half of the century each nation practically depended upon its own agriculture for the subsistence of its people. States or communities isolated by distance or mountain ranges might suffer from famine. A bushel of wheat raised far west of the shore of Lake Superior and now consumed by cotton spinners in Lancashire, 5,000 miles away from the field of its growth, might have its value exhausted by a wagon haul of a hundred miles.

Now the combined stock of the world is the daily visible supply; its amount is known in every city and its accessibility is fully understood.

In 1869 occurred the opening of the Suez Canal, which brought the East into competition with Western civilization by reducing a voyage of six or eight months to thirty days, virtually destroying the value of the fleet of sailing vessels previously employed, and making it necessary to readjust ancient systems of distribution and all the capital and labour incidental to them.

A part of the effect of this rearrangement of the world's commerce upon the business of this country may be seen in the reductions of the freights upon grain about 75 per cent, and enabling India to enter the markets of Europe with wheat to the amount of 34,000,000 bushels annually from 1881 to 1885. The magnitude of commercial change or disturbance in reduction of values may be estimated from the fact that in 1869 the value of the total trade of India with foreign countries was \$527,000,000. Five years later it had fallen off \$50,000,000 in value, but had so increased in volume as to employ an increase of 250,000 tons of steam shipping, an equivalent of 500,000 tons of sail.

The future of this commerce between the western world and eastern nations, increased by the introduction of better methods of production and stimulated ambition, must be left to conjecture.

The agricultural competition we have been compelled to meet from India has lately been intensified by the entrance into the world's market of the rising States of the south of our continent. These circumstances, which will change only in the direction in which they are moving, strongly appeal to us to examine in what manner we can lighten the burdens of our agriculture and keep pace with the world's progress by facilitating and cheapening our internal transportation.

The limit of reduction in railroad freights seems to have been reached; it remains to be determined if it is not possible to extend lake navigation to the ocean by a practicable ship channel, for although the development of our natural waterways is but little advanced beyond the bounty of nature, and is capable of immediate and vast extension, the effect of the little we have done has been enormously profitable.

The chain of great lakes, with a water surface of 95,965 square miles, a basin area of 312,365 square miles, and coast lines in the United States limits of 3,075 miles, gives

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us a deep, fresh-water navigation, the extent of which can not be accurately stated, so rapidly does it increase.

If it is overestimated in enthusiastic estimate, the calm statistics soon overtake the exaggeration.

The coast lines of the lakes border upon nine States, containing more than one-third of our population, and upon their harbours are six cities, with an aggregate population of 3,000,000, and hundreds of rapidly growing towns. The increased power of navigation effected by the Welland Canal, through which vessels of a cargo capacity of 1,700 tons are passed into Lake Ontario and thence to Ogdensburg, a distance from Duluth of 1,235 miles, the enlarging and deepening of harbours and the connecting channels of the lakes, and the building of powerful rapidly working locks at the Falls of St. Mary, have given such commercial results that any suggestion of improvement upon a wider scale must at once secure favourable notice.

The amount expended by the United States upon lake navigation, in widening and deepening channels, is about \$12,000,000, and marine history contains no parallel to the rapid development which has been made possible by this assistance. The largest item in the lake traffic, the transportation of iron ore from the Superior shores, has been made possible by the locks at St. Marys Falls and the deepening of the connecting channels. The importance of this industry, but yet in its infancy, can not be estimated.

The richest iron ores are now delivered along a line of coast of 1,000 miles, dotted with manufacturing towns. This has cheapened iron and steel below the cost in any other part of the world. The development of this industry has worked a revolution scarcely less important than the enlargements of harbours, channels, and locks, in the shipbuilding of the lakes.

As steam took the place of sail, so iron and steel have succeeded wood, and there is no part of the seaboard where vessels can be so cheaply built as in the shipyards of the lakes. These enterprising builders are confined to their own shores. Were they not landlocked in their fresh-water seas, they might compete with the shipbuilders of the world.

The increase of tonnage and freights can be better understood from a table showing the business of the locks at St. Marys Falls during ten years :

Year.	No. of vessels.	Tonnage.	Net tons freight.	Year.	No. of vessels.	Tonnage.	Net tons freight.
1885.....	5,380	1,035,937	3,256,628	1891.....	10,191	8,400,685	8,888,759
1886.....	7,424	4,219,397	4,527,759	1892.....	12,580	10,647,203	11,214,333
1887.....	9,355	4,897,598	5,494,649	1893.....	12,008	8,949,754	10,796,572
1888.....	7,803	5,130,659	6,411,433	1894.....	14,491	13,110,366	13,196,860
1889.....	9,579	7,221,935	7,516,022	1895.....	17,956	16,806,781	15,962,580
1890.....	10,557	8,454,435	9,041,213	1896.....	18,615	17,249,418	16,239,061

The estimated value of freight in 1895 was \$159,575,130.

In 1894 the St. Marys Falls Canal was open for 234 days, about 10 days more than the average time. The Suez Canal, which is open all the year, passed 3,352 ships, with a tonnage of 8,039,105 or 5,071,261 less net tonnage than the canal connecting the lower lakes with Lake Superior.

The amount of freight passed by this canal in two hundred and thirty-four days was equal to 13.6 per cent of all the freight carried by all the railroads of the United States for the entire year.

In 1889 the late Mr. George H. Ely published an estimate of the traffic passing through the Detroit River. He made it three times greater than the foreign trade of the port of New York. It exceeded the aggregate foreign trade of all the seaports of the United States by 10,000,000 tons, and was 3,000 tons more than the foreign and coast-wise trade of London and Liverpool combined. At the annual meeting of the Lake

Carriers' Association, at Detroit, January, 1896, the statement was made that in 1895 the ton mileage of vessels passing Detroit was estimated at 22,395,251,250. The cost per ton per mile was 0.85 of a mill. The net tons of freight carried was stated to be 29,860,335.

The effect of this enormous trade upon the increase of manufacturing may be partly estimated by the growth of Cleveland. The city, at the mouth of the Cuyahoga River, near the lower end of the deep water from Duluth to Buffalo, had a population of about 80,000 in 1876. It was not expected that there would be any special development of business there, but the deepening of the connecting channels of the lakes has created a trade in ore and coal which has carried the population of Cleveland to 350,000 people, and its shipyards rival the busiest in the world in their activity.

The increase of the business of Buffalo in receiving, storing, and forwarding grain and lumber, in shipbuilding, and in general manufacturing is a matter of common knowledge.

This may be called the eastern terminus of deep-water navigation and receives a large proportion of the grain bound to the seaboard. For export and distribution, Duluth, Superior, Chicago, Milwaukee and Toledo all send the greater part of their grain and flour to Buffalo. The table of receipts of grain at Buffalo nearly equals the total exports of grain from all ports of the United States. For three years past the receipts were, reckoning flour in bushels—

1893	187,235,160
1894	160,968,095
1895	162,988,842

At Buffalo bulk has to be broken, the grain elevated and transferred to cars or canal boats, and the same thing, with equal expenses, is repeated at New York.

The lake freight from the farthest shore of Lake Superior and of Lake Michigan to Buffalo is from 1 to 1½ cents a bushel. The ocean freight averages about 3 cents, making 4 to 4½ cents for the deep water carriage of 4,000 miles. The whole cost from Chicago or Duluth to Europe is from 9 to 10 cents for a bushel of wheat. Therefore more than half the cost is in elevator charges, commissions, and canal freights, to which must be added the item of waste.

It costs twice as much to carry a barrel of flour from Duluth to New York as it does from New York to Europe, though the latter distance is more than twice as great as the former.

If an ocean steamer could clear from an upper lake port to Europe, it would save the time and expense required to break bulk at two intermediate points, and the cost of carriage would be about one-half of what it is now. Such a vessel could carry her cargo from the east end of Lake Erie to the ocean for not exceeding 1 cent a bushel for the additional water distance.

In 1885, the United States was the principal source of wheat supply to make up the deficiency in the world's markets, notwithstanding that the opening of the Suez Canal in 1869 had brought India into competition with us, and the British East Indian Government had by railways, canals and irrigation greatly stimulated the growth of wheat. From 1881 to 1885 the average export from the United States in grain and flour was 122,157,043 bushels. In the same time the average supply from our competitors was—

Canada	2,906,218
Argentina	2,015,118
Uruguay	77,296
Russia	76,189,773
India	34,580,707

Five years later changes of a most ominous character had taken place. The world's supply had greatly increased, prices were on a much lower level, and the competition was from an unexpected quarter.

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From 1891 to 1895 the exporting countries poured into the markets as follows :—

United States (wheat and flour in bushels)	171,731,480
Canada	10,196,601
Argentina	34,617,381
Uruguay	1,619,489
Russia	105,581,617
India	29,251,323

This shows a yearly average increase from 1891 to 1895 of 114,000,000 bushels over the years from 1881 to 1885. The percentage of increase is nearly divided between the United States and Russia. India falls off. Canada trebles her surplus production, and from the southern part of the continent new and threatening competition rapidly enters the market.

This new feature appears all the more dangerous if we examine the production of these later years. 1891 was an unusual and uneven wheat year. There was a partial failure of crop in Europe. The Russian crop was exceedingly light with agricultural distress ; the crop of the United States was the best ever known with active demand and firm prices. In this year the Argentinian crop was 36,000,000 bushels and the Uruguay crop 3,000,000 ; but in 1895, the Argentinian crop rose to 75,000,000 and the Uruguay crop to 10,000,000 bushels, of which 6,000,000 of bushels in grain and flour were available for export.

While the crop reports of the present year indicate that our southern competitors are subjected, like ourselves, to variable and even disastrous seasons, their standing in the market is established and their production of wheat and corn will undoubtedly greatly increase. When they have bountiful harvests, we must meet very low prices. The Empire of Russia is making prodigious advances in connecting her distant grain fields with the coast and her competition will undoubtedly increase rather than diminish.

A few years ago agricultural products and lumber made the cargoes of lake shipping, but a new industry has arisen from the recent discoveries of iron ore in the Lake Superior region, which, under favourable conditions of transportation, bids fair to bring about far-reaching, economic changes.

Three-quarters of the iron ore brought into use from these discoveries has been produced during the last ten years, and the amount of capital interested in mining and transportation is now estimated at \$234,000,000. The proportion of this recent business to the iron industry of the country may be seen in the statistics of 1892. In that year there was put out 16,036,043 tons of ore, of which the Superior region gave 9,564,388 tons. But when it is taken into account that these ores surpass in richness the ores of any other part of the country, the proportion of value is much greater than appears by weight. New discoveries are constantly reported, and the ease of access to the deposits makes it possible to supply any possible demand. The rapidity of the development of this industry in its infancy seems to establish that, with access to the ocean by a practicable waterway, we can not only control our own iron and steel trade, but can enter into competition in any market. Some of our large iron and steel plants are upon the sea-coast and are importers of foreign ores, as the low value of iron ore in proportion to its weight will not permit them to pay railway freights on the ores of the Superior region. The position of these coast iron works is similar to that of the same industry in Great Britain and Germany. The ores of those countries are not suitable for Bessemer steel, and for some years past their furnaces have been supplied from the mines in the north of Spain, which are the only accessible ores in Europe, so far known, that compare in purity and richness with those of our lake region.

Now the iron masters of Europe are confronted with the discovery that the Spanish deposits are rapidly being exhausted ; they will this year supply 6,000,000 tons, four-fifths of which goes to England. At this rate, and with the prices of ore rising as the quantity diminishes, ten years will exhaust the mines of the Biscay region. The other mines of Spain are on the Mediterranean and are small deposits, about 100 miles from the coast.

Another possible resource is in the mines of central and northern Sweden. These are ores of great purity, but low in iron and with a long haul by rail, so that they can not be cheaply afforded.

This condition of European manufacturing indicates that soon our iron masters can sell their iron and steel in all forms in any part of the world. With deep water access to the ocean, the ores required on the Atlantic could be supplied to the exclusion of foreign ores, the iron and steel business of the country equalized, and our country supplied at a minimum of cost, enlarging the field for capital and industry and increasing the prosperity of the whole. At the same time, furnaces and rolling mills on the lakes could produce iron and steel that, water borne, would irresistibly invade the markets of the world.

The foregoing remarks upon the present commerce of the lakes are capable of wide extension.

We append hereto as a part of this report the report of Mr. Cooley upon the technical work which has been carried on under his immediate supervision, accompanied by certain detailed reports and drawings, which are set forth in three exhibits.

Exhibit A consists of profiles and maps of water routes with explanatory texts, comprising profiles Nos. 1 to 14 inclusive, two maps, a general report, and two special reports. This exhibit comprehends the several routes which have been considered and advocated by diverse interests, and practically covers the available information. In compiling them recourse has been had to all sources of information, as surveys and examinations made by the two Governments, by State and provincial authority, by corporations, and by individuals. It was found necessary to make special examinations in the field of the Mohawk route and of that portion of the St. Lawrence-Champlain route between Lake Ontario and Lake Champlain, and these are covered by special reports. No attempt has been made to define projects, the presentation being limited to the characteristic physical features upon a uniform scale for purposes of comparison.

Exhibit B consists of five special topics, illustrated by one map and seven diagrams, designed to develop the considerations affecting riparian interests of unprecedented magnitude, and the conditions limiting the capacity and character of works. The first topic reviews the data pertaining to elevations and data planes, to which all records and plans are referred. The second sets forth the fluctuations of the several lakes and the St. Lawrence River from 1360 to October, 1896, inclusive, and is accompanied by complete tables and by diagrams showing graphically the record and the important deductions. A discussion of these data determines a certain common plane, or standard low water, throughout the bodies of water under consideration, to which all profiles and water levels have been reduced. The necessity of some standard of common reference is obvious in the undertaking of any comprehensive and far reaching system of works.

The third topic is illustrated by a general basin map, and has been carefully compiled from original sources with a view to better determinations of the water areas and the actual watershed drains therein, and this work has had the co-operation of the Geological Survey of Canada in the definition of the little known watershed line through the highlands of Canada.

The fourth topic deals with the effect of gales on Lake Erie, and has a most important bearing on any proposition for the control of the level of this lake and the project for a canal therefrom to Lake Ontario. The available means did not permit the extending of this investigation to the other lakes, in which, however, the phenomena are less characteristic and less significant in their practical bearing.

The fifth topic has taken great research, and although the subject has not been exhausted, the results are valuable as an index of water conditions in the several lakes prior to any material disturbance of the watersheds due to inhabitation. It is to be inferred that extreme variations in water level were more pronounced than during recent times.

The important topics of rainfall and the outflow of the lakes and their relation to each other and to lake levels have been quite beyond the resources of the Commission, and the data regarding outflow are very meagre.

Exhibit C was designed to cover the practical topics governing most directly the character and utility of works, but as their consideration has naturally followed the

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development of the preceding schedules, little progress has been made except in relation to the ice season. This comprises a large number of tabular records for varying periods upon the streams and lakes of the United States and Canada, and the more significant features in their bearing on water routes are partially presented in five diagrams. This topic is compiled from material, the larger part of which has been collected for the first time from original sources, and is found to give systematic and consistent indications quite beyond any anticipations, considering the diverse character of the original observations and the various individual incentives for keeping these records. A very voluminous correspondence had led to the conclusion that it will be feasible to obtain a substantially complete record for a sufficient number of points to project general charts of the ice season and its variations with latitude, altitude, and water conditions, and the economic and scientific importance of such work can not be overestimated.

It is considered that these general exhibits are important, and that they should be published in full as the primary information for the many who have under advisement, or wish to consider, the questions herein treated.

SUMMARY OF DEDUCTIONS.

The leading deductions which are to be inferred from the work of the Commission are presented in the following summary :

They are tentative in part and ignore the boundary line and are intended to present in logical sequence the leading considerations which determine a choice of routes and the character of an enterprise as well as the collateral bearing of the same.

I. *The Trunk Route.*

1. All routes are assumed to originate at the head of Lake Michigan at Chicago, and at the head of Lake Superior at Duluth-Superior, thence by Lake Michigan and the Straits of Mackinac and by Lake Superior and the St. Mary's River, respectively, a junction is reached in Lake Huron. All deep water routes to the eastern seaboard are restricted to two outlets, the St. Lawrence River from Montreal to the Gulf of St. Lawrence on the north, and the Hudson River from Troy to the Atlantic Ocean at New York.

2. From the junction in Lake Huron to Montreal and to Troy various routes and combinations of routes have been advocated by diverse interests :

(a) The natural route via Lake Erie, Lake Ontario, and the St. Lawrence River to Montreal, and via Lake Champlain to Troy, with an alternative line from Lake Ontario to Troy via the Oswego-Oneida-Mohawk Valley. An alternative to the Lake Erie route is the direct line via Georgian Bay to Lake Ontario at Toronto.

(b) The Ottawa route via the Ottawa and St. Lawrence rivers to Montreal and via Lake Champlain to Troy. This line omits Lake Erie and Lake Ontario.

3. The Georgian Bay line is not considered an available alternative for the Lake Erie route ;

(a) The work of construction is much more serious, and the same money will develop the Lake Erie route for a capacity which will more than effect the saving in distance.

(b) The water supply is limited for a navigation of the first class, the summit level being drawn upon in both directions, which exacts locks of moderate lifts. The excess of lockage, the number of locks, and the amount of restricted channel increase the commercial length or time on the route, the saving in distance being apparent rather than real.

(c) The ice season is sensibly longer on Lake Simcoe, the proposed summit level, and at Georgian Bay points.

(d) Lake Erie is the greatest traffic lake, and its position will always make it an important factor. The construction of an alternative line would not obviate the necessity of developing the Lake Erie route.

1. The Ottawa route is a short, independent line which may have great value for future development, but its consideration is not now justified :

(a) It is the shortest through route between terminals and is unquestionably adapted to a navigation of considerable capacity. Comprehensive surveys will be required to determine its availability for a navigation of the first class, and until a project has been matured it will be impossible to say how far lockage and restricted channels will offset the apparent saving in distance.

(b) For a large portion of its length it runs through a region meagre in resources and the ice season is considerably longer than on the Lake Erie route.

(c) The function of the Ottawa route is as a future loop line for through business when traffic conditions shall have been sufficiently developed by the Erie-Ontario route ; provided, it shall be found capable of a radical solution.

5. The routes for shortening distance between Lake Michigan and Lake Huron and between Lake Michigan and Lake Erie are available for a moderate capacity suited to the local and coasting trade. A first-class navigation, if practicable, would be very costly and its utility would be problematical. A large vessel would probably make the longer course through the open water as quickly and the land routes would be closed earlier by ice. They would open earlier in the spring, and this would be a positive advantage, unless means are devised for breaking the ice blockage at Mackinac.

6. A ship route through Western New York along the general course of the Erie Canal is not regarded as a desirable project :

(a) It would involve 120 to 140 miles more of artificial channel than the route via Niagara Ship Canal, Lake Ontario, and the Oswego-Oneida-Mohawk Valley ; it would be crossed by a greater number of bridges and might have as many locks, owing to the conformation of the ground, and it would have a side hill location across lines of drainage for much of its course ; all of which would make the route longer for navigation, more expensive to construct, and involve greater risk in maintenance.

(b) All the important points to be reached by such a project as Rochester, Cayuga Lake and Syracuse, can be better and more cheaply served directly from Lake Ontario or by local canals.

(c) The country to be reached from both shores of Lake Ontario between Hamilton and Ogdensburg is an important consideration. Lake Ontario is comparatively isolated, and to join it with the upper lakes is conceived to be as fruitful in developing commerce as has been the union of Lake Superior, and a project for this purpose would be justified were there no possibilities of going farther in the direction of the seaboard.

(d) A moderate development of the canal through western New York with a high level through the central lakes basin may be of value as a means of water supply for a ship route through the Oswego-Oneida-Mohawk Valley.

7. The question of a trunk route is thus reduced to the natural course through the several Great Lakes. From Lake Ontario the St. Lawrence River leads to tide water at Montreal, and the Lake Champlain and Mohawk routes lead to tide water of the Hudson River at Troy.

II.—Terminal Routes.

8. The making of Lake Champlain a part of the Great Lake system is justified independently of any project for reaching the seaboard :

(a) The same considerations apply as in the case of Lake Superior and Lake Ontario, but in higher degree, on account of the very favourable position of Lake Champlain with respect to a distributive traffic through New England and the magnitude of the movement to and from this section.

(b) Except as opening up an increased territory, extension of navigation eastward gives very little advantage over Lake Erie for the transshipping and forwarding business until Lake Champlain is reached, which is more favourably situated for a part of the through service.

(c) An extension of lake commerce to Lake Champlain would add 40 to 50 per cent to the length of present lake routes, and a nearly proportional amount of territory

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in direct service, and would largely increase the total water movement. Lake Champlain is a normal part of the Great Lake system.

9. The St. Lawrence route is justified as a seaboard route on its merits and independent of all other considerations ;

(a) Lake navigation at the head of the St. Lawrence rapids below Ogdensburg is 111 miles from ocean navigation at Montreal, with a present length of 46 miles of intermediate canals and 220 feet difference in level. The artificial channel required for a navigation of the first class is much less than that of either the Suez or the North Sea-Baltic Canal. This route is capable of development to any useful capacity for much less money than any other.

(b) It is the shortest line for direct trade with the north of Europe to the maritime provinces of Canada. It is recognized that the foreign movement is largely incidental to the lines of domestic commerce, and that by comparison the ratio of domestic movement in this direction is destined to be small ; so the St. Lawrence route is not to be taken as a solution of the seaboard problem.

(c) Half of the work required to open the St. Lawrence route is also half of that required to reach Lake Champlain. Considering Lake Champlain as a part of the lake system justifying development, the cost of making the St. Lawrence outlet is very small in proportion to its probable utility. The works to reach Lake Champlain and to reach Montreal should be regarded as one outlet.

10. The development of the St. Lawrence seaboard outlet and the making of Lake Champlain a part of the lake system in nowise lessen the importance of an outlet to the Atlantic seaboard through the Hudson River.

(a) The predominant seaboard movement on this continent is to and from the Atlantic Coast between Portland and Norfolk. This is likely to continue the major factor in domestic commerce and the controlling element in foreign movement.

(b) From Lake Erie north-easterly, the Lakes and St. Lawrence extend parallel to the trend of the Atlantic coast and at a distance of 250 to 400 miles. The detour via the Gulf of St. Lawrence to reach this coast is an average trip of 1,830 and 2,000 miles, as against feasible cross routes of 370 and 330 miles. If Lake Ontario were an arm of the sea, the situation would not be materially changed. In other words, for the movement in question, the St. Lawrence route would be of very doubtful utility.

(c) The situation is not unlike and more emphatic than that of France between the Mediterranean and the Atlantic, with physical conditions, such as France does not possess, inviting a water route of the first magnitude. The economic conditions warrant an expenditure several times that required for the St. Lawrence route.

11. With Lake Champlain in the lake system, engineering considerations favour the Champlain-Hudson route from the head of Lake Champlain at Whitehall to tidewater at Troy :

(a) By a cut through the Champlain-Hudson divide the level of Lake Champlain may be carried into the Hudson River Valley and locked down to tide level above Troy in a total distance of 64 miles. The entire route from Lake Ontario will be downhill and the lockage may be concentrated at three localities in maximum lifts.

(b) The tidal Hudson is favourable to deep-water improvement, the amount of material to be moved being no greater than has already been handled in the deepening of the St. Lawrence below Montreal, and the mileage of shallow water to be improved is considerably less. In fact, from the common point in Lake St. Francis to the open sea, the mileage of restricted channel by the Champlain-Hudson route is not excessive in comparison with that of the St. Lawrence route. The statements regarding the tidal Hudson are equally applicable to the Oswego-Oneida-Mohawk route.

(c) The Champlain-Hudson route is advantageous to eastern Canada as a short cut to the southern coasts and to the West Indies. It is the logical extension of a future Ottawa route should conditions favour a radical development on that line, and it skirts New England.

12. Economic considerations favour the Oswego-Oneida-Mohawk route from Lake Ontario at Oswego to tide water of the Hudson River at Troy, provided the physical conditions permit of a radical solution :

(a) The route from Oswego to Troy is 177 miles as against 379.5 miles by the St. Lawrence River and Lake Champlain, or 202.5 miles less in absolute distance. Were the Mohawk Valley in virgin condition it would be feasible to dam it near Amsterdam to the level of Oneida Lake and make a through cut of the Rome summit. Such a treatment would make the route as a whole equal to if not better than the slowest or more restricted 177 miles of channel on the St. Lawrence-Champlain route and save in time the equivalent of the remaining 202.5 miles. This saving on so large a proportion of the commerce as is destined to the Hudson River outlet will be a matter of great moment.

(b) To the extent that vested interests prevent a radical solution will the advantage of distance diminish by increase in the number of locks and through a more restricted channel. An endeavour to mould the works closely to existing conditions may actually destroy the advantage in distance without greatly reducing the cost for a navigation of the first class.

(c) The data show that the route is capable of development for a second-class navigation without radical disturbance of vested interests. The relative value of the route and the capacity to which it may be developed must await final surveys and actual projects, considered on the basis of cost and of economic value. The profile and map, the first ever made of this route as a whole, suggest possibilities not heretofore anticipated, and warrant an exhaustive consideration from final data.

13. Each of the three routes from Lake Ontario seems to have independent merits justifying its construction, and no one of them can be eliminated without sacrificing material advantages. It is easy to believe that the eventual growth of commerce will furnish business for all. Meantime, the determination of the route for initial development should rest on a consideration of all the factors in the problem.

III. Limiting Conditions.

14. The water supply is adequate to a project of any character on all available routes, except the Mohawk, which may require special provision :

(a) The mean outflow of the lakes at Niagara is adequate to a channel three-fourths of a mile wide and 40 feet deep, with a velocity of 1 mile per hour. Any proportion of this is available for the St. Lawrence and Champlain-Hudson routes.

(b) A through cut of the Rome summit to the level of the lakes of central New York, or a high-level feeder from Lake Erie, will provide a sufficient water supply for the Mohawk route ; otherwise a limited water supply will dwarf the project for a navigation of the first class, as the channel must be fed both ways from a summit, while on the other routes the feed is continuously in one direction.

15. Assuming 30 feet at standard low water as the limit of depth for a navigation of the largest useful capacity, the proportion of channel to be actually constructed or deepened on any of these routes is relatively small :

(a) In this consideration, it is assumed to be feasible to control the level of Lake Erie so as to produce 16 feet on the mitre sill of the Welland Canal at Port Colborne, or raise standard low water 2.28 feet, by works placed in the Niagara River, at Tonawanda and in the Canadian channel opposite, and that the Lake Erie level, less the slope required in the Niagara River, will extend to Tonawanda ; and further, that the Niagara Ship Canal is to be constructed from Tonawanda to Lake Ontario at Olcott harbour, via Lockport.

(b) It is assumed that the St. Lawrence River below Montreal has been deepened to 30 feet. The present improvement is for a depth of 27.2 feet and covers a length of 43 miles of dredged channel. A depth of 30 feet involves 50 miles of work, and this has already been undertaken.

(c) It is assumed that the Hudson River below the State dam at Troy has been deepened to 30 feet. The project now under way is for 12 feet and covers 12 miles. A depth of 30 feet involves 31 miles of improvement.

(d) Between Lake Michigan and Lake Huron, through the Straits of Mackinac, the depth is ample ; but a change in the sailing course will be required over a some-

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what longer route. Between Lake Superior and Lake Huron, through the St. Marys River, a depth of 30 feet involves 27 miles of channel and 1 mile of the St. Marys Falls Canal.

(e) From Lake Huron to Lake Erie are 43.5 miles of channel of less than 30 feet; and between Lake Erie and Lake Ontario, 5.5 miles of channel and 25.3 miles of canal.

(f) From Lake Ontario to Montreal and to Troy the constructed and deepened channel will be approximately as follows (the constructed channel may be classified as actual canal and as artificial channel formed by impounding water):

Routes.	Actual canal.	Artificial channel.	Deepened channel.	Total.
	Miles.	Miles.	Miles.	Miles.
St. Lawrence River to Montreal.....	42.5	20	16	78.5
St. Lawrence-Champlain to Troy.....	67	80	52.3	199.3
Oswego-Oneida-Mohawk to Troy.....	85	70	12	167

On the St. Lawrence-Champlain route, 20 miles of canal, 20 miles of artificial channel, and 9.8 miles of deepened channel are common to the St. Lawrence route; and 23 miles of canal, 20 miles of artificial channel, and 8 miles of deepened channel are between the St. Lawrence River and Lake Champlain.

The artificial channels are assumed equal in capacity to the deepened channels. How far this may be true and the relative extent of actual canal and of artificial channel depend on the treatment.

(g) From Chicago to Montreal and to Troy the proportion of work is as follows:—

Character of work.	St. Lawrence route.	Champlain route.	Mohawk route.
	Miles.	Miles.	Miles.
Actual canal.....	67.8	92.3	110.3
Artificial channel.....	20	80	70
Deepened channel.....	65	101.3	61
Total work required.....	152.8	273.6	241.3
Total distance.....	1,281.5	1,460.5	1,258
Percentage.....	11.9	18.7	19.1

To the mouth of the Saguenay River and to New York City the proportion of work is as follows:—

	St. Lawrence route.	Champlain route.	Mohawk route.
	Miles.	Miles.	Miles.
Total work required.....	202.8	304.6	272.3
Total distance.....	1,558.5	1,614.5	1,412
Percentage.....	13	18.9	19.3

The distance from Duluth is 67.5 miles greater than from Chicago, and the proportion of work may be computed as above from data under (d).

16. A channel of certain dimensions may be taken as practically equivalent to deep and open water. Without assuming it to have this actual value, a channel one-fourth mile wide and 40 feet deep is arbitrarily taken as free water for the purpose of

comparing the length of free and restricted channels. The distances are taken from Chicago to the mouth of the St. Lawrence at Pointe De Monts and to the Atlantic Ocean at Sandy Hook light vessel. Duluth-Superior will have 67.5 miles more of distance and 48 miles more of restricted channel than Chicago.

Destination.	Restricted channel.	Total distance.	Proportion.
	Miles.	Miles.	Per cent.
Montreal	223.8	1,281.5	17.5
Gulf of St. Lawrence.....	333.8	1,698	19.6
Troy—Champlain route.....	341.3	1,460.5	23.4
Atlantic Ocean—Champlain route.....	407.3	1,642.5	24.8
Troy—Mohawk route.....	300.3	1,258	23.9
Atlantic Ocean—Mohawk route.....	366.3	1,440	25.4

In the above tables canal distances are included in restricted channel.

17. The capacity of canals required between Lake Erie and tide water of the Hudson at Troy may be increased two and a half times at an additional cost of 30 to 40 per cent:—

(a) This statement applies to the canal work proper and assumes that channels in open water will be deepened progressively as demanded by commerce. The basis of comparison is a canal adapted to a vessel of a draught of 20 feet. A vessel of the same model and a draught of 27 feet will have approximately two and a half times the carrying capacity.

(b) It may be assumed that about 30 per cent of the cost of the smaller channel is represented by fixed charges that will not vary materially with the capacity. Half of the remainder is represented by deep cuttings, in which the increased cost will be about 40 per cent. The other half will represent shallow cuttings, embankments, structures, etc., at various ratios and averaging about 60 per cent increase of cost. The results are as follows:—

Class of Expenditures.	For draught of—	
	20 feet.	27 feet.
Fixed charges.....	Per cent. 30	Per cent. 30
Deep cuttings.....	35	49
Ordinary work, structures, etc.....	35	56
Total.....	100	135

(c) This ratio is taken for the Champlain route, including that portion of the St. Lawrence necessary to it. It will be greater for the St. Lawrence route as a whole. The project for the Mohawk route is not sufficiently obvious for comparison, but if a radical solution is adopted the ratio will be about the same. The results will vary on different sections and with difference in treatment.

18. The deepening of channels in open water, when necessary, will be relatively a minor factor. The deepening of the St. Lawrence below Montreal, and of the St. Marys River and the passage between Lakes Huron and Erie, furnish sufficient precedent. The material for the most part yields to ordinary dredging operations, and alternative channels offer special facilities at the most serious rock cuts.

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19. The question of depth and width of channels between the several lakes and to the seaboard is solely one of cost. Up to channels sufficient for a draught of 27 or 28 feet, every condition seems to lend itself. Beyond this limit the difficulties rapidly increase, and the proportion of restricted channel will be so large as to make the result of doubtful efficiency. Happily, there does not appear to be any economic reason in sight that seems to require provision for a larger draught.

20. The season of navigation is limited by ice, and this varies greatly in different years. The body of the several lakes is capable of winter navigation, and through navigation would be feasible if intermediate channels could be kept open. The ice interruption differs for the several routes:—

(a) The ice season for the St. Lawrence between Montreal and the sea is given by the record at Montreal. The average is from December 10 to April 19, a period of 130 days. The closing is due to the freezing of drift and anchor ice accumulations and holds out little hope that the season can be shortened.

(b) The average ice season for the Hudson River at Albany is from December 22 to March 26, or 94 days. The St. Lawrence-Champlain route is governed by the St. Lawrence at Ogdensburg and Lake St. Francis, which may be taken from December 15 to April 14, or 119 days. The data for Lake Champlain indicate the possibility of shortening this period by ten days to two weeks.

(c) The Mohawk route is governed by Oneida Lake with an average ice period from December 16 to April 7, or 112 days. The rivers are usually free before the lake is open, and the ice season can probably be shortened.

(d) Whenever Lake Ontario can be reached it will be possible to reach Lake Erie. Lake St. Clair is the controlling point between Lake Erie and Lake Huron, the ice season averaging from December 17 to April 5, or 109 days. The closing is about the same, and the opening about two weeks later than the Detroit River and west Lake Erie points, which are nearly the same as Albany. Whether this period can be abridged or not depends on how far Lake St. Clair is complicated by drift accumulations from Lake Huron. Lake St. Clair corresponds practically to Oneida Lake and the southern end of Lake Champlain, so it is possible to reach Lake Huron whenever it is possible to reach Lake Ontario.

(e) The average ice season in the Straits of Mackinac is from January 6 to April 15, or 99 days. It will thus be seen that through navigation is limited by the closing of Lake St. Clair and the opening of Mackinac, or from December 17 to April 15, a period of 119 days. The Mackinac ice is understood to be largely the accumulated drift, due to winds on the two lakes.

(f) The ice season of the St. Marys River is from December 8 to April 11, or 124 days, as indicated by the record at the mouth of the river; from December 4 to April 25, or 142 days, as indicated by the opening and closing of the canal, and from December 3 to April 27, or 145 days, as indicated by the record at Sault Ste. Marie, Ontario. The canal record may be taken as the practical limit of ice for the river as a whole. This is over a month earlier and over a week later than at the Straits of Mackinac.

(g) A through route from Lake Michigan will be closed from December 16 to April 15, or 120 days, by the Mohawk route; and from December 15 to April 15, or 121 days, by the St. Lawrence-Champlain route; and from December 10 to April 19, or 130 days, by the St. Lawrence route. From Lake Superior the period is 142 days, closing six days earlier and opening six days later than at Montreal. From Lake Huron the period is governed by the routes east from Lake Ontario.

(h) Ice boats are now in operation that will break 10 inches of solid ice at 5 miles per hour and claims are made of ability to handle 18 inches. The great car ferries operate across Lake Michigan and even across the Straits of Mackinac at all seasons and are able to break any field ice encountered and plough through several feet of drift ice. It would seem to require no great development of resources to reduce the ice period to 90 or 100 days from Lake Huron by either the Mohawk or Champlain routes, and if Mackinac proves tractable this period will apply to Lake Michigan. It is possible St. Marys River would also yield to proper efforts, but no inducement can be held out for the St. Lawrence between Montreal and Quebec as conditions are now understood,

unless it be feasible to prevent the actual closing of the river as has been suggested by a commission of engineers. If commercial necessities should ever so demand, means are likely to be found for still shortening the period, and the experience in high latitudes in the north of Europe is not amiss in this connection,

IV. Capacity.

21. It is assumed that the character of works is to be adequate to vessels of the most economical type, not only for the coasting or domestic trade, but also for the foreign movement, so that commerce may be carried on directly between lake ports and other domestic and foreign ports without transshipment:—

(a) Vessels vary in size with the trade in which they are engaged and with the length of route. The ability to obtain cargoes and to deliver them at points capable of distributing or forwarding them promptly, combined with length of route, justifies the largest type of carrier, and these conditions obtain at the great ports only. There are many other ports at which the trade requires a more moderate type of vessel. In this consideration it is assumed that harbours are improved to meet trade requirements, and this has usually followed closely on actual needs.

(b) The opening up of the lake system to foreign commerce will increase the length of many important trade routes upward of 40 per cent, and will reach directly the producing and consuming interior of the continent, in which, relatively, the largest future growth is to be anticipated. These conditions will make advantageous the largest type of vessel found useful in any trade of the world.

(c) The present type of lake vessel is of flat bottom and broad beam, and is an outgrowth of the demand for large carriers on the small depth of water through the intermediate channels. The limit of economical carrying capacity seems not to have been reached even on the shore lake routes. The type of vessel is not the most economical to construct and operate, and would doubtless be modified in favour of larger draught were there no limit to the depth of channelways.

22. The requirements as now defined demand a limiting draught of 27 or 28 feet:

(a) Thirty feet is now recognized as the standard depth for first-class harbour entrances. This is intended to provide some margin of depth, depending on the tide, against pounding the bottom in a seaway.

(b) The North Sea-Baltic Canal is built with a depth of 29·52 feet (9 meters). The North Sea-Amsterdam has a depth of 27·88 feet, and an eventual depth of 35·5 feet is projected. The Suez was originally constructed for 26·24 feet (8 meters), and is undergoing progressive enlargement and deepening. The Panama project adopted 27·88 and 29·52 feet in different sections, and the Nicaragua project 28 and 30 feet. Corinth and Manchester each has 26 feet. The North Sea-Baltic and the North Sea-Amsterdam may be taken as the latest type, with depths of 29·52 and 27·88 feet, respectively. To float the same boat in fresh water these canals would require to be 30·3 and 28·2 feet in depth, on account of less density.

(c) In 1886 21·7 per cent of the vessels passing through the Suez Canal exceeded a draught of 22 feet 11 inches (fresh water, 23·5 feet), the limiting draught being 24 feet 7 inches. In 1890, 29·3 per cent exceeded the above, and in 1895, 36·4 per cent. The limiting draught was fixed on April 15, 1890, at 25 feet 7 inches (fresh water 26·3 feet). The proportion of large vessels between a draught (fresh water) of 23·5 and 26·3 feet has rapidly increased until in 1895 it was 36·4 per cent of the number and about 44 per cent of the tonnage, as inferred from the usual proportion between draught and tonnage. Half of this tonnage exceeded a fresh-water draught of 24·5 feet.

(d) Freight vessels are in commission with a loaded sea draught of 26 to 28 feet equivalent to a fresh-water draught of 26·6 to 28·7 feet.

23. Assuming a fresh-water draught of 27 feet, equivalent to a sea draught of 26·3 feet, a good type of boat will have a breadth over all of 60 feet and a length over all of nine times the breadth, or 540 feet, with a cargo capacity of 11,000 to 15,000 net tons.

(a) Recent lake practice for freight carriers gives a coefficient of displacement of 80 per cent, or the above boat would displace 21,870 net tons. The same practice gives

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maximum cargo capacity at 68 to 75 per cent of the displacement. If taken at 70 per cent, the above boat would carry a maximum cargo of 15,309 tons. This type may be taken as the extreme limit.

(b) For general service the coefficient may be taken at 70 per cent and the displacement at 19,140 tons. With more machinery and fuel, the cargo ratio may be taken at 60 per cent, and the cargo capacity at 11,480 net tons.

(c) Some of the latest Atlantic liners have coefficients ranging in the vicinity of 60 per cent. Of twenty-three of these vessels built since 1880, eight exceed the above dimensions either in length or beam. This type is not considered of utility for future lake business.

24. The locks required for the above type of boat are assumed to have a depth of 28 feet on the sills, a breadth of 64 feet, and a net length of 560 feet, with lifts up to 40 feet where permissible :

(a) The above dimensions give a better leeway than with the boats of the Ogdensburg line, which are built for the lock of the Welland Canal, their extreme width being 3 feet less than that of the lock, while their length is but 1 foot less than its net length and their draught is practically the depth on mitre sills.

(b) Each of the several canals can be so designed as to bring the locks in the same locality so as to save delay. The single individual lock is considered better than the fleet lock and can be operated more quickly, and the maximum facilities may be provided by duplicate locks.

(c) The lift of locks should be made as great as possible where conditions permit, as time is consumed by the number of locks rather than by the lift. It is believed to be practicable to construct quick-acting locks, with girder gates and lifts of 40 feet, and much of the canal work can be better laid out for large lifts.

(d) With the least possible number of locks, quick operation, and provision for the speedy handling of boats into and out of the lock, much of the objection on account of delays will be obviated.

25. The question of canal prism and channel depth is important, and aside from the question of lockage, the efficiency of works for vessels of the largest class depends thereon :

(a) The subject of ship resistance in restricted channels is a matter requiring comprehensive investigation in view of the proportion of such channels on lake-seaboard routes. In addition to a sufficient ratio of cross section of canal to the midship section of the boat and ample width for two boats to pass, the shape of the section is important. Experience shows that within certain limits and with sufficient width of prism, depth beneath the boat is essential both to speed and carrying capacity.

(b) As a trial section a minimum prism of 10,000 square feet is suggested, or a ratio 5.6 times that of the lock prism and 6.2 times that of the boat, with a depth of about 20 per cent in excess of lock depth and 25 per cent in excess of draught of boat, say a depth of 33½ feet and a mean width of 300 feet. In some situations greater depth would be justified at the expense of width, and again other situations might make 30 feet expedient. The general proposition is that when depth is readily obtainable an increase will be advantageous, and this is relatively a small item of cost in the bottom of deep cuttings.

(c) In open water where the depth may be increased at any time, this is a matter of less importance, but depth here will greatly facilitate speed and steering qualities, a matter of importance in channels as crowded as are the intermediate channels of the lakes. On this account and uncertain drifting due to currents and wind, lake interests are asking for widths of 600 feet and more according to locality for submerged channels, and future conditions will doubtless make expedient a width of one-fourth mile with such depth in excess of draught as may be found readily practicable.

(d) Experience in navigating the Welland Canal shows that the bridges and other structures are a source of vexation, requiring great care in navigation. Every obstruction that checks speed involves loss of steering power and is to be avoided so far as may be possible.

V. Projects.

26. In addition to a project for a navigation of the first class as developed in the preceding sections, a project for navigation of the second class corresponds to present lake development, to much of the coasting trade, and to a vast general commerce with minor ports of moderate harbour depths. It is assumed that such a navigation is satisfied with dimensions in vessels, locks, and canal prisms of three-fourths of those heretofore discussed :

(a) The vessel would have a length over all of 405 feet, a breadth of 45 feet outside, and a draught of $20\frac{1}{2}$ feet, with a displacement of 8,000 to 9,200 net tons, and a cargo capacity of 4,800 to 6,400 tons. The lock dimensions would be 420 feet by 48 feet, with a depth of 21 feet on sills. The minimum canal section would be 5,625 square feet, or a depth of 25 feet and a mean width of 225 feet. The character of work is set forth in the preceding discussion.

(b) The above dimensions cover the lake fleet, except a few exceptional boats built in the last two years for ore carrying and capable of loading to 20 feet. The largest of these have lengths of 426 to 438 feet, breadths of 45.5 to 48.27 feet, and will carry 6,300 to 6,800 net tons on 19 feet and 500 tons more on 20 feet. The boats for general service are now well inside the dimensions fixed, but no limit can be given for special trades or even the general service, notwithstanding all routes are inside of 1,000 miles. It is to be assumed, however, that there will always be a trade demanding vessels within the limits set.

(c) It will be seen by consulting the several profiles that the limiting depth at standard low water is, for the St. Mary's River, 17.9 feet ; Lake St. Clair, 18.8 ; Lime Kiln Crossing, 19.3 feet, and Niagara River, 17 feet. By raising the level of Lake Erie as heretofore described, over 21 feet would be given from Tonawanda to Lake St. Clair, Lake St. Clair would require another foot and the head of the river at Lake Huron nearly 2 feet. The St. Marys River will require a deepening of over 3 feet. The depth on the floor of the new lock is sufficient if changes can be made so as to utilize the limit, as in the Canadian lock opposite.

(d) The present limit to Lake Superior is 17.9 feet and between the other lakes 18.8 feet. By controlling the level of Lake Erie and by continuing the policy of channel deepening at the other points, the standard of 21 feet may be obtained, and all in line with the policy of ultimate development. The extension of this depth over any route to the seaboard involves no extraordinary works except in the construction of canals. As already set forth, these can be made in essential parts on an ultimate basis without extraordinary increase in cost.

27. As a measure of early utility and pending the execution of new projects, it might be feasible to so amend the Canadian canal system, now nearing completion, as to be adequate to nearly all the lake fleet as developed up to the recent deepening of main channel :

(a) The Lake Superior trade has developed on a depth of 14.2 feet at standard low water as defined on the lower platform of the lock of 1881, and that of the other lakes on about 14.5 feet. The depths on the sills of the terminal locks of the Welland Canal are 13.7 feet at Lake Erie and 14.3 feet at Lake Ontario, and the canal has been open since the spring of 1887. The St. Lawrence canals now constructing between Prescott and Montreal vary from 14.4 to 16.2 feet on the sills of the several terminal locks.

(b) No sufficient reason appears for the failure to develop a greater trade to Lake Ontario points except the length of the locks, as the upper lake boats had outgrown these before the enlarged canal was opened. The number of locks and the length of time in passage and the lack of an adequate outlet from Lake Ontario may have contributed to the result. The locks are 270 feet long between hollow quoins and 45 feet wide, with 14 feet on the sills.

(c) The boats of the Ogdensburg line are built to conform to the locks, and are 255 feet in length, or within 1 foot of the possible limit, 42 feet over all, and carry a cargo of 1,750 net tons, with a depth of 14 feet on mitre sills. With 16 feet the cargo would be increased to 2,200 tons. If the locks had been 125 feet longer the cargo would be

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3,600 tons, or more than double the present limit, and this is about the limit of the general service boat on the lakes until recently, and represents a very large fleet running in various lines.

(d) To raise the level of Lake Erie as already suggested provides 16 feet in the summit level of the Welland. Some of the terminal locks require no change and others may be increased, while a few will need alteration or rebuilding. To raise intermediate levels and locks walls and to lengthen the locks to 395 feet may not be practicable. The ease and cheapness with which this could originally have been done, considering its value, encourages the hope that it may still be feasible to amend the work in progress and completed. A St. Lawrence-Champlain canal could thus furnish an early and valuable service to New England points.

28. The project outlined contemplates a first-class navigation for the largest type of ocean carrier now in use and also a navigation of the second class adapted to the present interlake trade, to coasting, and to the secondary foreign movement. The several considerations advanced are designed to determine a policy in accordance with which all schemes of work may be projected to some consistent and ultimate end that shall comprehend the greatest possible utility :

(a) It is conceived that with the progressive improvement of intermediate channels some of the capital works will be undertaken and that the development will be in the direction of extending the area of lake navigation as securing the largest immediate benefit from the investment. It is believed that this may be done in harmony with the ultimate policy without undue increase in cost. In other words, the Niagara Ship Canal could be built on the ultimate design, but deferring such work as can be developed progressively or built as required without detriment to the final plan. How far this may be feasible in respect to this and other works can only be told as a final project is matured from detailed information.

(b) These remarks apply to other capital works and also to the question of expediency involved in the improvement suggested for the present Canadian canal system and in that connection the immediate carrying out of the section of work between Lake St. Francis and Lake Champlain.

(c) The scheme of work is based on locks in two sizes and adapted to a navigation of the first and second class. At an early day after the completion of the work as a whole each of these types will require duplication, and before the movement has reached the proportions of that now existing through the Detroit River. It is not assumed that these types will exhaust the requirements. There are vessels in service in the merchant marine and in the Navy, sidewheel boats on rivers and sounds and tows for which a fleet lock may eventually be expedient. It is assumed, however, that the towing practice in certain trades on the lakes is simply the natural outgrowth of the economy of large carrying which must conform to limited depths and is in itself an argument for greater depths and the higher economy of the single hull. With the development of these greater depths the fleet tendency is likely to diminish.

29. The control of the level of Lake Erie is desirable if it can be accomplished by works in the vicinity of Tonawanda and on the opposite side of Grand Island, not only as an improvement of the rock channel near the mouth of the Detroit River, but especially as a measure of radical improvement for the Niagara River, and a contribution to the Niagara Ship Canal. It is believed to be justified solely in connection with the passage from Lake Erie to Lake Ontario :

(a) It has been suggested that standard low water on Lake Erie should be raised 2.28 feet. This figure is taken arbitrarily as corresponding to 16 feet in the Welland Canal, and is well within the limits of high water, so no extraordinary question of damages is involved, but otherwise is not necessarily a measure of what can or may be wisely done. With due allowance for the slope in the Niagara River, the water at Tonawanda would be raised 7 to 8 feet above standard low water.

(b) To accomplish the above result would require a material improvement in the throat at Black Rock and a deepening of 5 to 6 miles of river and entrance in order to secure 30 to 33 feet of water. The summit level of the canal between Tonawanda and the mountain ridge near Lockport would be materially reduced in excavation.

(c) The general route for the canal as proposed in 1889 seems preferable to any other, with a possible modification in favour of a location along the general course of Tonawanda Creek and the Erie Canal between the Niagara River and the "gorge" at Lockport. No other route that has been surveyed from Niagara River to a lower point has equal availability on account of the continuous rock bed and limited depth below Tonawanda and the impracticability of farther down-stream extension of the Lake Erie level.

(d) Most careful surveys and studies will be required to determine the actual practicability of the solution herein suggested. It is obviously desirable, and it is believed on superficial examination that it will be found within the domain of feasibility.

30. No experimental work is involved in the development of any useful depth through the intermediate channels of the upper lakes:—

(a) In a route of over 900 miles between Chicago and Buffalo the obstructions to a depth of 30 to 33 feet are about 44 miles, or about the same as the improved St. Lawrence below Montreal on a depth of 27·2 feet. Of this, 18 miles are through Lake St. Clair, which is understood for the most part to be of the easiest class of dredging and not more difficult than was Lake St. Peter on the St. Lawrence. Ten to 11 miles are near the mouth of the Detroit River and in part is known to be rock. Methods for this work have been developed. If these are too tedious and expensive, it will be feasible to unwater the American channel and execute the work more quickly and satisfactorily and at less probable cost. The remaining 15 miles are scattered shoal stretches which are not known to involve any special difficulties.

(b) The route into Lake Superior through the St. Marys River involves some 27 miles of deepening aside from the canal. Portions of this are known to be a friable and laminated sandstone, which in part yields to dredging, and it is probable that machines would be devised to handle it efficiently if a radical improvement warranting the same were to be undertaken.

31. Eastward from Lake Ontario, the data are in part suggestive only, yet certain features are obvious and no extraordinary conditions are involved except in the magnitude of the works:—

(a) The same dredging fleet that has through a series of years deepened the St. Lawrence below Montreal to 27·2 feet has only to continue in service as it is now doing to produce 30 and 33 feet. The improvement of Lake St. Louis and Lake St. Francis is the continuation of work of a different character, but of much less extent. The improvement of the shallows of Lake Champlain is believed to be less difficult, as the material in large part is probably alluvial. No reason appears why the Hudson River below the State dam at Troy should be more difficult as a whole than that of the St. Lawrence, and the extent of work is much less.

(b) The American shore along the rapids of the St. Lawrence between Ogdensburg and St. Régis seems to be most available for a ship canal of the first class, and it is anticipated that a full survey will develop special adaptation. Between Lake St. Francis and Lake Champlain, the southern route explored by Mr. Barstow seems to have advantages in being some 26 miles shorter than any other and with that much less of shoal water. Detailed surveys will be required to develop its merits. A ship canal from Lake Champlain to tidewater of the Hudson involves a formidable cutting and the damming of the valley above Waterford. Aside from its magnitude there does not appear any obstacles of moment, and the seriousness of the great cuttings, which has grown less formidable in the last few years, may greatly diminish on final study with a view to practical work.

(c) Little further can be mentioned in regard to the Mohawk route. The divide west of Little Falls is a filled-in valley, and this discovery promises a better condition than heretofore assumed. The knowledge brought together in this investigation has developed a more favourable opinion respecting this line, but the best treatment is not yet obvious, and conclusions must await the test of final surveys and a matured project.

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VI. Miscellaneous.

32. The ice record is incomplete and general deductions are not warranted. Those records that have been continued for fifty to eighty years fail to disclose any systematic change such as would follow a change of climate, and it appears that the average ice season for any twenty years may be taken substantially as the average for any other twenty years or for any longer period. There seems to be quite a systematic and uniform increase in duration with latitude from 37 degrees north to the Canadian highlands, north of which the increase is slower. The course of rivers and streams and the character of the body of water are also influential. The normal variations have not been worked out.

33. The record of lake fluctuations is also incomplete. These records fail to show any change such as might be due to a change in precipitation and rainfall and the inhabitation of the watershed. It appears that the first half of the century had greater extremes of both high and low water than the last half in the region of the three upper lakes, while no special difference appears in the region of the lower lakes and the St. Lawrence. From 1815 to 1830 there appears to have been lower water in all the lakes than the period now passing, except Lake Champlain, which has had the lowest and highest water of seventy years within the last thirty. Conditions do not seem to be normally similar in all the lakes, and it is rare that all co-operate in a low or high water, which fact tends to equalize conditions.

34. No effects on levels have appeared from the progressive deepening of channels except at Montreal, where the water has been lowered locally by a foot or more, and this is obviously due to special conditions in the vicinity. Special study has not been given this matter, however, but it is anticipated that the radical improvement of the passage between Lake Huron and Lake Erie will produce a sensible effect on the level of Lake Huron-Michigan. As most of this effect will occur in the delta of the St. Clair and in the lower reach of Detroit River, it may be largely masked by the raising of the level of Lake Erie. The improvement of the St. Mary's River may have lowered the water at the locks, and this effect may be anticipated from further enlargement. The radical project herein considered will bring the level at the locks well down toward the level of Lake Huron.

35. The raising of Lake Erie by 2.28 feet will raise the level of Lake St. Clair by about 1 foot, so far as can be inferred from a study of gauge relations, and the effect would disappear at the head of the St. Clair delta. The investigation has, however, not been sufficient for a final determination so as to conclude the matter. No sufficient reason has appeared for the control of the level of the lakes other than Erie, and this is justified in large part in connection with the Niagara Ship Canal.

36. It may be said in regard to future works of navigation that experience in the last few years in this country and Europe has been revolutionary in the development of appliances and the methods for handling large cuttings, and these can now be undertaken with confidence both as regards cost and time of completion; and, further, that canals in rock cuttings can be so planned as to cost but little more per mile than in the kind of drift so common to canal locations. Further advances in earth removal are to be anticipated in some favourable situations. In underwater work the advance has been notable, and much is yet to be anticipated from the further development of hydraulic dredging. Machines are also in operation capable of handling many kinds of friable and stratified rock. In construction, a desirable advance has been made in the direction of monolithic masonry, which is cheaper and much superior for much of the work in question, and most anything may be attempted in the way of metals. While recent developments have furnished tried resources for every problem, the next series of great works is likely to produce further advances, so that no doubt need exist on the practical side in execution.

The mistakes, if any, are likely to occur from not having considered sufficiently all elements of the problem, and in works of such extraordinary magnitude an error involves a cost in comparison with which any mere cost of proper data and consideration thereof is a vanishing quantity.

CONCLUSIONS.

After considering this question in its various aspects, we conclude—

First. That it is entirely feasible to construct such canals and develop such channels as will be adequate to any scale of navigation that may be desired between the several Great Lakes and to the seaboard, and to conduct through the same domestic and foreign commerce, and that, in our opinion, it will be wise to provide for securing a channel of a navigable depth of not less than 28 feet.

Second. That starting from the heads of Lakes Michigan and Superior, the most eligible route is through the several Great Lakes and their intermediate channels and the proposed Niagara ship canal (Tonawanda to Olcott) to Lake Erie; and that the Canadian seaboard may be reached from Lake Ontario by the way of the St. Lawrence River, and the American seaboard may be reached from Lake Ontario by way of the St. Lawrence River and Lake Champlain and the Hudson River, or by way of the Oswego-Oneida-Mohawk Valley and the Hudson River.

Third. That the alternative routes from Lake Ontario to the Hudson River require complete surveys and a full development of economic considerations to determine their relative availability.

Fourth. That a moderate control of the level of Lake Erie and of the Niagara River above Tonawanda may be justified in connection with the Niagara ship canal, the determination in this matter to rest on a full examination of the physical conditions.

Fifth. That the policy should contemplate the ultimate development of the largest useful capacity, and that all works should be planned on this basis, and that the actual execution should conform thereto, except in so far as the works may, without prejudice, be progressively developed with the actual demands of commerce.

Sixth. That it is practicable to develop the work in separate sections and the several sections in part by degrees, each step having its economic justification, so that benefits shall follow closely on expenditure, without awaiting the completion of the system as a whole.

Seventh. That the completion of the entire system as quickly as proper projects can be matured and economically executed is fully justified.

Eighth. That the Niagara ship canal should be first undertaken, and incidentally the broadening and further deepening of the intermediate channels of the lakes, the same being in the logical order of development, and also requiring the least time for consideration.

As collateral to the main questions, and in view of the magnitude of the interests involved, the exhaustive consideration of all physical conditions that may determine the effects of proposed works or influence the character or features of a design should be concluded, but this need not delay the inception of plans or the beginning of work, but is likely to bear upon the manner of their completion. It is usually practicable to supply sufficient elasticity in design to meet any margin of uncertainty involved in these considerations.

In view of the international character and relation of a part at least of the works that will be required and of riparian interests involved, it seems expedient to make the examinations and projects and carry on the works through a commission that may be possessed with certain limited international functions.

Specifically, the matters which call for early action may be epitomized as follows:

RECOMMENDATIONS.

I. That complete surveys and examinations be made and all needful data to mature projects be procured for—

- (a) Controlling the level of Lake Erie and projecting the Niagara ship canal.
- (b) Developing the Oswego-Oneida-Mohawk route.
- (c) Developing the St. Lawrence-Champlain route.
- (d) Improving the tidal Hudson River.
- (e) Improving intermediate channels of the lakes.

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II. That the collecting and reducing of existing information, supplemented by reconnaissances and special investigations, be continued until the general questions have been fully covered.

III. That a systematic measurement of the outflow of the several lakes and a final determination of their levels shall be undertaken.

IV. The complete surveys and investigations, with measurements of the outflow of the several lakes and full investigation of collateral questions, will cost not less than \$600,000 and require some years of time.

It is possible that the measurement of the outflow of the lakes and the final levels can be as well done through some other agency, and this item may be taken at \$250,000, to be expended through a series of years, and this should be at once undertaken on account of the prevailing low water of the lake system, which can not be expected to continue.

The specific surveys and investigations are in themselves estimated at \$350,000 and will take two or three years, and of this not less than \$150,000 should be appropriated the first year, along with such additional sum as may be required for measuring the outflow of the lakes, of which \$100,000 should be made available during the first year.

Respectfully submitted.

JAMES B. ANGELL.
JOHN E. RUSSELL.
LYMAN E. COOLEY.

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