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In Sessional paper No. 10, Return of accidents and casualties, pages 209a-209d are inserted between pages 209-210.

In Sessional paper No. 10, General statements ... page 287 is incorrectly numbered page 285.

SESSIONAL PAPERS

VOLUME 8

FOURTH SESSION OF THE SEVENTH PARLIAMENT

OF THE

DOMINION OF CANADA

SESSION 1894



VOLUME XXVII.

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OF THE
PARLIAMENT OF CANADA

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CONTENTS OF VOLUME C.

Census of Canada, 1890-91. Third Volume..... *Printed for both distribution and sessional papers.*

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1. Report of the Auditor General on Appropriation Accounts, for the year ended 30th June, 1893. Presented 20th March, 1894, by Hon. G. E. Foster. *Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 2.

2. Public Accounts of Canada, for the fiscal year ended 30th June, 1893. Presented 20th March, 1894, by Hon. G. E. Foster. 2a. Estimates for the fiscal year ending 30th June, 1895; presented 20th March, 1894. 2b. Supplementary estimates for the financial year ending 30th June, 1894; presented 20th June, 1894. 2c. Supplementary Estimates for the year ending 30th June, 1895; presented 12th July, 1895..... *Printed for both distribution and sessional papers.*
3. Lists of Shareholders in the Chartered Banks of Canada, as on 31st December, 1893. Presented 20th April, 1894, by Hon. G. E. Foster..... *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, 1893. Presented 11th June, 1894, by Hon. G. E. Foster..... *Printed for both distribution and sessional papers.*

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4. Report of the Superintendent of Insurance for the year ending 31st December, 1893. *Printed for both distribution and sessional papers.*
- 4a. Preliminary abstract of the business of Canadian life insurance companies for the year ending 31st December, 1893. Presented 20th March, 1894, by Hon. G. E. Foster. *Printed for both distribution and sessional papers.*
- 4b. Abstract of statements of Insurance Companies in Canada for the year ending 31st December, 1893. Presented 7th May, 1894, by Sir John Thompson *Printed for both distribution and sessional papers.*

 CONTENTS OF VOLUME 4.

5. Report of the Department of Trade and Commerce, for the year ended 30th June, 1893. Presented 17th May, 1894, by Sir John Thompson.....*Printed for both distribution and sessional papers.*
- 5a. Report of the Mission to Australia, by the Minister of Trade and Commerce. Presented 4th July, 1894, by Sir John Thompson..... *Printed for both distribution and sessional papers.*
- 5b. The Colonial Conference, held at Ottawa, 1894.....*Printed for both distribution and sessional papers.*

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6. Tables of the Trade and Navigation of Canada for the fiscal year ended 30th June, 1893. Presented 27th March, 1894, by Hon. N. C. Wallace*Printed for both distribution and sessional papers.*
7. Inland Revenues of Canada. Part I., Excise, etc., for the fiscal year ended 30th June, 1893. Presented 20th March, 1894, by Hon. J. F. Wood...*Printed for both distribution and sessional papers.*
- 7a. Inland Revenues of Canada. Part II., Adulteration of Food, 1893. Presented 14th June, 1884, by Hon. J. F. Wood.....*Printed for both distribution and sessional papers.*
- 7b. Inland Revenues of Canada. Part III., Inspection of Weights and Measures and Gas. Presented 6th July, 1894, by Hon. J. F. Wood... ..*Printed for both distribution and sessional papers.*

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8. Report of the Minister of Agriculture for Canada for the calendar year 1893. Presented 12th June, 1894, by Sir John Thompson..... *Printed for both distribution and sessional papers.*
- 8a. Report on Canadian Archives, 1893. Presented 12th June, 1894, by Sir John Thompson.
Printed for both distribution and sessional papers.
- 8b. Third Annual Report of the Dairy Commissioner of Canada for 1892-93. Presented 18th May, 1894, by Hon. T. M. Daly..... *Printed for both distribution and sessional papers.*
- 8c. Report of the Director and Officers of the Experimental Farms for the year 1893. Presented 20th April, 1894, by Hon. G. E. Foster..... *Printed for both distribution and sessional papers.*

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- 8d. The Scheduling of Cattle in England—the Canadian Case. Presented 4th May, 1894, by Hon. T. M. Daly.....*Printed for both distribution and sessional papers.*
- 8e. Special Report of the Executive Commissioner on Awards on Agricultural Implements at Chicago, 1893. Presented 7th May, 1894, by Hon. T. M. Daly.
Printed for both distribution and sessional papers.
- 8f. Criminal Statistics for the year 1893..... *Printed for both distribution and sessional papers.*
- 8g. Report of the Executive Commissioner on the World's Columbian Exposition.
Printed for both distribution and sessional papers.
- 8h. Special Report on the production of and markets for Butter and Cheese.
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, 1893. Presented 16th April, 1894, by Hon. J. A. Ouimet.....*Printed for both distribution and sessional papers.*
10. Annual Report of the Minister of Railways and Canals, for the past fiscal year, from the 1st July, 1892, to the 30th June, 1893. Presented 27th March, 1894, by Hon. J. Haggart.
Printed for both distribution and sessional papers.

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- 11.** Annual Report of the Department of Marine and Fisheries, 1893—Marine. Presented 1st May, 1894, by Sir Charles Hibbert Tupper. *Printed for both distribution and sessional papers.*
- 11*.** Annual Report of the Department of Marine and Fisheries, for the fiscal year ended 30th June, 1893—Fisheries. Presented 11th April, 1894, by Sir Charles Hibbert Tupper.
Printed for both distribution and sessional papers.
- 11a.** Report of the Chairman of the Board of Steamboat Inspection, etc., for calendar year ended 31st December, 1893. *Printed for both distribution and sessional papers.*

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- 12.** Report of the Postmaster General, for the year ended 30th June, 1893. Presented 9th April, 1894, by Sir Adolphe Caron. *Printed for both distribution and sessional papers.*
- 13.** Annual Report of the Department of the Interior, for the year 1893. Presented 21st March, 1894, by Hon. T. M. Daly *Printed for both distribution and sessional papers.*
- 13a.** Summary Report of the Geological Survey Department, for the year 1893. Presented 20th March, 1894, by Hon. T. M. Daly *Printed for both distribution and sessional papers.*
- 14.** Annual Report of the Department of Indian Affairs, for the year ended 31st December, 1893. Presented 20th March, 1894, by Hon. T. M. Daly *Printed for both distribution and sessional papers.*

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- 15.** Report of the Commissioner of the North-west Mounted Police Force, 1893. Presented 13th April, 1894, by Hon. W. B. Ives. *Printed for both distribution and sessional papers.*
- 16.** Report of the Secretary of State of Canada, for the year ended 31st December, 1893. Presented 20th March, 1894, by Hon. J. Costigan. *Printed for both distribution and sessional papers.*
- 16a.** Civil Service List of Canada, 1893. Presented 20th March, 1894, by Hon. J. Costigan.
Printed for both distribution and sessional papers.
- 16b.** Report of the Board of Civil Service Examiners, for the year ended 31st December, 1893. Presented 30th March, 1894, by Hon. J. Costigan. *Printed for both distribution and sessional papers.*
- 16c.** Annual Report of the Department of Public Printing and Stationery of Canada, for the year ending 30th June, 1893, with a partial report for services during six months ending 31st December, 1893. Presented 23rd May, 1894, by Hon. J. Costigan.
Printed for both distribution and sessional papers.
- 17.** Report of the Joint Librarians of Parliament for the year 1893. Presented 15th March, 1894, by Hon. Mr. Speaker *Printed for sessional papers only.*
- 18.** Report of the Minister of Justice as to Penitentiaries in Canada, for the year ended 30th June, 1893. Presented 20th March, 1894, by Sir John Thompson.
Printed for both distribution and sessional papers.
- 19.** Report of the Department of Militia and Defence of Canada, for the year ended 30th June, 1893. Presented 19th April, 1894, by Hon. J. C. Patterson.
Printed for both distribution and sessional papers.
- 19a.** Establishment Lists of the Active Militia for the financial year, 1894-95. Presented 20th July, 1894, by Hon. J. C. Patterson *Printed for both distribution and sessional papers.*
- 20.** Statement of the affairs of the Canadian Loan and Investment Company, on the 31st December, 1893. Presented 20th July, 1894, by Hon. Mr. Speaker *Not printed.*

CONTENTS OF VOLUME 12.

- 21.** Royal Commission on the Liquor Traffic. Minutes of evidence taken in the provinces of Nova Scotia, New Brunswick and Prince Edward Island.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 13.

21. Royal Commission on the Liquor Traffic. Minutes of evidence taken in the province of Quebec.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 14.

21. Royal Commission on the Liquor Traffic. Minutes of evidence taken in the provinces of Manitoba, North-west Territories and British Columbia....*Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 15.

21. Royal Commission on the Liquor Traffic. Minutes of evidence taken in the province of Ontario.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 16.

21. Royal Commission on the Liquor Traffic. Minutes of evidence taken in the United States.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 17.

22. Report of the Commissioner, Dominion Police, for the year 1893, under Revised Statutes of Canada, chapter 184, section 5. Presented 20th March, 1894, by Sir John Thompson..... *Not printed.*
23. Return to an order of the House of Commons, dated 15th March, 1893, for a return showing the number of employees dismissed from the Prince Edward Island Railway since the 1st day of March, 1892, the name of each employee dismissed, the date of each dismissal, the reasons for such dismissals; also the names of employees reinstated, if any. Presented 20th March, 1894.—*Mr. Perry*..... *Not printed.*
24. Return to an order of the House of Commons, dated 20th March, 1893, for copies of all documents, claims, petitions, correspondence, reports of the superintendent of the Chambly canal, reports of experts and others, plans, agreements, proposals and decisions of the government in relation to the claim of Joseph Lacouture, of the parish of St. Luc, for damages caused to his property by the waters of the Chambly canal. Presented 20th March, 1894.—*Mr. Lavergne*... *Not printed.*
25. Statement of all superannuations and retiring allowances in the civil service, giving the name and rank of each person superannuated or retired, his salary, age and length of service; his allowance and cause of retirement, whether vacancy has been filled by promotion or new appointment, &c., for the year ended 31st December, 1893. Presented 20th March, 1894, by Hon. G. E. Foster.
Not printed.
- 25a. Return to an order of the House of Commons, dated 10th April, 1894, for a return showing the number of permanent civil servants in each department, inside and outside service, who contribute to the superannuation fund, and the gross amount of wages paid. Presented 25th April, 1894.—*Mr. McMullen*..... *Not printed.*
26. Statement of expenditure on account of miscellaneous unforeseen expenses, from 1st July, 1893, to date. Presented 20th March, 1894, by Hon. G. E. Foster..... *Not printed.*
27. Statement of Governor General's Warrants issued since last session of parliament, on account of the fiscal years 1892-93 and 1893-94, in accordance with the Consolidated Revenue and Audit Act, section 32, subsection b. Presented 20th March, 1894, by Hon. G. E. Foster..... *Not printed.*
28. Papers and correspondence relative to the payment to the Canadian Pacific Railway Company of amounts deducted from their subsidy in the year 1883. Presented 20th March, 1894, by Hon. G. E. Foster..... *Not printed.*
29. Return to an address of the House of Commons to his excellency the Governor General, dated 20th March, 1894, for copies of papers and correspondence relating to charges made against Mr. Justice Palmer, or to his resignation and acceptance thereof. Presented 20th March, 1894.—*Mr. Davies*.
Not printed.

VOLUME 17—*Continued.*

- 30.** Return of applications for registration under the provisions of chapter 131, Revised Statutes of Canada, "An Act respecting Trade Unions." Presented 20th March, 1894, by Hon. J. Costigan. *Not printed.*
- 31.** List of public officers to whom commissions have issued under chapter 19 of the Revised Statutes of Canada, during the year 1893. Presented 20th March, 1894, by Hon. J. Costigan. *Printed in No. 16.*
- 32.** Order establishing certain rules in respect of matters therein mentioned, in the Exchequer Court of Canada. Presented 20th March, 1894, by Hon. J. Costigan. *Not printed.*
- 33.** Copy of an order in council of the 17th January, 1894, continuing for the current year the issue of licenses to United States fishing vessels to enter any ports on the Atlantic coast for the purchase of bait, etc. Presented 21st March, 1894, by Sir Charles Hibbert Tupper. *Not printed.*
- 33a.** Return to an address of the House of Commons to his excellency the Governor General, dated 16th April, 1894, for: 1. Copy of order in council appointing Théophile Sabourin fishery overseer for the division of the Lake of Two Mountains and Isle Perrot. 2. Of the order in council appointing Julien Montpetit fishery overseer for the same division. 3. Of all instructions and orders issued by the fisheries department to the said overseers. 4. Of the reports of the two said overseers for the years 1891, 1892. Presented 5th June, 1894.—*Mr. Harwood*. *Not printed.*
- 33b.** Return to an address of the House of Commons to his excellency the Governor General, dated 26th April, 1894, for copies of all telegrams, letters, petitions, orders in council, and all correspondence relating to the dismissal of Timothy McQueen as fishery overseer in the county of Kent, Ontario. Presented 8th May, 1894.—*Mr. Campbell*. *Not printed.*
- 33c.** Return to an address of the House of Commons to his excellency the Governor General, dated 25th April, 1894, for copies of all papers, letters, petitions and reports sent to the minister of marine and fisheries, from 1st October, 1893, to this date, respecting the dismissal of I. B. Chevalier, of Iberville, from the post of fishery overseer; and of any communication sent from the government to the said I. B. Chevalier. Presented 11th May, 1894.—*Mr. Béchard*. *Not printed.*
- 33d.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for a return of all papers, correspondence, telegrams, reports to and orders in council, together with all departmental orders relating to the discharge from office as superintendent of St. Paul's island and keeper of Ingonish island, of Mr. Samuel Campbell, or relating to his superannuation allowance. Presented 23rd May, 1894.—*Mr. Davies*. *Not printed.*
- 33e.** Return to an order of the House of Commons, dated 14th May, 1894, for copies of all correspondence since 1st January, 1892, to the present time, from fishery officers and others from the western counties of Nova Scotia and the county of Charlotte in New Brunswick, as regards the taking of lobsters and of the limitation of size, and of all recommendations in regard to the same. Also a copy of all correspondence between the minister of marine and fisheries and his officials and all other persons as regards the close season for the herring fishing at Two Island harbour, Grand Manan, and of the weirs at that place. Presented 11th June, 1894.—*Mr. Bowers*. *Not printed.*
- 33f.** Return to an address of the House of Commons to his excellency the Governor General, dated 26th April, 1894, for copies of all orders in council and departmental orders now in force in the province of Ontario, concerning fisheries therein, and of all petitions received by the department with regard to the same. Presented 21st June, 1894.—*Mr. McGregor*. *Not printed.*
- 34.** List of all lands sold by the Canadian Pacific Railway Company from the 1st October, 1892, to the 1st October, 1893. Presented 21st March, 1894, by Hon. T. M. Daly. *Not printed.*
- 34a.** 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 28th March, 1894, by Hon. T. M. Daly. *Not printed.*
- 34b.** Return to an order of the House of Commons, dated 15th March, 1893, for copies of all documents, memorials and correspondence between the government and the Sorel board of trade and others, in relation to the granting of a subsidy to the Canadian Pacific Railway Company, for the rebuilding of a bridge at St. Michel d'Yamaska. Presented 10th April, 1894.—*Mr. Bruneau*. *Not printed.*

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- 34c.** Return to an address of the Senate to his excellency the Governor General, dated 5th April, 1894, for a schedule of the passenger and freight rates of the Canadian Pacific Railway Company, including the rates from St. Paul and Minneapolis to the seaboard, now in force. Presented 30th April, 1894.—*Hon. Mr. Boulton* *Not printed.*
- 34d.** Return to an address of the Senate to his excellency the Governor General, dated 17th May, 1894, for a schedule of the passenger and freight rates of the Intercolonial Railway; and the revenue derived by the Canadian Pacific Railway Company on its western division, between Port Arthur and Calgary, for the financial years ending 1892 and 1893. Presented 6th June, 1894.—*Hon. Mr. Boulton.*
Not printed.
- 35.** Return of orders in council, in accordance with 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. Presented 27th March, 1894, by Hon. T. M. Daly.
Not printed.
- 35a.** Return of orders in council of 1893 relating to the department of the interior, in accordance with clause 91 of the Dominion Lands Act, chapter 54, Revised Statutes of Canada. Presented 27th March, 1894, by Hon. T. M. Daly *Not printed.*
- 35b.** Statement in reference to fishing bounty payments for 1892-93, required by chapter 96 of the Revised Statutes of Canada. Presented 28th March, 1894, by Sir Charles Hibbert Tupper.... *Not printed.*
- 36.** Return to an order of the House of Commons, dated 1st March, 1893, for copies of all reports, documents, maps, manuscripts and correspondence in relation to exploring expeditions heretofore made to James Bay and Hudson Bay. Presented 27th March, 1894.—*Mr. Jones* .. *Not printed.*
- 37.** Return to an address of the House of Commons to his excellency the Governor General, dated 20th March, 1894, for a return showing copies of all petitions or communications to the government or to any member thereof, or to his excellency, asking for any interference with the sentence passed by his lordship the Hon. Mr. Justice Rose on Messrs. McGreevy and Connolly, of all replies thereto and all correspondence between any member of the government and any other person on the subject of commutation of such sentence; of all medical reports made in regard to either said McGreevy or Connolly, whilst undergoing such sentence; of all reports or recommendations on the said subject, by any member of the government to his excellency, and of all replies thereto and of all orders in council in anywise bearing upon the subject of the commutation of said sentences. Presented 29th March, 1894.—*Mr. Mulock*..... *Not printed.*
- 38.** Detailed statement of all bonds and securities registered in the department of the secretary of state of Canada, since last return, 1893, submitted to the parliament of Canada under section 23, chapter 19, of the Revised Statutes of Canada. Presented 29th March, 1894, by Hon. J. Costigan.
Not printed.
- 39.** Return to an order of the House of Commons, dated 20th March, 1894, for a return showing the dates in each year since May 5th, 1887, when the Public Accounts, the Appropriation Accounts, and the Trade and Navigation Returns of Canada, for the next preceding fiscal year, have been published and ready for distribution; and when the said accounts and returns have been issued to the senators and members of the House of Commons of Canada in each of the years aforesaid. Presented 30th March, 1894.—*Mr. Charlton*..... *Not printed.*
- 40.** Return to an order of the House of Commons, dated 13th March, 1893, for a return showing the number of school teachers engaged in teaching in the North-west Territories, and the length of time each was engaged during the past year, with the salary received; also the number of pupils attending each school, and all sources of revenue for the maintenance of schools. Presented 2nd April, 1894.—*Mr. Semple*..... *Not printed.*
- 40a.** Supplementary return to an address of the Senate to his excellency the Governor General, dated 3rd February, 1893, for: 1. A copy of the deliberations, resolutions and ordinances of the former council of Assiniboia, relating to educational matters within its jurisdiction as it existed on the banks of the Red river before the creation of the province of Manitoba. 2. A statement of the amounts paid by the said council of Assiniboia for the maintenance of schools, showing the persons to whom such payments were made, the schools for which such amounts were paid, and the religious denomination to which such schools belonged. 3. A statement of the amounts paid by

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- the Hudson Bay Company, or by its agents, to the schools then existing in the territories forming to-day the province of Manitoba. 4. A copy of all memoranda and instructions serving as basis for the negotiations as a result of which Manitoba became one of the provinces of the confederation; together with a copy of the minutes of the deliberation of the persons charged on both parts to settle the conditions of the creation of the province of Manitoba and of its entrance into the confederation; and also a copy of all memoranda, returns and orders in council, establishing such conditions of entrance, or serving as a basis for the preparation of "The Manitoba Act."
5. A copy of the despatches and instructions from the imperial government to the government of Canada on the subject of the entrance of the province of Manitoba into the confederation, comprising therein the recommendations of the imperial government concerning the rights and privileges of the population of the Territories, and the guarantees of protection to be accorded to the acquired rights, to the property, to the customs and to the institutions of that population by the government of Canada, in the settlement of the difficulties which marked that period of the history of the Canadian West. 6. A copy of the acts passed by the legislature of Manitoba relating to education in that province and especially of the first act passed on this subject after the entrance of the said province of Manitoba into the confederation, and of the laws existing upon the same subject in the said province immediately before the passing of the acts of 1890, relating to the public schools and relating to the department of education. 7. A copy of all regulations with respect to schools passed by the government of Manitoba or by the advisory board, in virtue of the laws passed in 1890 by the legislature of Manitoba relating to public schools and the department of education. 8. A copy of all correspondence, petitions, memoranda, resolutions, briefs, factums, judgments (as well of first instance as in all stages of appeal), relating to the school laws of the said province of Manitoba, since the 1st June, 1890, or to the claims of catholics on this subject; and also a copy of all reports to the privy council and of all orders in council relating to the same subject since the same date. Presented 21st March, 1894.—*Hon. Mr. Bernier*. *Printed for both distribution and sessional papers.*
- 40b.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for copies of all papers, petitions, letters, reports, minutes and orders in council respecting the school law of Prince Edward Island, intitled "The Public Schools Act, 1877." Presented 23rd April, 1894.—*Mr. Leclair*. *Printed for both distribution and sessional papers.*
- 40c.** Return to an address of the Senate to his excellency the Governor General, dated 9th April, 1894, for copies of all school ordinances, school regulations and amendments thereto, adopted by the legislative assembly, the executive, and any board or council of education, in reference to the establishment, maintenance and administration of schools in the North-west Territories since 1885. Also for copies of all petitions, memorials and correspondence in reference thereto. Also for copies of all orders in council, reports to the governor general in council, and all communications and representations to the authorities in the North-west Territories. Presented 30th April, 1894.—*Hon. Mr. Bernier*. *Printed for both distribution and sessional papers.*
- 40d.** Return to an address of the House of Commons to his excellency the Governor General, dated 21st March, 1894, for copies of all petitions, memorials and correspondence, in reference to the appeal made in the name of the Roman catholic minority of the province of Manitoba, in reference to the school laws of that province; also copies of reports to and orders in council in reference to the same; also copies of the case submitted to the supreme court of Canada respecting aforesaid appeal, and including factums and all materials in connection therewith, and copies of all judgments rendered and answers given by said court on or to the questions referred to them. Presented 27th June, 1894.—*Mr. LaRivière*. *Printed for sessional papers only.*
- 41.** Return to an address of the Senate to his excellency the Governor General, dated 20th March, 1893, for a copy of all documents in relation to the demand of Michel Gosselin, Half-breed, living at Roseberry, Manitoba, and claiming indemnity for losses sustained during the troubles in the North-west in 1869 and 1870. Also a copy of all correspondence exchanged between the Dominion government and the said Michel Gosselin in relation to the said claim. Presented 21st March, 1894.—*Hon. Mr. Bellerose*. *Not printed.*
- 42.** Return to an address of the Senate to his excellency the Governor General, dated 21st February, 1893, for a copy of all the changes that have been made in the tariff since the national policy became law in 1879, giving the name of each article, showing the original duty imposed thereon, the amount of increase or reduction subsequently made, or placed upon the free list, together with the date of all such alterations in the tariff. Presented 2nd April, 1894.—*Hon. Mr. McMillan*. *Not printed.*

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43. Return to an order of the House of Commons, dated 30th March, 1894, for a complete list of the revising officers under the Franchise Act, giving their names, their electoral divisions, and when appointed. Presented 5th April, 1894.—*Sir Hector Langevin*. *Not printed.*
44. Return to an order of the House of Commons, dated 20th March, 1894, for return of all rates, general or special, charged on the Intercolonial Railway on through freight from Lévis to Halifax; with the dates when such existing general or special rates came into force, and in cases where such rates have been altered, specifying the alteration. Presented 6th April, 1894.—*Mr. Davies*.
Not printed.
- 44a. Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for all papers, correspondence, telegrams, reports to, or orders in council, or departmental orders not already brought down to parliament, relative to the purchase of the Harris property in St. John for the Intercolonial Railway, or the payment of the purchase moneys therefor or relative to the uses or purposes to which that property has since been applied. Also for a list of all the claimants to the title of said property or any interest therein, together with the amounts paid to them respectively, and a summary or abstract of all deeds or agreements taken from the claimants respectively. Also for a statement of all moneys since laid out upon such property, and its total cost up to date. Presented 19th June, 1894.—*Mr. Davies*. *Not printed.*
45. Return to an address of the House of Commons to his excellency the Governor General, dated 20th March, 1893, for copies of all correspondence between the government of British Columbia and the minister of the interior, relating to the boundary of the railway belt in the province of British Columbia. Presented 9th April, 1894.—*Mr. Mara*. *Not printed.*
46. Return to an order of the House of Commons, dated 30th March, 1894, for a statement showing the various amounts paid by way of bounty on pig iron produced in Canada, the quantities produced, and the parties to whom the bounty was paid, and the province in which their works are situated, since the date of the last return. Presented 10th April, 1894.—*Mr. Edgar*.
Printed for sessional papers only.
47. Return to an order of the House of Commons, dated 30th March, 1894, for a return showing (by provinces) the value of mining machinery admitted free of duty since the year 1890. Presented 10th April, 1894.—*Mr. Mara*. *Not printed.*
48. Return to an order of the House of Commons, dated 29th March, 1894, for a return of: 1. The number of students who have graduated from the royal military college since its establishment. 2. Number of these graduates who are now in the public service of Canada and number in the service of the imperial government. 3. Amount expended on capital account and on income since the college was established. 4. Number of students graduated in 1893. 5. Number of students now in attendance. 6. Total amount of salaries paid each year, to the different persons employed in connection with the college. 7. Name of the commandant of the college: his salary, perquisites, if any, in the way of free residence, maintenance thereof, supplies, servants, &c. 8. The cost of the residence for use of commandant, if purchased, and the amount expended thereon by the government since the purchase. Presented 12th April, 1894.—*Mr. Mulock*.
Printed for sessional papers only.
- 48a. Supplementary return to no. 48. Presented 11th May, 1894.—*Mr. Mulock*.
Printed for sessional papers only.
49. Return to an order of the House of Commons, dated 30th March, 1894, for a return of the sentence imposed by the supreme court of the province of New Brunswick upon John V. Ellis, editor of the *St. John Globe*, in the past year, for an alleged contempt of court; together with the names of the judges composing the court at the time the sentence was imposed. Presented 12th April, 1894.—*Mr. Davies*. *Not printed.*
50. Return to an address of the House of Commons to his excellency the Governor General, dated 20th March, 1894, for the production of all correspondence and other papers relating to the copyright question which have not already been brought down. Presented 13th April, 1894.—*Mr. Edgar*.
Printed for sessional papers only.

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- 51.** Return to an order of the House of Commons, dated 30th March, 1894, for a statement showing the working of the civil service insurance, how many civil servants have insured their lives in such insurance, and for what amounts respectively, without giving their names. Presented 13th April, 1894.—*Sir Hector Langevin*. *Not printed.*
- 52.** Return to an order of the House of Commons, dated 16th April, 1894, for a return of the receipts and expenditures to dates of 10th April, 1894, and 10th April, 1893. Presented 16th April, 1894. *Sir Richard Cartwright*. *Not printed.*
- 52a.** Return to an order of the House of Commons, dated 7th May, 1894, for a return showing the total amount of receipts and expenditures chargeable to consolidated fund from 1st July, 1893, to 1st May, 1894, and also for same period from 1st July, 1892, to 1st May, 1893. Presented 11th May, 1894.—*Sir Richard Cartwright*. *Not printed.*
- 53.** Return to an address of the House of Commons to his excellency the Governor General, dated 10th April, 1894, for copies of all correspondence between Mr. L. Vankoughnet and the government, or any member, or department, relating to his superannuation, and of all communications or reports to council or the treasury board or any member of the government, relating to such superannuation, and of any orders in council dealing with the same. Presented 17th April, 1894.—*Mr. Mulock*. *Not printed.*
- 54.** Return to an order of the House of Commons, dated 1st March, 1893, for a return of any correspondence which may have taken place between the government and any of the railway companies which have received public lands in aid of railway construction, in reference to the prices at which these lands are held and as to the steps taken by these companies to fulfil their trust by securing the early settlement of the lands so granted. Presented 18th April, 1894.—*Mr. Mills, Bothwell*. *Not printed.*
- 55.** Return to an order of the House of Commons, dated 10th April, 1894, for a return showing the names of officials employed in connection with the Canadian exhibit at the Columbian exposition from the province of Nova Scotia, showing their official position, amount of salaries paid and dates at which such employment ceased. Presented 20th April, 1894.—*Mr. Patterson, Colchester*. *Not printed.*
- 56.** Return to an order of the House of Commons, dated 10th April, 1894, for a statement in the form of Table C in the blue-book already published on the French treaty, for the years ending 30th June, 1892 and 1893. Presented 20th April, 1894.—*Mr. Laurier*. *Printed for sessional papers only.*
- 56a.** Supplementary return to an order of the House of Commons, dated 10th April, 1894, containing correspondence and other matter relating to the French treaty. Presented 3rd July, 1894.—*Mr. Laurier*. *Printed for sessional papers only.*
- 57.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for copies of all correspondence between the government and George Goodwin in connection with the transfer of his contracts or any of his contracts on the Soulanges canal. Presented 23rd April, 1894.—*Mr. Charlton*. *Not printed.*
- 57a.** Return to an address of the House of Commons to his excellency the Governor General, dated 25th April, 1894, for copies of all communications in the form of letters, petitions and reports, from 1st April, 1887, to 1st March, 1894, between the government and Mr. J. B. Many, or the municipal council of St. Luc, in the county of St. Jean, in relation to the construction of a swing bridge on the Chambly canal, opposite the south-east end of Ste. Thérèse island, in the Richelieu river. Presented 4th June, 1894.—*Mr. Béchard*. *Not printed.*
- 57b.** Return to an address of the House of Commons to his excellency the Governor General, dated 28th May, 1894, for : 1. Copies of all the reports of the engineers recommending that certain changes be made in the original contract, both in the materials and the nature of the works entering into the construction of the locks and other masonry on sections 1 and 2 of the Soulanges canal, giving the reasons why such changes should be made and the names of the engineers who recommended such changes. 2. Copies of all the correspondence exchanged between the engineers, the department of railways and canals, the contractor and other persons in connection with those changes, and copies of all orders in council in relation thereto. Presented 6th June, 1894.—*Mr. Tarte*. *Not printed.*

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- 57c.** Return to an order of the House of Commons, dated 16th April, 1894, for copies of all advertisements inviting tenders for the construction of sections 1 and 2 of the Soulanges canal; also copies of specifications connected with said work, copies of extensions of said specifications and tenders with estimated quantities and work to be done according to engineer's estimate; also copies of all tenders, copies of contracts let, of correspondence which took place between the contractors tendering for this work and the contractor to whom the contracts were awarded and the department of railways and canals in this matter, copies of all reports of engineers since the letting of the contract. Presented 14th June, 1894.—*Mr. Tarte* *Not printed.*
- 57d.** Return to an order of the House of Commons, dated 14th May, 1894, for: 1. Copies of all correspondence between the department of railways, the minister of public works and any other persons in relation to sections 12 and 13 of the Soulanges canal. 2. Copies of the call for tenders and of all tenders received. 3. Copies of contracts awarded. Presented 14th July, 1894.—*Mr. Tarte* *Not printed.*
- 58.** Return to an order of the House of Commons, dated 27th July, 1891, for copies of all correspondence relating to application for increase of salary of Judge Johnstone, county court judge for Halifax county, Nova Scotia. Presented 25th April, 1894.—*Mr. Fraser* *Not printed.*
- 59.** Return to an order of the House of Commons, dated 30th March, 1894, for a return showing the names of all prisoners who have died in penitentiaries in Canada during the last ten years, with the cause of death and the length of their last sickness in each case. Presented 25th April, 1894.—*Mr. Martin* *Not printed.*
- 59a.** Return to an address of the House of Commons to his excellency the Governor General of the 10th April, 1894, for a statement showing amount of receipts each month for gate money at Kingston penitentiary between 1st January, 1887, and 1st January, 1894. Statement showing disposition of these moneys, including statement showing the amount of those moneys deposited in any banks, with the names of such banks and particulars as to whose credit such deposits were made. Presented 26th April, 1894.—*Mr. Mulock* *Not printed.*
- 59b.** Return to an address of the House of Commons to his excellency the Governor General, dated 13th March, 1893, for a statement showing: (a.) Amount of money received as visitors' entrance fees at the Kingston penitentiary during each year from 31st January, 1885, to 1st February, 1893. (b.) Payments out of said moneys to the receiver general, and disposition of such funds. (c.) Particulars of goods manufactured and work done at said institution for any of its officers, showing who supplied the material for such goods, what sums were charged to said officers for said goods, and what sums have been actually paid during each of said years for said goods. (d.) Quantities of coal oil and gas supplied such officers, amount paid therefor, and when. (e.) Amount of laundry work done at said institution during said dates, for whom done, amount charged and paid therefor, with dates of such payments and names of persons making such payments. Presented 26th April, 1894.—*Mr. Mulock* *Not printed.*
- 59c.** Return (in part) to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for copies of all charges brought to the attention of the government or any department since 1891 in regard to any matters connected with the Kingston penitentiary, and the British Columbia penitentiary; of all appointment of persons to make investigations into any such charges, including their instructions; of all correspondence between any of such persons and any member of the government or department; of all evidence taken on any such inquiries; of all reports thereon, including any schedules in connection with such reports; and of all other documents and papers relating to any alleged irregularities in connection with the management of said institutions since 1891. Presented 1st May, 1894.—*Mr. Mulock* *Not printed.*
- 59d.** Supplementary return to no. 59c. Presented 15th May, 1894.—*Mr. Mulock* *Not printed.*
- 59e.** Further supplementary return to no. 59c. Presented 15th May, 1894.—*Mr. Mulock* *Not printed.*
- 60.** Return to an order of the House of Commons, dated 1st March, 1893, for a return of the report or reports of plans and surveys of the Galops Rapids channel, made by Mr. Kennedy. Presented 26th April, 1894.—*Mr. Reid* *Not printed.*

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- 61.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for copies of all reports made to the department of the interior or to the superintendent general of Indian affairs as to the value of the Thousand Islands and any offers received for the purchase of the same. Presented 26th April, 1894.—*Mr. Mills (Bothwell)*.
Printed for distribution only.
- 62.** Return to an order of the House of Commons, dated 16th April, 1894, for copies of report of engineer who inspected river Aux-Roseaux, river Aux-Rats and river La-Seine, in the electoral district of Provencher. Presented 1st May, 1894. *Mr. LaRivière*.....*Not printed.*
- 63.** Return to an order of the House of Commons, dated 30th March, 1894, for a return of all papers and correspondence relative to a claim for compensation for railway damages made by one Charles Coffin, of Midgell, Prince Edward Island, in the railway department of the government. Presented 1st May, 1894.—*Mr. Davies*.....*Not printed.*
- 64.** Return to an order of the House of Commons, dated 23rd April, 1894, for the report of the commission appointed to inquire into all matters concerning the Trent Valley canal. Presented 1st May, 1894.—*Mr. Hughes*.....*Not printed.*
- 65.** Return to an order of the House of Commons, dated 25th April, 1894, for a return giving the amount paid out of the Six Nation Indians' fund (by way of gift or loan) to individual members from the year 1886 to date, stating in each case: The name of the person, the fact of whether gift or loan, the date when paid, the amount, the reason for the gift or loan, the authority for such gift or loan, the conditions on which such loan was made, the provision for repayment, the amount repaid.—Presented 2nd May, 1894.—*Mr. Paterson (Brant)*.....*Not printed.*
- 65a.** Return to an order of the House of Commons, dated 16th April, 1894, for a return showing the amount of money that has been paid out of the funds of the Six Nation Indians for the payment of debts incurred by individual members thereof since the year 1886, and giving: 1. The names of the several persons who incurred the debts, with the separate amounts, the date or dates when incurred, and the proportion thereof that has been paid. 2. The names of the creditors to whom the payments were made, the dates when paid, with the total sum paid to each of such creditors; and stating in each case the authority given for incurring the debt, the authority for payment of the same, and whether such amounts have been repaid to the fund in whole or in part out of the annuities of the individuals on whose account the payments were made, and whether such was the condition on which such payments were authorized. Presented 14th May, 1894.—*Mr. Paterson, (Brant)*.....*Not printed.*
- 65b.** Return to an address of the House of Commons to his excellency the Governor General, dated 25th April, 1894, for copies of all petitions from the Indians of the Saugeen reserve claiming the exclusive right of fishing in French bay, lake Huron, of all answers to the same, and of all departmental orders in reference to that subject. Presented 16th May, 1894.—*Mr. Laurier*.....*Not printed.*
- 65c.** Supplementary return to no. 65b. Presented 23rd July, 1894.—*Mr. Laurier*.....*Not printed.*
- 65d.** Return to an address of the Senate to his excellency the Governor General, dated 10th April, 1894, for copies of all petitions or communications to the governor general, or the government, or any member thereof, asking for interference with the death sentence passed by Mr. Justice Harrison upon the two Chehalis Indians, Peter and Jack, in November, 1893, for the murder of the late Albert Edward Pittendrigh, in New Westminster, British Columbia, on the 27th October, 1892; of all replies thereto, and all correspondence between any member of the government and any other person on the subject of commutation of such sentence; of all reports or recommendations on the said subject by any member of the government to his excellency, and of all replies thereto, and of all orders in council in anywise bearing upon the subject of the commutation of said death sentence to imprisonment for life. Presented 14th May, 1894.—*Hon. Mr. MacInnes*.....*Not printed.*
- 66.** Return to an order of the House of Commons, dated 30th March, 1894, for all papers and correspondence in connection with the establishment of a government cattle ranche near Fort Macleod, North-west Territories, including the purchase of cattle for said ranche; the disposal of said cattle, and the management and disposition made of said ranche. Also a statement showing the amount of moneys paid for cattle placed upon said ranche, and for all other expenses incurred in connection with the same, also the total amount of moneys received for the sale of cattle from said ranche, and all other sources in connection with the same; which statement shall show the balance

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- to the credit or debit of said ranche on the first day of January last, and shall further give the names of all parties indebted to said ranche account for cattle purchased or for any other property or material, with the amount due from each of said parties, if any. Presented 2nd May, 1894.—*Mr. Charlton*..... *Not printed.*
67. Return to an order of the House of Commons, dated 10th April, 1894, for a return showing the amount paid to railways or steamship companies, as a bonus for bringing settlers to Manitoba or the Territories, in 1891, 1892 and 1893, and a list of settlers so brought, showing their names and locations. Presented 11th May, 1894.—*Mr. Martin*.....*Not printed.*
68. Return to an order of the House of Commons, dated 30th April, 1894, for copies of all communications received by the minister of agriculture in relation to the establishment of the bureau of labour statistics for the Dominion. Presented 14th May, 1894.—*Mr. Lépine*.....*Not printed.*
69. Return to an order of the House of Commons, dated 30th March, 1894, for a return showing the quantity of butter manufactured at the experimental creameries, established at Elgin and Woodstock, in the province of Ontario, from the time they were established up to the 1st of January, 1894; the number of sales made; where sold, and the amounts realized. Copies of all letters, reports, or other correspondence, especially the report of Clement & Son, of Glasgow, relating to the prices realized, and the condition of the goods when put upon the market. The amounts of money spent, and the different purposes for which the money was used. Presented 14th May, 1894.—*Mr. McMillan*.....*Not printed.*
70. Return to an order of the House of Commons, dated 30th March, 1894, for a return showing the number of homesteads taken up in Manitoba during the years 1892 and 1893, and the number of homesteads cancelled in Manitoba during said years, in each case showing the municipalities in which the homesteads were located. Presented 18th May, 1894.—*Mr. Martin*.... *Not printed.*
71. Return to an order of the House of Commons, dated 25th April, 1894, for a return showing: 1. The total number of depositors in the Dominion and post office savings banks. 2. The number of said depositors having deposits of \$1,000 or upwards and the total amount held by them. 3. The number having deposits of \$500 and over, not exceeding \$1,000, and the total amount held by them. 4. The number of depositors having deposits of less than \$500 and the total amount held by them. 5. The number of depositors not residing in Canada and the total amount held by them. Presented 18th May, 1894.—*Sir Richard Cartwright*..... *Not printed.*
72. Return to an address of the House of Commons to his excellency the Governor General, dated 7th May, 1894, for a copy of the order in council authorizing the sale of lot 16, concession 12, township of Luther, in the county of Wellington, for \$800 to John McNab and John Gallagher. Presented 22nd May, 1894.—*Mr. McMullen*.....*Not printed.*
- 72a. Supplementary return to no. 72. Presented 14th June, 1894.—*Mr. McMullen*.....*Not printed.*
73. Return to an order of the House of Commons, dated 30th March, 1894, for a return showing the sums of money paid to Mr. A. F. Wood, government valuator, for services, maintenance and transport during the years 1891-1892-1893, and the particular pieces of land or other property valued during those years. Presented 23rd May, 1894.—*Mr. McMullen*..... *Not printed.*
74. Return to an address of the House of Commons to his excellency the Governor General, dated 16th April, 1894, for copies of all orders in council in force in Canada (provinces of Lower Canada and Upper Canada) in 1858, concerning any drawback or bounty with respect to the building of Canadian ships, barques and other vessels; and also all orders in council amending the same, or concerning the same from 1858 up to the beginning of the confederation. Presented 23rd May, 1894.—*Mr. Amyot*..... *Not printed.*
- 74a. Return to an address of the House of Commons to his excellency the Governor General, dated 10th April, 1894, for copies of all orders in council from the origin of confederation up to the year 1879, inclusive, respecting any drawback or bounty with respect to the building of Canadian ships, barques or other vessels. Presented 30th May, 1894.—*Mr. Amyot*..... *Not printed.*
75. Return to an order of the House of Commons, dated 7th May, 1894, for copies of all calls for tenders, tenders received, contracts made, correspondence, telegrams, letters and papers relative to the public work (wharf or breakwater) at Grand Etang, Cape Breton; together with a statement of all moneys advanced or paid on such contract, with dates of payment. Presented 29th May, 1894.—*Mr. Davies*..... *Not printed.*

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- 75a.** Return to an order of the House of Commons, dated 6th February, 1893, for copies of all letters, petitions, surveys and reports in the possession of the government, relating to the threatened destruction of, and claims for, repairs on the breakwater at Sandford, in the county of Yarmouth, N.S. Presented 29th May, 1894.—*Mr. Flint* *Not printed.*
- 75b.** Return to an order of the House of Commons, dated 6th February, 1893, for copy of the report of government surveys on Wood island breakwater, P.E.I. Presented 29th May, 1894.—*Mr. Welsh.* *Not printed.*
- 75c.** Return to an order of the House of Commons, dated 15th March, 1893, for copies of all reports, correspondence or other documents, not already brought down, relating to the state of repair of the breakwater at Rustico, P.E.I. Presented 29th May, 1894.—*Mr. Davics.* *Not printed.*
- 75d.** Return to an order of the House of Commons, dated 1st March, 1893, for a statement showing : 1. What is the total sum spent by the government since confederation in each province of the Dominion on the public works classified as (1) harbours, piers and breakwaters, (2) improvements of rivers, and (3) dredging and dredges. 2. How much of the sum so spent in the province of Quebec was expended on works within the harbour of Montreal. 3. (1) How much money the government has loaned to the harbour commissioners of Quebec towards the construction of the new harbour works in that city ; and (2) what amount of interest, derived from the revenues of the said works, have the harbour commissioners paid to the government in respect of the interest due on the said loans ; and (3) how many years' interest, if any, are in arrears. 4. (1) How much money the government has lent to the harbour commissioners of Montreal towards the construction of harbour works in that city ; and (2) how much interest is due thereon. Presented 12th July, 1894.—*Mr. Lépine* *Not printed.*
- 75e.** Return (in part) to an order of the House of Commons, dated 30th March, 1894, for a return giving the total cost of the Cockburn island wharf and dock (lake Huron) ; the name of the contractor or contractors ; the date of its completion ; the number of sailing vessels that have called ; the quantity of freight imported and exported since its completion ; the number of steamers that made during the season regular calls at the wharf since its completion. Presented 12th July, 1894.—*Mr. McMullen* *Not printed.*
- 76.** Return to an order of the House of Commons, dated 14th May, 1894, for copies of all letters, reports of engineers or other papers in the hands of the government relating to the condition of the Pickets pier and the non-expenditure thereon of the sum voted last year for the purpose of repairing said pier. Presented 29th May, 1894.—*Mr. Borden.* *Not printed.*
- 77.** Return to an order of the House of Commons, dated 18th April, 1894, for a statement of all sums paid by the government for the construction of the river Yamaska dam, under the first contract and subsequently thereto up to this date. Presented 29th May, 1894.—*Mr. Laurier.* *Not printed.*
- 77a.** Return to an order of the House of Commons, dated 2nd May 1892, for copies of report of any inquiry held under the authority of the department of public works with a view to estimate the losses inflicted on proprietors of the commune of Yamaska, by the erection of a dam in the Yamaska river. Presented 4th June, 1894.—*Mr. Laurier.* *Not printed.*
- 77b.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for copies of all letters, papers and statements in connection with awarding contract to William H. Davis & Sons for constructing a dam at Sheik's island, in connection with the Cornwall canal. Presented 5th June, 1894.—*Mr. Charlton* *Not printed.*
- 77c.** Supplementary return to no. 77b. Presented 15th June, 1894.—*Mr. Charlton.* *Not printed.*
- 78.** Return to an address of the House of Commons to his excellency the Governor General, dated 10th April, 1894, for copies of all petitions, letters, plans, deeds and other documents respecting the claim of the Hurons of Lorette in relation to the seigniori of Sillery. Presented 29th May, 1894.—*Mr. Frémont* *Not printed.*
- 79.** Return to an order of the House of Commons, dated 10th April, 1894, for a return showing the amount of timber dues collected at Quebec for each year for the last ten years. The quantity of timber culled each year, and the wages paid to cullers and staff. Presented 30th May, 1894.—*Mr. McMullen.* *Not printed.*

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- 79a.** Return to an order of the House of Commons, dated 10th April, 1894, for a return showing the quantity of timber that passed through the cullers' hands and was culled each year at Montreal, for the last ten years. The amount of fees collected for each year during the same period, and the amount of wages paid to the cullers and staff at Montreal for the same time. Presented 30th May, 1894.—*Mr. McMullen* *Not printed.*
- 79b.** Return to an order of the House of Commons, dated 7th May, 1894, for a return showing: 1. How much timber has been disposed of in townships 1, 2, 3 and 4, in ranges 14, 15, 16 and 17, east of the 1st principal meridian, and also on the Whitemouth river. 2. To whom said timber has been disposed of. 3. In what way said timber has been disposed of. 4. Prices realized for same. 5. Copies of all advertisements in connection with same, with names of newspapers in which same appeared and dates of insertion. 6. How much timber still remains undisposed of in said townships. Presented 29th June, 1894.—*Mr. Martin* *Not printed.*
- 79c.** Return to an order of the House of Commons, dated 25th April, 1894, for a statement of all timber licenses granted since January 1st, 1887, showing the date of each grant, the location, the area of the same, the name of the grantee, the bonus, if any, paid upon the same, whether disposed of: (a) At public auction duly advertised, where the public were invited to compete. (b) At auction where only applicants for the berth or limit were invited to bid. (c) By private application. (d) If in neither of the ways above mentioned, then stating in what way disposal and grant was made. (e) Length of public notice in each case when limits were sold either at public auction or by other form of public competition. Also a summary statement giving total area granted and total amount of bonuses received. Presented 12th July, 1894.—*Mr. Charlton* *Not printed.*
- 80.** Return to an order of the House of Commons, dated 28th May, 1894, for copies of all correspondence between D. J. Hughes, Esq., county judge of Elgin, Ont., and the officials of the government printing office, in regard to the printing of the last revised voters' list for Elgin. Presented 4th June, 1894.—*Mr. Casey* *Not printed.*
- 81.** Return to an order of House of the Commons, dated 14th May, 1894, for a return showing the amount and value of crucible steel imported into Canada free of duty in each year since 1885, under the provisions of order in council of 6th November, 1885. Also amount and value of lastings and mohair cloth imported into Canada free of duty in each year since 1885, under the provisions of order in council of 6th November, 1885. Presented 4th June, 1894.—*Mr. Charlton*.
Not printed.
- 81a.** Return to an order of the House of Commons, dated 14th May, 1894, for a return showing the amount and value of hatters' bands, bindings, tips, and sides and linings, both tips and sides, imported into Canada in each year since 1885, under provisions of order in council of 5th July, 1886. Also amount and value of steel strip for buckthorns and plain strip fencing imported into Canada free of duty since 1885, under provisions of order in council of 17th July, 1886. Also amount and value of wire rope imported into Canada free of duty since 1885, under provisions of order in council of 17th July, 1886. Also amount and value of twisted brass and copper wire imported into Canada free of duty since 1885, under provisions of order in council of 20th July, 1886. Also amount and value of yarn spun from the hair of the alpaca or angora goat, imported into Canada free of duty since 1885, under provisions of order in council of 18th November, 1886. Presented 4th June, 1894.—*Mr. Charlton* *Not printed.*
- 81b.** Return to an order of the House of Commons, dated 14th May, 1894, for a return showing the quantity and value of felloes of hickory wood imported into Canada in each year free of duty since 1887, under provisions of order in council of 16th November, 1888. Also quantity and value of homo spring steel wire, smaller than no. 9 and not smaller than no. 15, imported into Canada free of duty in each year since 1837, for the use of manufacturers of mattresses, under provisions of order in council of 6th December, 1888. Presented 4th June, 1894.—*Mr. Charlton* *Not printed.*
- 81c.** Return to an order of the House of Commons, dated 14th May, 1894, for a return showing the value of sweat leathers imported into Canada free of duty in each year since 1886, under provisions of order in council of 1st July, 1887. Also the value of square reeds, rawhide centres, textile leather or rubber heads, thumbs and tips, and steel, iron or nickel caps for whip ends imported into Canada free of duty in each year since 1886, under provisions of order in council of July 2nd, 1887. Also value of copper rollers for use in calico printing imported into Canada free of duty in each year since 1886, under provisions of order in council of 22nd November, 1887. Also quantity and

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- value of steel of no. 12 gauge and down to no. 30 gauge imported into Canada free of duty in each year since 1887, under provisions of order in council of 11th July, 1888. Also quantity and value of yarns, of wool and worsted, imported into Canada free of duty for use of manufacturers in each year since 1887, under provisions of order in council of 11th July, 1888. Also quantity and value of jute yarn, cotton yarn finer than no. 40; and wire of iron or steel, galvanized or tinned, or coppered, or not, of no. 16 gauge or smaller, imported into Canada free of duty in each year since 1887, under provisions of order in council of 11th July, 1888. Presented 4th June, 1894.—*Mr. Charlton*.....*Not printed.*
- 82.** Return to an order of the House of Commons, dated 25th April, 1894, for copies of all complaints made by one Etienne Tremblay, since 1st November, 1893, against Joseph Placide Rocheleau, postmaster of Pauline, in the county of Rouville, P.Q.; and of the report of the post office inspector who inquired into said complaint, or of any other official charged with such inquiry. Presented 5th June, 1894.—*Mr. Fréchette*.....*Not printed.*
- 83.** Return to an order of the House of Commons, dated 2nd May, 1894, for a return giving the names of the junior judges in the province of Ontario and dates when appointed, the name and population of the county to which appointed, also the salary and allowance of each of such judges. Presented 5th June, 1894.—*Mr. Lister*.....*Not printed.*
- 84.** Return to an address of the House of Commons to his excellency the Governor General, dated 7th May, 1894, for copies of all letters, proposals, cablegrams and correspondence since the 1st of January, 1890, between the government and any member thereof and any person, firm or company in relation to establishing a fast Atlantic steamship line between Canada and Great Britain, and also a line between Canada and France, and in relation to the subsidies for such services asked for or proposed to be given by the government, and any draft or completed contracts for such steamship service. Presented 6th June, 1894.—*Mr. Mulock*.....*Printed for distribution only.*
- 84a.** Supplementary return to no. 84. Presented 29th June, 1894.—*Mr. Mulock*.....*Printed for distribution only.*
- 84b.** Further supplementary return to no. 84. Presented 5th July, 1894.—*Mr. Mulock*.....*Printed for distribution only.*
- 85.** Return to an address of the House of Commons to his excellency the Governor General, dated 6th February, 1893, for copies of all correspondence, papers and documents, not already laid before the house, in reference to negotiations and communications between the government and the United States, in reference to reciprocity, canal tolls and wrecking and towing. Presented 11th June, 1894.—*Mr. Tisdale*.....*Not printed.*
- 86.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for copies of all correspondence, instructions, orders in council and reports about the boundary line between Alaska and British Columbia not already laid before this house. Presented 11th June, 1894.—*Sir Hector Langevin*.....*Not printed.*
- 87.** Return to an order of the House of Commons, dated 7th May, 1894, for a return showing in detail all sums of money in the hands of the government held as security for the performance of contracts completed, the name of each contractor who deposited the money, date of each such deposit, and amount of interest accrued on each deposit. Presented 11th June, 1894.—*Mr. Lister*.....*Not printed.*
- 88.** Return to an address of the House of Commons to his excellency the Governor General, dated 30th March, 1894, for a return of all correspondence, telegrams, reports to council, orders in council, or departmental orders or instructions relative to the employment of certified captains or mates on steamers plying in the waters or ferries of the Dominion, or to the running of such steamers or ferries without such captains or mates. Presented 19th June, 1894.—*Mr. Davies*.....*Not printed.*
- 89.** Return to an address of the House of Commons to his excellency the Governor General, dated 14th May, 1894, for copies of all correspondence between the minister of railways and the Rev. A. E. Burke and others having reference to the moving of the flag station from Mill river, on the Prince Edward Island Railway, to Howlan road, and all telegrams and documents having reference to the same, as well as all petitions, etc., against the removal of said flag station. Presented 19th June, 1894.—*Mr. Perry*.....*Not printed.*

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90. Return to an address of the House of Commons to his excellency the Governor General, dated May, 1894, for copies of all correspondence between J. B. Wright, M.D., V.S., and the government, or any member, department or officer of the government, and of all correspondence between the Grand Trunk Railway and the government, or any member, department or officer of the government, and of all correspondence between Mr. A. Brush and the government, or any member, department or officer of the government, and of all correspondence between the imperial authorities, or any one on their behalf, and the government of Canada, or any member, department or officer thereof, from, and including, the year 1882 until, and including, the year 1891, regarding the inspection of cattle passing through Canada from the United States. Presented 21st June, 1894.—*Mr. Mulock* *Printed for sessional papers only.*
91. Return to an order of the House of Commons, dated 16th April, 1894, for a return showing all lands allotted to Half-breeds in Manitoba for which patents have not been issued, giving along with a description of the land, the name of the allottee and the reasons why the patent has not been issued. Presented 21st June, 1894.—*Mr. Martin* *Not printed.*
92. Return to an order of the House of Commons, dated 21st May, 1894, for a return of the order, minute or direction authorizing the collector of customs at Woodstock, Ont., to admit free of duty certain goods consisting of vestments or other church articles for the use of the Roman catholic church at Woodstock, consigned to the Reverend Father Brady, of Woodstock, in the month of February, 1894. 1. The decision upon which the collector acted in admitting such goods free of duty. 2. All correspondence between the controller of customs or other person in the department of customs relating thereto. 3. Copies of the letters and correspondence which passed between the Rev. J. C. Farthing, of Woodstock, and the controller of customs, with reference to the admission of such goods and the alleged unfairness with which Mr. Farthing had been treated on the importation by him of a similar class of goods for the use of the Anglican church at Woodstock, of which he is rector. 4. And if duty has since been exacted upon the said articles, or any of them, a copy of the entry or minute in respect thereto and the amount of duty paid thereon. Presented 29th June, 1894.—*Mr. McCarthy* *Not printed.*
93. Return to an order of the House of Commons, dated 7th May, 1894, for a return showing the names of all persons appointed to act as what are known as return-men, in connection with immigration work, the period during which each worked, the amount of money paid to each, the names of the settlers brought to Canada by each return-man, and the places in which such settlers were located. Also statement showing what arrangements are made with these return-men. Presented 29th June, 1894.—*Mr. Martin*..... *Not printed.*
94. Return to an order of the House of Commons, dated 28th May, 1894, for a return showing the date on which the steamer "Stanley" commenced running between Charlottetown, P.E.I. and Pictou, N.S.; the date said steamer commenced running between Georgetown, P.E.I. and Pictou; how many trips were made; the date of each trip; how many mail bags were carried each trip; the date at which said steamer stopped carrying mails; the number of passengers and the amount of freight carried to and from Prince Edward Island; the amount of expenses and revenue for the winter 1893-94, in connection with said service. Presented 29th June, 1894.—*Mr. Perry*.
Not printed.
- 94a. Return to an address of the Senate to his excellency the Governor General, dated the 14th June, 1894, for a statement giving in detail the days, during the month of January, February, March and April last, on which the steamer "Stanley" crossed between Prince Edward Island and the mainland, such statement to show separately the days on which the said steamer made single and return trips, and also the ports of departure from either side. Also for a statement covering the same period, giving in detail the days on which the government ice-boats crossed between Cape Traverse and Cape Tormentine, such statement to show separately the days on which single and return trips were made. Also for a statement giving in detail the days during the same period on which no mails were conveyed from the mainland to Prince Edward Island, and from Prince Edward Island to the mainland. Presented 6th July, 1894.—*Hon. Mr. Ferguson (Queen's, P.E.I.)*
Not printed.
95. Return to an address of the Senate to his excellency the Governor General, dated 19th June, 1894, for a copy of the report made on the 5th May, 1891, by Sir Douglas Fox, regarding the proposed tunnel under the Straits of Northumberland, without the plans. Also copies of reports on the same subject by Mr. Francis Bain, dated the 9th and 18th of December, 1890, and the 14th March, 1891. Presented 5th July, 1894.—*Hon. Mr. Ferguson (Queen's, P.E.I.)*
Printed for sessional papers only.

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- 96.** Return to an address of the House of Commons to his excellency the Governor General, dated 27th April, 1892, for copies of all correspondence, memorials, departmental orders and orders in council, respecting or in any way relating to the removal of the export duty from saw-logs and other un-manufactured lumber exported from Canada to the United States. Presented 9th July, 1894.—*Mr. Rider*..... *Not printed.*
- 97.** Return to an order of the House of Commons, dated 9th May, 1892, for a copy of the report of the inspector of customs, Nova Scotia, in reference to the establishment of a port of entry at Whyco-comagh, in the county of Inverness. Presented 9th July, 1894.—*Mr. Cameron*..... *Not printed.*
- 97a.** Return to an order of the House of Commons, dated 9th May, 1892, for a copy of the report of the inspector of customs, Nova Scotia, in reference to the establishment of a port of entry at West Bay, in the county of Inverness. Presented 14th July, 1894.—*Mr. Cameron*..... *Not printed.*
- 98.** Return to an address of the House of Commons to his excellency the Governor General, dated 18th June, 1894, for a return of all charges, complaints, letters, telegrams, correspondence, reports or orders relative to the dismissal or removal of John McLeod as inspector of the repairs of the Broad Cove Marsh pier, Cape Breton. Presented 12th July, 1894.—*Mr. Davies*..... *Not printed.*
- 99.** Return to an address of the House of Commons to his excellency the Governor General, dated 25th April, 1894, for the production of all orders in council, correspondence, instructions to officers of the department of public works, and reports of such officers respecting the improvement of St. Andrew's rapids in the Red river of the North. Presented 12th July, 1894.—*Mr. Martin*..... *Not printed.*
- 100.** Return to an address of the House of Commons to his excellency the Governor General, dated 6th February, 1893, for copies of all orders in council now in force regulating the slaughtering of swine for exportation in bond, passed under authority of an act respecting customs, cap. 32, Revised Statutes, sec. 93; and for a copy of the quarantine regulations governing the importation of such swine into Canada for the purpose of slaughtering in bond. Presented 14th July, 1894.—*Mr. Smith (Ontario)*..... *Not printed.*
- 101.** Return to an order of the House of Commons, dated 28th May, 1894, for a detailed report showing the prizes awarded by the judges or jury at the Chicago Columbian exposition for the work of pupils of primary and special schools of every kind and degree, and also to pupils of secondary educational institutions of each of the provinces of Canada. Presented 14th July, 1894.—*Mr. Lachapelle*..... *Printed for sessional papers only.*
- 102.** Return to an order of the House of Commons, dated 21st May, 1894, for list of persons in Manitoba who have not as yet repaid the loans made to them, in or about the year 1876, for seed-grain, etc., with statement of the amount owing by each person and the interest claimed, up to 1st January, 1894, on each such amount. Also a list, showing the amounts of mortgages received as collateral security for each loan, with description of land mortgaged, with name of proprietor and name of borrower if he be another person. Presented 18th July, 1894.—*Mr. LaRivière*..... *Not printed.*
- 103.** Return to an order of the House of Commons, dated 28th May, 1894, for: 1. A statement showing the quantities of distilled and fermented liquors, under the different names as given in the trade returns, imported into and taken for consumption in Canada, from 1883 to 1893, both years included, computed in imperial gallons; the value of the same, and the duty paid thereon. 2. The quantity of distilled and fermented liquors, under the different names given in the inland revenue returns, manufactured in Canada and taken for consumption therein; the value of the same, and the duty paid thereon for the same years. 3. The amount of materials used in brewing and distilling alcoholic liquors in the several provinces of Canada during the same years. Presented 19th July, 1894.—*Mr. Flint*..... *Not printed.*
- 104.** Return to an order of the House of Commons, dated 28th May, 1894, for a statement showing the number of breweries, distilleries and maltsters' establishments in Canada in the year 1891; the amount of capital invested therein; the value of the output; the amount of wages paid; number of employees, and the revenue derived therefrom. Presented 19th July, 1894.—*Mr. Flint*..... *Not printed.*
- 105.** General statements and returns of baptisms, marriages and burials in the districts of Bellechasse, Chicoutimi, Gaspé, Kamouraska, L'Islet, Montmagny, Ottawa, and Saguenay. Presented 20th July, 1894, by Hon. Mr. Speaker..... *Not printed.*
- 106.** Return to an address of the House of Commons to his excellency the Governor General, dated 4th June, 1894, for copies of all correspondence, petitions and memorials in relation to the reduction or abolition of the duties on Canadian tobacco, or in relation to any possible changes in the inland revenue laws in that behalf. Presented 23rd July, 1894.—*Mr. Brodeur*..... *Not printed.*

CANADA

REPORT

OF THE

MINISTER OF PUBLIC WORKS

ON THE WORKS UNDER HIS CONTROL

FOR THE FISCAL YEAR ENDED 30TH JUNE, 1893

SUBMITTED IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER THIRTY-SIX
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

1894

[No. 9—1894.] *Price 20 cents.*

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, County of Aberdeen, in
the Peerage of the United Kingdom ; Baronet of Nova Scotia, &c., &c.,
Governor General of Canada.*

MAY IT PLEASE YOUR EXCELLENCY :

In compliance with Chapter 36, Section 37, of the Revised Statutes of Canada, I have the honour to lay before Your Excellency, the Report of the transactions of the Department of Public Works, for the fiscal year ended 30th June, 1893.

Respectfully submitted,

J. ALD. OUIMET,

Minister of Public Works.

OTTAWA, 20th March, 1894.

Department of Public Works.

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Somerville.	Breakwater, repairs.	viii	14, 68
Sorel.	Navigation opens, &c.	vi	237
do	Post office.		4, 9, 245
Souris.	Breakwater.	x	15, 82
Southampton.	Pier, repairs.	ix	17, 93
South Gut.	Wharf, construction.	viii	14, 68
South Sydney.	Post office, &c.		3, 8, 244
do	Re-building wharf, quarantine station	viii	3, 14, 68
Spencer's Island.	Pier.		14
St. Albert.	Barracks.		7
St. Anicet.	Wharf, repairs.		16
St. Anne de la Pérade.	Dredging, &c.		16
St. Anne des Monts.	Cribwork, &c.	xii	16, 89
St. Catharines.	Post office.	ix	6, 11, 38, 247
St. Henri.	do	xi	4, 33
St. Hyacinthe.	do	xi	4, 33
St. Jean, Isle of Orleans.	Wharf repairs.	xii	16, 89
St. Jérôme.	Post office.		4, 9, 245
St. Jean Port Joli.	Repairs to wharf.	xii	16, 89
St. John's, Que.	Navigation opens, &c.	vi	236
do	Post office.		4, 9, 245
St. John River, N.B.	Dredging &c.	vi	101
St. John, N.B.	Custom-house, old, temporary and new.	vi	4, 8, 29, 245
do	Dominion buildings.	vi	4, 8, 29, 245
do	Engineers' office.	vi	4, 8, 29, 245
do	Examining warehouse.	vi	4, 8, 29, 245
do	Marine hospital.		4
do	Navigation opens, &c.	vi	236
do	Partridge Island quarantine station.	vi	4, 30
do	Penitentiary.		8
do	Post office.		4, 8, 30, 245
do	Savings bank.		4, 8, 30
do	Harbour works.		15
do	Improvements.		15
St. Francis River.	Wharf repairs.	xii	16, 89
St. Laurent.	Dredge.	iv	18, 103
"St. Lawrence"	Ship channel.	xii	16, 122
do	Dredge.	iv	139, 144
"St. Louis"	Dredging.	x	18, 102
St. Mary's Bay.	Slides and booms.	xiii	19, 21, 161
St. Maurice District.	Works.		16
do	Wharf repairs.	xii	16, 89

Name of Place, &c.	Nature of Works, &c., referred to.	Page in Report.	Pages in Appendices.
St. Paul	Indian industrial school	v	6, 39
St. Peter's Bay	Breakwater	x	15, 83
St. Peter's Canal	Dredging	viii	18, 99
St. Peter's Bay	Navigation opens	vi	236
St. Placide	Dredging	xii	18, 127
St. Stephen, N.B.	Post office, &c		4, 8, 245
St. Thomas	do		6, 11, 247
St. Vincent de Paul	Penitentiary	xi	4, 9, 33
Staff employed	Slides and booms	xiii	180
Stand-Off	Barracks		7
Statement	Annual expenditure		3, 243
Stephen's Pier	Repairs	x	15, 83
Stony Island	Breakwater construction	viii	14, 68
Stony Mountain	Penitentiary		6
Strathroy	Post office		6, 11, 247
Stratford	Public building		6, 11, 247
Sturgeon	Pier—Dredging	x	18, 102
Summerside	Post office—Renewals		3, 8
Supreme Court, Ottawa	Building, maintenance, &c		5, 10, 247
Surveys and Examinations	List of	xiii	21, 174
Sussex	Post office, &c		4, 8, 245
Sydney (South)	do		3, 8, 244
do	Quarantine station, wharf, &c.	viii	3, 14, 68
do	Navigation opens	vi	237
Tadouac	do &c	vi	237
Tatamagouche	Repairs to wharf	viii	14, 68
Telegraph Lines	Report on Government, &c	xiii	20, 185
do	Revenue and expenditure	xiii	187
do	Total St. Lawrence lines expenditure	xiii	21
Telephone Service	Public buildings		5
Thornbury	Dredging and repairs to wharf	ix	17, 19, 93, 133
Three Rivers	Custom-house	xi	4, 9, 34, 245
do	Post office		4, 9, 34, 245
do	Navigation opens, &c	vi	237
Tobique River	Channel improvements		16
Toronto	Civil Service examination office		6, 247
do	Custom house, &c	ix	6, 11, 38, 247
do	Dominion buildings		6, 11, 38, 247
do	Drill hall	ix	6, 38
do	Examining warehouse	ix	6, 11, 38
do	Harbour works	ix	17, 94
do	Inland Revenue office		6, 11, 247
Toronto	Post office	ix	6, 11, 38, 247
do	Navigation opens, &c	vi	237
Touchwood	Dominion lands office		12
Tracadie, N.B.	Wharf construction	vi	16, 77
Tracadie, N.S.	Harbour, &c		14, 56
Trenton	Post office		6, 11, 247
Truro	Public buildings	viii	3, 8, 28, 244
Union Bridge, Ottawa	Repairs		21, 59
Valleyfield	Post office		4, 9, 245
Vanwart's Landing wharf	Repairs		16
Vancouver	Post office	ii	7, 13, 44
Vernon River	Pier repairs	x	15, 83
Victoria, B.C.	Public buildings	ii	7, 13, 44
do	Barracks, &c	ii	7, 13, 44
do	Harbour improvements	iii	18, 97, 148
do	Quarantine station	ii	7, 45
do	Telegraph lines	xiii	21, 187, 201
Victoria, P.E.I.	Pier repairs	x	15, 84
Walkerton	Post office		6, 11, 247
Wascana dam	Repairs		21
Water	Dominion buildings	xi	5, 35, 246
Wellington street	Ottawa		20
West Arichat	Breakwater repairs	viii	14, 69
West Chezzetcook	Wharf complete	viii	14, 69
West Farnham	Post office, &c	xi	4, 34
Wetaskiwin	Dominion lands office		13
Whitby	Dredging	x	19, 134
White Mud River	do	v	19, 145

Department of Public Works.

Name of Place, &c.	Name of Work, &c., referred to.	Page in Report.	Pages in Appendices.
Whitewood.....	Immigrant building.....		13
Williams Head, B.C.....	Quarantine station, &c.....	iii	18, 96
Wiarton.....	Navigation opens, &c.....	vi	237
Windsor, N.S.....	Post office building.....	viii	3, 8, 28, 244
Windsor, Ont.....	Navigation opens, &c.....	vi	237
do.....	Public building.....	vi	6, 11, 39, 247
Winnipeg.....	Public buildings.....	vi	11, 39, 247
do.....	Post office, &c.....	vi	11, 39, 247
do.....	Architect's office.....		6, 247
do.....	Immigration building.....	vi	11, 39
do.....	Clerk of works office.....		6, 247
do.....	Fort Osborne barracks.....	vi	11
do.....	Navigation opens, &c.....	vi	237
"Winnipeg".....	Dredge.....	iv	19, 145, 146
Wolfe Island.....	Dredging.....	x	19, 134
Woodstock, N.B.....	Post office, &c.....		4, 8, 245
Wood End.....	Mounted Police Barracks.....		7
Wood Mountain.....	Barracks.....		7
Works, applications to construct.....			177
Woolsley.....	Mounted Police Barracks.....		7
Wreck Cove.....	Repairs to wharf.....	viii	14, 69
Yamachiche.....	Pier extension.....	xii	11, 90
Yamaska River.....	Dam.....	xii	16, 88
Yarmouth.....	Post office.....	viii	3, 8, 28, 244
York Factory.....	Navigation opens, &c.....	vi	237
York Bridge.....	Staff, &c.....		20

Department of Public Works.

DEPARTMENT OF PUBLIC WORKS,

OTTAWA, 5th March, 1894.

To the Honourable

JOSEPH ALDRIC OUIMET,

Minister of Public Works,

Ottawa.

SIR,—I have the honour to submit the report of this department, for the fiscal year ended 30th June, 1893.

The report epitomizes the record of all the more important works executed under the direction and supervision of the department.

Fourteen appendices are annexed to the report. These appendices contain detailed accounts of the expenditure during the year, together with extended reports by officers of the several branches of the department, on the extent and nature of the services performed, either in constructing, or in improving, extending, repairing and maintaining the public buildings, harbours, government telegraph lines, slides and booms and all other works pertaining to, or under the control of, the department throughout the Dominion.

The works under the control of the department are:—

BUILDINGS (PUBLIC), their construction and maintenance.

DREDGING AND DREDGE VESSELS.

HARBOURS AND PIERS, their construction and maintenance.

ROADS AND BRIDGES.

SLIDES AND BOOMS, and the collection of revenue therefrom.

TELEGRAPHS.

WORKS ON NAVIGABLE RIVERS.

For convenience of reference, this summary of the doings and operations of the department is alphabetically arranged.

ACTS OF PARLIAMENT.

LEGAL ENACTMENTS:—The titles of the enactments of the last session of parliament, which have any bearing on this department, are attached in Appendix No. 13, page 241.

ART GALLERY—NATIONAL.

The additions to the gallery during the fiscal year consist of the following, viz. :—

Oil painting by F. Brownell.

do do W. A. Sherwood.

do do Mrs. G. A. Reid.

Water colour by J. A. Fraser, R.C.A.

The number of persons who registered their names in the visitors' book, during each fiscal year, since the gallery was inaugurated, were as follows:—

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

The Art Gallery occupies the first floor of the Victoria Hall, on O'Connor Street. The Government Fish Hatchery is in the basement, and the Fisheries Exhibit is kept on the ground floor of the same building.

The absence of the Fisheries Exhibit, during the Columbian Exposition at Chicago, accounts for the decrease in the number of visitors to the Art Gallery last fiscal year, as many who went to view the Fishery Exhibit, visited the Art Gallery also.

The large number however, who visited the latter, in the absence of the former, shows that public interest in Art in Canada is not only maintained, but increasing.

The Curator's report appears in Appendix No. 6, page 205.

BRITISH COLUMBIA.

BUILDINGS:—Works in connection with public buildings were prosecuted during the fiscal year as follows, viz.:—

Agassiz experimental farm.—Saw mill provided.

Nanaimo post office.—Minor repairs.

New Westminster post office, etc.—General improvements.

Vancouver post office.—Building completed.

Victoria custom-house.—General repairs.

do marine hospital.—General improvements.

do resident-engineer's office.—Rooms fitted up.

do new drill hall.—Building completed.

do hospital at Artillery barracks.—Placed under contract.

do magazine do do

do post office, etc.—Repairs and improvements.

William's Head quarantine station, officers' residence.—Under construction.

do hospital.—Building completed.

do Passenger's shelter houses.—Building completed.

A portion of Section 56, Mitchosen district, Vancouver Island, lying between Peddar Inlet and Parry Bay, was acquired for quarantine purposes, and such accommodation and appliances provided, as caution suggested and prudent economy dictated, in order to prevent the introduction and spread of any contagious disease in the country.

(See Appendix No. 1, pages 7 and 13, and Appendix No. 2, pages 43-46.)

Department of Public Works.

HARBOURS AND RIVERS:—Operations for the security and improvement of navigation, were carried on in connection with the following harbours and rivers, viz. :—

Columbia River, above Golden.—Removal of obstructions.

Columbia River, Revelstoke to Arrow Lake.—Removal of obstructions.

Cowichan River.—Removal of obstructions.

Fraser River, Mouth of.—Jetty works.

Fraser River, Garry Bush.—Protection works.

Skeena River.—Removal of obstructions.

William's Head Quarantine Station.—Construction of wharf.

William's Head do do —Water supply.

Victoria Harbour.—Removal of rocks.

(See Appendix No. 3, page 94.)

CEMENT—TESTING OF.

During the fiscal year, a cement testing room was organized, so that in future the quality of the brands of cement, used in public works, can be subjected to a proper mode of testing in the department.

(See Appendix No. 3, page 175.)

CONTRACTS.

APPENDIX No. 10, page 223, contains particulars of the contracts entered into, the property purchased and sold, and the property leased by or to the department during the fiscal year.

CORRESPONDENCE.

APPENDIX No. 11, page 233, is a statement showing the number of official letters mailed and received, by the respective branches of the department, during each fiscal year from 1867 to 1893.

DOMINION BUILDINGS.

APPENDIX No. 1, pages 3 to 13, is the statement of the Accountant, showing the expenditure for construction, repairs, etc., and for heat, light and water, for all the public buildings, maintained by the department, throughout the Dominion, during the last fiscal year. Details of expenditure for repairs, etc., are also shown in Appendix No. 14, page 243.

DREDGES.

DREDGING OPERATIONS:—An extended report by the Chief Engineer of the department on the operations of the dredging plant is hereunto annexed, commencing at page 97 of Appendix No. 3.

DREDGING PLANT:—The following is a list of the dredging plant owned by the department, viz.:—

In the Maritime Provinces.

The steam hopper dredge "St. Lawrence."
do do "Canada."
The dipper dredge "New Dominion" and 6 scows.
do do "Prince Albert," 5 scows and 1 water scow.
do do "George McKenzie," 5 scows and 1 water scow.
One stone scow, boiler, engine and grips.

In Quebec and Ontario.

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

In Manitoba.

The dipper dredge "Winnipeg," tug "Sir Hector," 2 scows and 1 coal barge.
Dredge "Priestman," tug "Victoria," and 2 scows.

In British Columbia.

The elevator dredge "Pacific," scows and tug "Princess."
The snag boat "Sampson."

Ship Channel, River St. Lawrence.

Four elevator dredges, tugs "John Pratt," "St. James," "St. Francis," "C. J. Brydges," "Minnie Parsons," 3 stone lifters, 2 coal barges, 1 store ship, 12 dump scows of 80 yards capacity, 2 scows of 150 yards capacity, 1 sounding scow, and 2 flat scows.

New Dredging Plant.

Elevator dredge "Laval," in course of construction.
One tug, unnamed, in course of construction.
See Appendix No. 3, page 151.

DREDGING VESSELS' REPAIRS:—A statement of the expenditure for repairs to the hull and machinery of the several dredges will be found at page 151 of Appendix No. 3.

ENGINEERS, ENGINEMEN, FIREMEN AND CARETAKERS, ETC.

EMPLOYEES:—A list of the engineers, etc., employed in the public buildings throughout Canada, with a statement showing date of birth, position, date of appointment and salaries, is added in Appendix No. 8, page 212.

Department of Public Works.

EXPENDITURE.

APPENDIX No. 1.—This appendix is a succinct statement, by the accountant of the department, of the expenditure on the various services provided for during the fiscal year.

APPENDIX No. 14, pages 243 to 248, is also a statement prepared by the accountant, giving in detail the items of expenditure in connection with the repairs, etc., of all the public buildings under the control of the department, during the last fiscal year.

GRAVING DOCKS.

ESQUIMALT GRAVING DOCK:—A full description of this dock—its engines, pumps and boilers—with a report on essential repairs effected thereto, and a statement of the ships which entered it during the year, is annexed in Appendix No. 3, pages 155 to 157.

KINGSTON GRAVING DOCK:—A minute description of this work is appended in the report of the Chief Engineer of the department. Appendix No. 3, page 154; wherein, also, improvements effected to the work are described, and a list of the vessels that availed themselves of the services of the dock are shown.

LÉVIS GRAVING DOCK:—An extended report on this work and its appliances; together with a list of the vessels that occupied the dock during the last fiscal year, and the expenditure on, and revenue derived from, the work, will be found in Appendix No. 3, page 152.

OFFICIALS:—A list of all the graving dock officials and employees, showing age, date of appointment, salary, etc., is annexed to this report at page 219 in Appendix No. 9.

MANITOBA.

BUILDINGS:—Repairs, additions or improvements were made to the following buildings, etc., viz.:—

St. Paul Industrial School.	Winnipeg Immigration Building.
Winnipeg Examining warehouse.	do Land Commissioner's office.
	Winnipeg Inland Revenue office.

(See Appendix No. 1, page 6. Appendix No. 2, page 39.)

DREDGING:—Operations for the improvement of navigation by dredging, were continued at the bar at the mouth of the west branch of the Red River, 18 miles from Selkirk, and also in the White Mud River.

(See Appendix No. 3, page 145.)

MAJOR'S HILL PARK.

The neat and attractive appearance of this favourite resort was maintained during the summer season. The grounds and walks were kept by the contractor in a satisfactory manner.

(See Appendix No. 2, page 37.)

NAVIGATION—OPENING AND CLOSING OF.

DATES :—Appendix No. 12 is the continuation of a record kept by the department since 1867. It shows the period in 1892-93 during which navigation was closed in the principal ports of Canada in consequence of the formation of ice.

The promptness with which the customs officials at the various ports, supplied the information to the department, is again thankfully acknowledged.

NEW BRUNSWICK.

BREAKWATERS AND PIERS :—At each of the following places, breakwaters, wharfs or piers were either commenced, repaired or extended, during the fiscal year, viz. :—

Anderson's Hollow, Albert Co.—Repairs to breakwater.
 Campbellton, Restigouche Co.—Extension of ballast wharf.
 Cape Tormentine, Westmoreland Co.—Completion of wharf.
 Clifton, Gloucester Co.—Repairs to breakwater.
 Dalhousie, Restigouche Co.—Repairs to wharf.
 Edgett's Landing, Albert Co.—Construction of wharf.
 Grand Anse, Gloucester Co.—Repairs to breakwater.
 Lower Neguac, Northumberland Co.—Construction of wharf.
 Mispic, St. John Co.—Repairs to breakwater.
 Pointe du Chêne, Westmoreland Co.—Reconstruction of breakwater.
 Ram Pasture Neck, Westmoreland Co.—Repairs to protection work.
 River St. John.—General improvement of river.
 Shippegan, Gloucester Co.—Repairs to breakwater.
 Tracadie do Construction of landing pier.

(See Appendix No. 1, page 15, and No. 3, page 70.)

BUILDINGS :—Repairs and improvements to the following public buildings were executed by the department last fiscal year, viz. :—

Bathurst,	Newcastle,
Carleton,	St. John custom-house,
Dalhousie,	do post office,
Fredericton,	do savings bank.
Moncton,	

The hospitals and other buildings comprising the Partridge Island Quarantine station were put in good order, and the station and its appliances generally placed on a footing of efficiency.

A new post office building at Chatham is in course of erection.

(See Appendix No. 1, page 3, and No. 2, page 29.)

DREDGING :—Operations for the improvement of rivers, for the purposes of navigation, were conducted under the directions of the department as follows :—

Bathurst (Nipisiguit River),	Richibucto River,
Miramichi River,	St. John River.

(See Appendix No. 1, page 18, and No. 3, page 100.)

Department of Public Works.

NORTH-WEST TERRITORIES.

BUILDINGS:—Works on stations, barracks, schools, etc., were performed during the fiscal year as follows:—

- Calgary post office, etc.—Under construction.
- do registry offices.—Fitted and furnished.
- Edmonton land registration and Crown timber office.—Under construction.
- Lethbridge public building.—Under construction.
- Moose Jaw court-house and police quarters.—Under construction.
- Medicine Hat barracks and court rooms.—Fitted up.
- do do immigrant shed and stables.—Removed from C.P.R. property.
- Maple Creek hospital.—Necessary repairs.
- do mounted police barracks.—Necessary repairs.
- Moosomin mounted police court-house.—Alterations and improvements.
- Moosomin stable and transport shed.—Building completed.
- Prince Albert land and registration office.—Building under contract.
- Red Deer industrial school.—Building under contract.
- Regina south barrack building.—Repairs.
- do court-house.—Building under contract.

(See Appendix No. 1, pages 6 and 11, and Appendix No. 2, page 40.)

NOVA SCOTIA.

BREAKWATERS, PIERS AND WHARFS:—During the fiscal year works on wharfs, piers and breakwaters were carried out in the following localities:—

- Barrington, Shelburne Co.—Completion of landing pier.
- Bayfield, Antigonish Co.—New wharf and repairs to breakwater.
- Belliveau Cove.—Yarmouth Co.—Repairs to wharf.
- Big Tracadie, Antigonish Co.—Repairs to breakwater.
- Bird Islands, Victoria Co.—Removal of obstructions.
- Blanche, Shelburne Co.—Protection of work.
- Blue Rock, Antigonish Co.—Repairs to breakwater.
- Boularderie Island, Cape Breton Co.—Repairs to wharf.
- Broad Cove Marsh, Inverness Co.—Repairs to pier.
- Canada Creek, King's Co.—Repairs to pier.
- Cape Negro Island, Shelburne Co.—Repairs.
- Cape Sable Island, Shelburne Co.—Construction of breakwater.
- Cariboo Island, Pictou Co.—Repairs to protection work.
- Chipman's Brook, King's Co.—Repairs to pier.
- Church Point, Digby Co.—Repairs to wharf, etc.
- Cow Bay, Cape Breton Co.—Repairs to breakwater.
- D'Escousse, Richmond Co.—Construction of new wharf.
- Devil's Island, Halifax Co.—Construction of breakwater.
- Digby, Digby Co.—Reconstruction of landing pier.
- Eatonville, Cumberland Co.—Extension of wharf.
- Fox Island, Halifax Co.—Protection work on beach.
- French River, Victoria Co.—Repairs to block.
- Green Harbour, Shelburne Co.—Opening of boat channel.

BREAKWATERS, PIERS AND WHARFS.—*Con.*

- Halifax, Halifax Co.—New quarantine wharf.
 Hampton, Annapolis Co.—Repairs to wharf.
 Harbourville, King's Co.—Repairs to breakwater.
 L'Ardoise, Richmond Co.—Construction of breakwater.
 Louis Head, Shelburne Co.—Completion of breakwater.
 Mabou, Inverness Co.—Repairs to pier.
 Maitland, Hants Co.—Repairs to wharf.
 Margaree, Inverness Co.—Repairs to wharf.
 Margaretsville, Annapolis Co.—Repairs to breakwater.
 Meagher's Beach, Halifax Co.—Repairs to beach protection work.
 Meteghan Cove, Digby Co.—Repairs to wharf.
 McNair's Cove, Antigonish Co.—Repairs to wharf.
 Morden, King's Co.—Repairs to wharf.
 Noel, Hants Co.—Protection work.
 Parrsboro', Cumberland Co.—Deepening channel.
 Pictou Island, Pictou Co.—Repairs to east and west wharfs.
 Port George, Annapolis Co.—Repairs to breakwater.
 Port Lorne, Annapolis Co.—Repairs to breakwater.
 Porter's Lake, Halifax Co.—Opening channel.
 Round Hill, Annapolis Co.—Completion of shear dam.
 Salmon River, Digby Co.—Repairs to breakwater.
 Somerville, Queen's Co.—Repairs to breakwater.
 South Gut, Victoria Co.—Construction of wharf.
 Stony Island, Shelburne Co.—Construction of breakwater.
 Sydney, Cape Breton Co.—Extension of quarantine wharf.
 Tatamagouche, Colchester Co.—Repairs to wharf.
 West Arichat, Richmond Co.—Repairs to wharf.
 West Chezzetcook, Halifax Co.—Completion of breakwater.
 Wreck Cove, Victoria Co.—Repairs to wharf.

(See Appendix No. 1, page 14, and Appendix No. 3, page 52.)

BUILDINGS:—The following public buildings have been repaired, improved or extended during the last fiscal year, viz.:—

Arichat,	Point Edward, Sydney,
Baddeck,	Sydney (North).
Halifax,	Truro,
Nappan,	Windsor,
Pictou,	Yarmouth.

At Dartmouth and Lunenburg, post office buildings are in course of erection.

The quarantine station at Lawlor's Island has been provided with accommodation and appliances to meet possible emergencies.

(See Appendix No. 1, pages 3 and 8. Appendix No. 2, page 25, and Appendix No. 14, page 244.)

DREDGING:—With the plant available, dredging was done at the undermentioned localities, viz.:—

McNair's Cove (Port Mulgrave),	Pictou Harbour.
St. Peter's Canal (entrance of).	

(See Appendix No. 1, page 18, and Appendix No. 3, page 98.)

Department of Public Works.

OFFICIALS.

Appendix No. 7, page 207, is a statement giving the names, with the date of appointments, etc., of the chief officers of this department from 1841 to 1894.

ONTARIO.

BREAKWATER, PIERS, WHARFS, etc.—Work, at the following places, was performed under the supervision of officers of the department, during the year, viz.:—

Burlington Channel, Halton.—Repairs to pier, etc.
Clapperton Channel, Algoma Co.—Removal of rock.
Goderich, West Huron Co.—Repairs to pier.
Kincardine, Bruce Co.—Repairs to pier.
Kingston, Frontenac Co.—Removal of shoal.
Little Current, Algoma Co.—Improvement of channel.
Meaford, Grey Co.—Repairs to protection works.
McInnis Bank, Algoma Co.—Removal of rocks.
Port Albert, Huron Co.—Repairs to north pier.
Port Elgin, Bruce Co.—Repairs to breakwater.
Port Hope, Durham Co.—Repairs to wharfs.
Port Rowan, Norfolk Co.—Construction of landing pier.
Rainy River, Algoma Co.—Construction of crib blocks.
Riv. Beaudet, Glengarry Co.—Improvements of river.
Southampton, Bruce Co.—Repairs to pier.
Thornbury, Grey Co.—Repairs to wharf.
Toronto, York Co.—Construction of harbour works.

(See Appendix No. 3, page 90.)

BUILDINGS:—Public buildings have been either completed, extended, repaired, or fitted up and improved during the fiscal year at each of the following places, viz.:—

Chatham,	Port Arthur,
Hamilton,	St. Catharines,
Orillia,	Toronto custom-house,
Ottawa,	do examining warehouse,
Peterborough,	do drill hall.
Petrolea,	

(See Appendix No. 1, page 4. Appendix No. 2, page 34. Appendix No. 14, page 245.)

DREDGING:—Work was done at the following places, viz.:—

Bath,	Kaministiquia River,
Belleville,	Kincardine,
Bowmanville,	Kingston,
Cobourg,	Kingsville,
Collingwood,	Lions Head,
Gananoque,	Medford,
Goderich,	Misland,
Hamilton,	Mosquito Bay,

DREDGING—*Con.*

Napanee,	Port Elgin,
Newcastle,	Port Hope,
Northport,	Port Stanley,
Owen Sound,	River Detroit,
Penetanguishene,	Saugeen River,
Picton,	Thornbury,
Port Arthur,	Whitby,
Port Credit,	Wolfe Island.

(See Appendix No. 3, page 127.)

PARLIAMENT HILL GROUNDS.

CONTRACT :—The contract for the keeping and dressing of the Parliament grounds was satisfactorily carried out during the fiscal year.

(See Appendix No. 2, page 36.)

PRINCE EDWARD ISLAND.

BREAKWATERS, PIERS, WHARFS, ETC :—During the fiscal year works were conducted by the department as follows, viz. :—

Annandale, King's Co.—Repairs to pier.
Bay Fortune do Extension of breakwater.
Bay View, Queen's Co.—Repairs to pier.
Balfast do do
Georgetown, King's Co.—Repairs to wharf.
Hurd's Point, Prince Co.—Repairs to pier.
Kier's Shore do do
Lewis Point, King's Co.—Repairs to pier.
Malpeque, Prince Co.—Repairs to breakwater.
Miminigash do Extension of south pier, etc.
New London, Queen's Co.—Repairs to pier.
Nine Mile Creek do Construction of new block.
Pinnette do Repairs to pier.
Port Selkirk do Reconstruction of wharf.
Pownal do Repairs to pier.
Stephen's Pier, King's Co.—Repairs to pier.
St. Peter's Bay do Beach protection.
Souris do Repairs to breakwater.
Vernon River, Queen's Co.—Repairs to pier.
Victoria (Crapaud), Queen's Co.—Repairs to wharf.

(See Appendix No. 3, page 77.)

DREDGING :—The dredging operations in the province of Prince Edward Island during the year were performed in the following places, viz. :—

Cape Traverse,	St. Mary's Bay,
Montague,	Sturgeon.
Murray Harbour,	

(See Appendix No. 1, page 18; No. 3, page 101.)

Department of Public Works.

PUBLIC BUILDINGS, OTTAWA.

MAINTENANCE :—The heating, lighting, bell and water services in connection with the parliament and other public buildings in the capital were maintained with efficiency and due regard to improvement and economy.

(Particulars are given in Appendix No. 1, page 5. Appendix No. 2, pages 35 to 37. Appendix No. 14, page 246.

QUEBEC.

BUILDINGS :—Improvements, repairs, additions or extensions were made to the following public buildings and institutions during the fiscal year, viz.:—

Fraserville, post office,	Quebec examining warehouse,
Grosse Isle quarantine station,	do post office,
Montreal custom-house,	St. Henri post office,
do examining warehouse,	St. Hyacinthe,
do post office,	St. Vincent de Paul penitentiary,
Quebec citadel,	Three Rivers custom-house.

Extensive improvements have been effected at Grosse Isle. It now possesses unsurpassed quarantine facilities, and the equipment is considered complete.

The construction of a post office building at West Farnham is in progress.

(See Appendix No. 1, page 4. Appendix No. 2, page 30. Appendix No. 14, page 245.)

BREAKWATERS, PIERS, WHARFS, ETC :—The following necessary works were attended to during the year, viz.:—

- Anse St. Jean, Saguenay Co.—Repairs to wharf.
- Anse à l'Eau or Tadousac, Saguenay Co.—Repairs to wharf.
- Bay St. Paul, Charlevoix Co.—Repairs to wharf.
- Cacouna, Temiscouata Co.—Construction of block.
- Cap à l'Aigle, Charlevoix Co.—Repairs to wharf.
- Chicoutimi, Saguenay and Chicoutimi.—Repairs to wharf.
- Etang du Nord, Magdalen Islands.—Repairs to breakwater.
- Ile aux Coudres, Charlevoix Co.—Repairs to pier.
- Ile Verte, Temiscouata Co.—Completion of landing pier.
- Knowlton's Landing, Brome Co.—Construction of shed and waiting-room on wharf.
- Lake Megantic, Brome Co.—Repairs to wharf.
- Laprairie, Laprairie Co.—Construction of protection work.
- L'Islet, L'Islet Co.—Repairs to wharf.
- Les Eboulements, Charlevoix Co.—Repairs to wharf.
- Longueuil, Chambly Co. do
- Matane, Rimouski Co.—Extension of wharf.
- Murray Bay, Charlevoix Co.—Repairs to wharf.
- Nicolet, Nicolet Co.—Construction of ice-breakers.
- Rimouski, Rimouski Co.—Repairs to wharf.
- Rivière du Lièvre, Ottawa Co.—Repairs to lock.
- Rivière L'Assomption.—Removal of obstructions.

BREAKWATERS, PIERS, WHARFS, &c.—*Con.*

Rivière St. Louis, Beauharnois Co.—Repairs to feeder.
 Rivière St. Maurice.—Improvement of channel.
 Rivière Noire, Charlevoix Co.—Removal of stones and boulders.
 Rivière Ottawa, Laval Co.—Removal of boulders.
 Rivière Yamaska, Yamaska Co.—Repairs to dam.
 St. Anne des Monts, Gaspé Co.—Completion of block.
 St. Jean, Isle of Orleans.—Repairs to wharf.
 St. Jean Port Joli, L'Islet Co.— do
 St. Laurent, Isle of Orleans.— do
 St. Michel de Bellechasse, Bellechasse Co.—Repairs to wharf.
 Yamachiche, St. Maurice Co.—Construction of block.

(See Appendix No. 3, page 84.)

DREDGING:—The dredging operations in the province of Quebec during the year were confined to the following rivers and localities, viz.:—

River St. Lawrence, ship channel between Montreal and Quebec, Charlemagne, Châteauguay,	Dorval, River St. Maurice, Longueuil, St. Placide.
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(See Appendix No. 3, pages 122 to 127.)

ROADS AND BRIDGES.

CONSTRUCTION, &c.:—A detailed account of the expenditure on roads and bridges will be found in Appendix No. 1, page 20, and a description of the work done in Appendix No. 3, pages 158, 159 and 173.

SLIDES AND BOOMS.

COLLECTOR'S REPORT:—The report of the collector of slide and boom dues for the fiscal year will be found in Appendix No. 3, pages 164 to 172.

To this report eight statements are attached, viz.:—

- 1st. Showing the dues accrued on the Government slides and works, on the River Ottawa and its tributaries, during the fiscal year ended 30th June, 1893.
- 2nd. Statement of the number of pieces of saw-logs, etc., that passed through the Government slides and works, on the River Ottawa and its tributaries, during the fiscal year ended 30th June, 1893.
- 3rd. Statement of slide and boom dues, accrued from Ottawa River works since 1st July, 1889, outstanding on 30th June, 1893.
- 4th. Statement of slidage and boomage from Ottawa slides and works, accrued prior to 1st July, 1889, outstanding 30th June, 1893.
- 5th. Statement of outstanding slide dues, Ottawa District, bonds for which were sent to Quebec for collection.

Department of Public Works.

6th. Statement of slide and boom dues from the St. Maurice slides and works, outstanding on 30th June, 1893.

7th. SAGUENAY DISTRICT:—Statement of slide dues accrued at the Saguenay, outstanding on 30th June, 1893.

8th. Statement of slide and boom dues accrued from the Trent, and Newcastle District, River works, outstanding on 30th June, 1893.

NEWCASTLE DISTRICT:—A detailed description of the repairs executed, and a statement showing the quantities of timber that passed through the slide is inserted at page 163, Appendix No. 3.

OTTAWA DISTRICT:—A report on the work done, under the direction of the department, and a statement showing the number of pieces of timber that passed through the Government slides and works, on the Ottawa River and its tributaries, etc., will be seen on reference to Appendix No. 3, page 157.

SAGUENAY DISTRICT:—The report of the superintendent of slides in this district is attached at page 162, Appendix No. 3.

ST. MAURICE DISTRICT:—The report of the superintendent, and details of the expenditure, in connection with the maintenance of the St. Maurice District works, are given in Appendix No. 3, page 161.

STAFF EMPLOYED:—Appendix No. 4, page 180, is a list showing the name, date of birth, where employed, date of appointment and salary, of each one of the staff employed on all the Government slides and booms in Canada.

SURVEYS AND EXAMINATIONS, ETC.

During the year, surveys and examinations were made at 68 different localities by officers of the department, a list of which will be found in Appendix No. 3, page 174.

TELEGRAPHS.

The major part of the Gulf of St. Lawrence Telegraph System was established in 1880,—fourteen years ago. During this period, many additions and extensions were required and have been made, and each succeeding year the service has been becoming more markedly appreciated.

The original cables are still in use and operation, and with a continuance of the same skilful and intelligent supervision, in the matter of locating faults and damages, and the effecting of repairs, without undue disturbance of them in their resting places, etc., they are likely to last for a long time to come. This is more gratifying from the fact that the life of a cable was not at one time expected to exceed twelve years.

The Government telegraphs are not a source of income sufficient to be self-sustaining; this is in consequence of their being constructed and operated in sections of the country where the traffic is too small to invite private enterprise, although

rapid communication may be indispensable in the interests of commerce and the welfare of wide sections of country. While therefore an annual deficit may be looked for, it is not considered that the tariff can be increased, or the expenditure materially reduced, without involving an impairment of the efficiency and stability of any part of the service.

The report of the acting superintendent is attached in Appendix No. 5, page 185.

I have the honour to be, sir,

Your obedient servant,

A. GOBEIL,

Deputy Minister.

APPENDIX No. 1.

STATEMENT OF EXPENDITURE

BY THE

DEPARTMENT OF PUBLIC WORKS

DURING THE FISCAL YEAR ENDED 30TH JUNE, 1893

O. DIONNE, ACCOUNTANT

Department of Public Works.

(Reference No. 146836.)

APPENDIX No. I.

STATEMENT showing the amount expended by the Department of Public Works,
Dominion of Canada, during the fiscal year ended 30th June, 1893.

Name of Work.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS.				
GENERALLY.....			2,960 97	2,960 97
<i>Nova Scotia.</i>				
Amherst post office.....		22 94		22 94
Annapolis do.....		21 86		21 86
Antigonish do.....		33 75		33 75
Arichat do.....		238 02		238 02
Baddeck do.....		280 75		280 75
Dartmouth do.....	4,600 59			4,600 59
Halifax Dominion building (new boiler, &c.).....	425 13	749 74		1,174 87
do drill hall.....	2 88			2 88
do examining warehouse.....		1,444 75		1,444 75
do immigration building.....		125 00		125 00
do Lawlor's island quarantine station.....	19,282 67			19,282 67
do penitentiary.....		0 24		0 24
do post office.....		143 80		143 80
do steamboat inspectors' office.....		27 87		27 87
Lunenburg post office, &c.....	8,754 41			8,754 41
Nappan experimental farm.....	442 53			442 53
New Glasgow post office, &c.....		10 80		10 80
North Sydney do —improvements.....	988 15			988 15
Pictou custom-house, post office, &c.....	107 20	3 20		110 40
do quarantine station.....		77 00		77 00
Sydney post office, &c.....	1,479 63	26 00		1,505 63
do quarantine station.....		280 50		280 50
Truro post office, &c.....		10 50		10 50
Windsor do.....		423 14		423 14
Yarmouth do —improvements.....	999 99	3 00		1,002 99
<i>Prince Edward Island.</i>				
Charlottetown Dominion building.....		270 27		270 27
do quarantine station.....		26 00		26 00
Montague post office, &c., —safe.....	426 05	30 30		456 35
Summerside do —renewals.....	437 63			437 63
<i>New Brunswick.</i>				
Bathurst post office, &c.....		73 85		73 85
Carleton (St. John) post office, &c.....		2 00		2 00
Chatham do.....	2,919 25	95 60		3,014 85
Dalhousie do.....		144 67		144 67
Fredericton do.....		156 66		156 66
Moncton do.....		41 27		41 27
Newcastle do.....		233 45		233 45
Portland do.....		130 90		130 90
Carried forward.....	40,866 11	5,127 83	2,960 97	48,954 91

APPENDIX No. 1—Continued.

Name of Work.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—Continued.				
<i>New Brunswick—Concluded.</i>				
Brought forward.....	40,866 11	5,127 83	2,960 97	48 954 91
St. John custom-house—old...		70 09		70 09
do do —temporary.....		4,791 72		4,791 72
do do —new.....	74,983 38			74,983 38
do Dominion buildings.....		100 00		100 00
do engineer's office.....		537 25		537 25
do examining warehouse.....		270 83		270 83
do inland revenue office.....		60 00		60 00
do marine hospital.....		56 36		56 36
do Partridge island quarantine station.....	4,136 75			4,136 75
do post office.....		773 08		773 08
do savings bank.....		233 83		233 83
St. Stephen's post office, &c.....		5 35		5 35
Sussex post office, &c.....		54 91		54 91
Woodstock post office, &c.....		3 13		3 13
<i>Quebec.</i>				
Aylmer post office.....		2 72		2 72
Coaticook do —improvements.....	800 00			800 00
Grosse Isle quarantine station.....	74,839 27			74,839 27
Hull post office.....		8 89		8 89
Joliette do.....		4 55		4 55
Lachine do.....		49 45		49 45
Laprairie do.....	9,527 97			9,527 97
Montreal cattle inspector's office.....		85 70		85 70
do custom-house.....		2,402 29		2,402 29
do examining warehouse.....		255 76		255 76
do inland revenue office.....		93 25		93 25
do post office—improvements.....	11,147 92	164 42		11,312 34
Quebec citadel buildings.....		1,542 85		1,542 85
do cullers' office.....		5 50		5 50
do custom-house.....		250 73		250 73
do examining warehouse.....		478 04		478 04
do immigration building.....		85 00		85 00
do observatory.....		58 11		58 11
do old parliament building grounds.....		50 00		50 00
do post office, new wing and improvements.....	2,644 89	149 00		2,793 89
do quarantine station, Princess Louise embank- ment.....	1,508 15			1,508 15
do Queen's wharf building.....		10 80		10 80
do signal service inspector's office.....		42 79		42 79
Rivière du Loup (Fraserville) post office, &c.....	6,579 48			6,579 48
Sherbrooke post office, &c.....		480 10		480 10
Sorel do.....		26 00		26 00
St. Henri do.....	3,020 74			3,020 74
St. Hyacinthe do.....	10,557 05			10,557 05
St. Jérôme do.....		152 35		152 35
St. Johns do.....		38 10		38 10
St. Vincent de Paul penitentiary.....	23,989 91			23,989 91
Three Rivers custom-house.....		123 53		123 53
do post office.....		45 30		45 30
Valleyfield do.....		256 50		256 50
West Farnham do &c.....	3,551 99			3,551 99
<i>Ontario.</i>				
Almonte post office, &c.....		67 00		67 00
Amherstburg do.....		47 25		47 25
Carried forward.....	268,153 61	19,060 36	2,960 97	290,174 94

Department of Public Works.

APPENDIX No. 1—Continued.

Name of Work.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—Continued.				
<i>Ontario—Continued.</i>				
Brought forward.....	268,153 61	19,060 36	2,960 97	290,174 94
Belleville post office, &c.....		134 19		134 19
Berlin do.....		55 18		55 18
Brampton do.....		72 75		72 75
Brantford drill shed.....	5,032 55			5,032 55
do post office, &c.....		114 01		114 01
Brockville do.....		91 36		91 36
Carleton Place do.....	2,560 34			2,560 34
Cayuga do.....		202 47		202 47
Chatham do improvements.....	705 72			705 72
Clifton or Niagara Falls post office.....		21 25		21 25
Cornwall post office, &c.....		36 50		36 50
Dundas do.....		500 75		500 75
Galt do.....		7 00		7 00
Gananoque post office.....		14 90		14 90
Guelp post office.....		373 38		373 38
Hamilton civil service examination office.....		20 00		20 00
do custom-house.....		61 56		61 56
do immigration building.....		25 75		25 75
do post office.....		1,488 20		1,488 20
Kingston civil service examination office.....		21 35		21 35
do custom-house.....		83 02		83 02
do immigration building.....		99 01		99 01
do post office.....		162 86		162 86
Lindsay post office.....		18 25		18 25
London custom-house.....		89 76		89 76
do post office, alterations, &c.....	2,870 12	2 50		2,872 62
Napanee do &c.....		3 60		3 60
Orangeville do &c.....		13 75		13 75
Orillia do &c.....	7,382 68			7,382 68
Ottawa civil service examination office.....		305 00		305 00
do examining warehouse.....		1,700 00		1,700 00
do experimental farm.....	4,264 84	353 22		4,618 06
do do heating.....			648 50	648 50
do geological museum, alterations, &c., to library.....	750 00	445 89		1,195 89
do do lighting.....			797 20	797 20
do Major's Hill park.....			3,984 27	3,984 27
do national art gallery.....			531 76	531 76
do do lighting.....			11 40	11 40
do post office.....		1,036 77		1,036 77
do do lighting.....			2,983 03	2,983 03
do printing bureau.....		264 67		264 67
do do lighting.....			1,117 20	1,117 20
do public buildings.....		116,423 31		116,423 31
do do grounds.....			5,995 25	5,995 25
do do heating.....			65,358 30	65,358 30
do do lighting.....			21,008 29	21,008 29
do do removal of snow.....			2,066 98	2,066 98
do do telephone service.....			3,460 67	3,460 67
do do water.....			14,943 66	14,943 66
do supreme court.....		549 25		549 25
do do lighting.....			73 20	73 20
Pembroke post office.....		7 80		7 80
Peterborough custom-house.....	6,008 65			6,008 65
do post office.....		347 18		347 18
Petrolia post office, &c.....	12,782 70			12,782 70
Pieton post office, &c.....	25 00			25 00
Port Arthur immigration building.....		13 20		13 20
Carried forward.....	310,536 21	144,220 00	125,940 68	580,696 89

APPENDIX No. 1—Continued.

Name of Work.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—Continued.				
<i>Ontario—Concluded.</i>				
Brought forward.....	310,536 21	144,220 00	125,940 68	580,696 89
Port Arthur post office.....	15,394 65			15,394 65
Port Colborne do.....		53 11		53 11
Port Hope do.....		68 20		68 20
Prescott do.....		240 31		240 31
Rideau Hall.....		15,238 42		15,238 42
do fuel and light (allowance).....			8,000 00	8,000 00
do removal of snow.....			400 00	400 00
Smith's Falls post office, &c.....	2,705 67			2,705 67
Stratford post office, &c.....		91 93		91 93
Strathroy do.....		9 52		9 52
St. Catharine's post office, &c.....		29 35		29 35
St. Thomas post office, &c.....		56 88		56 88
Toronto civil service examination office.....		60 02		60 02
do custom-house—paving, &c.....	1,811 83	450 12		2,261 95
do Dominion buildings.....		30 00		30 00
do drill hall.....	145,442 10			145,442 10
do examining warehouse—paving.....	1,811 83			1,811 83
do do —alterations.....	267 37			267 37
do inland revenue office.....		160 06		160 06
do post office.....		1,248 35		1,248 35
Trenton do.....		57 91		57 91
Walkerton post office, &c.....		223 80		223 80
Windsor do.....		2,313 95		2,313 95
<i>Manitoba.</i>				
Brandon Dominion lands office.....		31 50		31 50
do experimental farm.....	551 91			551 91
do immigration building.....		143 00		143 00
do industrial school.....	336 53			336 53
do post office.....	796 51	359 55		1,156 06
Public buildings generally.....		1,015 07		1,015 07
St. Paul industrial school.....	61 25			61 25
Stony Mountain penitentiary.....		9 50		9 50
Winnipeg architect's office.....		29 80		29 80
do clerk of works' office.....		71 83		71 83
do custom-house.....		41 44		41 44
do Dominion lands office.....		273 92		273 92
do drill hall.....	35 00			35 00
do examining warehouse.....		444 41		444 41
do Fort Osborne barracks.....	25,920 03	90 00		25,410 03
do immigration building.....		2,307 17		2,307 17
do post office.....		372 97		372 97
do public buildings.....		37 50		37 50
<i>North-west Territories.</i>				
Banff mounted police barracks.....		82 73		82 73
Battleford do do.....		2,170 41		2,170 41
Boundary Creek mounted police barracks.....		4 50		4 50
Bull's Head do do.....		5 00		5 00
Calgary court-house, &c.....		37 95		37 95
do custom-house.....		10 40		10 40
do Dominion lands office.....		179 50		179 50
do immigrant building.....		85 10		85 10
do mounted police barracks.....		1,676 54		1,676 54
do post office, &c.....	9,282 47			9,282 47
Carried forward.....	514,353 36	174,031 72	134,340 68	822,725 76

Department of Public Works.

APPENDIX No. 1—Continued.

Name of Work.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—Continued.				
<i>North-west Territories—Con.</i>				
Brought forward.....	514,353 36	174,031 72	134,340 68	822,725 76
Canmore mounted police barracks		392 21		392 21
Duck Lake do do		41 53		41 53
Edmonton immigrant building.....		147 00		147 00
do do mounted police barracks.....		70 77		70 77
do do registry office and crown lands agent's office.....	7,220 97			7,220 97
Fort Macleod mounted police barracks.....		616 08		616 08
Fort Saskatchewan do do		188 73		188 73
Indian Head experimental farm.....	25 00			25 00
Lethbridge custom and court-house.....	246 42			246 42
do do mounted police barracks.....		581 22		581 22
Maple Creek do do		1,090 49		1,090 49
Medicine Hat immigration building—alterations for court-house, &c.....	685 65			685 65
Medicine Hat mounted police barracks.....		15 00		15 00
Moose Jaw court-house, &c.....	1,613 82			1,613 82
Moosomin do do	868 49	46 85		915 34
do do mounted police barracks.....		985 16		985 16
McCoy do do		50 00		50 00
Porcupine Hills do do		4 67		4 67
Prince Albert court-house, &c.....		90 68		90 68
do do mounted police barracks.....		289 72		289 72
do do registry office and Dominion lands.....	3,900 97			3,900 97
Red Deer industrial school.....	11,309 19			11,309 19
Regina clerk of works' office.....		19 47		19 47
do do court-house, land and registry office.....	9,091 22			9,091 22
do do do		42 06		42 06
do do Lieut.-Governor's residence (new) do do do (old, heating con- servatory, 1890-91).....	1,115 63	269 36		1,384 99
do do mounted police barracks.....		132 37	1,314 61	1,446 98
do do post office.....		1,376 72		1,376 72
Rupert's Land industrial school.....		5 65		5 65
St. Albert mounted police barracks.....		14 00		14 00
Wood End do do		5 00		5 00
Wood Mountain do do		17 95		17 95
Woolsley court-house, &c.....	48 74	132 15		132 15
				48 74
<i>British Columbia.</i>				
Agassiz experimental farm.....	715 72			715 72
Kootenay mounted police barracks.....		8 35		8 35
Nanaimo post office, &c.....	405 90	112 35		518 25
New Westminster post office, &c.....		1,427 09		1,427 09
Public buildings generally		53 90		53 90
Vancouver post office.....	34,130 24			34,130 24
Victoria agencies' office.....		165 00		165 00
do do barracks.....	2,482 31			2,482 31
do do custom-house.....		951 15		951 15
do do drill hall.....	34,459 64			34,459 64
do do marine hospital (alterations & improvements).....	1,963 73			1,963 73
do do marine office.....		2 00		2 00
do do military buildings.....	2,146 60			2,146 60
do do post office.....		488 24		488 24
do do powder magazine.....	3,420 53			3,420 53
do do savings bank.....		42 46		42 46
William's Head quarantine station.....	29,539 10			29,539 10
<i>England.</i>				
London, High Commissioner's house.....		21 78		21 78
Carried forward	659,743 23	183,928 79	135,655 29	979,327 31

APPENDIX No. 1—Continued.

Name of Work.	Construction and Improvements.		Repairs.	Staff and Maintenance.	Total.									
	\$	cts.	\$	cts.	\$	cts.								
PUBLIC BUILDINGS—Continued.														
Brought forward.....	659,743	23	183,928	79	135,655	29	979,327	31						
EXPENDITURE ON ACCOUNT SERVICES MENTIONED.	Salaries of Engineers &c.	Supplies for Engineers, &c.	Heating.	Lighting.	Water.	Total.								
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.								
<i>Nova Scotia.</i>														
Amherst post office.....	400 00	4 48	236 90	209 37		850 75								
Annapolis do.....	400 00	19 25	178 35		40 00	637 60								
Antigonish do.....	400 00	4 14	80 00	34 45		518 59								
Ariehat do.....			102 26			102 26								
Baddeck do.....	200 00	4 50	97 50	22 50		324 50								
Halifax Dominion building do examining warehouse.....	2,018 01	4 35	876 80	3,021 22	568 75	6,489 13								
do house.....	500 00		174 80	44 80	136 43	856 03								
do immigrant shed.....			208 11	369 98		578 09								
New Glasgow post office.....	400 00	9 41	120 00	408 09	100 00	1,037 50								
North Sydney do.....	400 00	1 35	168 00	316 00		885 35								
Pictou custom-house.....	400 00	2 55	104 43	15 76		522 74								
Sydney post office.....	400 00	26 90	228 75	89 19		744 84								
Truro do.....	400 00	7 50	143 00	270 91	10 00	831 41								
Windsor do.....	409 99	3 55	117 00	154 80	50 00	735 34								
Yarmouth do.....	400 00	4 69	168 01	397 85	60 00	1,030 55								
<i>Prince Edward Island.</i>														
Charlottetown Dominion building.....	1,899 24	29 70	467 25	1,025 30	225 00	3,646 49								
Montague post office.....	143 30	15 53	54 00	13 25		226 08								
Summerside do.....	400 00	38 81	330 88	41 30		810 99								
<i>New Brunswick.</i>														
Bathurst post office.....	450 00	6 97	357 30	23 61		837 88								
Carleton, St. John, post office.....	100 00		37 63	150 00	12 00	299 63								
Chatham post office.....	310 00		117 53	58 80		486 33								
Dalhousie do.....	400 00	14 31	246 58	22 70		683 59								
Fredericton do.....	400 00	13 80	319 35	396 09	40 00	1,169 24								
Moncton do.....	400 00	9 27	182 88	463 32	134 00	1,189 47								
Newcastle do.....	400 00	32 15	331 21	302 40		1,065 76								
Portland do.....			32 90			32 90								
St. John custom-house—temporary.....	509 00	6 00	556 30	86 86		1,158 16								
St. John custom-house do inland revenue.....				26 32		26 32								
do marine hospital.....				5 12		5 12								
do penitentiary.....	412 50		37 14	67 80		67 80								
do post office.....	1,340 00	24 34	576 62	6 25		455 89								
do savings bank.....				2,371 03	429 18	4,741 17								
St. Stephen's post office, &c.....	400 00	13 80	313 35	86 95	20 29	420 59								
Sussex do.....	400 00	1 09	125 50	548 10	64 00	1,151 40								
Woodstock do.....	414 63		207 62	9 77		618 48								
			195 34	160 00	34 00	803 97								
<i>Quebec.</i>														
Aylmer post office.....	100 00		187 80	28 51		316 31								
Coaticook do.....	400 00	15 47	225 46	347 20	40 00	1,028 13								
Carried forward.....	15,606	67	313	91	7,906	55	11,595	60	1,963	65	37,386	88	979,327	31

Department of Public Works.

APPENDIX No. 1—Continued.

Name of Work.			Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
			\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—Continued.						
Brought forward.....			659,743 23	183,928 79	135,655 29	979,327 31
	Salaries of Engineers, &c.	Supplies for Engineers, &c.	Heating.	Lighting.	Water.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
EXPENDITURE ON ACCOUNT SERVICES MENTIONED—Continued.						
<i>Quebec—Concluded.</i>						
Brought forward.....	15,606 67	313 91	7,906 55	11,595 60	1,963 65	37,386 38
Grosse Isle quarantine station.....	332 70					332 70
Hull post office, &c.	212 50	4 25	304 50	388 96	108 00	1,018 21
Joliette post office, &c.	400 00	12 83	230 54	69 25	108 00	820 62
Lachine do	250 00	13 42	119 92	22 10	24 77	430 21
Laprairie do			36 25			36 25
Lévis immigrant building.			16 00			16 00
Montreal custom-house.....	1,318 34	275 27	752 33	531 03	356 05	3,233 02
do Dominion public buildings.....	1,800 00	8 00				1,808 00
do drill hall	540 00					540 00
do examining warehouse.....	1,259 43	621 23	2,017 58	691 56	597 26	5,187 06
do immigrant building.....			187 77		43 65	231 42
do inland revenue office.....	645 00		155 78	230 97	108 70	1,140 45
do post office.....	2,001 67	25 30	897 02	3,637 78	1,597 76	8,179 53
Quebec citadel buildings..	76 50		192 17	183 42		452 09
do clerk of works office.....	48 00	4 07				52 07
do cullers' office.....	540 00		213 65			753 65
do custom-house.....	540 00		809 47	35 15	6 00	1,390 62
do examining warehouse.....	1,140 00	157 21	1,073 99	31 32		2,402 52
do immigrant building.....			382 75			382 75
do Louise Embankment quarantine station.....			12 50			12 50
do observatory.....					40 00	40 00
do post office.....		27 19	375 50	818 40	3,024 00	4,245 09
do Queen's wharf building.....			265 00			265 00
Rivière du Loup (Fraser-ville) post office.....	229 15		257 75			486 90
Sherbrooke post office, &c.	430 00	88 13	317 80	304 50	54 00	1,194 43
Sorel do	450 00	25 59	258 55	207 05	250 00	1,191 19
St. Jérôme do	400 00		324 46	176 00	57 00	957 46
St. Johns do	350 00	10 45	176 00	250 00	40 00	826 45
St. Vincent de Paul penitentiary..			240 00			240 00
Three Rivers custom-house.....	600 00	26 35	384 84	6 00	72 00	1,089 19
do post office.....	400 00	6 25	191 50		60 00	657 75
Valleyfield do	10 00		50 40	26 30		86 70
<i>Ontario.</i>						
Almonte post office.....	400 00	12 30	142 00	46 59	75 00	675 89
Amherstburg post office, &c	400 00	21 15	157 00	63 00	77 50	718 65
Carried forward.....	30,379 96	1,652 90	18,449 57	19,334 98	8,663 34	78,490 75

APPENDIX No. 1—Continued.

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.		
PUBLIC BUILDINGS—Continued.						
	\$ cts.	\$ cts.	\$ cts.	\$ cts.		
Brought forward.....	659,743 23	183,928 79	135,635 29	979,327 31		
EXPENDITURE ON ACCOUNT SERVICES MENTIONED—Continued.	Salaries of Engineers, &c.	Supplies for Engineers, &c.	Heating.	Lighting.	Water.	Total.
<i>Ontario—Continued.</i>	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward.....	30,379 96	1,652 90	18,449 57	19,334 98	8,663 34	78,480 75
Barrie post office, &c.	400 00		260 08	250 00	50 00	960 08
Belleville do	621 00	13 28	354 00	433 80	82 50	1,504 58
Berlin do	400 00	6 30	146 18	272 75	33 00	858 23
Brampton do	400 00	7 28	133 55	86 42	11 70	638 95
Brantford do	600 00	27 06	399 00	376 54	30 40	1,433 00
Brockville do	400 00	28 70	312 00	557 75	170 00	1,468 45
Carleton Place do	250 00	23 75	245 10	26 70		545 55
Cayuga do	50 00	7 33	30 00	37 50		124 83
Chatham do	850 00	32 06	243 55	333 60	90 00	1,549 21
Clifton, or Niagara Falls post office.....	400 00	48 95	413 85	210 99	35 00	1,108 79
Cobourg post office.....	400 00		259 00	169 25	45 50	873 75
Cornwall do	475 00	35 70	212 20	413 78	45 00	1,181 68
Dundas do			32 50	78 82		111 32
Galt do	400 00	3 50	180 00	272 20	27 79	833 49
Gananoque custom-house do post office.....		16 24	140 00	94 00		389 56
Goderich do	400 00	49 89	218 90			668 79
Guelph do	400 00	8 00	330 04	253 20	28 08	1,019 32
Hamilton custom-house do drill shed	360 00			70 55		670 55
do post office.....	959 00	47 73	1,020 00	1,542 60	1,000 00	4,569 33
Kingston custom-house do examining warehouse	91 60		370 88	142 20	77 60	682 28
do inland revenue office			10 88		12 00	22 88
do military college do post office	1,440 00			47 00	94 28	141 28
Lindsay do	148 12	4 60	294 80	404 60	56 26	1,440 00
London custom-house do post office	400 00	4 00	166 07	117 29		908 38
Napanee do	1,000 00	55 93	690 93	369 95	105 00	687 36
Orangeville do	600 00	18 80	636 47	762 25	80 00	2,221 81
Ottawa experimental farm do Government printing bureau	450 00	17 55	154 25	167 58	69 45	2,097 52
do public buildings	400 00	16 98	124 80	138 99		858 83
do supreme court			194 50		270 00	680 77
Pembroke post office.....	860 54					464 50
Peterboro' custom-house do post office	943 50					860 54
Port Arthur do	427 50					943 50
Port Colborne do	399 96	15 25	216 67	262 24		427 50
Port Hope do	431 94	16 18	180 00	191 63	372 80	894 12
Prescott custom-house do post office	431 94		40 00		75 00	1,087 55
Rideau Hall	220 00	15 35		128 75		180 00
	366 63	14 90	240 00	171 29		1,087 55
			115 00			40 00
	458 26	15 94	215 30	136 72		364 10
	363 00					792 73
						115 00
						826 22
						363 00
Carried forward.....	47,746 01	2,204 15	27,315 70	28,222 32	11,151 90	116,640 08
						979,327 31

Department of Public Works.

APPENDIX No. 1—Continued.

Name of Work.		Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.	
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	
PUBLIC BUILDINGS—Continued.						
Brought forward		659,743 23	183,928 79	135,655 29	979,327 31	
	Salaries of Engineers &c.	Supplies for Engineers &c.	Heating.	Lighting.	Water.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Ontario—Concluded.</i>						
Brought forward.....	47,746 01	2,204 15	27,315 70	28,222 32	11,151 90	116,640 08
Stratford post office, &c ..	600 00	6 25	400 90	278 80	63 00	1,348 95
Strathroy do	366 63	32 05	204 53	15 55	2 88	621 64
St. Catharines do	366 63	12 10	238 46	226 11	57 00	900 30
St. Thomas do	366 63	19 35	392 78	460 50	25 25	1,264 51
Toronto custom-house	550 00	31 50	474 25	106 56	181 77	1,344 08
do Dominion public buildings.....	1,375 00					1,375 00
do examining warehouse	3,472 50	5 75	1,188 26	36 70	112 00	4,815 21
do inland revenue office	550 00		454 97	248 30	73 75	1,327 02
do post office	1,003 32	42 25	1,332 18	2,769 66	683 85	5,831 26
Trenton do	416 63	7 25	150 00	208 00		781 88
Walkerton do &c	366 63	15 22	148 77	247 65	20 00	798 27
Windsor do	916 63	5 90	615 76	604 20	96 00	2,238 49
<i>Manitoba.</i>						
Brandon Dominion lands office				54 00		54 00
do experiment farm			163 21			163 21
do immigrant shed			171 76			171 76
do inland revenue office				4 00		4 00
do post office.....	366 63	45 25	854 49	316 89	73 20	1,656 46
Minnedosa Dominion lands office			154 00			154 00
Winnipeg custom-house		16 05	527 60	211 41	91 20	846 26
do Dominion lands office, &c.		24 63	364 25	39 42		428 30
do examining warehouse		9 12	619 80	10 53		639 45
do Fort Osborne barracks.....	104 00		171 70			275 70
do immigrant shed		81 50	789 17	102 42	93 75	1,066 84
do Indian office.....			207 00			207 00
do post office.....	2,690 00	87 77	2,412 75	904 23	412 50	6,507 25
<i>North-west Territories.</i>						
Battleford Dominion lands office			50 50			50 50
Birdle Dominion lands office, etc			78 00			78 00
Calgary barracks.....				602 70	820 65	1,423 35
do court-house, etc.....		17 95	325 75	175 00	225 00	743 70
Carried forward.....	61,257 24	2,664 04	39,806 54	35,844 95	14,183 70	153,756 47

APPENDIX No. 1—Continued.

Name of Work.		Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.			
PUBLIC BUILDINGS—Continued.		\$ cts.	\$ cts.	\$ cts.	\$ cts.			
Brought forward		659,743 23	183,928 79	135,655 29	979,327 31			
EXPENDITURE ON ACCOUNT SERVICES MENTIONED—Continued.	Salaries of Engineers, &c.	Supplies for En- gineers, &c.	Heating.	Lighting.	Water.	Total.		
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.		
N. W. T.—Continued.								
Brought forward		61,257 24	2,664 04	39,806 54	35,844 95	14,183 70	153,756 47	
Calgary Dominion lands office, &c.			38 25				38 25	
do immigrant build- ing			274 50				274 50	
do mines office			163 00				163 00	
Coteau Dominion lands office, &c.			19 50				19 50	
Deloraine Dominion lands office, &c.			69 05				69 05	
Edmonton registrar's office do Dominion lands office, &c.			25 00				25 00	
Estwan Dominion lands office, &c.			30 50				30 50	
Indian Head experimental farm			23 00				23 00	
Lake Dauphin Dominion lands office, &c.			249 28				249 28	
Lethbridge Dominion lands office, &c.			5 75				5 75	
Macleod custom-house.			51 00				51 00	
Mosomin court-house.	366 63	33 15	170 00				170 00	
Prince Albert court-house, &c.			458 63	14 83			873 24	
do Dominion land office, &c.	366 63	32 83	165 00	18 27			582 73	
do immigrant shed			33 45				33 45	
do lands titles' office			32 25				32 25	
do registry office, &c.			24 00				24 00	
Qu'Appelle court-house.		2 50	20 00				20 00	
Red Deer Dominion lands office			8 00				10 50	
Regina court-house.		26 90	28 50				28 50	
do gaol and lunatic asylum.	660 00		775 65		41 60		844 15	
do immigrant build- ing			68 50				68 50	
do Lieut.-Governor's residence.		29 50					29 50	
do post office		14 01	277 10				291 11	
do registry office.			92 27				92 27	
Saltecoats Dominion lands office			4 00				4 00	
Touchwood Dominion lands office.			10 10				10 10	
Carried forward		62,650 50	2,802 93	42,922 82	35,878 05	14,225 30	158,479 60	979,327 31

Department of Public Works.

APPENDIX No. 1—Continued.

Name of Work.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
PUBLIC BUILDINGS—Concluded.				
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward.....	659,743 23	183,928 79	135,655 29	979,327 31
EXPENDITURE ON ACCOUNT SERVICES MEN- TIONED—Concluded.				
<i>N. W. T.—Concluded</i>	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward.....	62,650 50	2,802 93	42,922 82	35,878 05
<i>Wetaskiwin Dominion lands office.....</i>			8 00	8 00
<i>Whitewood im migrant shed.....</i>		28 00		28 00
<i>British Columbia.</i>				
<i>Kamloops Dominion lands office.....</i>		12 50		12 50
<i>Nanaimo post office.....</i>	600 00	133 50	307 25	36 50
<i>New Westminster post office.....</i>	600 00	262 90	272 75	41 84
<i>Victoria custom-house.....</i>		41 50	46 00	30 18
<i>do post office.....</i>	203 33	374 53	965 25	
<i>Miscellaneous.</i>				
<i>Aberdeen, South Dakota, U.S., immigration office.....</i>		7 95		7 95
<i>Crookston, Minnesota, U.S., immigration office.....</i>		1 25		1 25
<i>Dominion buildings gener- ally.....</i>		34 40	628 19	662 59
Totals.....	64,053 83	2,837 33	44,421 14	37,469 30
			14,333 82	163,115 42
				163,115 42
Carried forward.....	659,743 23	183,928 79	298,770 71	1,142,442 73

APPENDIX No. 1—Continued.

Name of Work.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	§ cts.	§ cts.	§ cts.	§ cts.
HARBOURS AND BREAKWATERS.				
Brought forward.....	659,743 23	183,928 79	298,770 71	1,142,442 73
<i>Nova Scotia.</i>				
Barrington Passage pier.....	673 56			673 56
Bayfield breakwater repairs		1,299 98		1,299 98
do new wharf.....	1,252 29			1,252 29
Belliveau Cove.....		500 00		500 00
Big Tracadie breakwaters repairs.....		300 00		300 00
Bird Island.....		202 84		202 84
Blanche Harbour.....	299 99			299 99
Blue Rock breakwater repairs.....		496 99		496 99
Boularderie wharf near Island Point—repairs.....		499 48		499 48
Broad Cove Marsh pier—repairs.....		1,923 65		1,923 65
Cape Sable Island breakwater—south side.....	963 70			963 70
Caribou Island do.....		300 00		300 00
Cheticamp wharf.....		100 08		100 08
Church Point wharf.....		45 25		45 25
Cow Bay breakwater.....		3,499 90		3,499 90
Cribbins Point breakwater.....		17 23		17 23
D'Escousse wharf.....	254 62			254 62
Devil's Island breakwater.....	2,117 52			2,117 52
Digby pier (old)—reconstruction.....	5,798 73	2,087 19		7,885 92
Eatonville—beach protection works.....	2,487 50			2,487 50
Fox Island do.....	650 98			650 98
French River pier.....		299 73		299 73
Great Village wharf.....	240 00			240 00
do river—additional work 1883-84.....	3,250 00			3,250 00
Green Harbour—opening channel.....	300 00			300 00
Halifax graving dock (subsidy).....	10,000 00			10,000 00
do Lawlor's Island quarantine wharf.....	4,529 02			4,529 02
Hampton breakwater—repairs.....		1,500 09		1,500 09
Harbours generally.....			6,201 24	6,201 24
Harbourville breakwater.....		30 00		30 00
Irish Cove do.....		52 29		52 29
L'Ardoise do.....	9,332 50			9,332 50
Louis Head do.....	3,361 58			3,361 58
Mabou Harbour—repairs to pier.....		993 09		993 09
Maitland pier.....		300 00		300 00
Margaree pier.....		1,083 85		1,083 85
Margaretville pier—repairs.....		992 93		992 93
Meagher's Beach.....		496 95		496 95
Meteghan Cove breakwater.....		299 72		299 72
Morden Pier.....		259 67		259 67
McNair's Cove—dredging, repairs to pier.....		1,320 04		1,320 04
Negro Island—beach protection.....	300 00			300 00
Nyanza wharf.....	110 00			110 00
Parrsboro' Harbour—dredging entrance channel.....	3,497 52			3,497 52
Pictou Island Wharfs.....	3,279 37			3,279 37
Porter's Lake channel.....		147 00		147 00
Port George pier.....		586 65		586 65
Port Hood do.....		10 00		10 00
Port Lorne do.....		500 00		500 00
Round Hill.....	1,608 75			1,608 75
Somerville pier.....		598 02		598 02
Spencer's Island pier.....		20 50		20 50
Stony Island.....	1,064 66			1,064 66
South Gut pier.....	199 91			199 91
Sydney quarantine station wharf—Keating Point.....	1,200 02			1,200 02
Tatamagouche.....	99 97			99 97
West Arichat breakwater—repairs.....		1,479 69		1,479 69
Carried forward.....	716,615 42	206,171 60	304,971 95	1,227,758 97

Department of Public Works.

APPENDIX No. 1—Continued.

Name of Work.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND BREAKWATERS—Con.				
Brought forward.....	716,615 42	206,171 60	304,971 95	1,227,758 97
<i>Nova Scotia—Concluded.</i>				
West Chezzetcook breakwater.....	7,072 50			7,072 50
Wreck Cove do.....	100 00			100 00
<i>Prince Edward Island.</i>				
Annandale pier.....		299 98		299 98
Bay Fortune Harbour.....	2,193 25			2,193 25
Bayview wharf.....		100 00		100 00
Belfast pier.....		250 00		250 00
Brae Harbour breakwater.....		100 00		100 00
Cascumpec breakwater.....		36 00		36 00
Georgetown wharf.....		399 90		399 90
Harbours generally.....			446 58	446 58
Hurd's Point pier.....		572 29		572 29
Kier's shore pier.....		250 01		250 01
Lewis Point pier.....		248 85		248 85
Malpeque breakwater—repairs to protection works.....		250 00		250 00
Miminkash breakwater.....	2,353 61			2,353 61
New London do.....		543 35		543 35
Nine Mile Creek pier—extension.....	402 70			402 70
Pinette pier.....		250 00		250 00
Pownal do.....		249 26		249 26
Port Selkirk pier.....		117 41		117 41
Souris breakwater.....		1,936 22		1,936 22
Stephen's pier.....		200 43		200 43
St. Peter's Bay breakwater—repairs.....		669 75		669 75
Vernon River pier.....		249 28		249 28
Victoria pier.....		50 00		50 00
<i>New Brunswick.</i>				
Anderson's Hollow pier.....		2 50		2 50
Bear Island.....	1,398 69			1,398 69
Black River pier.....		180 82		180 82
Campbellton ballast wharf.....	2,477 90			2,477 90
Cape Tormentine breakwater.....	42,600 61			42,600 61
Clifton breakwater.....		498 93		498 93
Dalhousie ballast wharf—repairs.....		249 90		249 90
Green River.....	200 00			200 00
Fdgett's landing wharf.....	1,200 00			1,200 00
Lincoln wharf.....	500 00			500 00
Lower Nguac wharf.....	3,650 76			3,650 76
Mispec breakwater.....		284 57		284 57
Moss Glen wharf.....	200 00			200 00
Oromocto shoals.....	510 73			510 73
Scovill's Point wharf.....	500 00			500 00
Sackville Harbour—repairs to protection works.....		2,000 00		2,000 00
Shediac Harbour—new breakwater, &c.....	279 73			279 73
Shippegan breakwater.....		500 00		500 00
St. Francis River.....	937 38			937 38
St. John Harbour—Negro Point breakwater.....	2,194 80			2,194 80
do do Partridge Island wharf.....	192 37			192 37
do do River—removal of snags.....			250 00	250 00
do do shear dam at Grand Falls.....	650 10			650 10
do do improvements between Andover and Grand Falls.....	175 00			175 00
do do Belvisor Bar.....	599 72			599 72
Carried forward.....	787,005 27	216,661 05	305,668 53	1,309,334 85

APPENDIX No. 1—Continued.

Name of Work.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND BREAKWATERS—Con.				
Brought forward.....	787,005 27	216,661 05	305,668 53	1,309,334 85
<i>New Brunswick—Concluded.</i>				
Tobique River—improving channel.....	874 28			874 28
Tracadie wharf.....	1,005 12			1,005 12
Vanwart's Landing wharf.....	500 00			500 00
<i>Quebec.</i>				
Agnès pier, Lake Mégantic.....		300 00		300 00
Anse à l'Eau or Tadousac pier.....	1,798 02			1,798 02
Anse St. Jean.....		499 23		499 23
Baie St. Paul, isolated pier—repairs.....		898 47		898 47
do wharf at Cap aux Corbeaux—extension.....	129 94			129 94
Beloil booms.....			120 00	120 00
Cacouna pier.....	1,809 79			1,809 79
Cap à l'Aigle pier.....		149 94		149 94
Chicoutimi wharf—extension, &c.....	1,000 01			1,000 01
Etang du Nord breakwater, Isle aux Goélands.....		1,495 40		1,495 40
Grosse Isle—quarantine station wharf.....		598 61		598 61
Harbours generally.....			2,415 53	2,415 53
Ile aux Coudres pier—repairs.....		252 46		252 46
Ile Verte—pier.....		998 11		998 11
Knowlton's Landing—pier.....		918 09		918 09
Laprairie ice piers.....	2,589 51			2,589 51
Les Eboulements wharf.....		799 83		799 83
Lévis graving dock—dredging.....	1,994 43	631 60	7,838 47	10,464 50
L'Islet pier.....		6,190 34		6,190 34
Longueuil pier.....	2,496 63			2,496 63
Malbaie pier.....		1,780 98		1,780 98
Matane pier—extension.....	3,504 08			3,504 08
Piers below Quebec.....			2,871 82	2,871 82
Pointe St. Pierre harbour.....	27 00			27 00
Rimouski pier.....		2,963 89		2,963 89
Rivière Bras St. Nicholas.....	2 00			2 00
do des Prairies.....	871 58			871 58
do du Lièvre.....		275 51	952 86	1,228 37
do du Loup (en bas) pier.....		157 16		157 16
do L'Assomption—Chute Monte à Peine.....	399 40			399 40
do Nicolet—harbour of refuge.....	1,953 50			1,953 50
do Noire.....	199 86			199 86
do Ottawa—channel at Mille Iles.....	999 91			999 91
do do Papineauville or Pentecost Bay channel.....	500 00			500 00
do Ouelle pier.....		247 18		247 18
do Ste. Anne de la Pérade—dredging.....	772 35			772 35
do St. Laurent—ship channel between Quebec and Montreal.....	76,318 51			76,318 51
do St. Louis—head gates.....		48 35	129 00	177 35
do St. Maurice—west channel at mouth.....	1,853 50			1,853 50
do do channel between Grandes Piles and Latuque.....	1,279 18			1,279 18
Rivière Yamaska—repairs to lock and dam.....		1,050 74	637 35	1,688 09
Roberval pier—Lake St. John.....	508 44			508 44
St. Anicet wharf.....		25 88		25 88
St. Anne des Monts pier.....	1,643 00			1,643 00
St. Jean, Isle d'Orléans, pier.....		25 00		25 00
St. Jean Port Joli do.....	4,927 61			4,927 61
St. Laurent, Ile d'Orléans, pier.....		250 65		250 65
St. Michel de Bellechasse do.....		1,001 99		1,001 99
Carried forward.....	806,962 92	238,220 46	320,633 56	1,455,816 94

Department of Public Works.

APPENDIX No. 1—Continued.

Name of Work.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND BREAKWATERS—Continued.				
Forward.....	896,962 92	238,220 46	320,633 56	1,455,816 94
<i>Quebec—Concluded.</i>				
St. Thomas de Montmagny, pier.....		25 41		25 41
Yamachiche do.....	556 75			556 75
<i>Ontario.</i>				
Belleville harbour—dredging.....	2,759 68			2,759 68
Burlington Bay channel.....		301 70	714 69	1,016 39
Cobourg harbour.....	67 96			67 96
Georgian Bay—removal Robertson Rocks.....	990 30			990 30
Goderich harbour—extension of piers.....	1,193 45			1,193 45
Hamilton harbour—dredging.....	3,230 90			3,230 90
Harbours generally.....			1,769 63	1,769 63
Kaministiquia River—turning basin, &c.....	9,561 77			9,561 77
Kincardine harbour.....	247 34			247 34
Kingston graving dock.....	48,612 54	158 64	7,875 27	56,646 45
do harbour.....	6,999 92			6,999 92
Lions' Head breakwater.....		99 25		99 25
Little Current, Lake Huron.....	3,764 54			3,764 54
Meaford harbour.....	3,821 53			3,821 53
Midland harbour—dredging.....	4,983 96			4,983 96
Mudge Bay.....	331 40			331 40
Owen Sound harbour—dredging.....	13,374 40			13,374 40
Penetanguishene harbour—dredging.....	2,491 98			2,491 98
Port Albert—Piers and dredging.....	614 43			614 43
Port Arthur harbour—dredging.....	3,110 77			3,110 77
Port Elgin harbour—do.....	2,531 55			2,531 55
do do breakwater.....		568 45		568 45
Port Hope harbour.....		2,599 77		2,599 77
Port Rowan wharf.....	3,983 02			3,983 02
Port Stanley harbour.....	17 92			17 92
Rainy River—Long Sault Rapids.....	7,570 39			7,570 39
River Beaudet—cleaning out channel.....	2,088 60			2,088 60
Rockport wharf.....			138 18	138 18
Southampton harbour.....		4,378 92		4,378 92
Thornbury harbour.....	2,981 27			2,981 27
Toronto harbour.....	71,775 33			71,775 33
<i>Manitoba.</i>				
Harbours, &c.—generally.....			370 04	370 04
<i>British Columbia.</i>				
Columbia River—improvements above Golden do between Revelstoke and Arrow do Lake.....	5,400 27			5,400 27
do do below Kootenay.....	2,461 09			2,461 09
Cowichan River.....	166 50			166 50
Esquimalt River.....	1,755 61			1,755 61
do do graving dock—balance stop-gate, &c.....	4,784 20			4,784 20
do do do —caisson chamber repairs.....		4,075 58	13,196 61	17,272 19
Frazer River.....	9,975 26			9,975 26
do do improvements Miller's Landing and Sumas.....	879 66			879 66
do do protection works at Garry Bush.....	7,941 79			7,941 79
Harbours generally.....			3,537 41	3,537 41
Somas River.....	5 50			5 50
Carried forward.....	1,127,994 50	250,428 18	348,235 39	1,726,658 08

APPENDIX No. 1—Continued.

Name of Work.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND BREAKWATERS—Con.				
Brought forward.	1,127,994 50	250,428 18	348,235 39	1,726,658 07
<i>British Columbia—Concluded.</i>				
Skeena River.	2,158 18			2,158 18
Victoria Harbour.	6,004 16			6,004 16
do dredging outer harbour.	11,655 05			11,655 05
Williams Head—quarantine wharf.	24,605 71			24,605 71
HARBOURS GENERALLY.			4,093 67	4,093 67
DREDGES—Repairs, &c.			26,965 86	26,965 86
DREDGING PLANT (new)				29,189 93
DREDGING.				
(REFERENCE NO. 143984.)				
<i>Nova Scotia.</i>				
East River (Pictou).	\$ 5,426 35			
Middle River.	2,051 01			
McNair's Cove (Antigonish).	4,108 51			
Pictou harbour (Pictou).	560 59			
St. Peter's Canal (Richmond).	1,067 03			
	\$ 13,213 49			
<i>Prince Edward Island.</i>				
Cape Traverse (Prince).	\$ 2,495 58			
Montague (King's)	5,433 38			
Murray harbour S. (King's)	707 94			
St. Mary's Bay do	4,530 51			
Sturgeon Bay do	501 26			
	13,668 67			
<i>New Brunswick.</i>				
Bathurst harbour (Gloucester) \$ 3,024 02				
Kennebecassis River (King's). 2,953 32				
<i>Miramichi River—</i>				
Gordon Flats. \$ 3,050 52				
Horse Shoe. 1,761 61				
Outer Bar. 47 61				
	4,859 74			
Oromocto 5,443 52				
Richibucto harbour. 1,833 04				
	18,113 64			
Total, Maritime Provinces.	\$ 44,995 80			
<i>Quebec.</i>				
Châteauguay River. \$ 739 27				
Dorval harbour. 1,014 61				
<i>L'Assomption River at Char-</i>				
lemagne 934 11				
Longueuil harbour (at wharf). 2,442 67				
Ste. Placide. 777 00				
Generally. 481 79				
	6,389 45			
Carried forward.	\$ 51,385 25	1,201,607 53	277,394 04	352,329 06
				1,831,330 63

Department of Public Works.

APPENDIX No. 1—Continued.

Name of Work.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
DREDGING—Concluded.				
Brought forward.....	\$51,385 25	1,201,607 53	277,394 04	352,329 06
<i>Ontario.</i>				
Amherstburg harbour.....	\$ 2,019 96			
Anderson do	925 81			
Bath do	136 10			
Belleville do	23 50			
Bowmanville do	2,191 00			
Cobourg do	3,980 20			
Collingwood do	1,358 72			
Gananoque do	643 31			
Goderich do	10,239 62			
Kincardine do	3,012 75			
Kingston do	539 83			
Kingsville do	633 10			
Lion's Head do	2,492 45			
Meaford do	516 17			
Mosquito Bay do	125 92			
Napanee do	757 04			
Newcastle do	1,262 76			
Pictou do	316 97			
Port Arthur do	2,119 00			
Port Credit do	592 00			
Port Elgin do	1,744 00			
Port Hope do	1,416 08			
Port Stanley do	1,861 09			
Saugeen River.....	576 00			
Thornbury Harbour.....	1,896 88			
Whitby do	1,485 00			
Wolfe Island do	1,221 61			
Generally	3,522 60			
	47,609 47			
<i>Manitoba.</i>				
Red River.....	\$ 9,898 15			
White Mud River.....	3,997 04			
Generally	850 66			
	14,745 85			
<i>British Columbia.</i>				
Fraser River	\$4,737 35			
Victoria harbour—inner har- bour	9,980 20			
	14,717 55			
GENERALLY	5,973 78			
	134,431 90			134,431 90
SLIDES AND BOOMS.				
Saguenay District—damages, Petite Décharge		1,480 00	1,819 98	1,229 11
St. Maurice do		1,283 01	3,059 31	6,021 26
Rivière du Lièvre slides		929 39		929 39
Ottawa District slides				26,418 60
Ottawa River works	\$ 3,065 31	2,110 90		2,110 90
Gatineau do	1,020 44			
Madawaaska do	3,239 17			
Coulonge do	10 00			
Black do	184 73			
Petewawa do	59 90	8,207 45		8,207 45
Dumoine do	454 32			
			13,033 87	13,033 87
Newcastle District.....		692 78	2,984 14	1,946 13
		1,350,742 96	298,291 34	387,944 16
Carried forward.....				2,036,978 46

APPENDIX No. 1—Continued.

Name of Work.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
ROADS AND BRIDGES.				
Brought forward.....	1,350,742 96	298,291 34	387,944 16	2,036,978 46
<i>Quebec.</i>				
Rivière St. Louis bridge.....	500 62			500 62
<i>Ontario.</i>				
Dundas and Waterloo Road, award Exchequer Court favour of A. H. Walker.....	9,750 00			9,750 00
Ottawa city bridges and approaches thereto:—				
Chaudière bridge..... \$ 1,630 27				
Dufferin bridge..... 146 38				
Maria Street bridge..... 677 11				
Nepean Point..... 86 00				
Ottawa Union bridge..... 316 50				
Sapper's bridge..... 181 60				
Wellington Street..... 1,454 03				
York bridge.....		4,491 89	147 00	4,491 89 147 00
<i>Manitoba.</i>				
Assiniboine River bridge, near Millwood (Govt. grant).	2,500 00			2,500 00
<i>North-west Territories.</i>				
Battleford bridge, Battle River.....	732 22			732 22
Belly River bridge.....	2,480 86			2,480 86
Bow River bridge.....	2,000 39			2,000 39
Old Man's River bridge.....	883 30			883 30
TELEGRAPH LINES.				
<i>Nova Scotia.</i>				
Cape Sable..... \$ 243 32				
Cheticamp..... 861 56				
Low Point..... 50 00				
Meat Cove..... 1,243 72				
do and White Point Loop Line.....	536 54			536 54
	\$ 2,398 60			
<i>Prince Edward Island.</i>				
Prince Edward Island and Mainland—subsidiy.....			1,946 66	1,946 66
<i>New Brunswick.</i>				
Bay of Fundy..... \$ 1,242 25				
Escuminac..... 415 74				
Shippegan to Point Miscou— Government grant.....	2,834 70			2,834 70
	\$ 1,657 99			
<i>Quebec.</i>				
Anticosti Island..... \$ 2,150 62				
Grosse Isle Quarantine Station..... 688 00				
Magdalen Islands..... 1,903 91				
North Shore—Towards Point aux Esquimaux.....	1,496 88			1,496 88
do East Bersimis... 4,310 33				
do West do... 3,413 42				
	12,466 28			
Carried forward.. .. .	\$16,522 87	1,374,458 47	302,783 23	390,037 82
				2,067,279 52

Department of Public Works.

APPENDIX No. 1—Continued.

Name of Works.	Con- struction and Im- provements.	Repairs.	Staff and Main- tenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
TELEGRAPH LINES—Concluded.				
Brought forward.....	\$ 16,522 87	1,374,458 47	302,783 23	390,037 82
<i>Newfoundland.</i>				
Cape Ray	500 00			
GENERALLY.....	1,963 98			
Total, Telegraph Lines, lower St. Lawrence, &c.			18,986 85	18,986 85
<i>Ontario.</i>				
Grand Manitoulin Island and Mainland at Nelson Station, C.P.R. (Government Grant).....	1,000 00			1,000 00
Pointe Pelée Island.....			634 51	634 51
<i>North-west Territories.</i>				
Telegraph lines generally.....			16,328 37	16,328 37
<i>British Columbia.</i>				
Cape Beale	\$5,128 05			
Cariboo.....	3,409 65			
Nanaimo to Comox	341 75	7,138 05		7,138 05
Generally.....	40 25			
			8,919 70	8,919 70
TELEGRAPH SERVICE GENERALLY.....			934 41	934 41
MISCELLANEOUS.				
Agent and contingencies, B.C.....			2,167 71	2,167 71
Surveys and inspections.....			15,686 52	15,686 52
Regina, Wascana dam—repairs.....		5,048 00		5,048 00
Monument to the late Sir John A. Macdonald.....	774 24			774 24
Gratuity to the widow of the late F. N. Gisborne.....			500 00	500 00
do do J. B. Normand.....			240 83	240 83
do Mrs. Lily Macpherson for her late son D. A. Macpherson.....			200 00	200 00
G. F. Baillairgé, to assist him in publishing "His- torical and Topographical Map".....			500 00	500 00
Extra clerks—Secretary's Branch.....	\$37,539 06			
Chief Engineer's Branch.....	53,992 27			
Chief Architect's do.....	29,257 24			
Telegraph Superintendent's Branch.....	3,584 80			
			124,373 37	124,373 37
COLLECTION OF SLIDE AND BOOM DUES.				
Saguenay District.....	\$ 100 00			
St. Maurice do.....	449 98			
Ottawa do.....	1,411 47			
Newcastle do.....	723 62			
			2,685 07	2,685 07
Ottawa District—Upper Ottawa Improvement Co.— Logs, Cheneaux boom, 1892-93.....			1,051 32	1,051 32
Totals.....		1,383,370 76	307,831 23	583,246 48
				2,274,448 47

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 13th December, 1893.

O. DIONNE,
Accountant.

Department of Public Works.

APPENDIX No. 2.

REPORT

ON THE

PUBLIC BUILDINGS

THROUGHOUT THE DOMINION

FOR THE FISCAL YEAR ENDED 30TH JUNE, 1893

BY THE

CHIEF ARCHITECT

OF THE

DEPARTMENT OF PUBLIC WORKS

Department of Public Works.

APPENDIX No. 2.

REPORT OF THE CHIEF ARCHITECT.

DEPARTMENT OF PUBLIC WORKS, CANADA,
CHIEF ARCHITECT'S OFFICE,
OTTAWA, 11th December, 1893.

SIR.—I have the honour to inclose herewith the annual report of this branch of the department, for the year ended the 30th June, 1893.

I have the honour to be, sir,

Your obedient servant,

THOMAS FULLER,
Chief Architect.

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

PROVINCE OF NOVA SCOTIA.

ARICHAT.

POST OFFICE BUILDING.

The roof was reshingled, the foundation and building repaired, a platform laid, an internal porch constructed, and the building painted inside and outside.

Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

BADDECK.

PUBLIC BUILDING.

The outside stonework was repaired and pointed.

Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

DARTMOUTH.

POST OFFICE.

On 16th October, 1892, a contract was entered into for the construction of this building on the corner of Water and Portland Streets, and it is now in course of erection.

It is to consist of two brick stories, 40 ft. 8 in. x 23 ft. 8 in. on a stone basement. In the basement will be the heating apparatus, fuel and water closets, the ground floor for the post office and first floor for caretaker's apartments.

Plans, &c., prepared by this department.

Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

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

HALIFAX.

IMMIGRATION BUILDING.

The storehouse was refloored, repairs and alterations of counters were made; a frost-proof room constructed, and wash tubs and necessary plumbing put in.

Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

EXAMINING WAREHOUSE.

Repairs were made to floors, elevators, entrance doors and sidewalk.

Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

DOMINION BUILDING.

The plastering and joinery were repaired and the walls and ceilings of offices and corridors cleaned and tinted and the woodwork painted, the water closets and urinals renewed.

Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

LAWLOR'S ISLAND—QUARANTINE STATION.

Disinfecting Apparatus.—A small steam disinfection chamber, a steam boiler and a vacuum pump used during the summer of 1892 at Grosse Isle Quarantine Station, were shipped at the close of the season to Lawlor's Island, to be used temporarily until the apparatus intended therefor would be ready.

On 3rd January, 1893, a contract was entered into for the supply of a steel double shelled square chamber, 8 ft. 6 in. x 8 ft. 6 in. x 24 ft.; a 40 h. p. boiler, a vacuum pump, tanks for return or condensed water, bichloride of mercury, disinfection of leather goods and for settling water for boiler supply.

An agreement was entered into to construct at the north wharf, a wooden shelter building, 70 ft. x 32 ft., to contain the foregoing apparatus.

Detention Building for Cabin Passengers.—Plans and specifications were prepared and tenders received for the construction of this building on the high ground facing the old wharf. It is to be a one story wooden building on a stone foundation 152 ft. in length, to consist of a main portion 42 ft. x 32 ft., to contain a dining-room, pantry, bar and stoves; to have two wings 55 ft. x 22 ft., to contain 14 state-rooms, 2 bath-rooms and 2 water closets each, and in rear of main portion, a kitchen 20 ft. x 13 ft., with an open shed 20 ft. x 9 ft. in the rear. A covered gallery 7 ft. wide to extend along the entire length of each wing. Two open fire-places are provided for in the dining-room.

Detention Building for Third-class Passengers.—On 29th May, 1893, a contract was entered into for the construction of this building, and the works are now in progress at the north end of the island, near the wharf. It is to be of wood on stone foundation, one story in height, the main portion 220 ft. x 38 ft. 6 in., and the kitchen and shed wing 26 ft. x 20 ft. The middle portion, 43 ft. in length, is for a dining-room, pantries, &c., and the remaining portions for dormitories.

Repairs, Renewals, &c.—The roofs of hospitals, cook-houses, privies, &c., and the exterior of walls of steward's quarters were reshingled, and general repairs and painting done to the various buildings. One of the barns being dilapidated was taken down and replaced by a new one.

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

Works inspected by J. E. Turnbull, clerk of works, St. John, N.B.

Contractors for disinfecting apparatus, Carrier, Lainé & Co., Lévis, P.Q.

Contractor for shelter building, Samuel Brockfield, Halifax, N.S.

Contractors for third class detention building, Rhodes, Curry & Co., Amherst, N.S.

Department of Public Works.

LUNENBURG.

POST OFFICE BUILDING.

A contract was entered into on the 21st December, 1892, for the construction of this building on a plot of land 80 ft. x 120 ft., fronting on Lincoln, King and Pelham Streets.

The building which is to have a basement, two stories and attic, is to measure 45 ft. x 50 ft., exclusive of a projecting tower at the corner of King and Lincoln Streets, which contains main entrance, lobby and stairs.

The outer walls of the basement are to be of stone and those of the upper stories of brick, with granite cornice, and arches of windows, &c., the floor partitions and roof to be of wood—the roof covering to be slate and galvanized iron.

The basement is to contain shipping office and examining warehouse, with a brick vault and water closet to each, also fuel and furnace-rooms; the ground floor is for the post office and savings bank, and to have brick vaults; the first floor is for the Customs and Inland Revenue offices, with a brick vault for each, and the attic is to be fitted up for the caretaker.

Plans, &c., prepared by this department.

Clerk of works, Joseph Morash, Lunenburg, N.S.

Contractors, The Oxford Furniture Company, Oxford, N.S.

NAPPAN.

EXPERIMENTAL FARM BUILDINGS.

The works referred to in my report of last year were completed.

Some further painting has been done and some fencing, under the inspection of W. M. Blair, Nappan, N.S.

NORTH SYDNEY.

PUBLIC BUILDING.

It was found necessary to place iron columns under the girders carrying the post office ceiling—the lobby floor and steps were renewed—the letter box screen and delivery circle were raised—the plastering and roof were repaired—the walls and ceilings were cleaned and tinted—the woodwork was painted—the fences and plumbing were altered, and two new hot water furnaces substituted for that in use which was entirely worn out, as well as some alterations made in the heating pipes.

Works inspected by J. E. Turnbull, clerk of works, St. John, N.B.

PICTOU.

QUARANTINE STATION.

An artesian well, 139 ft. in depth, was bored and furnished with pump, buckets, &c.

The joists and flooring of the stone cook-house were renewed, slating, masonry and woodwork repaired, and the woodwork of the building painted.

Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

POINT EDWARD, SYDNEY.

QUARANTINE STATION.

The grounds were inclosed by a fence and the keeper's house fenced off from the remainder of the grounds.

SUPERINTENDENT'S RESIDENCE.

A porch and a new flagstaff were erected, general repairs were made principally to the roof. The chimneys were pointed—the inside walls and ceilings cleaned, tinted, &c., and the inside and outside woodwork painted.

HOSPITAL.

The woodwork, inside and outside, was painted.
Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

TRURO. .

POST OFFICE, &C., BUILDING.

The woodwork and ironwork were painted and the plastering cleaned and tinted.

Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

WINDSOR.

POST OFFICE, &C., BUILDING.

Repairs were made to post office lobby and entrances, a platform was put down along outside of examining warehouse. A new cast iron hot water heating furnace substituted for the one previously in use which was worn out.

Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

YARMOUTH.

PUBLIC BUILDING.

The gable next to adjoining property was sheeted with galvanized iron, the outside of wall pointed, the outside and inside woodwork and ironwork were painted, the plastering was cleaned and tinted, additions were made to the vestibule and to the box screen.

Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

PROVINCE OF NEW BRUNSWICK.

BATHURST.

PUBLIC BUILDING—POST OFFICE.

Columns were placed to support the girders carrying the joists of first floor, and repairs were made to plastering.

Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

CARLETON.

POST OFFICE.

The ceilings were cleaned and whitened, the inside walls and woodwork painted and the latter in part grained. One of the chimneys which was out of plumb, was taken down and rebuilt.

The entrance doors were cleaned, filled and varnished and various incidental repairs effected.

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

Department of Public Works.

CHATHAM.

POST OFFICE BUILDING.

A portion of the Fraser property fronting on Water Street and extending through to the Miramichi River, was purchased, and on the 12th December, 1892, a contract was entered into for the construction of the building.

The building is to be of sandstone and consist of a basement and 2½ story main portion 40 ft. x 50 ft. In the basement will be the heating apparatus and fuel; on the ground floor the post office; on the first floor the customs and inland revenue offices, and the attic for the caretaker's apartments. There will be a one story annex 34 ft. x 32 ft. for the examining warehouse, weights and measures office and water closets.

There are to be brick vaults, one on the ground floor for the post office, and two on the first floor one for the customs and the other for the inland revenue.

The floors, partitions and roofs, are to be of wood, the roof covering of galvanized iron.

Plans, &c., prepared by this department.

Clerk of works, Wm. Lawlor, Chatham, N.B.

Contractor, Jos. Trean, North Sydney, C.B.

DALHOUSIE.

POST OFFICE.

Repairs were made to heating furnace and valleys of roof.

Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

FREDERICTON.

POST OFFICE, &C., BUILDING.

The roofs were repainted and rain water gutters and conductors supplied.

Work was inspected by J. E. Turnbull, clerk of works, St. John, N.B.

MONCTON.

PUBLIC BUILDING.

Outer walls and copings, chimney, gates and piers were repaired and repainted; inside woodwork and ironwork were painted, the plastering cleaned and tinted.

A brick floor was laid in rear entrance and the furnace repaired.

Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

NEWCASTLE.

PUBLIC BUILDING.

The walls and ceilings were cleaned and kalsomined and woodwork painted.

Work inspected by J. E. Turnbull, clerk of works, St. John, N.B.

ST. JOHN.

CUSTOM-HOUSE.

During the fiscal year the works of reconstruction have been carried on steadily and it is expected to be completed and occupied before the close of the next fiscal year. The works comprise the taking down and rebuilding of several chimneys, pediments, dormers and portions of the towers; the replacing of a large number of

jambes, sills, arches and lintels and of redressing the facing, the construction and placing of new window and door frames, new floors, roofs, &c.; heating apparatus repaired so as to warm a portion last season. The new floors are to be of steel beams, brick arches and concrete; the roof of wood covered with copper; the interior of the outside walls are lined with terra cotta lumber and new partitions are built of the same material.

The steam boilers are to be utilized as a portion of the new steam heating apparatus.

Plans, &c., prepared by this department.

Works carried out by Samuel Adams, clerk of works of this department.

POST OFFICE.

The second floor was finished as apartments for the caretaker; a stairway is being constructed to connect the public lobby down to the customs parcel-room. Four hundred larger brass letter boxes were substituted for 600 of the original boxes in screen.

The customs parcel-rooms are being altered and supplied with additional fittings. The heating apparatus, water closets, urinals, water, gas and bell services, hoist, roof, sashes, ceilings, clocks, &c., &c., &c., were repaired.

Works carried out under the supervision of W. J. McCordock, St. John, N.B.

SAVINGS BANK.

Repairs were made to heating, plumbing, bells, furniture, &c.; the floor of vault was asphalted and carpet and furniture supplied for one room on first floor.

Works carried out under the supervision of W. J. McCordock.

PARTRIDGE ISLAND.

QUARANTINE STATION.

Both hospitals, the doctor's residence and the disinfecting house were put in good order.

The marine hospital and the residence lately occupied by the assistant to the man in charge of the fog-alarm were transferred by the Marine Department to this department and put in thorough repair for quarantine purposes. A disinfectant was imported and with steam boiler and fittings in connection were placed in the disinfecting house in working order, bath-room with galvanized iron bath, hot and cold water, a dressing-room and two boilers for washing clothing were completed with 4-in. terra cotta sewer, leading from them to the water's edge at bank, a new well was dug and other improvements are now in progress.

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

PROVINCE OF QUEBEC.

FRASERVILLE (RIVER DU LOUP).

POST OFFICE, &C., BUILDING.

This building with fittings, furniture and hot water apparatus has been completed, and is occupied.

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

Clerk of works, Elzéar Marquis, Fraserville, P.Q.

Contractor for building, Alfred Lortie, Quebec.

Contractor for post office fittings, P. Bouffard, Fraserville, P.Q.

Contractors for heating apparatus, Vandy & Matte, Quebec.

Department of Public Works.

GROSSE ILE—QUARANTINE STATION.

WESTERN OR HEALTH DIVISION.

Disinfection apparatus.—On 6th October, 1892, a contract was entered into for a shelter building for the steam disinfection apparatus and on the 15th of the same month a contract was entered into for the construction of the steam disinfection apparatus.

The building is situated at the shore end of the west wharf and has a main portion 70 x 40 feet, containing three steel disinfection chambers each 8 ft. 6 in. by 8 ft. 6 in. by 24 ft. in length, a vacuum pump, a tank for return water, a tank for bichloride of mercury solution and a soap-stone tank, also 12 needle and shower baths. The lean-to addition 34 x 48 feet contains 3 40 h. p. boilers, a small upright boiler, a boiler-feed pump, two large pumps for the water supply of the western division, a large settling tank and a condensing and aerating apparatus for the supply of potable water.

First class passenger's detention building.—Contract signed on 22nd February, 1893, and work completed during the fiscal year. The centre portion is 32 x 42 feet, two stories and attic, having on the ground floor the dining-room 40 x 20 feet with pantry, bar, china closets and two staircases in the rear, and above a sitting-room of the same size with four cabins 10 ft. by 6 ft. 6 in., in the rear and in the attic over are rooms for male and females stewards. In the rear of the main portion is a one story kitchen 20 x 9 feet.

At either end of the centre building is a two story wing 55 ft. by 22 ft. containing on each floor fourteen cabins 6 x 7 feet and two bath and closet rooms, the entire length of the building being 142 feet. A verandah is carried along the entire ground floor front of the building and a sidewalk therefrom to the west wharf.

The dining-room and sitting-room have each two large open fire-places, the kitchen is provided with a range and a hot water heater for supplying hot water to baths; each cabin has a lavatory basin with a separate water supply and a waste to drain for each, two wrought iron berths as on shipboard, folding bracket table, mirror, stools, &c. Furniture has been supplied for the dining rooms, sitting-room and verandah. The building is of wood throughout.

Intermediate Passenger's Detention Building—Sheds, water closets.—These buildings were altered, the dormitory portions divided into 43 cabins for two, four or six beds each, each provided with water service, and furnished with stools, washstands, tables, &c. At each end is a bathhouse and closet. The dining-room is furnished with tables, chairs, &c.

Medical Assistant's Residence.—Contracted for 10th October, 1892, and now in a forward state. It is situated on the isthmus between the Health Division and Central Division, is of wood, two stories in height and on a stone foundation.

There is a main building 37 x 35 feet and a kitchen wing 18 x 13 feet. The ground floor contains a dining-room, a drawing-room, an office, a bed-room, entrance hall, two staircases and a kitchen; the first floor five bed-rooms, a bath-room and water closets, two closets and two staircase halls. There are fire-places in the dining and drawing-room.

A verandah 8 ft. wide is carried along the south and west sides, and one 6 ft. wide along a portion of the front.

Water Works, Health Division.—A water service was provided, consisting of two steam pumps in shelter building on wharf, having 5 feet suction from deep water, and 4 feet discharge to two 30,000 gallon tanks on Telegraph Hill, and mains therefrom to the various buildings of the division. An artesian well was bored to a depth of 1,450 feet, but with unsatisfactory results. A distilling and aerating apparatus with tank for distilled water, was provided and connected.

CENTRAL DIVISION.

New wells were sunk, one at the baker's quarters and one at the boatmen's row and the cellars of the superintendent's residence and those of the boatmen's row, were laid in cement concrete.

SICK ON EASTERN DIVISION.

The blinds were painted and sundry minor repairs effected.

GENERAL.

The steamer "Challenger" was repainted. A dioxide of sulphur blast was supplied and fitted up on the steamer "Druid."

Plans, &c., prepared and work carried out under the superintendence of this department.

Clerk of works, J. H. Ellis, of the Department of Public Works, Ottawa, Ont.

Contractor for buildings, wells and repairs, F. Poitras, Quebec, P.Q.

Contractors for steam disinfecting apparatus, Messrs. Carrier, Lainé & Co., Lévis, P.Q.

Contractor for water service, Messrs. Garth & Co., Montreal, P.Q.

Contractor for artesian boring, John Savage, Petrolia, Ont.

MONTREAL.

POST OFFICE.

The second floor of the building was divided into rooms and fitted up for occupation; the heating apparatus was extended to heat the various new rooms, lavatories, bath-rooms and water closets were provided.

Repairs were made to the postal elevator, plumbing, fittings, &c., and a new postal bag-rack supplied.

Works executed under the supervision of this department.

Supervising architect, Jas. Nelson, Montreal.

Contractor, Ed. St. Louis, Montreal.

Clerk of works, Em. Guibault, Montreal.

EXAMINING WAREHOUSE.

Repairs and small additions to, and alterations of the steam heating machinery were made at various times during the year, and repairs made to roof.

Works done under the supervision of T. Ryan, engineer Dominion Public Buildings, Montreal.

CUSTOM-HOUSE.

Extension, repairs and renewals to flooring and woodwork were made and the interior of the building was cleaned, painted and decorated throughout.

Works carried out under the supervision of Ed. Guilbault, clerk of works, Montreal.

QUEBEC.

CITADEL.

Governor General's Quarters.

The usual annual cleaning, painting and preparations for His Excellency's annual visit was done.

Works done under the supervision of an officer of this department.

CUSTOM-HOUSE.

The water service of the building was connected with the city main; a new main pipe was taken through the building, and additional sinks and electric bells

Department of Public Works.

were provided; the chimney caps and roof were repaired and new furnace bars supplied.

Work done under the supervision of this department.

EXAMINING WAREHOUSE.

A six-inch cast iron soil pipe was substituted for the tile drain leading from the water closets to wharf; the masonry was pointed and the plumbing and spouts repaired.

Work done under the supervision of an officer of this department.

POST OFFICE.

Repairs to gas fittings, plumbing, post office boxes and plastering were made, and a new newspaper case supplied, and the interior of the post office flat was washed, scraped and painted, and a new gate for yard provided.

Work done under the supervision of this department.

ST. HENRI.

POST OFFICE.

The construction of this building which was described in a previous report, was contracted for on the 13th October, 1890, but as the contractors failed to proceed with the work they were relieved of their contract by Order in Council of the 30th June, 1892, and a new contract entered into on the 24th August following, since which date the works have been in progress and the completion of the building is expected before the close of the calendar year.

Plans, &c., prepared by this department.
Superintending architect, Mr. A. Raza, Montreal.
Contractors, Viau & Lachance, Hull, P.Q.

ST. HYACINTHE.

POST OFFICE, &C., BUILDING.

On 5th June, 1892, a new contract for the completion of the works was entered into, and the works are now nearly completed.

Contracts for heating and fittings were entered into, and the works are in progress.

Contractor for completion of the building, L. P. Morin, St. Hyacinthe.

Contractor for heating, A. Blondin, St. Hyacinthe.

Contractor for fittings, Paquet & Godbout, St. Hyacinthe.

Clerk of works, Eusébe Brodeur, St. Hyacinthe.

ST. VINCENT DE PAUL.

PENITENTIARY.

Five hundred and fifty feet of boundary wall 27 feet in height, was built of ashlar, including one angle tower 31 feet 6 inches in height by 16 feet diameter, roof covered with metal.

The quarry tramway bridge was repaired, 300 feet of 14-in. tile main drain and 300 feet of 6-in. tile branch drain were renewed; sills and posts of stonecutter's shed were renewed and the warden's quarters and offices, deputy warden's and inspector's offices, Protestant chapel, surgery and water-works were painted.

General repairs to the buildings in addition to the foregoing, and to the extent of \$8,000 were effected.

Works carried on under the supervision of Elz. Daignault, St. Vincent de Paul, P.Q.

THREE RIVERS.

CUSTOM-HOUSE.

A new main drain and a new floor in cellar were put in, and a new sidewalk laid on street line.

A new water closet and cistern were put in caretaker's quarters and extensive repairs made to plastering, as well as some repairs to roof.

Work done under the supervision of the local architect, Mr. O. Z. Hamel.

POST OFFICE.

Repairs were made to plumbing, painting, locks, &c., and a new floor put in post office.

Work done under the supervision of the local architect, Mr. O. Z. Hamel.

WEST FARNHAM.

POST OFFICE.

A contract was entered into on the 14th February, 1893, for the construction of this building on Depot Street, and the works are now in an advanced state. The building is to be of brick 40 ft. x 22 ft. 9 in., two stories high on a stone foundation and contain the post office on the ground floor, the apartments of the caretaker on the first floor and the heating apparatus and fuel in the basement.

Plans, &c., prepared by this department.

Clerk of works, John Foster, West Farnham.

Contractor, O. Lefebvre, Laprairie, P.Q.

PROVINCE OF ONTARIO.

CHATHAM.

POST OFFICE, &C., BUILDING.

The inside and outside woodwork was painted, and the inside walls and ceilings cleaned and kalsomined. The post office floor was relaid in birch, the court yard paved with brick, and the slate roof, gas fittings and plumbing repaired. The masonry and brickwork was pointed, and the post office floor oiled.

Work done under the supervision of this department.

HAMILTON.

POST OFFICE, &C., BUILDING.

Alterations were made in the position of heating coils, additional heating coil and gas fixtures were put in the post office; new shaking grates were supplied to furnaces, and some minor general repairs were effected.

Work done under the supervision of this department.

ORILLIA.

PUBLIC BUILDING.

This building which was described in my last report, is now nearly completed. Contracts for fittings and hot water heating apparatus were made.

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

Clerk of wrks, U. H. Croker, Orillia.

Contractor for building, J. R. Eaton, Orillia.

Contractors for heating apparatus, McGuire & Bird, Toronto.

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OTTAWA.

EASTERN BLOCK—DEPARTMENTAL BUILDING.

New rooms were fitted up for the messengers of the Department of Justice and the private secretary of the Secretary of State.

New skylights were provided for the Interior Department offices, new window frames for the Auditor General's offices, new doors for offices of Solicitor General, 2,000 pigeon holes were supplied for Privy Council office, the walls and ceilings of a number of offices were cleaned and tinted, the woodwork painted and furniture and fittings provided for various offices, 60 incandescent electric lights were installed in the Privy Council chamber.

Repairs were made to pointing of stonework, ironwork of roofs, inside plastered, glass, furniture, locks and keys, roof covering and skylights; the chimneys were cleaned, the double windows and blinds taken down and put up, the steps covered for the winter.

Works carried on under the supervision of this department.
Clerk of works, F. Breton, Ottawa.

LANGEVIN BLOCK.

Furniture, packing cases, &c., were supplied, shelving put up, furniture repaired for the various departments occupying the building, new double windows supplied to basement flat. Additional gas fittings put in, &c.

Work done under the supervision of this department.
Clerk of Works, F. Breton, Ottawa.

WESTERN BLOCK—DEPARTMENTAL BUILDING.

The machinery, stores and workmen of the mechanical branch were removed to the Government Workshop, Wellington Street, and the rooms occupied by them were cleaned, repaired and fitted up.

The offices of the customs were repaired and altered.

Repairs were made to the plastering, pointing of stonework, furniture, locks and keys, roof covering and skylights: the chimneys were cleaned, double windows taken down and put up and the steps covered for the winter.

Work carried on under the supervision of this department.
Clerk of works, F. Breton, Ottawa.

PARLIAMENT BUILDING.

Incandescent electric lighting was installed in rooms 4, 8 and 9; 300 lights were installed in library and 5 lights added in dining-room. Some minor additions were made to the heating.

An exhaust electric motor fan with ventilating tubes was placed in the member's water closets, of the House of Commons. A new feed pump was provided in boiler house and general repairs made to heating, lighting and bell services.

A new covering for deck of roof of main tower was put on. The House of Commons doors were recovered; carpets were cleaned.

Repairs were effected to the pointing of stonework, plastering, furniture, locks, &c. The chimneys were cleaned, the double windows and blinds were taken down and put up and the steps covered for the winter season.

Works carried out under the supervision of this department.

Mechanical engineer, W. King, Ottawa.
Clerk of works, F. Breton, Ottawa.

GOVERNMENT HOUSE.

At the hall and cottage, shingling, battens, hipboards, clap boarding; galvanized iron roofing was laid on kitchen cupola, gallery, &c., and all galvanized iron roof eavetroughs and conductor repaired and renewed where necessary. Flooring was relaid in hall and rooms 5 and 6 under tennis court. In the greenhouse plant tables were renewed, the walls and ceiling of the gardener's room covered with V-sheeting and the outside of walls covered with similar material.

The vinery was provided with new shutters, new ropes were put on all ventilators in greenhouse and rubber hose and trays supplied thereto. The brickwork of two furnaces and flues of greenhouses were repaired; brickwork of 7 fire-places, 3 ranges and 5 chimney tops at the hall and the cottage were repaired and 4 chimney tops taken down and rebuilt.

At the cottage, the verandah and greenhouse on south side were renewed and the wall made good and painted—the verandah steps were rebuilt; the 4-inch title drain was replaced by a 4-inch iron pipe, and some minor repairs to interior wall effected.

At the coach house, plank flooring and cedars were renewed, hay racks were repaired and renewed and the stalls were altered, and two brick hearths were taken up and relaid.

Clapboarding was put on exterior walls of gardener's house; plank floor was renewed in shed at lodge, and steps at back door rebuilt.

The large gate at rear entrance was rebuilt and painted; 2 new gate posts were put in at cottage gate and the gates repaired and painted and a new gate and cattle-guard built in cricket-field fence.

Three grated cedar crib pits at end of ball-room were rebuilt and drains to same repaired, and 2 cedar cribs to main drain traps in bush were rebuilt.

Nine-inch and 6-in. tile drains were laid to replace wooden box drains, and the coach house sink pipes replaced by iron pipe connections.

Block paving was taken up and replaced by transverse 3-in. plank sidewalk 4 ft. 9 in. wide, sidewalk and crossings were relaid after drains were put in; plank sidewalk 3 ft. 3 in. wide was laid on back road and of same description but 2 ft. 6 in. wide from coach-house to water closet; and all sidewalks throughout grounds and along Bay and Back roads were repaired where required.

Two board fences 7 feet high were rebuilt at hot bed ground and gardener's house; a 3-rail fence, 4 feet high, to divide field was built; and 3-rail fence repaired and rebuilt, picket fence, 4 feet high, was built in front of cottage and in cricket field.

At the hall and cottage distemper and papering were done, and all broken glass of hall, cottage, greenhouse and stables repaired.

In the hall some of the rooms were supplied with new carpeting and all other carpets, matting, &c., were taken up, beaten, repaired and relaid; new hair mattresses, feather pillows, holland blinds, cotton blinds, chair covers, a quantity of new linen, sets of bed-room crockery and tumblers were supplied. The stoves, ranges, furnaces and pipes were overhauled and repaired, the kitchen coppers were scoured and retinned, new scuttles were supplied, old ones repaired as well as a number of water cans and other tinware.

The snow cleaning, filling ice-house and the care of the grounds, gardens, greenhouses, &c., were efficiently carried out by the contractors.

Works carried out under the supervision of this department.

Clerk of works, Wm. Hutchison, Ottawa.

Contractors for maintenance of grounds, gardens, &c., Sorley & Sims, Ottawa.

Contractor for removal of snow, N. Cardiff, Ottawa.

PARLIAMENT GROUNDS.

The greenhouses were repaired and the grounds, &c., have been maintained to the satisfaction of this department.

Caretaker, N. Robertson, Ottawa.

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

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MAJOR'S HILL PARK.

Repairs were made to the greenhouse, and some trees, earth, &c., supplied. The grounds were maintained to the satisfaction of the department.
Contractor, L. Garelo.

NEW GOVERNMENT WORKSHOPS, WELLINGTON STREET.

On 1st October, 1892, a building on Wellington Street (Nos. 154 and 156) was leased for use as a workshop and the mechanical staffs of the mechanical engineer and of the clerk of works were removed from the Western Block thereto.

The building was repaired, the heating apparatus put in order and repaired and sinks, water closets, &c., provided.

Work done under the supervision of this department.

DYNAMO STATION (OLD PUMP HOUSE).

To provide for the extension of the lighting to the Library and Privy Council Chamber, a pair of dynamos and an engine were added to the plant and some minor alterations and repairs done.

Work done under the supervision of Wm. King, mechanical engineer of this department.

GEOLOGICAL MUSEUM.

Alterations and additions were made to the library and fittings, minor general repairs were made, sashes and blinds were taken down and put up, &c.

Work done under the supervision of this department.

Clerk of works, F. Breton, Ottawa.

PUBLIC BUILDINGS, REPAIRING STREETS, &c.

Scraping, cleaning and repairs were done to the roadways of East and West Canal Streets and on both sides of locks, Nepean Point roadway, Wellington, Bank, Metcalfe, 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 Museums were repaired, the grass at the Geological Museum and Cartier Square was kept clipped, and the ashes removed from the Langevin Block, Museums and Printing Bureau.

The various roadways, sidewalks, footpaths, roofs and yards were kept clear of snow during the winter.

Contractor for the removal of snow, Wm. Moore, Ottawa.

PETERBOROUGH.

CUSTOM-HOUSE.

During the fiscal year the building has been fitted up and furnished with a hot water heating apparatus, brick fence walls with stone copings; new railing and heavy wooden gates have been put up on the street lines and a granolithic sidewalk laid on both streets.

Superintending architect, J. E. Belcher, Peterborough.

Contractor for building, J. E. Askwith, Ottawa.

Contractors for hot water heating apparatus, Maguire & Bird, Toronto.

PETROLIA.

POST OFFICE, &C., BUILDINGS.

This building which was described in my last year's report has been completed, and is being fitted up with a hot water heating apparatus and furnished for occupation.

Plans prepared and work supervised by this department.

Clerk of works, J. Sinclair, Petrolia.

Contractor for building, Joshua Garrett, Petrolia.

Contractors for heating apparatus, Maguire & Bird, Toronto, Ont.

PORT ARTHUR.

PUBLIC BUILDING.

This building which was described in my report of last year is now nearly completed, and is now being fitted up with a hot water apparatus and furnished for occupation. Plans, &c., prepared by this department.

Clerk of works, Wm. Powley, Port Arthur.

Contractors for building, Tobin & O'Keefe, Ottawa.

Contractor for heating apparatus, Purdy, Mansell & Mashinter, Toronto.

ST. CATHARINES.

PUBLIC BUILDING.

Some minor repairs were made to heating, plumbing, roof covering, painting, &c.

TORONTO.

CUSTOM-HOUSE.

A granolithic pavement was laid along the street fronts of the building, some hose supplied and repairs done to plumbing, flagstaff, &c.

Work done under the supervision of this department.

EXAMINING WAREHOUSE.

Repairs were made to machinery, hoist, plumbing and galvanized iron work under the supervision of this department.

Work supervised by J. A. Wills, engineer in charge of Public Buildings, Toronto.

DRILL HALL.

This building which was described in my report of last year, has been carried on continuously and is expected to be completed during the current calendar year.

Plans for a heating and ventilating apparatus are being prepared and tenders will be invited at an early date.

Plans, &c., prepared by this department.

Supervising architect, A. C. Windeyer, Toronto.

Contractor, John Stewart, Ottawa.

POST OFFICE.

The usual and ordinary repairs were done, the plumbing and other works referred to in my last report were completed, and some furniture, hose, &c., supplied.

Work done under the supervision of J. Wills, engineer.

Department of Public Works.

WINDSOR.

PUBLIC BUILDING.

The building was cleaned, painted and kalsomined throughout; a hard maple floor was laid in public lobby, and the exterior of stonework was painted and lined. Four new ventilators and a new floor were put in the rear building.

Work was done under the supervision of this department.

PROVINCE OF MANITOBA.

ST. PAUL'S.

INDUSTRIAL SCHOOL.

For the purpose of accommodating the increased number of children, the former building being completely occupied, an additional building two stories high was erected for use as gymnasium, class-rooms and chapel.

The work was done by day work and carried out under the supervision of D. Smith, clerk of works, Winnipeg.

WINNIPEG.

IMMIGRATION HALL.

The various following improvements, repairs, &c., were carried out.

A sewer drain crossing grounds and connecting with Maple Street main sewer and immigrants' latrines was constructed, and the main sewer on Maple Street, 238 feet in length, continued to conform with city system, and has materially assisted to more effectually drain the grounds. This portion of the work was performed by the city under the supervision of the city engineer. Remaining works carried out under the supervision of D. Smith, clerk of works, Winnipeg.

Contractor, W. F. Lee, Winnipeg.

Fire Protection.—The system employed in the building consists of stand pipe connections, hose and attachments, &c.

Contractors, C. & W. Plaxton, Winnipeg.

Electric Lighting.—Some additional lights were placed in the laundry, store-room and two closets.

Outside Closets, &c.—Were built to give better facilities and further improve the sanitary requirements of this building and grounds. Eight new water closets, bath-rooms, &c., were constructed; Hale ventilators, &c.

The floor of basement was concreted and cemented. Work done by contractors, Rourke & Cass, under the supervision of D. Smith, clerk of works, Winnipeg.

Water closets and baths.—All the masonry and plumbing in connection with addition to water closets and baths was done and completed satisfactorily under the supervision of D. Smith, clerk of works, Winnipeg, Man.

EXAMINING WAREHOUSE.

This building was originally the old post office and no provision was made for the permanent occupancy of same. The heating was originally by stoves; but these being found insufficient two furnaces (No. 34 Superior Jewel) were placed in position with all necessary fittings. Work done under the supervision of D. Smith, clerk of works, Winnipeg.

INLAND REVENUE OFFICES.

In order to facilitate the proper testing of tobacco and oils it was found necessary to have a special oven constructed for the purpose. Work done under the supervision of D. Smith, clerk of works, Winnipeg.

LAND COMMISSIONER'S OFFICES.

Speaking tubes were placed in these offices, in order to facilitate the carrying on of business. Work supervised by D. Smith, clerk of works, Winnipeg.

IMMIGRATION BUILDING, BRANDON, MAN.

The interior of the building was painted, kalsomined and papered where required.

Work done under the supervision of D. Smith, clerk of works, Winnipeg.

NORTH-WEST TERRITORIES.

CALGARY, ALTA.

POST OFFICE, &C., BUILDING.

A contract was entered into on 15th March last for the construction of a building on a site having a frontage of 75 feet and 120 feet on Stephen Avenue and Osler Street respectively.

This building is to be of sandstone, the main portion having basement and three stories and attic, measuring 54 ft. by 40 ft. with a projection containing five brick vaults in three tiers 20 ft. by 9 ft. 6 in., and a two story stone annex 50 ft. by 24 ft.

The basement is for the heating apparatus, the ground floor of the main building for the examining warehouse and weights and measures. The first floor for mines and land offices, the second floor for customs and inland revenue offices, and the attic for the caretaker's apartments.

Plans, &c., prepared by this department.

Clerk of works, H. D. Johnson, Calgary, N.W.T.

Contractor, Walter Alford, Belleville, Ont.

REGISTRY OFFICES.

The offices were fitted up with cupboards, &c., and furnished.

Clerk of works, H. D. Johnson, Calgary, N.W.T.

EDMONTON, ALTA.

LAND REGISTRATION AND CROWN TIMBER OFFICE.

On 17th July, 1892, lots 49 and 50, block 5, subdivision of Hudson's Bay Company's Reserve, were acquired as a site for this building, and on 1st September, 1892, a contract for the construction of the building was entered into.

The building is to be a one story brick building 70 ft. by 33 ft. 6 in. with attic, and on a stone basement.

The basement is for heating and storage, and the ground floor is divided into five rooms exclusive of the hall and the three brick vaults. The attic is divided into eight rooms. The floor, partitions and roof are of wood; the roof covering being galvanized iron.

Plans, &c., prepared by this department.

Clerk of works, H. D. Johnson, Calgary, N.W.T.

Contractor, Walter Alford, Belleville, Ont.

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LETHBRIDGE, ALTA.

PUBLIC BUILDING.

On 9th November, 1892, lots 7, 8, 9, 10 and 11, block 9, on corner of Baroness and Coutts Streets, with frontages of 125 feet on each were obtained (7 and 8) from the corporation of Lethbridge, and (9, 10 and 11) from the Alberta Coal Co., and on 5th June, 1893, a contract was entered into for the construction of a three story brick building, 53 ft. by 43 ft. 9 in. on a stone basement. The basement will contain the heating apparatus and fuel, as well as brick tanks for drinking and rain water; the ground floor, the post office, custom-house, examining warehouse, inland revenue offices, and weights and measures; two-thirds of the first and second floors are to be taken up by the court-room, the remaining one-third of the first floor to be divided into a stairway hall and three rooms for judge, barristers and witnesses and jury, and the second floor, four rooms and staircase (mezzanine) for caretaker's apartment,

The floor, partitions and roof are to be of wood, and the roof covering metal.

Plans, &c., prepared by this department.

Clerk of works, Wm. Cluston, Lethbridge.

Contractor for construction of building, Wm. Oliver, Lethbridge, N.W.T.

MAPLE CREEK, ASSA.

HOSPITAL—MOUNTED POLICE BARRACKS.

During the fiscal year necessary repairs were made to plastering and joinery work, under the supervision of D. Smith, clerk of works, Winnipeg, Man.

MEDICINE HAT, ASSA.

The barracks and court-room were fitted up and the immigrant shed and police stables removed from off Canadian Pacific Railway property to property of Dominion Government.

Contract was entered into with H. C. Yuill, contractor, Medicine Hat, Assa., for the necessary fitting and repairs, also removal of immigrant shed and police stables.

Supervised by D. Smith, Clerk of Works, Winnipeg, Man.

MOOSE JAW, ASSA.

COURT-HOUSE AND POLICE QUARTERS.

On the 3rd December, 1892, a contract was entered into for the erection and completion of court-house and police quarters, according to plans and specifications prepared by this department.

The building is a two story frame structure 37 x 27 feet.

Ground floor has a guard room 12 x 10 feet 6 inches, a room 12 x 13 feet screened off by oak bar grating and subdivided into 3 cells, the centre one of the three having extra guard protection, a non-commissioned officer's office, 12 x 12 feet, kitchen 17 feet 6 inches x 12 feet, constables' room 17 feet 6 inches x 12 feet, with closets, &c. On the first floor is the court room, 15 x 25 feet, and rooms for the jury, judge, bar, cloak-room, platform and space for lawyers.

The main building is approaching completion and will soon be ready for occupation.

There is an outbuilding for the purpose of water closet and coal shed built of wood and painted.

Clerk of works, D. Smith, Winnipeg, Man.

Contractor, John Lymands, Regina, Assa.

MOOSOMIN, ASSA.

NORTH-WEST MOUNTED POLICE COURT-HOUSE.

Contract was entered into for alterations and improvements necessary in the court-house at Moosomin, which work has been finished.

Rear window in basement, jail yard fence, addition to wagon shed, partition basement of court-house, plank walk from court-house to water closet, repairs to doors, water closet, pump stand, changing door and fanlight, new bar to yard gate, fence around stable with 3 gates and fastenings, new eavetroughs and down pipes.

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

Contractor, C. Taylor, Moosomin, Assa.

STABLE AND TRANSPORT SHED—ATTACHED.

The stable is constructed of wood, 30 x 29 feet, with shed 19 x 29 feet, in the rear, one story and loft over, subdivided into spaces for eight stalls, harness-room and passage way, provided with all necessary racks, feed-boxes, harness and saddle pins, &c.

Every attention has been given in the construction and drainage required.

Plans and specifications prepared by this department.

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

Contractor, C. Taylor, Moosomin, Assa.

PRINCE ALBERT, SASK.

LAND AND REGISTRATION OFFICE.

A site consisting of lots 1, 2, 3 and 4 river lot 80, block 25, facing Second Street and measuring 132 x 135 feet was purchased from J. McArthur on 25th April, 1892, and a contract for the construction of the building entered into on 31st August following.

The building is of brick on a stone basement 51 x 34 feet.

There is a basement for heating and fuel, a ground floor on one end of which is occupied by the registry office, and the other by the land and crown timber office. The division consisting of two brick vaults, one for each service. The attic is divided into five rooms two of which communicate with the registry office, and three with the land office of separate staircases.

The floor, partitions and roof are of wood. The roof covering galvanized iron.

Plans, &c., prepared by this department.

Clerk of works, Lestock Reid, P.L.S., Prince Albert, N.W.T.

Contractor, Thos. E. Baker, Prince Albert, N.W.T.

RED DEER, ALTA.

INDUSTRIAL SCHOOL.

This building which was described in my report of last year, is now nearly completed. It is being heated by the Smead-Dowd warm air heating system.

Plans, &c., prepared by this department.

Clerk of works, H. D. Johnson, Calgary, N.W.T.

Contractor for building, Jno. Stewart, Ottawa.

Contractors for heating, The Smead-Dowd Co., Toronto.

Department of Public Works.

REGINA, ASSA.

SOUTH BARRACKS BUILDING.

During the fiscal year the necessary repairs, caused by the fire in the new room of the south barracks were properly carried out.

Work done under the supervision of D. Smith, clerk of works, Winnipeg, Man.

COURT-HOUSE.

On December 17th, 1892, a site consisting of lots 16, 17, 18, 19 and 20, block 345, having a frontage of 135 feet on Victoria Street and 125 feet on South Street, was purchased, and on 9th May, 1893, a contract was entered into for the construction of this building.

It is to be a brick building measuring 36 x 58 feet 8 inches, on stone basement and have wooden floors and roof, the last mentioned covered with galvanized iron.

The basement will contain 3 brick vaults 18 feet 6 inches x 9 feet and 15 feet 9 inches x 7 feet 6 inches and 6 x 3 feet respectively, a furnace-room, 3 store-rooms and 3 cells. On the ground floor are to be judge's chambers, 3 brick vaults and offices for judge, sheriff, clerk of the court and caretakers. On the first floor the court-room, judge's robing-room, library and offices for jury, barristers and witnesses and in the attic 5 rooms.

Plans for the hot water heating apparatus are in course of preparation.

Plans, &c., prepared by this department.

Clerk of works, Charles Brass, Regina.

Contractor, Charles Willoughby, Regina.

PROVINCE OF BRITISH COLUMBIA.

AGASSIZ.

EXPERIMENTAL FARM.

A saw-mill and some timber were provided, and some fencing and general repairs were effected.

Works supervised by F. C. Gamble, C.E., Victoria, B.C.

NANAIMO.

POST OFFICE, &C.

Several minor repairs have been effected and a new fence in the rear of the building erected under the supervision of F. C. Gamble, C.E.

NEW WESTMINSTER.

POST OFFICE, &C., BUILDING.

The old latrines and urinals were removed and replaced by water closets of the best type, the entire building was piped, supplied with water tank, wash-basins, fire hose, reels, &c., and the water system connected with the city water main, the gas piping and fixtures were repaired and in part renewed; a cement concrete sidewalk and gutter with tile drain under was laid along two sides of the building and the old gutter along side and rear of building repaired.

A counter was supplied to land office and minor repairs to building effected.

Works carried out under the supervision of F. C. Gamble, C.E., Victoria, B.C.

VANCOUVER.

POST OFFICE, &C., BUILDING.

The building was completed and fittings and a hot water warming apparatus are being supplied.

Plans, &c., prepared by this department.

Superintending architect, C. O. Wickenden, Vancouver, B.C.

Contractor for completion of the building, M. T. Tompkins, Brockville, Ont.

Contractor for post office fittings, F. W. Hart, Vancouver, B.C.

Contractor for customs and revenue fittings, Robertson & Hackett, Vancouver, B.C.

Contractor for hot water warming apparatus, M. W. Leek, Vancouver, B.C.

VICTORIA.

CUSTOM-HOUSE.

The exterior of the brick walls was pointed; the external and internal wood-work were painted; the interior walls and ceilings were cleaned and kalsomined; the water closets, urinals and glazing were repaired; the drains were relaid and the gates reset.

Works done under the supervision of F. C. Gamble, C.E., Victoria, B.C.

MARINE HOSPITAL.

The whole of the water closets, baths, urinals, water pipes, soil pipes and drains were renewed and replaced by others of the most recent type, and water was laid on from the Esquimalt waterworks service pipe.

A kitchen range was supplied and the kitchen chimney foundation rebuilt; new flooring was laid in the day ward and in the back yard; the kitchen wing was connected with the main building by a storm-proof covered way; the whole of the interior walls and ceilings on the ground floor were cleaned and kalsomined and repairs were effected to the kitchen, woodshed and front verandah.

Works carried out under the supervision of F. C. Gamble, C.E., Victoria, B.C.

RESIDENT ENGINEER'S OFFICE.

Rooms were rented and fitted up in the Five Sister's Block for the use of the resident engineer of the department, F. C. Gamble, C.E., Victoria.

NEW DRILL HALL.

This building which was described in my report of last year has been completed, but is not yet fitted up or furnished for occupation.

Plans, &c., prepared by Department of Militia.

Works supervised by Mr. F. C. Gamble, C.E., Victoria.

Clerk of works, Wm. Hassard, Victoria.

Contractor, Maurice Humber, Victoria.

HOSPITAL AT ARTILLERY BARBACKS.

A contract was entered into on the 6th July, 1892, for the erection of the above. The building is 38 feet long, 21 feet 6 inches wide with a wing on the south side 12 feet 6 inches by 13 feet 3 inches; two stories in height above ground and basement under.

The ground floor 11 feet high, first floor 10 feet 6 inches.

Department of Public Works.

The basement is of stone and the superstructure of wood; clapboarded outside and plastered within, and shingled roof.

The building is arranged with a ward on each floor with the necessary conveniences, bath, &c., adjoining.

Store-room, office and dispensary are on the first floor, and dining-room, kitchen and room for hospital sergeant on ground floor. Basement is used for furnace, fuel and storage.

Works carried out under the supervision of F. C. Gamble, C.E., Victoria, B.C.
Contractor for hospital, Geo. McFarlane, Victoria, B.C.

MAGAZINE.

On 26th April, 1893, a contract was entered into to build a powder magazine on a small rock island situated in West Bay, Victoria harbour, near the barracks. It is of brick, on a stone foundation, with a copper roof covering, is 41 ft. long by 22 ft. broad, and surrounded at a distance of 6 ft. by a brick wall.

Works carried out under the supervision of F. C. Gamble, C.E., Victoria, B.C.
Contractor for magazine, Wm. Rockett, Victoria, B.C.

POST OFFICE, &C., BUILDING.

The repairs and renewals executed in connection with the Post Office and Finance Departments occupying offices in this building, comprised repairs to water closets, urinals, water and gas pipes, gas fixtures, windows, letter boxes and furniture; supplying new sorting tables, shelving and various articles of furniture; erecting porch in back yard and a small shed for fumigating the mails; painting the metal roof and many other trifling repairs, alterations or renewals which became, from time to time, necessary.

Works carried on under the supervision of F. C. Gamble, C.E., Victoria, B.C.

WILLIAM'S HEAD.

QUARANTINE STATION.

A portion of section 56, Mitchosen District, Vancouver Island, and lying between Peddar Inlet and Parry Bay, was acquired for the purposes of a quarantine station.

QUARANTINE OFFICER'S RESIDENCE.

This building now in course of erection, is to be of wood, resting on stone and brick foundation, two stories in height, with a convenient cellar paved with concrete underneath the kitchen. The ground floor which has an area of 1,750 superficial feet, is to contain a front hall, an office, dining-room, drawing-room, two pantries, scullery and kitchen, with a wood-shed in the rear.

The first floor is to have six bed-rooms, hall, bath-room and water closets.

HOSPITAL.

The hospital, of wood on a brick and stone foundation, having a frontage of 194 feet 6 inches, is practically three separate buildings connected with each other by covered ways. The centre building, two stories, comprises the caretaker's apartments, doctor's dispensary, and five rooms upstairs, which can be utilized for the accommodation of first-class patients, if the smallest room is converted into a bath-room and water closet. Immediately in rear of the caretaker's apartments separated by the corridors, are the dining-room, pantries, kitchen, scullery, store-room and shed. On one side of the centre building are the separate sick wards for men and women, with a superficial area of 1,000 feet each. On the other are separate wards for con-

valescents, of the same size. All the wards are fitted up with baths and suitable sanitary appliances with water laid on to the baths. The kitchen is furnished with a large French range and hot water boiler. The soil drains of this building are all carefully laid to proper grade, properly vented, and carried to low water mark.

1st and 2nd Class Passenger Shelter Houses.—The first class passenger house, wood on a stone and brick foundation, is a one story building of the Bungalow type, having a frontage of 152 x 32 feet wide in the centre and 22 feet 8 inches in the wings. In the centre is a long dining-room with a large open fire-place at each end. Along rear of this room, with store-rooms, pantries, &c., intervening, is the kitchen fitted with a large French range, hot water boiler, sink, dressers, &c. Behind the kitchen is a shed. At both ends of the dining-room are swinging doors leading to the corridors of the wings along both sides of which are the sleeping apartments or cabins 7 x 6 feet 9 inches capable of accommodating three passengers each. In each cabin is an enamelled iron wash-stand supplied with hot and cold water. At the end of the corridors are the bath-rooms with hot and cold water service, water closets and urinals.

3rd Class Passenger Detention Buildings.—Two buildings are in course of erection for their separate accommodation. That for the Chinese, necessarily the largest, is a wooden building on brick and stone foundation 194 feet 6 inches long by 33 feet 4 inches wide divided into two equal parts by a dining-room with kitchen, six bath-rooms, store-rooms and shed in the rear. At the extreme ends of the wings are wash-sheds fitted up with wooden tubs and supplied with cold water. In the kitchen is a large French range and two hot water boilers for supplying the baths. The water supply is drawn from a large tank in the attic. The privies are in one building built across a rocky gulch over tide water. In each of the wings of this building, if properly fitted up with bunks of galvanized iron similar in design to the accommodation afforded on the "Empress of China," &c., 318 Chinese can be comfortably stowed away.

The Japanese building is of the same character as the Chinese, but as before stated smaller. It will accommodate at least 110 in each wing, if fitted up as suggested for the Chinese house.

Shelter Building, Disinfecting Apparatus.—A wooden shelter building 70 x 36 feet, to accommodate the steam disinfecting apparatus is being erected at the north-east corner of the wharf with a brick chimney shaft for the flue of boiler.

Disinfecting Apparatus.—On 28th March, 1893, a contract was entered into for the supply of a steel double shelled square chamber 8 feet 6 inches by 8 feet 6 inches by 24 feet, a 40 h.p. boiler, a vacuum pump, a boiler pad pump, tanks for return, a condensed water bichloride of mercury solution, disinfection of leather goods and for settling water for boiler supply.

Fences.—A ten feet high close rough-board fence was erected along the western boundary of the property from low water in Parry Bay to low water in Pedder Inlet, a distance of 660 feet, and a 6 feet high picket fence erected across the property in rear of the hospital to keep third class passengers within limits.

Water Supply.—In addition to the water service from the lake, which was in the charge of the chief engineer of this department, two wells were sunk in the grounds to supply drinking water in summer and to provide against an emergency or a break in the pipe line.

Plans, &c., prepared and work carried on under the supervision of F. C. Gamble, C.E.

Contractor for residence and shelter building for apparatus, Geo. McFarland.

Contractor for hospital and detention buildings, Bishop & Sherborne.

ENGINEER'S, FIREMEN, &c.—PUBLIC BUILDINGS.

The various engineers, firemen and caretakers, 210 in number, including employees at Parliament and Departmental Buildings, Ottawa, and the heating apparatus of Dominion Public Buildings, with the exception of those at the various penitentiaries and the military buildings, are under the control of this branch of this department.

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HEATING DOMINION BUILDINGS—FUEL.

Tenders were invited by public advertisement for the supply of coal at 121 of the public buildings, and coal and wood supplied to over 160 buildings in all.

LIGHTING DOMINION BUILDINGS.

The lighting of the various Dominion buildings is under the control of this branch of this department. Of these buildings, 75 are lighted by gas, 33 by incandescent electric light, 2 by gasoline, 1 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 FOR DOMINION BUILDINGS.

The water supply for the various public buildings, excepting the penitentiary and military buildings, is controlled by this branch of this department; 82 buildings at 47 localities have water services connected with the water supply of the local waterworks companies, the remainder being in general supplied with wells, pumps and tanks.

GENERALLY.

Repairs and alterations have been executed and sundry articles of furniture, &c., provided, cleaning, painting and other improvements carried out in connection with a number of buildings not herein referred to.

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, 1893

BY THE

CHIEF ENGINEER

OF THE

DEPARTMENT OF PUBLIC WORKS

Department of Public Works.

APPENDIX No. 3.

DEPARTMENT OF PUBLIC WORKS OF CANADA,
CHIEF ENGINEER'S OFFICE,
OTTAWA, 12th December, 1893.

SIR,—I have the honour to transmit herewith for the information of the Honourable the Minister of Public Works, the following report upon the works under my charge during the fiscal year 1892-93.

The duties of the Chief Engineer of the Department of Public Works, and of the staff attached to his office, consist in :

I. The superintendence of the construction of, and repairs to the wharfs, piers and breakwaters built in the Dominion of Canada by the Federal Government, as well as the superintendence of works of improvement in rivers to facilitate navigation, such as lock work, jetty work, removal of obstructions otherwise than by dredging, etc.

II. The superintendence of dredging operations in the ports and navigable rivers of the Dominion, including the maintenance of the dredging fleet, and the construction of new dredges, tugs and scows.

III. The construction and administration of graving docks.

IV. The maintenance and administration of slides and booms on the Ottawa, the St. Maurice and the Saguenay Rivers, and in the Trent and Newcastle districts.

V. The construction and maintenance of interprovincial bridges, and of bridges in the North-west Territories.

VI. The making of hydrographic surveys, and examinations required for the preparation of plans and estimates.

VII. Miscellaneous operations, such as the testing of cements, and the making of experiments for the preservation of timber, etc.

VIII. The preparation of reports on the proposed construction, by private enterprise, of all works in or over navigable waters.

These many duties necessitate the employment of a large staff and a large expenditure, but it is my conviction that no expenditures are so profitable to the people of the country as those made for public works of value to commerce, such as building up harbours, removing obstructions from navigable water-ways, and connecting by canals these water-ways; and that, therefore, the expenditures required for these purposes should not be curtailed to the detriment of the country at large.

WHARFS, PIERS AND BREAKWATERS.

During the fiscal year 1892-93 works on wharfs, piers and breakwaters were carried out in the following localities :

Nova Scotia.

Barrington.....	Shelburne Co..	.....	Completion of landing pier.
Bayfield.....	Antigonish Co. ....	.....	New wharf and repairs to breakwater.
Belleveau Cove.....	Yarmouth Co. ....	.....	Repairs to wharf.
Big Tracadie	Antigonish Co. ....	.....	Repairs to breakwater.
Bird Islands.....	Victoria Co. ....	.....	Removal of obstructions.
Blanche.	Shelburne Co. ....	.....	Protection work.
Blue Rock.....	Antigonish Co. ....	.....	Repairs to breakwater.
Boularderie Islands....	Cape Breton Co. ....	.....	Repairs to wharf.
Broad Cove Marsh.....	Inverness Co. ....	.....	Repairs to pier.
Canada Creek.....	King's Co. ....	.....	do do

Cape Negro Island	Shelburne Co	Repairs.
Cape Sable Island	do	Construction of breakwater.
Cariboo Island	Pictou Co	Repairs to protection work.
Chipman's Brook	King's Co	Repairs to pier.
Church Point	Digby Co	Repairs to wharf, etc.
Cow Bay	Cape Breton Co	Repairs to breakwater.
D'Escousse	Richmond Co	Construction of new wharf.
Devil's Island	Halifax Co	Construction of breakwater.
Digby	Digby Co	Reconstruction of landing pier.
Eatonville	Cumberland Co	Extension of wharf.
Fox Island	Halifax Co	Protection work on beach.
French River	Victoria Co	Repairs to block.
Green Harbour	Shelburne Co	Opening of boat channel.
Halifax	Halifax Co	New quarantine wharf.
Hampton	Annapolis Co	Repairs to wharf.
Harbourville	Kings Co	Repairs to breakwater.
L'Ardoise	Richmond Co	Construction of breakwater.
Louis Head	Shelburne Co	Completion of breakwater.
Mabou	Inverness Co	Repairs to pier.
Maitland	Hants Co	Repairs to wharf.
Margaroe	Inverness Co	do do
Margaretville	Annapolis Co	Repairs to breakwater.
Meagher's Beach	Halifax Co	Repairs to beach protection work.
Meteghan Cove	Digby Co	Repairs to wharf.
McNair's Cove	Antigonish Co	Repairs to wharf.
Morden	King's Co	do do
Noel	Hants Co	Protection work.
Parrsboro'	Cumberland Co	Deepening channel.
Pictou Island	Pictou Co	Repairs to east and west wharfs.
Port George	Annapolis Co	Repairs to breakwater.
Port Lorne	do	do do
Porter's Lake	Halifax Co	Opening channel.
Round Hill	Annapolis Co	Completion of shear dam.
Salmon River	Digby Co	Repairs to breakwater.
Somerville	Queen's Co	do do
South Gut	Victoria Co	Construction of wharf.
Stoney Island	Shelburne Co	Construction of breakwater.
Sydney	Cape Breton Co	Extension of quarantine wharf.
Tatamagouche	Pictou Co	Repairs to wharf.
West Arichat	Richmond Co	do do
West Chezzetcook	Halifax Co	Completion of breakwater.
Wreck Cove	Victoria Co	Repairs to wharf.

New Brunswick.

Anderson's Hollow	Albert Co	Repairs to breakwater.
Campbellton	Restigouche Co	Extension of ballast wharf.
Cape Tormentine	Westmorland Co	Completion of wharf.
Clifton	Gloucester Co	Repairs to breakwater.
Dalhousie	Restigouche Co	Repairs to wharf.
Edgett's Landing	Albert Co	Construction of wharf.
Grand Anse	Gloucester Co	Repairs to breakwater.
Lower Neguac	Northumberland Co	Construction of wharf.
Mispec	St. John Co	Repairs to breakwater.
Pointe du Chêne	Westmorland Co	Reconstruction of breakwater.
Ram Pasture Neck	do do	Repairs to protection work.
River St. John		General improvement of river.
Shippegan	Gloucester Co	Repairs to breakwater.
Tracadie	do	Construction of landing pier.

Department of Public Works.

Prince Edward Island.

Annandale.....	King's Co.....	Repairs to pier.
Bay Fortune.....	do	Extension of breakwater.
Bay View.....	Queen's Co.....	Repairs to pier.
Belfast.....	do	do
Georgetown.....	King's Co.....	Repairs to wharf.
Hurd's Point.....	Prince Co.....	Repairs to pier.
Kier's Shore.....	do	do
Lewis Point.....	King's Co.....	do
Malpeque.....	Prince Co.....	Repairs to breakwater.
Miminigash.....	do	Extension of south pier, etc.
New London.....	Queen's Co.....	Repairs to pier.
Nine Mile Creek.....	do	Construction of new block.
Pinnette.....	do	Repairs to pier.
Port Selkirk.....	do	Reconstruction of wharf.
Pownal.....	do	Repairs to pier.
Stephen's Pier.....	King's Co.....	do
St. Peter's Bay.....	do	Beach protection.
Souris.....	do	Repairs to breakwater.
Vernon River.....	Queen's Co.....	Repairs to pier.
Victoria (Crapaud)....	do	Repairs to wharf.

Quebec.

Anse St. Jean.....	.....	Repairs to wharf.
Anse à l'Eau or Tadousac..	Saguenay Co.....	do
Bay St. Paul.....	Charlevoix Co.....	do
Cacouna.....	Temiscouata Co.....	Construction of block.
Cap à l'Aigle.....	Charlevoix Co.....	Repairs to wharf.
Chicoutimi.....	Saguenay & Chicoutimi	do
Etang du Nord.....	Magdalen Islands..	Repairs to breakwater.
Ile aux Coudres.....	Charlevoix Co.....	Repairs to pier.
Ile Verte.....	Temiscouata Co.....	Completion of landing pier.
Knowlton's Landing..	Brome Co.....	Construction of shed and waiting-room on wharf.
Lake Megantic.....	Brome Co.....	Repairs to wharf.
Laprairie.....	Laprairie Co.....	Construction of protection work.
L'Islet.....	L'Islet Co.	Repairs to wharf.
Les Eboulements.....	Charlevoix Co.....	do
Longueuil.....	Chambly Co.....	do
Matane.....	Rimouski Co.....	Extension of wharf.
Murray Bay.....	Charlevoix Co.....	Repairs to wharf.
Nicolet.....	Nicolet Co.	Construction of ice-breakers.
Rimouski.....	Rimouski Co.	Repairs to wharf.
Riv. du Lièvre.....	Ottawa Co.....	Repairs to lock.
Riv. L'Assomption..	.....	Removal of obstructions.
Riv. St. Louis.....	Beauharnois Co.....	Repairs to feeder.
Riv. St. Maurice.....	.....	Improvement of channel.
Riv. Noire.....	Charlevoix Co..	Removal of stones and boulders.
Riv. Ottawa.....	Laval Co.....	Removal of boulders.
Riv. Yamaska.....	Yamaska Co.....	Repairs to dam.
St. Anne des Monts....	Gaspé Co.....	Completion of block.
St. Jean.....	Isle of Orleans.....	Repairs to wharf.
St. Jean Port Joli.....	L'Islet Co.....	do
St. Laurent.....	Isle of Orleans.....	do
St. Michel de Bellechasse.	Bellechasse Co.....	do
Yamachiche.....	St. Maurice Co.....	Construction of block.

Ontario.

Burlington Channel.....	Repairs to pier and construction of new ferry scow.
Clapperton Channel...Algoma Co.....	Removal of rock.
Goderich.....West Huron Co.....	Repairs to pier.
Kincardine.....Bruce Co.....	do
Kingston.....Frontonac Co.....	Removal of shoal.
Little Current.....Algoma Co.....	Improvement of channel.
Meaford.....Grey Co.....	Repairs to protection works.
McInnis Bank.....Algoma Co.....	Removal of rocks.
Port Albert.....Huron Co.....	Repairs to north pier.
Port Elgin.....Bruce Co.....	Repairs to breakwater.
Port Hope.....Durham Co.....	Repairs to wharves.
Port Rowan.....Norfolk Co.....	Construction of landing pier.
Rainy River.....Algoma Co.....	Construction of crib blocks.
Riv. Beaudet.....Glengarry Co.....	Improvement of river.
Southampton.....Bruce Co.....	Repairs to pier.
Thornbury.....Grey Co.....	Repairs to wharf.
Toronto.....York Co.....	Construction of harbour works.

British Columbia.

Columbia River.....Above Golden.....	Removal of obstructions.
Columbia River.....Revelstoke to Arrow Lake.....	do
Cowichan River.....	do
Fraser River.....Mouth of.....	Jetty works.
Fraser River.....Garry Bush.....	Protection works.
Skeena River.....	Removal of obstructions.
William's Head....Quarantine Station....	Construction of wharf.
William's Head.....do.....	Water supply.
Victoria Harbour.....	Removal of rocks.

I.—WHARFS, PIERS AND BREAKWATERS.

PROVINCE OF NOVA SCOTIA.

BARRINGTON.

Barrington, Shelburne County, is distant 45 miles S.E. from Yarmouth, 30 miles S.E. from Shelburne, and ten miles north from Cape Sable, the most southern point of Nova Scotia.

There being no wharfs in the district having a greater depth than 2 or 3 feet at their outer ends at low water, and the need of greater shipping facilities being much felt, the department began the construction of the present wharf in 1888-89, completing it in 1890 at a cost of \$7,150. This wharf, which is built of piles, is 885 feet long, and extends across the flats to Sherrow's Channel (so called), in which there is 12 feet of water at low tide.

On the channel end of the structure, a block 70 feet in length, was also built for steamers, &c., to lie at, which is provided with a suitable warehouse and drop landing.

During the year the sum of \$673.56 was expended by day work in constructing a triangular piece of wharf work between the approach and the channel block or L so as to form an additional berth for vessels.

Department of Public Works.

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 is 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 main land 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 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 structure, extending 402 feet to 9 feet at extreme low or to 13 feet at extreme high 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 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.

During the fiscal year 1892-93, a contract was entered into for the construction of a new wharf. The work under contract includes grading of highway and approach; a shore abutment of rubble masonry, 33 feet long; block and span open-faced cribwork, 25 feet wide and 319 feet long; and outer end and head of close-faced cribwork, 30 feet wide and 90 feet in length along the centre line, made up in two blocks, each 60 by 30 feet, placed at right angles.

The superstructure of the open-faced cribwork and of the outer close-faced work is to be of creosoted North Carolina yellow pine, and the superstructure of native timber.

At the close of the year, the grading of the highway and approach and the shore abutment of rubble masonry were nearly completed.

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 $1\frac{1}{2}$ to 1. 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 100 feet of the inner end.

The sum of \$5,000 was made available for expenditure during the year 1892-93 in repairs to the breakwater. Operations were commenced in May, and were in progress at the close of the year, when the expenditure amounted to \$1,299.98.

BELLIVEAU COVE.

Belliveau Cove, Digby County, is on St. Mary's Bay about four miles south-west of Weymouth.

The harbour, which is dry at low water, is formed by two piers, the northern built in 1825, and the southern in 1853, both by the local authorities. The area inclosed by these piers is about three acres, and there is a depth of 12 feet 6 inches at the entrance at high water.

During the latter part of the fiscal year the sum of \$500 was expended on repairs to the southern work, consisting in removing the whole of the top of the work over a length of 360 feet and to a depth of from three to six feet, four tiers of new timber being placed along the inner face, two and three tiers on the outer

face, and new cross-ties placed about every 10 feet; 82 fender piles were driven along the inner face, and 16 on the outer face, 8 mooring posts were placed and the whole works filled up with ballast and levelled off with earth and gravel.

BIG TRACADIE.

Big-Tracadie, Antigonish County, is on the southern shore of St. George's Bay, 12 miles east from Antigonish harbour, and 11 miles west from the entrance to the Strait of Canso.

In 1863 the Provincial Government opened a passage at the east end of Delorey Island, about one and a quarter miles from the original entrance, and constructed a breakwater on its eastern side.

In 1874-75 the department repaired and extended the breakwater, and constructed a retaining wall inside of it. Repairs were made from time to time, and in 1884-85, the breakwater was repaired and the retaining wall, which had been destroyed, was rebuilt.

The breakwater was badly damaged during the great gale of December 1st, 1890, and the following summer the whole of it, with the exception of a portion of the south face, 67 feet in length, was carried away.

During the year 1892-93 the sum of \$300 was expended in strengthening a portion of the south face of which nothing remained but a wall of squared timber, supported on the south side by close piling. The outer 20 feet of the wall and close piling was cut off level with the ground, 16 piles were driven to complete the close piling on the south side; and a block 14 feet square was built against the north side and protected by close piling, and the old work between it and the shore was reconstructed.

BIRD ISLANDS.

The Bird Islands, Victoria County, lie in the Atlantic Ocean several miles off Cape Dauphin, between St. Ann Harbour and the entrance to the Great Bras d'Or.

Ciboux Island, the largest of the group, is the resort during the season of 60 or 70 fishermen.

In 1891-92 the sum of \$142.84 was expended in improving the landing place on Ciboux Island by removing rocks, and in cutting down the end of an old block so as to form a slip or approach from the narrow beach to a steep path leading to the top of the cliff.

During the fiscal year 1892-93 the sum of \$60 was expended in further improvements to the landing place and in repairing and strengthening the slip.

BLANCHE HARBOUR.

Blanche Harbour, Shelburne County, is a small refuge and resort of fishing boats on the southern extremity of the peninsula forming the western side of Negro Harbour, about 18 miles nearly due south from Shelburne, the county town.

In the autumn of 1892 the sum of \$300 was expended by day work in building a groyne 72 feet long for the purpose of checking the movement of the gravel beach under the action of the sea, and the consequent filling up of the little boat channel.

BLUE ROCK.

Blue Rock, Antigonish County, is on the south coast of St. George's Bay two and a half miles east from Tracadie Harbour.

A breakwater extending three hundred and twenty-six feet and a half in a south-westerly direction from Blue Cape, was completed in 1888. It is 16 feet in width on top; on the seaward side it has a face sloping 1 to 1 from the top to 1 foot below extreme high water. It was strongly constructed with faces of squared timber and

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was fully ballasted. The depth at the outer end, at extreme low water, is 12 feet, and over the area, sheltered from the north and east from 12 to 5 feet. Spring tides rise 4 feet.

Recently it was found that the face-timbers below low water had been weakened, and in places destroyed by the teredo, and that the ballast had settled 5 feet below the upper ballast floor on the seaward side, and 2 feet on the inner side, for a distance of 140 feet from the outer end.

During the year 1892-93 the sum of \$496.99 was expended in close-piling the outer end, and for a distance of 65 feet on the seaward side and 15 feet on the inner side from the outer end, in removing the upper ballast flooring in places, and rebalasting for a distance of 60 feet from the outer end, and in placing a talus of large stone on the seaward side over a distance of 60 feet beyond high water mark.

BOULARDERIE (ISLAND POINT).

Island Point, Victoria County, is on the south side of Boularderie Island, 18 miles west from the bridge crossing the Little Bras d'Or.

The wharf at this place, built by the Government in 1886-87, is 120 feet in length and 20 feet in width, in blocks and spans. At the outer end a side block forms a head 41 feet in length. The depth at the outer end, at ordinary lake level, is 11 feet.

On examining the wharf in November, 1891, it was ascertained that the head had been struck by a field of ice in March, 1889, and the whole top down to 5 feet below water level moved 2 feet, the effect being to cause it to overhang, accompanied by a settlement of from 1 to 3 inches, to 2 feet 9 inches; and that the work below water was badly worm eaten.

During the fiscal year 1892-93 the sum of \$499.48 was expended in raising the head of the wharf to the general level of the approach; in replacing a small quantity of ballast; in close piling the west or overhanging face; and in renewing 5,700 feet b. m. of covering.

BROAD COVE.

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

The wharf at this place was completed in 1888. It was 400 feet in length and 25 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. Spring tides rise 4 feet 5 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 4 or 5 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.

In 1891-92, most of the face-chambers on the east side were reballasted. The second block from the outer end was cut down to about 6 inches below and built up to 2 feet above low water; and nearly all the timber and iron required to complete the reconstruction of the work to within 56 feet of the original outer end was obtained.

During the fiscal year 1892-93, the sum of \$1,923.65 was expended in completing the work undertaken the previous year, with the exception of placing about 170 feet of close-fendering, procuring and placing cap-timbers over the covering at the sides of the work, and filling in a few face-chambers on the east side.

CANADA CREEK.

Canada Creek, King's County, also called Black Rock, is situated on the south shore of the Bay of Fundy, 60 miles east of Digby Gut, and 8 miles west of Hall's Harbour.

The harbour, which is dry at low water is formed by two piers or breakwaters, built one on either side of the mouth of a small stream.

In June, 1893, the sum of \$400 was expended by day work, in building a new block of cribwork 50 feet long, 16 feet wide, and about 12 feet high between the outer end of the breakwater on the western side of the harbour, and the remains of an outer block, which was destroyed by a heavy gale in the winter of 1889-90. The object of this new intermediate block is to prevent the sand and gravel from washing through the gap and filling the bed of the creek alongside the inner face of the existing work where vessels lie to load cordwood, &c.

CAPE NEGRO ISLAND.

Cape Negro Island, Shelburne County, is situated at the mouth of Negro Harbour and is about two miles long, by a maximum width of half a mile.

During the year the sum of \$300 was expended by day work in rebuilding the old and decayed piers of crib-work, 85 feet long, protecting the public boat landing on the north point of the Island.

DONALD'S HEAD.

Donald's Head, Shelburne County, is situated on the eastern side of Cape Sable Island, about six miles south of Barrington.

Some years ago the inhabitants built a small wharf or breakwater to protect the entrance to a small tidal pond forming a convenient shelter for a numerous fishing fleet.

In 1891-92 the department spent the sum of \$300 in putting the work in repair and building it up to its present height.

On the 16th December, 1892, a contract was entered into between the department and George Wilson of Barrington, to build an extension to the present work, 90 feet long, 18 feet wide and 14 feet high, of stone filled cribwork, at a cost of \$1,628.80. The work was satisfactorily completed in June, 1893.

CARIBOO ISLAND.

Cariboo Island, Pictou County, is on the Northumberland Strait, 5 miles to the westward of the entrance to Pictou Harbour. It is about 4 miles in length and half a mile in average width.

Cariboo Harbour, sheltered by Cariboo Island and a smaller island lying to the eastward of it, is an extensive place, 6 miles in length and 1 mile in width, but the water is shallow. The principal entrance between the two islands has only a depth of 4 feet at extreme low water, and the flats between the mainland and the western extremity of Cariboo Island are dry at extreme low water, except in a few small channels. Spring tides rise 6 feet, neaps 4 feet.

With the amount authorized for expenditure in 1890-91, a work of brush and stone 1,221 feet in length, 19 feet in width on top, and from 2 to 5 feet in height was constructed between the island and the mainland. It is still in an unfinished condition, being covered at about half-tide.

During 1892-93, the sum of \$300 was expended on the purchase of brush and stone to be used towards raising the work to the required height.

CHIPMAN'S BROOK.

Chipman's Brook, King's County, is situated on the southern shore of the Bay of Fundy, 64 miles to the westward of Digby Gut.

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During the fiscal year 1892-93, the work at this place which had become damaged was repaired at a cost of \$200, the repairs consisting in sheathing the west side of the wharf on a length of about 60 feet, in replacing about 150 lineal feet of face timbers, in putting in new floor stringers and flooring in the outer 60 feet of the wharf and a small quantity of ballast.

CHURCH POINT.

Church Point, Digby County, is situated on the south side of St. Mary's Bay, 9 miles south-west from Weymouth and directly opposite Petit Passage, Digby Neck.

During the past few years the gravel has been working around the outer end of the pier and forming a bar across the entrance to the loading berths of vessels.

During the first part of this fiscal year the sum of \$45.25 was expended in removing this bar of gravel, the work being done by hand with scrapers during low water.

COW BAY.

Cow Bay, Cape Breton County, is on the eastern coast of Cape Breton Island, about 18 miles north-east 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, some 20 or 25 years ago, 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 20 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 20 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 now consists of an inner work, extending from within 220 feet of the shore end to the outer end, with counterforts, and connecting works on the seaward side from within 580 feet of the shore end to the outer end. The outer and inner works are from 20 to 25 feet apart. They are connected at intervals by tie walls, and the spaces are filled with ballast.

During the fiscal year 1892-93, the sum of \$3,499.90 was expended in reconstructing and close piling a portion of the inner work and in general repairs to the outer works.

The repairs to the inner work included cutting down and reconstructing the inner face for a distance of 180 feet from the shore end, the new face work being 3 feet in average width and 10 feet in average height; close piling (with piles procured the preceding year) the inner face from 180 to 560 feet from the shore end, and in renewing the covering and cap timbers from 180 to 530 feet from the shore end.

The repairs to the outer works included, replacing about 260 tons of ballast, sheathing horizontally with hardwood over 60 lineal feet of close piling to a height of 5 feet above low water at the angle made at the second counterfort with the face

work between it and the third counterfort from the inner end; replacing about 8 piles and fenders; and in repairs to the covering where required.

D'ESCOUSSE.

D'Escousse, Richmond County, is a thickly populated district of Isle Madame, on the south side of Lennox Passage, a strait separating the Island from the main land, and connecting St. Peter's Bay with the Strait of Canso.

During the year 1892-93, a contract was entered into for the construction of a wharf, consisting of an approach 313 feet in length, a stone embankment 107 feet in length and a creosoted pile extension, 120 feet in length, but nothing was done except in the way of procuring materials.

DEVIL'S ISLAND.

Devil's Island is a small low island, about 2,000 feet long, by 1,000 feet wide, with its highest point about 15 feet above high water springs, situated 8 miles to the south-east of the city of Halifax, and one-third of a mile from the mainland off Hartland Point, to which it is connected by a reef covered with 3 feet of sand, and having 3 feet of water over it at low water.

The island is permanently inhabited by about 100 people, wholly dependent upon fishing for their livelihood.

On the 19th April, 1892, a contract was entered into between the department and Messrs. McDonald & Moffat, of Sydney, C. B., for the construction of a breakwater 200 feet long, 15 feet wide, with an L at the outer end 30 feet long, where at low water springs there is about 5 feet of water. The work was begun September 1st, 1892, and finished December 1st, 1892, at a cost of \$1,941.18.

DIGBY.

The town of Digby is situated at the western end of the Annapolis Basin and was, until the construction of the "missing link," the eastern terminus of the Western Counties Railway.

In 1890, a contract was entered into for the construction of a new pier 780 feet long, 50 feet wide on top and extending into 10 feet of water at low tide, to be built on the north side of the Racquet, about one mile to the north of the present pier and town of Digby. A large quantity of timber and iron had been procured, the former being boomed principally in the Racquet, and the latter stored in a warehouse at Digby.

Owing to numerous delays, the death of the contractor, etc., the intention of constructing a new wharf was abandoned, and in lieu thereof it was decided to reconstruct and repair the present pier, utilizing as much as possible the timber, etc., belonging to the estate of the deceased contractor, the proposed reconstruction and repairs being as follows:—

The renewing of the whole of the pile work section from the head of the inclined landing to the shore, a distance of 560 feet, the inner 430 feet to be 30 feet wide on top and the outer 110 feet, 45 feet wide.

The bents are to be placed 10 feet apart, the inner portion having 6 and the outer 8 bearing piles in each bent. Fender or guard piles are to be placed on both sides of the work at each bent, sheet piling is to be driven over the whole length of the northern face and two sets of waling placed on the inner and outer face of same.

The crib-work block forming the head of the inclined landing is to be removed down to the foundation and a new block built, this block to be 80 feet long, with an average width of about 37 feet, of round logs, open crib-work.

The seaward face of the inclined landing, from the end of the new block outward, is to be sheet piled for its entire length and new covering and floor stringers placed on the inclined landing over a length of 78 feet.

The present warehouse and office are to be removed and a new warehouse 60 feet long and 25 feet wide constructed.

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Work was commenced on 22nd May, and at the end of the fiscal year 30 pile bents had been driven (equal to 300 feet), 21 bents capped, 15 on which floor stringers had been laid and 3 on which covering had been placed. The amount expended was \$2,030.30.

During the first part of the fiscal year, the sum of \$56.89 was expended in lengthening some of the fender piles on the outer end of the pier.

EATONVILLE.

Eatonville, formerly called the "The Three Sisters," Cumberland County, is about 10 miles north of Chignecto Cape, Bay of Fundy, and 4 miles south of Apple River.

During the year a block of breakwater 205 feet long, 20 feet wide and of an average height of 14 feet was built to fill the gap between the existing breakwater and Messrs. Eatons' wharf.

This work, in addition to the great improvement it made in shipping facilities, was necessary to protect the gravel beach at the shore end of the old work from the inroads of the sea. It was built by contract at a cost of \$2,700.

FOX ISLAND.

Fox Island, Halifax County, is situated on the Atlantic coast of Nova Scotia, about 15 miles to the eastward of the city of Halifax. It lies about 800 feet distant from the mainland to which it is connected by a bar of shingle and gravel.

The island is about three acres in extent, and in the summer is used as a fishing station, being then occupied by fishermen and their families.

To protect the neck of beach, the department built crib-work protection 635 feet in length in the year 1886-87.

In August and September, 1892, an extension to this work 252 feet long was built by day work at a cost of \$650. The work consists of round log crib-work about 5 feet high, and filled with stone.

FRENCH RIVER.

French River, Victoria County, is on that part of the east or Atlantic coast of Cape Breton Island, known as the "north shore," midway between the harbour of St. Ann's and South Ingonish.

A contract entered into in 1890-91 for the construction of an isolated breakwater 50 feet in length and 27 feet in width on top, in from 6 to 7 feet at extreme low water, was completed the following year; it is of squared timber, and it is close fendered at the sides and outer end.

Shortly after the completion of the work, the ballast went out of the face-chambers on the east side, and subsequently the work settled to within one foot of extreme high water at the north-east angle, and the ballast went out of about half the face-chambers on the west side.

During the fiscal year 1892-93, the sum of \$299.73 was expended in reballasting the breakwater and in placing large stones over brush on the east side to prevent scour.

GREEN HARBOUR.

Green Harbour, Shelburne County, is situated about four miles west of Lockeport. On the western side of the harbour is a small lagoon formed by a gravel bar, and affording protection to numerous fishing boats and other small craft.

During the year, the sum of \$300 was expended by day work in reopening the channel through the gravel bar.

HALIFAX QUARANTINE STATION.

Wharf at Lawlor's Island.

Lawlor's Island, the quarantine station for the port of Halifax, is situated five miles in a direct line south-east from the city. It is $1\frac{1}{8}$ miles long, $\frac{1}{4}$ mile wide, its highest point about 80 feet above high water, and it lies midway between the southern end of MacNab's Island and the mainland on eastern passage, in the south-eastern part, or entrance to Halifax harbour. It is well wooded, and conveniently situated, and is admirably adapted for a quarantine station.

During the year the small landing wharf, 105 feet long by 15 feet wide, on the east side of the island, was repaired by day work at a cost of \$247.29. The repairs consist of a few new piles and caps, and an entire new floor.

Owing to the necessity for enabling ocean steamers to land passengers on the island conveniently, and undergo disinfection before proceeding to dock, a contract was signed on the 1st April, 1893, between the department and Mr. Archibald McKinnon for the construction of a wharf on the north-west point of the Island for the sum of \$8,900. The wharf will be built of piles throughout, it will project from the shore a distance of 280 feet, and have an L on the outer end 400 feet long, carrying for its entire length a depth of 27 feet of water at low water springs.

The work was begun in the 1st week of June, and according to contract must be completed by November 1st, 1893.

HAMPTON.

Hampton, or Chute's Cove, Annapolis County, is situated on the southern shore of the Bay of Fundy, and is distant about 25 miles east of Digby Gut.

During the past spring a sum of \$1,500 was expended in constructing a block 40 feet long, 27 feet wide on top, and 27 feet high, at the outer end of the present wharf or breakwater, and in repairing about 100 feet of the inner end of the old work by raising the inner face, putting in new floor stringers and covering same with new planking, thus putting the work in thorough repair.

HARBOURVILLE.

Harbourville, King's County, is on the south shore of the Bay of Fundy, about 55 miles east of Digby Gut.

In September, 1892, the sum of \$30 was spent in repairing a small breach in the seaward face of the wharf and in putting on a few new planks in the covering.

L'ARDOISE.

Lower L'Ardoise, Richmond County, is on the east side of St. Peter's Bay, 9 miles south-east from St. Peter's Canal.

A breakwater 400 feet in length, built off Martin's Point, in from 5 to 10 feet at low water, was almost entirely destroyed in 1883.

During the year 1892-93, the work under contract commenced in 1891-92, was continued, and at the close of the year was very nearly completed.

LOUIS HEAD.

Louis Head, Shelburne County, is a thriving fishing settlement on the western side of the mouth of the Sable River, about 10 miles east of Lockeport.

On November 9th, 1891, a contract was signed between the department and Messrs. Smith & Heney, of Ottawa, for the construction of a breakwater 150 feet long for the purpose of forming a shelter for fishing boats and small vessels, and to serve also as a landing wharf for general purposes. The work has been finished during the year. Its cost was \$4,072.

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MABOU.

Mabou Harbour, Inverness County, is on the west coast of Cape Breton Island, 6 miles north east from Port Hood.

The entrance was formerly at the southern extremity of a range of sand hills, by an intricate channel obstructed by a bar, over which there was a depth of only 4 feet at low water.

In 1870, a survey was made and a report submitted, on the project of opening a new channel through the sand hills at their northern extremity, and closing the existing channel.

The work was commenced in 1872, a pier, on the south side of the new channel, 753 feet in length was completed in 1876, and the same year the old channel was closed. Expenditures have been made nearly every year since 1876, in constructing a brush and stone dam on the south side near the outer end of the pier; constructing and repairing a breastwork on the north side of the channel; repairing and close-piling the pier; and, since 1885, in constructing a work of brush and stone, in shoal water, on the south side of the channel.

In December, 1890, a portion of the pier 290 feet in length 90 to 380 feet from the outer end was carried away, and the remaining 90 feet, more or less damaged. The breastwork on the north side of the channel was destroyed several years ago.

In 1890-91, a dam of brush and stone, 250 feet in length and 10 feet in width on top, was constructed between the pier-head and the sand hills; and the brush and stonework, then extending 1,087 feet beyond the head of the pier, was raised nearly to high water level from end to end.

In 1891-92, a large amount was expended in extending and raising the brush and stonework on the south side of the channel, and in constructing groynes on the north side to collect sand and gravel and thus form a natural protection to an exposed clay-bank. The brush and stone work was extended 600 feet in from 6 to 9 feet at low water, the inner end being left a little above, and the outer end about 2 feet below low water; a work of brush and stone 60 to 20 feet in width and 5 feet in average height was built, extending *in* 380 feet from the original head of the pier, and *out*, over the existing brush and stone work, 120 feet; the remains of the head of the pier were removed, and 4 groynes respectively 55, 40, 45 and 55 feet long, 5 feet in width and 5 feet in height, were constructed on the north side of the channel. The groynes were made by driving piles in pairs, 5 feet apart, filling in with brush, and securing with cross caps at each pair of piles.

During the fiscal year 1892-93, the sum of \$600, was expended in extending the groynes on the north side of the channel, two of them 20, and the remaining two 40 feet each, and in constructing a new groyne 45 feet in length.

MAITLAND.

The village of Maitland, Hants County, is situated on the western side of the mouth of the Shubenacadie River, which empties into the south side of the head of Cobequid Bay, the eastern extension of the Basin of Minas.

During the year the sum of \$300 has been spent in patching up some dangerous holes in the floor of the wharf, and the purchase of materials for more extensive and much needed general repairs.

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.

A pier constructed on the west side of the entrance to the harbour by the provincial government, was repaired and extended by the department in 1876 and 1879. In 1890-91, the work was extended 200 feet, and some repairs to the old work were effected.

During the great gale of December, 1890, the old provincial government work was almost totally destroyed, and the covering, cap-timbers and top ballast of the outer work were disturbed in places.

In 1891-92, the outer works were repaired and reballasted, and a new crib-work was built over 130 feet of the remains of the old provincial government work, between the outer works and the shore, to within one and a half feet of required height; of this 65 feet averaged 2 feet in height and 20 feet in width, and the remaining 65 feet, 4 feet in height and 18 feet in width.

During the fiscal year 1892-93, the sum of \$1,083.85 was expended in raising and covering the 130 feet of work undertaken the previous year, and in completing it by constructing 40 feet of crib-work 18 feet wide and 6 feet average height and in the construction of a new crib-work 186 feet in length, 18 feet wide and two and a half feet in average height; and a work of brush and stone 168 feet in length of the same dimensions, over the remains of an old provincial government work between the work previously described and the shore.

MARGARETVILLE.

Margaretville, Annapolis County, is situated on the southern shore of the Bay of Fundy, and is distant about 42 miles east of Digby Gut.

During a storm of December, 1885, the wharf at this place was much damaged. Between the years 1886 and 1889, the sum of \$8,800 was expended in filling in a breach of 150 feet made by the above storm and making other necessary repairs.

In October, 1890, the work was again visited by a severe storm, this time making a breach of 117 feet and otherwise damaging the remaining portions. After the storm, the work stood as follows: shore portion about 300 feet, breach 117 feet, and outer portion or block 85 feet.

The broken end of the inner portion was partially repaired in the autumn of 1891 and spring of 1892.

During the fiscal year the sum of \$992.93 was expended in completing the repairs to the outer end of the inner portion (which consisted of building a block, about 13 feet long and tying the timber into the old work) and in rebuilding a portion of the inner face or shore portion, which was falling down. The dimensions of the work rebuilt being, length 30 feet, width 25 feet, and depth about an average of 10 feet.

MEAGHER'S BEACH.

Meagher's Beach, Halifax County, is a narrow neck or spit of shingle and coarse gravel about half a mile in length, projecting from the west side of MacNab's Island, at the entrance to Halifax Harbour.

During the year, thorough repairs, at a cost of \$500, by day work, were made to the piece of crib protection, 125 feet long, which, built in November, 1891, was seriously damaged by gales on the 11th and 12th February, and on the 3rd March, 1892.

These repairs consisted in practically rebuilding 55 feet in length of the work, and rebolting and reballasting not only the remainder, but also about 30 feet in length of the contiguous piece of crib-work, built some years ago by the Marine and Fisheries Department.

METEGHAN COVE.

Meteghan Cove, Digby County, is on the south side of St. Mary's Bay, about 20 miles from Yarmouth and 40 miles from Digby.

During the fiscal year the sum of \$299.72 was expended in making some slight repairs to the breakwater and in temporary repairs to the landing wharf. The former is now in a good state of repair, while the latter, when last examined, was in a very dilapidated condition, but should be, with the amount authorized for expenditure during 1893-94, placed in a thorough state of repair.

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M'NAIR'S COVE.

McNair's Cove, Antigonish County, is on the western shore of St. George's Bay, 2 miles south from Cape George.

A breakwater 400 feet in length was built on the north side of the cove in 1872-73. In 1875, the outer end, which had settled, was built up to the original height. In 1878, repairs were made and a new block was placed at the outer end.

In 1879, the work was carried away by drift ice to within 100 feet of the shore end, down to from 6 to 3 feet below low water. During the summer of 1883, 70 feet was rebuilt and during the winter of 1884, the work was extended 94 feet.

The 94 feet extension was badly damaged by drift ice in April, 1884, and was subsequently carried away.

A contract, entered into in 1887, for the reconstruction of 160 feet of the breakwater, was completed in 1888.

The new work is 32 feet in width on top, and has a face, sloping 1 to 1 above low water, on the seaward side and at the outer end. It was founded on a bottom dredged to from 12 feet at low water at the outer end to 6 feet at the inner end.

The seaward and outer end faces were protected by close piling. In 1890-91, the covering and floor stringers over about 70 feet of the inner portion of the breakwater were renewed, and 125 piles were procured for replacing the close piling of the outer work, but were not used.

During the year 1892-93, the sum of \$1,299.62 was expended in placing a talus of quarried stone on the seaward side of the 160 feet extension over a distance of 110 feet from the inner end, or to within 50 feet of the outer end.

It is proposed to complete the stone talus on the seaward side and to protect the outer end by close piling of creosoted timber.

MORDEN.

Morden, formerly called French Cross, King's County, is situated on the south shore of the Bay of Fundy, about 50 miles east of Digby Gut.

In April, 1893, the sum of \$260 was expended by day work in effecting some much needed general repairs, consisting of (a) rebuilding about two-thirds of the "break" on the north side of the wharf, and filling it with ballast, (b) newly close sheathing a length of 90 feet on the north face, and (c) in making good a small breach in the lower portion of the north face, which is much exposed.

NOEL.

The village of Noel, Hants County, is situated at the head of Noel Bay, an inconsiderable indentation on the south shore of Cobequid Bay, Basin of Minas, 12 miles west of Maitland, and 32 north-west of Shubenacadie, the nearest railway station on the I.C.R.

The public wharf, which is a pile structure 260 feet wide with an L at the outer end 50 feet long, was built by the department in 1889.

In June, 1893, the sum of \$200 was spent by day work in protecting the shore end of the work. The works consist of 100 feet in length of stone filled crib-work, 5 feet high and 5 feet wide, to protect the bank of marsh mud on the south side of the wharf from further scour; and a length of 40 feet by a height of 5 feet of 4-inch close sheathing on the north side of the wharf, to keep the waves from washing away the marsh mud from between and behind the close piling.

PARRSBORO' HARBOUR.

In the months of September and October, 1892, the sum of \$3,500 was expended by day-work in deepening the harbour by hand dredging at low water. The work consisted in deepening and straightening the channel from the entrance of the

harbour near the lighthouse to the head of the Cumberland Railway and Coal Company's loading pier, a distance of half a mile. Over this channel there is now a depth of 23 to 25 feet of water at H.W.O.S.T., and a width of 300 feet. It is also now much straighter than formerly.

PICTOU ISLAND.

Pictou Island, in the Strait of Northumberland, and about 10 miles north-east of the entrance to Pictou Harbour, is 5 miles long and $1\frac{1}{2}$ miles wide.

There are two wharfs on the south side of the Island—one near the west end, and one known as the "East Wharf," near the centre.

The west wharf was commenced by the Provincial Government. It was repaired and strengthened by the department in 1880, and extended 62 feet 6 inches in 1887-88. In 1891-92, a 50-foot extension was completed with the exception of placing the covering, a small quantity of ballast and a few fenders.

The east wharf was commenced by the department in 1882-83, and extended 100 feet in 1887-88. In 1891-92 the outer end was partially repaired and a 60-foot extension was placed and built up to within 6 feet of finished height.

During the fiscal year 1892-93, the sum of \$3,279.37 was expended in completing the work undertaken the previous year, in procuring materials for a proposed 82-foot extension to the west wharf, and in building a 60-foot extension to the east wharf up to within 5 feet of finished height.

PORTER'S LAKE.

This lake is a long and narrow sheet of water lying nearly north and south, and situated about the middle of Halifax County, or about 15 miles east of the capital. It is about 17 miles long, from a quarter to a half a mile in width, and the water being of good depth for almost its entire extent, it is navigable for moderate sized vessels to its extreme head.

The lake, which stands at a nearly constant level of a few inches above high water of ordinary neap tides, discharges into the Atlantic through a beach of gravel and sand from one to two hundred feet wide.

Up to about twenty years ago there was a good navigable channel through the beach, but it has gradually filled up with gravel thrown up by storms, until it is now no longer navigable for even small boats. Numerous small expenditures have been made by the department in the last few years, to reopen the outlet, but it has every time been refilled shortly afterwards.

In November, 1892, an expenditure of \$147 was made by day work, in order to give an outlet to the waters of the lake, which were covering and injuring the road along its shore.

PORT GEORGE.

Port George, Annapolis County, is situated on the southern shore of the Bay of Fundy, and is distant about 37 miles east of Digby Gut.

The harbour is dry at low water and is formed by a breakwater on the west and a pier on the east sides, both of which works were constructed by the local authorities.

In 1875, the department expended \$7,000 in repairing the breakwater which was much decayed.

In the autumn of 1888, the outer 165 feet was swept away and the adjoining 30 feet left in a shattered and injured condition.

During the spring of 1890, a contract was entered into for the rebuilding of the destroyed portion and subsequently a second contract was made for removing and rebuilding the 30 feet of damaged section, both of which were completed in the following year.

Department of Public Works.

During the fiscal year 1892-93, the sum of \$600 was authorized to be expended, \$300 being for clearing the dock of ballast and rubbish, and a like amount for making repairs to the seaward face of the breakwater which was being undermined. These repairs consisted in inserting timbers in the bottom of the work along the seaward face and further protecting it by large stone. Of the amount authorized, \$299.94 was expended in clearing out the dock and \$286.71 in repairs.

PORT LORNE.

Port Lorne, formerly Port Williams or Marshall's Cove, Annapolis County, is situated on the southern shore of the Bay of Fundy, and is distant about 30 miles east of Digby Gut.

During the spring of 1892, the sum of \$1,000 was expended in repairing the central portion of the seaward face of the breakwater which was much decayed and in a very unsafe condition, and in building a piece of crib-work inside the dock to divert the brook to the eastward of the work.

The amount appropriated 1891-92 (\$1,000), not being sufficient to complete the repairs necessary, the further sum of \$500 was authorized for expenditure during 1892-93, and was expended during the spring in completing the repairs to the western face of the breakwater, putting on a new cap for a length of 75 feet on the inner face, new covering at inner end, 2 mooring posts, and 15 fenders on the inner or eastern face, and in extending the crib-work, to divert the brook, about 60 feet.

These works are now in a thorough state of repair.

ROUND HILL.

Round Hill, Annapolis County, is situated on the Annapolis River, about midway between Annapolis and Bridgetown.

A contract was entered into in November, 1891, for the construction of a sheer dam on the up river side of the hill to divert the stream from the foot of the bank, which it had been for many years eating into and undermining, destroying not only valuable property (several acres having fallen into the river), but washing the material into the channel, thereby causing bars to form, and otherwise injuring navigation.

The river at this point takes a sharp turn, the bank on its northern side being a dyked marsh, while on the inner side of the bend of the river is the high steep hill which gives the settlement its name.

The above contract was completed in August of 1892, and the purpose for which the work was constructed is having the desired effect.

SALMON RIVER.

Salmon River, Digby County, empties into the Bay of Fundy, 3 miles south of Cape St. Mary, and forms part of the division line between Digby and Yarmouth Counties.

The harbour is formed by a breakwater and gravel pier, the former on the north and the latter on the south side of the mouth of the river.

In January last the sum of \$800 was authorized to be expended on repairs to the breakwater and gravel pier. Work was commenced in March, and repairs were completed before the end of the fiscal year, and consisted as follows:—

To Wharf or Breakwater.—Cutting down and rebuilding new block on south face for a length of 32 feet and a width of 20 feet; raising outer 30 feet about 18 inches; placing 18 fender piles along southern face, 6 on the end, and 20 along the northern face.

To Gravel Pier.—Practically reconstructing the inner 90 feet, ballasting, placing cross ties, floor stringers and covering on an adjoining 30 feet, and reconstructing a 20 foot block at outer end in place of 30 foot block which had been carried away.

Both the above works are considered to be now in thorough repair.

SOMERVILLE.

Somerville, Queen's County, is situated on the north side of Port Mouton Bay, about 8 miles south-west of Liverpool, the county town.

In the autumn of 1892, the sum of \$598.02 was expended in rebuilding 30 feet in length of the end of the breakwater, 100 feet of which (or nearly half its length) had been destroyed by a violent gale early in the year. In addition to this, the floor of the work was extensively repaired, as well as some of the sheathing on the southern, or exposed face.

SOUTH GUT.

South Gut, Victoria County, is the local name of the south arm at the head of St. Ann's Harbour. The latter is a fine basin 7 miles in length, the entrance to which is a few miles to the westward of the principal entrance to the great Bras d'Or Lake.

A wharf was commenced at this place in 1890-91, and completed in 1891-92, with the exception of the approach, the placing and bolting 12 fenders, and the cutting off the tops of fenders previously placed.

During the year 1892-93, the sum of \$199.91 was expended in completing the work.

The wharf is a block and span structure 198 feet in length. The depth at extreme low water at the outer end is 6 feet. Spring tides rise 6 feet.

STONY ISLAND.

Stony Island, Shelburne County, is situated to the south-east of Bull's Head, Barrington Bay, about midway between Cape Sable and North-east Point.

During 1891-92, the construction of a breakwater 300 feet in length, 24 feet in width, with a depth of 14 feet at low water at its outer end, was commenced under contract. This was completed in August, 1892, and, it being found advisable to strengthen the pile portion of the structure, the necessary arrangements were made and the work done at an additional cost of \$150.

SYDNEY QUARANTINE WHARF.

The quarantine station in Sydney Harbour is on the south arm near Keating's Point, and about three-quarters of a mile from Point Edward. The latter is at the extremity of the land lying between the south and west arms.

During the year 1892-93, the sum of \$1,200.02 was expended in building an addition to a small wharf near the southern boundary of the quarantine grounds. This wharf is a block and span structure 14 feet wide and 2 feet above high water, extending 100 feet to 7 feet 9 inches at extreme low water. The addition consists of a crib-work block 21 feet 6 inches on line of work by 39 feet 6 inches. The top of the covering is 4 feet above high water and the depth, at extreme low water, along the outer face, is 9 feet. Spring tides rise 5 feet.

TATAMAGOUCHE.

The village of Tatamagouche, Colchester County, is on the west side of the Tata-magouche River, about one and three-quarter miles from its entrance into the Bay of the same name, on the south side of the Strait of Northumberland. It is distant 15 miles from Wentworth, a station on the Intercolonial Railway, and is on the short line railway between Oxford and New Glasgow.

In 1888-89, a wharf was built by the department on the east side of the river, nearly opposite French River, which flows into the Tatamagouche, half a mile below the village.

Department of Public Works.

It is 96 feet 6 inches in length and 20 feet in width, except at the outer end, where it has a width of 29 feet 6 inches, and consists of an abutment and three crib-work blocks, with intervening spans. It is on flats, dry at extreme low water to within 15 feet of the outer end, where the depth at extreme low water is 7 feet.

Spring tides rise 8 feet.

During the fiscal year 1892-93, the sum of \$99.97 was expended in reconstructing the abutment; in building a stone retaining wall twenty-three and one-half feet long on the north side; and in slight repairs to the central and outer blocks.

WEST ARICHAT.

West Arichat, Richmond County, is a small but safe harbour on the south side of Isle Madame, sheltered from the south and west by Crichton Island and a breakwater between it and the mainland.

The breakwater is 1,285 feet in length and 23 feet in width. A portion of it extending 628 feet from the island was built by the Provincial Government in 1867, and the remainder by the department in 1879. It is of round timber, open-faced, and was fully ballasted. The top of the covering is 11 feet above extreme low water or 6 feet above extreme high water, except near a 25-foot opening between the old and the new work.

In 1883-84, fenders were placed on the south face 3 to 9 inches apart for a distance of 490 feet; in 1891-92, the covering over 140 feet at the west end, and 120 feet at the east end, was removed and the work filled in with stone and gravel, and 15,000 feet b.m. of covering was renewed along the centre line.

During the fiscal year 1892-93, the sum of \$1,479 was expended in repairing and close fendering 80 feet of the south face at the west end; in reconstructing, from above high water, 92 feet of the north face at the west end; in renewing about 2,300 feet b.m. of covering, and in ballasting where required.

The necessary repairs have been completed, with the exception of the renewal of about 1,100 feet b.m. of covering along the sides of the work; rebalasting with about 150 cubic yards of stone, and some repairs to the approach at the east end.

WEST CHEZZETCOOK.

Chezzetcook Inlet, Halifax County, is about 15 miles east of Halifax Harbour. It is about 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 has been built on the southern end of Conrod's Island, 900 feet long with an L at the outer end 200 feet long.

On the 20th July, 1891, a contract was entered into between the department and Mr. Archibald McKinnon, of Cow Bay, C.B., for \$8,940. The work was begun in June, 1892, and finished on December 24, 1892. Its effect has already been to deepen the channel some two feet.

WRECK COVE.

Wreck Cove, Victoria County, is on that part of the east or Atlantic coast of Cape Breton Island, known as the "North Shore" between the harbours of St. Ann's and South Ingonish, and distant from the former 18 and from the latter 12 miles.

A former landing place for boats, near the mouth of Wreck Cove Brook, was rendered unsafe by a divergence of the stream and the opening of a second outlet.

During the year 1890-91, the amount appropriated, together with \$200 paid by the locality, was expended in the construction of a dam of brush and stone 675 feet in length, 16 feet in average width and 6 feet in average height, designed to confine

the stream to its former channel and thus restore the landing place to its original condition.

The work, however, not being left in a finished state, during 1892-93, the sum of \$100 was expended in completing it.

PROVINCE OF NEW BRUNSWICK.

CAMPBELLTON.

Is situated on the southern side of the Restigouche River about 15 miles west of Dalhousie, the shire-town of Restigouche County, where the river enters the Baie des Chaleurs. It is an important station on the line of the Intercolonial Railway as well as a thriving and growing town, from which an extensive business in the shipment of lumber is carried on. Practically it is at the head of navigation, although the tide flows up the river some 9 miles further, but shoals and the crooked nature of the channel prevent the passage of vessels of any size. Except on the "Traverse" about 4 miles below Campbellton, where the depth is only $12\frac{1}{2}$ feet, a depth of 18 feet of water at low water springs can be carried up to the town, which, with the rise of $10\frac{1}{2}$ feet at "springs" and 7 feet at "neaps," affords a good depth of water for the class of vessels engaged in trading to and from the port, which are generally barques of from 400 to 1,100 tons. The greater number of these arrive in ballast, the disposal of which was found to be a matter of serious inconvenience owing to there being no convenient place of deposit. To remedy this, a contract was entered into 23rd April, 1889, for the construction of a "ballast wharf," the structure being an isolated block 140 feet in length by 35 feet in width on top and having a minimum depth of 18 feet at low water spring tides, and this work was completed 30th August, 1890.

To connect the block with the lower or eastern end of "Ferguson's Wharf" (so called) from which it is distant 110 feet, and thus effect a junction with the shore and the Intercolonial Railway, a branch line extending to "Ferguson's Wharf," a contract was entered into 22nd June, 1892, for an extension of the ballast wharf to connect it with the lower end of the wharf in question, and the work was, at the close of the fiscal year, nearly completed, only requiring the top tier of timber, floor stringers and covering to be put in.

CAPE TORMENTINE.

Cape Tormentine is on the New Brunswick coast of Northumberland Strait, and is the nearest point to Prince Edward Island, from which it is distant 9 miles.

At the point of the cape an artificial harbour is in course of construction. The work consists of a straight pier 2,500 feet in length, with a head and return, each 400 feet in length, inclosing a basin a little over 4 acres in extent, having an extreme 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 composed of a stone embankment 20 feet wide on top with slopes of 2 to 1; the remaining 1,200 feet is close faced crib-work 30 feet wide. The head and return are of similar crib-work, but the width from the bottom up to low water is 40 feet, decreasing to 30 feet at the finished level of the work and presenting a sloping face sheathed with hardwood to the south and east.

To complete the contract for this artificial harbour, there remained to be built on the 1st July, 1892, 150 feet of superstructure. This work was finished by the 10th of December of the same year. Late in May, 1893, preparations were begun to perform some additional work by day's labour, but up to the 30th of June, little work beyond procuring materials had been done. It is proposed to raise the stone embankment 2 feet for a distance of 1,100 feet, to make a slip, protected by a break, for the accommodation of the ferry steamer, and to place ladders on the sides of the dock.

Department of Public Works.

The harbour, although only designed for, and affording, 15 feet at low water spring tides (equal to 23 feet at high water) has been used by large barques engaged in carrying New Brunswick deals to England. It appears that deals, when shipped dry and clean, command higher prices in the English market, than when wet and bruised in the course of rafting. The deals shipped at Cape Tormentine are taken from the train directly on board the vessel in clean and bright condition.

No further injury from the worm is apparent above water, but there is no doubt that the destructive teredo is actively engaged in weakening the work, and that before long measures must be adopted to ensure its preservation. The expenditure for the fiscal year has been \$42,600.61.

CLIFTON.

Clifton, Gloucester County, is situated on the south shore of the Baie des Chaleurs, about midway between Bathurst and Caraquet harbours. Extensive stone quarries are worked in the district, the stone being used for building purposes and in the manufacture of all the different grades of scythe- and grind-stones. Two firms, Messrs. Henry Read & Co., and Messrs. Lombard & Co., are largely engaged in this business, and to facilitate shipment, the former firm, many years ago, built a breakwater 480 feet in length, which was transferred to the Crown in 1878, extended 100 feet and a return or L 200 feet long built in a westerly direction, inclosing an area of sufficient size to shelter vessels and fishing crafts.

The outer face of the return having become much injured by the combined action of the "teredo" and ice, many of the face timbers being destroyed, allowing the ballast to escape, and floor stringers and covering broken by the large quantities of ice piled up upon the work by a storm that occurred during the winter of 1890, repairs were commenced in 1891-92. There has, during the past fiscal year, been expended the further sum of \$498.93 in the completion of close sheathing with hardwood timber of the outer face, repair of flooring, reballasting, and placing of rip-rap along the eastern side of the work.

DALHOUSIE HARBOUR

Is situated at the head of the Baie des Chaleurs and a short distance below the mouth of the Restigouche River. Dalhousie, the shire town of Restigouche County, is on the south side of the harbour at its lower or eastern end. A branch line of railway connects the town with the Intercolonial system, the branch extending to a wharf, having at its end a depth of from 12 to 15 feet of water at low water spring tides. The principal export of the place is lumber, and as vessels with few exceptions visiting the port for cargoes arrive in ballast, the disposal of this became to be a matter of difficulty; the usual practice was to discharge the ballast into the deep water on the northern side of the harbour, and this was likely to prove of serious injury. To prevent this, the department in 1886, constructed under contract, a ballast wharf immediately above and adjoining the railway wharf, the work consisting of a length of 300 feet.

This work having become somewhat damaged by the ice since construction, its repair was commenced during the latter part of May, 1892, when the sum of \$500 was expended. Since July 1st, 1892, repairs and strengthening were completed at a further cost of \$249.90, consisting in close piling its upper 50 feet, replacing sheathing of face, and repair of covering, guard timbers, &c.

EDGETT'S LANDING.

Edgett's Landing, Albert County, is on the west side of the Petitecodiac River, 2 miles south of the railway station and village of Hillsborough.

Many years ago, before communication was opened by the Albert Railway, the Local Government constructed a steamboat wharf at this place, which was destroyed in the fall of 1869 by the "Saxly Gale."

In 1889, the construction of a new wharf was begun by the department; the work has been going on at intervals since that date, and was finally completed during the first part of the fiscal year. The amount expended during the year was \$1,200, part of which was utilized in constructing two "gridirons," the balance in grading up the approach and putting the whole work in complete order.

The wharf is 400 feet long, the first 200 feet being 20 wide on top, the next 100 feet 30 feet wide, and the remainder or outer 100 feet 40 feet wide.

GRAND ANSE.

Grand Anse, Gloucester County, is situated on the southern shore of the Baie des Chaleurs, about midway between Bathurst and Shippegan harbours. It is a thriving settlement, having a railway and telegraph station on the line of the "Caraquet Railway." The cove from which it takes its name is near excellent fishing grounds and fishing as an industry is largely followed by the inhabitants of the district, some 90 fishing boats being engaged.

To afford protection to these, the department, in 1875, began the construction of an isolated breakwater, placed at about 600 feet from the shore, sheltering an area carrying a depth of from 5 to 7 feet at low water; this work, which was seriously damaged by the action of the ice during the winter of 1886, was reconstructed and added to during 1887-88-89, and consists of the main structure, 230 feet long and 30 feet wide and an L or return on the western end 150 feet long by 20 feet in width, forming a safe and convenient refuge.

The sheltered area, however, is in part obstructed by ballast and remains of old work that was carried into it by the ice during the storm of 1886, and the removal of a portion of this debris has been effected during the past fiscal year at a cost of \$182.17, advantage being taken of low spring tides.

LOWER NEGUAC.

Neguac, Northumberland County, is situated near the northern entrance to Miramichi Bay, about 35 miles east from Newcastle, and some 20 miles south from Tracadie. Having good and safe shelter for boats and small vessels and being in the centre of one of the best fishing grounds in the Gulf of St. Lawrence, and the district possessing excellent soil, an extensive business is carried on from the place, principally by water. A steamer of the "Miramichi Steam Navigation Company," during the season of navigation makes daily trips between Neguac, Chatham, Newcastle and other points on the bay and river.

The shipping facilities at Neguac consisted of an isolated crib-work block, built some six years ago by the Steam Navigation Co., assisted by the local government, to and from which access is gained by a plank walk supported on trestles necessitating the carrying of all freight by hand or boating it to the steamer or other vessel calling for cargo. To better accommodate the large business, a contract was entered into on April 14th, 1892, for the construction of a public wharf, consisting of a shore abutment 370 feet long, nineteen "blocks" 20 feet each, and an outer block or landing pier 40 x 62 feet making in all a length of 1,190 feet. Work was commenced July, 1892, and carried on from time to time up to 11th November, when it was discontinued until spring. At the close of the fiscal year all of the blocks excepting the outer one were in place and the shore abutment was built to proper height, the floor stringers and flooring only being required to complete it.

MISPEC.

The Mispec Stream (formerly Ball's Creek) empties into the Bay of Fundy, about 8 miles to the eastward of St. John Harbour.

A breakwater was built at this place in 1883-84, for the protection of fishing boats and to form a small high water harbour. The work is 200 feet long and 20 feet wide on top, with a sloping face on the seaward side of 1 to 1.

Department of Public Works.

During the past winter the sum of \$284.57 was expended in effecting the following repairs. Sheathing and inserting new face timbers in the seaward face over a length of 50 feet at its outer end, securing loose sheathing inward of the outer 50 feet, placing two new face timbers and cap on the upper portion of the inner face over a length of 60 feet, placing and securing in position other face timbers which were found out of place and in putting on 12 new fenders on the bottom portion of the seaward face.

POINTE DU CHÊNE.

Pointe du Chêne (Shediac Harbour), Westmoreland County, the eastern terminus of the Intercolonial Railway, and principal point of connection with ports on the Gulf of St. Lawrence and Prince Edward Island, is situated on the western side of Northumberland Strait, about midway between the entrance to Richibucto Harbour on the north and Baie Verte on the south.

For the protection of the railway wharf, which had on several occasions received much damage during easterly gales, the department, in 1875, constructed a detached breakwater, 600 feet in length, sheltering its outer end, which in 1879-80, was connected with the railway wharf by the construction of work, 200 feet in length, forming a place for the deposit of ballast, to enlarge which and protect the inner portion of the railway wharf, an extension inwards 600 feet of the breakwater was constructed in 1881-82.

The outer 600 feet of the breakwater built in 1875, having become much weakened by the action of the sea worms, was destroyed by a storm that occurred in the fall of 1891, and a contract for its reconstruction was entered into 17th June, 1893. Work, however, was not commenced at the close of the fiscal year.

RAM PASTURE NECK.

This place, in Westmoreland County, is situated near the western boundary of the "Great Tantramar Marsh" and village of Sackville. The Tantramar River at this point is very crooked and two of its bends approach within 100 feet of each other, the dividing strip of marsh being known as the "Ram Pasture Neck." As the water at high spring tides was found to pass over this, it appeared probable that in time the river would form a new channel and so be diverted from its course past the wharfs at Sackville, rendering them and the branch line of railway connecting with the Intercolonial useless.

To prevent this, the department, in 1875, at an expenditure of \$900, constructed a brush breakwater or breastwork 600 feet in length to fill in and protect the lower and most exposed portion of the "Neck." This work was raised and repaired in 1880, lengthened 265 feet, and its western end connected by a dyke 600 feet in length, with the end of the dyke surrounding the portion of marsh lying to the westward and known as the "Ram Pasture Marsh."

The action of the river has since entirely carried away 200 feet of the breastwork and seriously injured a further length of 365 feet and destroyed the 600 feet of dyking connecting with the Ram Pasture dyke, allowing the water at high tides to pass over the neck, and the reconstruction and repair of the works having become necessary, these were effected during the past fiscal year and 120 feet in length added. The work built is of a substantial nature, more so than that first constructed, and as its outer side, where exposed, is protected by a plank slope. It will likely prove effective for some years.

The sum expended has been \$2,000.

RIVER SAINT JOHN.

The Saint John is the largest river in the maritime provinces. It takes its rise in the state of Maine near the source of the Penobscot and Connecticut Rivers, and falls into the Bay of Fundy at the harbour and city of St. John, after traversing a distance of about 500 miles.

The river may be divided into four sections, viz.: (1) St. John to Fredericton, (2) Fredericton to Woodstock, (3) Woodstock to Grand Falls, and (4) Grand Falls to the boundary line of the state of Maine.

Section one (1) is navigable for the large river steamers and wood boats. There is a rise and fall of tide as far as Fredericton, and the works along this section consist of landing wharfs for steamers, etc., shear dams at Oromocto, dredging on the shoals and the removal of snags, etc.

Section two (2) is navigable for lighter draught steamers (wheelbarrow-boats) and tow-boats drawn by horses. No wharfs have been built by the department on this section, as the vessels being of light draft load and discharge their freight directly on the shore. The bed of the river a short distance above Fredericton is entirely of gravel, with a few rocky ledges showing in places, and the works consist in the removal of gravel bars which form during freshets; blasting and removing ledges and boulders, cutting out trees and bushes which grow on the tow-paths, and keeping in repair the small bridges which carry the tow-paths over the mouth of small streams emptying into the river.

Section three (3) extends to the head of steam navigation on the river; steamers, however, do not ply above Woodstock, nor have they done so since the completion of the railway which follows the bank of the river the whole distance to Grand Falls. Considerable freighting is done, however, by tow-boats, and the works consist of what has already been described for section two (2). The Tobique, an important tributary, falls into this section of the river, its navigation and works being of the same description as on the main river.

Section four (4) is navigable for tow-boats, as are also several important tributaries which empty into it. The railway follows its bank over its entire length and carries most of the freight, but a large amount of lumbering is done on the upper section, and considerable work has been done by the department in keeping the channel free of impediments to enable the tow-boats which supply the settlers and logging camps to go up.

The works carried on during the fiscal year over the different sections are as follows:—

Section No. 1.

Removal of Snags, &c.—During the spring freshet, snags, roots, half sunken logs, etc., are carried down the river and left in the channel. As the water falls they continue to make their appearance all through the summer and are very dangerous to navigation.

During the fiscal year upwards of 66 of these snags, &c., were removed, the expenditure by the department in connection therewith being \$250.

Moss Glen.—Moss Glen, King's County, is situated on the northern side of Kennebecasis Bay, about 10 miles from its entrance, the entrance being 5 miles from the mouth of the river.

During the latter part of the fiscal year, a wharf at this place which was originally 160 feet long and 22 feet wide, was raised from 3 to 6 feet, ballasted, fendered and otherwise repaired, and a block 22 feet long on the face with an average width of about 25 feet was built at its outer end forming an L. The work is of round logs open cribwork, filled with ballast and gravelled on top. The total expenditure was \$402.06, of this the department contributed the sum of \$200 and the Local Government a like amount.

Vanwart's Landing.—Vanwart's Landing, King's County, is situated on the western side of the river, about 30 miles from the mouth, and about 45 miles below Fredericton.

During the year, a wharf 205 feet long, the inner 150 feet being 25 feet wide on top and the outer 50 feet, 62½ feet wide, was built, the ends and sides being of square timber, close faced, the interior of round logs, and the whole filled with ballast, with earth and gravel on top. The structure was completed in June last, and is one of the best pieces of work on the river, the cost to the department amounting to \$500.

Department of Public Works.

Scovil's Point.—During the fiscal year, a wharf was constructed at Scovil's Point, situated about 44 miles above the mouth of the river and a short distance below Gagelown, the shiretown of Queen's County.

The work was built for the landing of passengers, freight, etc., and was finally completed in the spring. It is constructed principally of round timber, open cribwork and partially filled with ballast. It has a frontage on the river of 142 feet, 71½ feet having a width of 37 feet on top and the balance an average width of about 18 feet. There is a depth of from 6 to 10 feet along the face at low water summer level. The department's contribution towards the construction of this work was \$500.

Oromocto Shear Dam.—The shear dam at Oromocto, which extends from the western shore of the river to the head of Thatch Island, and throws the water which formerly went through this passage into the main channel of the river, was damaged near the shore end by logs and ice during the spring freshet of 1892, and the sum of \$510.73 was expended during the year in making good the damage done and in renewing some of the plank covering of the top and sheathing of the sloping face, which had become much decayed.

Lincoln Wharf.—During 1892, a wharf was built at Lincoln, Sunbury County, situated about 9 miles below Fredericton on the south-western side of the river. It is constructed of round and square timber, built in the shape of an L, and is of the following dimensions: 95 feet long, 19 feet wide on top over the inner 55 feet, and 55½ feet wide over the outer 40 feet. The upper face is built sloping and sheathed, the outer or river face plumb, partly open cribwork and partially close faced and the remaining faces of open cribwork. The work is filled with ballast and the outer portion of the L planked over, the inner portion being finished with earth and gravel on top, the cost to the department being \$500.

Section No. 2.

Bear Island Shoals.—Bear Island Shoals are situated in the main channel of the river on the western side of Bear Island and about 25 miles above Fredericton. They form one of the worst impediments to navigation on this second section of the river and considerable sums have already been expended by both the local authorities and the department in improving the channel over them.

During the fiscal year the sum of \$1,398.69 was expended in removing the gravel over the shallowest part of the shoals, as well as boulders and other impediments in the channel.

Belvisor Bar, Meductic Falls, etc.—During the fiscal year the sum of \$599.72 was expended in improving the tow-paths on the east side of the river opposite the foot of Belvisor Bar, blowing out some rocks in the channel, making the tow-paths passable at Meductic Falls, also at Howe's Point two miles below, and in removing a point of rocks at Akerby's Ferry.

Section No. 3.

Tobique River.—The work of improving the channel of the Tobique River was continued during the fiscal year and the sum of \$374.28, expended in removing gravel bars with horse-scrapers, improving the paths, building small bridges, etc. The work was scattered over a considerable stretch of the river, the largest portion of the expenditure being made on the upper part of the river below the "Forks" and on the "left branch."

Little River and White Rapids.—These are two bad places in the main river, between the mouth of the Tobique and Grand Falls. The sum of \$200 was authorized to be expended, and of this sum \$175 was utilized in making improvements at both places.

Section No. 4.

Grand Falls Shear Dam.—This shear dam is situated immediately above the falls on the eastern side of the river and at the mouth of Little River.

It was constructed in the year 1883-84, for the purpose of preventing logs and timber during times of freshets from being stranded on the rocks, and to direct them in their passage over the falls.

During the latter part of the winter and first part of spring, the sum of \$618.10 was expended in building a block at its outer end 21 feet 2 inches long, 21 feet wide and 14 feet high, or to within 6 feet of the top of the old work, thus leaving it in an unfinished state. Instructions, however, have been given for the completion of the block, and the sum of \$350 authorized out of the appropriation 1893-94, for that purpose.

Green River.—Green River empties into the St. John about 25 miles above Grand Falls. The lower portion is quite thickly settled, and a considerable amount of lumber is cut out on the upper branches.

During the fiscal year the sum of \$200 was expended in improving the tow-paths and channel, the work being of the same nature as that already described for the Tobique, etc.

River St. Francis.—The St. Francis empties into the St. John at the extreme north-western corner of the province, and forms part of the international boundary line between New Brunswick and the state of Maine.

During the fiscal year the sum of \$937.50 was expended by the department in improving the tow-paths from the mouth of the river to Glasier Lake, a distance of about 6 miles. The work consisted in cutting out trees and branches, and is similar to that already described for other works of a like nature along the river.

SHIPPEGAN.

Shippegan Harbour, Gloucester County, is situated near the entrance of Baie des Chaleurs, about 60 miles east of Bathurst.

At the southern end of Shippegan Harbour connection is made with the Gulf of St. Lawrence by "Shippegan Gully," a shoal and difficult channel, formerly used during fine weather by the smaller fishing boats and vessels of very light draught.

By the use of the "Gully" a saving in distance is made of from 25 to 40 miles for the fishermen going or returning to their homes from the fishing grounds situated off this part of the shore, while the harbour is also a most desirable shelter during storms, being perfectly protected from all winds, and largely used by all of the fishing vessels of the extensive fishing establishments of Caraquet, and other parts of the south shore of the bay.

To make the "Gully" available for vessels of a larger class, and permit of it being entered at all times of tide, or during stormy weather, the department in 1875, commenced the construction of a breakwater to protect the entrance, and a "dam" to close an opening known as the "east gully." Difficulty was had with the contractors, who suspended operations at the close of the summer of 1876, and the work was re-let in December, 1877, operations being resumed April, 1878, but the second contractors about the end of February stated their inability to proceed further with the work, and it was taken over by the department. At this time the "dam" was completed, about 900 feet of breakwater was raised to its proper height, and a further length of 500 feet partly built.

In October, 1879, a storm, during which the tide rose much higher than before known, seriously injured the "dam," while the unfinished outer 500 feet of the breakwater was completely destroyed, and the inner portion much damaged. In 1880-81, the dam was repaired, raised and strengthened by piles driven 10 feet apart, connected by caps and walings. During 1883, portions of it that had again settled were raised where deemed unsafe, and an extension of 120 feet added to the remains of the breakwater, a gap that had been made being closed, and the other portions of the structure raised.

Department of Public Works.

General repairs were again made in 1884-85, when 50 feet of the outer end was close piled, the "dam" being raised where settlement had taken place. Further close piling and some general repairs of the work were also made in 1886-87, and during 1888-89, a length of 60 feet which had been seriously damaged the previous winter, was reconstructed.

In November, 1889, a contract was entered into for the construction of an additional block of 50 feet, at the end of the eastern or existing breakwater, and the construction of a breakwater to extend 1,000 feet, in a southerly direction, from the beach west of the "gully," the whole being completed in January, 1892.

A length of 137 feet of the inner end of the work built in 1875 was reconstructed in 1892, under the direct charge of an officer of the department and other necessary works of repairs and improvements were effected.

During the past fiscal year the sum of \$500 was expended in pile-fendering the outer 100 feet of the eastern side of the west breakwater and reballasting where settlement had taken place.

The most favourable results have been derived from the works constructed, the direction of the channel and the greater depth of water having been of great benefit to the fishing fleet and other vessels.

TRACADIE.

Tracadie Harbour, Gloucester County, is situated on the east coast of New Brunswick, about midway between Shippegan Gully and the entrance into Miramichi Bay, and is entered from the Gulf of St. Lawrence by what is known as the "north," "south" and "old" gullies. The harbour is some 6 miles in length, by $\frac{1}{2}$ to 1 mile or more in width, but, excepting in the river channels (North and South Tracadie Rivers) and in the channels entering from the different gullies, is quite shoal, being almost dry at low water spring tides.

To provide wharfrage facilities for the district, which is a large and populous one, containing fully 2,000 inhabitants, a contract was entered into August 4th, 1892, for the construction of a public landing pier, 1,430 feet long, extending to the edge of the channel of the "North Gully," the work consisting of a shore approach 250 feet long, 28 "blocks" 20 x 25 feet, one "block" 40 x 25 feet, and 29 spans or openings of 20 feet each, the latter spanned by 7 floor stringers 10 x 12 inches, the whole of the work being covered with 3-inch planking. The blocks and shore approach are to be constructed of round logs, open cribwork, and fully filled with ballast, fendered, etc.

Timber, ballast and other materials were got out during the past winter, and at the close of the fiscal year preparations were nearly completed for commencing the work of construction.

PROVINCE OF PRINCE EDWARD ISLAND.

ANNANDALE.

This pier is situated in King's County, on the north side of Grand River, near its entrance into Boughton Bay. It is distant by road 14 miles from Souris the eastern terminus of the Prince Edward Island Railway, and is the principal shipping place for a large agricultural district; large quantities of produce are annually exported, while general merchandise and coal are imported; some fishing is also done from the locality.

The pier, originally constructed by the Local Government, is one of those taken over by the department in 1883, and consists of an approach 300 feet in length and 23 feet wide, with a pier-head 140 feet long, averaging 36 feet in width. The approach, excepting a short open span of 18 feet in width, which is planked over, is constructed of close face squared timber work, filled in with brush, stone and clay,

the latter forming the roadway. The pier-head is formed partly of crib-work blocks, and partly of piling, the whole being floor stringered and planked over. On the channel face of the pier-head, there is a depth at low water springs of 7 feet of water or at high tide of 12 feet.

The work which is very old has also been greatly damaged by the sea worms on the portion supported by piling, and those parts which had become quite unsafe and unfit for traffic have, during the past fiscal year, been repaired and the pier placed generally in serviceable condition, some 70 worm eaten piles being replaced, 20 new floor stringers put in, and, where most necessary, the plank covering, guard timbers, etc; renewed at a cost of \$299.98.

BAY FORTUNE.

Bay Fortune, King's County, is on the south side of Rollo Bay, on the east coast of Prince Edward Island, about 5 miles south-west from Souris, the eastern terminus of the Prince Edward Island Railway. The breakwater is at the entrance of the Fortune River; sand beaches extend out on both sides from the mainland to the edge of the channel, the one on the south side being only about 300 feet long, while that on the north side has fully a length of a quarter of a mile. The village of Bay Fortune is situated about two miles from the mouth of the river and at the head of its navigation.

The inhabitants, to improve the depth of water outward from the mouth of the river, and to prevent the sand, of which the extensive flat to the eastward is composed being carried into the channel, many years ago commenced the construction of a breakwater on the beach, at the eastern side of the channel, starting it at a point 50 feet from the eastern side of the crib-work approach to the north pier, and, extending outward in a south-easterly direction, a distance of about 400 feet, its object being to give direction to the current at ebb-tide, and when extended, to maintain, by scouring, a channel through the "bar" of 8 to 10 feet of water, the depth at low water on the bar being generally only 4 feet, thus preventing vessels of any size from entering.

Under date 2nd August, 1892, a contract was entered into with Messrs. Townshend & McKinnon, for the construction of an addition of 400 feet in length to the breakwater, and for rebuilding the outer portion of the old work.

Work was commenced about the last of August, and completed on the 20th May, 1893, and it is reported that great benefit has, already, been derived therefrom, 2 feet additional depth of water being obtained.

BAY VIEW.

Bay View Pier, Queen's County, is situated on the eastern side of and near the mouth of the Hope River, which enters New London Harbour about $3\frac{1}{2}$ miles south-east from the harbour entrance. The pier has a length in all of 509 feet, 409 feet from the shore outwards, being 20 feet in width, increasing gradually to a width of 35 feet at the outer end.

During the last fiscal year the repairs to the pier commenced in 1891-92, have been fully completed, at a cost of \$100; the work done consisted in putting on guard timbers and fenders, and in making up the roadway approach with broken stone and gravel, thus placing it in a most satisfactory condition for traffic.

BELFAST PIER.

Belfast Pier, Queen's County, is situated on the south side of Orwell Bay, and about one mile from the village of Eldon.

This pier is 600 feet in length and from 24 to 35 feet in width, with an L at the outer end 105 feet in length, 28 feet wide, giving a channel face of 140 feet. Excepting two small openings, the work is constructed with square timber faces, the inner end for a distance of 390 feet being filled in with brush, stone and clay, while the outer end and the L are floored over.

Department of Public Works.

Since its assumption by the department, the outer end and the **L**, as well as the inner end, for a distance of 150 feet, have been put in thorough repair.

During 1891-92, the sum of \$700 has been expended in making up with brush, stone and clay the roadway of the inner portion of the pier over a length of 350 feet, two tiers of timbers on each side for a length of 74 feet or 148 feet in all also being put in; 81 feet of the planked portion of the pier was raised and new cross-ties and stringers put in; 18 pile fenders driven and secured to face; 2 span beams put in; one of the spans filled in with poles, brush and stone; 47 lineal feet of guard timbers removed and 624 square feet of new planking laid and other repairs effected.

During 1892-93, the sum of \$249.90 has been expended in putting in a new ballast floor and ballast in the outer block, in putting in 8 new pile fenders on the eastern part of the **L**, in renewal of planking and other general repairs.

GEORGETOWN.

Georgetown, the shire town of King's County, P.E.I., is situated on the western side of the Montague River, near its entrance into Cardigan Bay. The harbour is well known as being one of the best and safest on the island, and a public wharf at the place known as the "Queen's Pier" was constructed by the Local Government between 1873 and 1882, and was in 1884 assumed by the department.

This wharf has a length in all of 640 feet with a width of from 30 to 36 feet. The shore end or approach, 340 feet long, is of close faced solid timber work filled with brush and stone, and a roadway formed of clay and gravel, the outer length of the wharf being composed of "blocks" and "spans" floor stringered, and planked over, and there is on the western side of the approach a plank walk.

During the fiscal year the following work was done at an expense of \$399.90. The plank side walk on the western side of the approach was reconstructed, the settlement that had taken place in the roadway made up with broken stone, 8 floor stringers replaced in spans, 20 new fender piles put in, face timbers inserted in blocks where required, 2 new mooring posts put in, covering and guard timbers repaired, and fenders, guard timbers, etc., rebolted where found necessary.

HURD'S POINT.

Hurd's Point Pier, King's County, is situated on the south side of the southern end of Bedeque or Summerside Harbour, and is about 3 miles south of the town of Summerside. The pier is 511 feet in length, and is composed of a close faced solid timber approach, 227 feet long, 26 feet wide, of "blocks" and "spans" for a further length of 284 feet, and a pier head, 50 feet wide and 65 feet long fronting on the edge of the channel. The outer portions are floor stringered and planked over, while the inner end or approach has a roadway formed of clay and gravel filling placed on top of the brush and stone with which its interior is filled. It is an important shipping place, being the only outlet by water for a large and rich agricultural district.

During the past fiscal year the sum of \$572.29 has been expended in renewal of floor stringers and in planking of outer portion of pier, putting on new top face timbers, guard timbers and fenders on sides of approach, making up roadway of approach with broken stone and gravel, and putting in a new landing slip at the outer end of the pier to better facilitate its use during low tide.

KIER'S SHORE.

Kier's Shore Pier, is situated at Malpeque, Prince County, on the east side of Richmond Bay, about 7 miles from Kensington, a station on the P. E. I. Railway. It was constructed by the inhabitants of the district, assisted by the Local Government, and is 1,016 feet in length and from 20 to 24 feet wide; built with squared timber filled in with brush and stone, and excepting a short span 17 feet long and the outer end for a distance of 25 feet which is planked over, the roadway is formed of clay and gravel.

Much of this having been washed out during a high tide, the amount of \$250 authorized for expenditure has been used in making up the roadway with broken stone, which it is hoped will prove more permanent than the previous filling. Four new piles were also put in at the outer end, three others secured, and general repairs made to the planking, thus placing the pier in good condition.

LEWIS POINT PIER.

This pier is situated in King's County, on the northern side of the Cardigan River a short distance below Cardigan Bridge, the head of navigation for vessels, and about 8 miles from its entrance into Cardigan Bay. Cardigan station on the P. E. I. Railway is about half a mile from the pier. Large quantities of potatoes and oats are exported from the place at which there are several private wharfs, which being close to the bridge are not available as late in the season as the "Lewis Point Pier." It is 575 feet long and is composed of a shore abutment of 365 feet, two blocks each 35 feet and an outer block 79 feet in length, with intervening spans each about 20 feet wide out to the outer block which is 33 feet wide. The outer end stands in 7 feet of water at low water spring tides which rise 5 feet, the beach drying at low water to within 140 feet of its end.

During the past fiscal year the sum of \$248.85 was expended in renewing the top face timbers and capping of approach, putting in 69 new hardwood fender piles, replacing all broken or decayed planking and making up the roadway of the approach with broken stone.

MALPEQUE.

Malpeque Breakwater, Prince County, lies within the eastern or principal entrance of Richmond Bay, on the north shore of the Island, about 90 miles from East Point, and 40 miles from North Cape.

During 1877-78-79, a breakwater 600 feet in length was constructed by the department, on the western end of "Royalty Sands," on the eastern side of the harbour, to shelter the anchorage from north-east winds and afford a shipping place for the produce of the surrounding country.

Since the construction of the breakwater, the sands inside began to waste away by the action of the sea during easterly storms, and to prevent this action, a breastwork was constructed from the inner end of the breakwater to Royalty Point, a distance of 2,370 feet.

The sum of \$350 was expended during 1891-92, in reconstructing the top portion of the outer 400 feet of breakwater, which was carried away in the fall of 1890.

During the past fiscal year the sum of \$200 has been expended in repairing and strengthening the outer 500 feet of the breastwork through which, it was feared, a breach might be made.

MIMINIGASH.

Big Miminigash, Prince County, is situated on the north-west coast of the Island, about 15 miles from North Cape, and 18 miles from West Point.

Before its improvements, Big Miminigash was one of the numerous ponds along this coast which empty into the Northumberland Strait through sand beaches. Being sheltered to a great extent by Miminigash Reef, a ledge of rock nearly a mile long, which lies parallel to the shore, at a distance of about half a mile.

The outlet of the pond, called the "run," being through sandy soil, often changed its course. To make it permanent and to improve the depth of water in it, it was confined to a width of 56 feet, by works on either side, the department having expended about \$9,000 since 1878.

The works consist, on the north side, of a solid timber pier, 417 feet in length, and 150 feet of close piling, and on the south side, of a pier constructed of piles, brush and stone, 150 feet long.

Department of Public Works.

To further improve this harbour, a contract was entered into with Mr. James Barclay on the 18th July, 1892, for the extension and strengthening of the southern pier, the work included in the contract being :

1. The extension of the pier for a distance of 200 feet.
2. The filling in of the present work with stone and brush to a height of 2 feet above assumed high water spring tides, and in piling the inner end.
3. The construction of a dam of round timber crib-work, 120 feet in length and 6 feet in width at the inner end of the present pier.
4. The construction of a brush and stone pier, 50 feet in length and 6 feet wide on top, on the beach in rear of the present pier.

Work was commenced by the contractor on the 3rd January, 1893, and was nearly completed at the close of the fiscal year.

NEW LONDON.

The harbour of New London is situated on the northern coast of Prince Edward Island, about 10 miles south-east from the entrance into Richmond Bay. Within its entrance, which is about 1,200 feet wide, the bay is 3 miles wide, and receives the waters of the South-west, the French, the Stanley and the Hope Rivers.

The works constructed by the department for the improvement of the entrance into the harbour consist of a breakwater 1,050 feet in length, on the sand beach at the eastern side of the entrance, built partly of piling, brush and stone, and partly of cribwork, a break-water 460 feet in length on the beach at the western side of the entrance, the inner end for a distance of 400 feet consisting of pile, brush and stone-work, and the outer end, 60 feet in length, being a squared timber block.

During the year 1891-92, the amount authorized was expended in the construction of a crib-work block 102 feet in length, between the two outer blocks of the eastern breakwater, and in extending this breakwater at the inner end a distance of 82 feet by the construction of a breastwork composed of piling, brush and stone.

In 1892-93 the sum of \$543.25 was utilized in closing two breaches, through the eastern work, and in effecting other necessary repairs and improvements.

NINE MILE CREEK PIER

Is situated in Queen's County, about 5 miles west from the entrance into Charlottetown harbour, on the shallow inlet entering into the passage between St. Peter's Island and the mainland. The pier, constructed many years ago by the Local Government to provide a shipping place for the district, has a total length on the centre line of 290 feet, with an average width of 20 feet, composed of a shore approach or abutment and several "blocks and spans." The outer end, which originally extended to the line of low water mark, has had a channel carrying 7 feet of water at low spring tides dredged to it by the department at a cost of \$6,286.46, thus admitting of the approach of good sized schooners at high water spring tides, which rise $8\frac{1}{2}$ feet. The pier, however, being in bad condition, generally, and requiring repair over its entire length, as well as being too narrow at its end for the accommodation of vessels, turning of teams, space required for shipments, etc, a contract was entered into on the 27th August last, for the construction of a new block 35 feet in length and 20 feet wide at the outer end, and the same was satisfactorily completed in February, 1893.

Repairs to the pier is now in progress with the appropriation made at the last session of Parliament (\$800) which should be ample to place the whole structure in a most satisfactory condition.

PINNETTE PIER.

Pinnette Pier, Queen's County, is situated on the south side of the channel of the Pinnette River, immediately below and at right angles to the Pinnette bridge, with which it is connected by a span 28 feet in length. The pier is 120 feet long

by 28 feet wide, having along its face a depth of 8 feet at low water springs. It is constructed of squared timber, close faced, floor stringered and planked over.

During the past fiscal year the sum of \$250 has been expended in levelling up the outer end and channel face where settlements of from 1 foot to 2 feet had taken place, and in renewing floor stringers and planking.

PORT SELKIRK PIER.

Port Selkirk, Queen's County, is situated on the south side of the mouth of the Orwell River, at its entrance into Orwell Bay. It is distant from Vernon River Bridge 5 miles, and from Charlottetown by water about 18 miles.

The pier, which was constructed by the Local Government, is in the form of a **T**, its length of approach from the shore to the channel face being 252 feet, and length of pier-head 250 feet. The width of the approach is 23 feet and that of the pier-head 35 feet.

The pier-head which extends along the edge of the channel is composed of 5 "blocks" with intervening spans, and being much decayed, contracts for its reconstruction and repair were entered into as follows:—25th February, 1891, for the construction of a "block" and span at the upper end of pier (completed 31st August, 1892); 9th May, 1891, for the construction of 80 feet of pier (completed 30th November, 1892); and on 25th March, 1893, for the reconstruction of the two central blocks and connecting spans which were satisfactorily completed by the close of the fiscal year.

POWNAI PIER

Is situated in Queen's County, at the head of the north-eastern portion of Hillsboro' Bay, about 9 miles east from Charlottetown, the nearest railway station to the pier, which is 753 feet long, extending to low water, and was constructed by the Local Government between 1872 and 1882. It consists of a shore abutment 209 feet long by 16 feet wide and 14 "blocks" with intervening "spans," the inner blocks and spans being 16 to 18 feet wide, and the two outer 40 feet; all the work previous to 1880-81, was dry at low water, but during that year, to admit of boats and small vessels using it at all times of tide, and to allow a large class of vessels to call at it for cargoes, the department dredged a channel 1,275 feet in length, 56 feet in width, and a basin on its eastern side 250 feet long by 90 feet in width, carrying from 6 to 9 feet of water at low water spring tides, or from 15 to 18 feet at high water springs.

During the past fiscal year the sum of \$249.26 has been expended in recovering the outer block, putting in new fender piles at outer end, renewing of floor stringers, mooring posts and guard-timbers, and in making up the roadway of the approach with broken stone and gravel, thus placing the pier in safe and serviceable condition.

SOURIS HARBOUR.

Souris, King's County, is situated about 16 miles to the westward of East Point, the eastern extremity of the Island. It is a very important shipping point, being the eastern terminus of the P. E. Island Railway, which has a deep water wharf from where shipment can be made later in the fall and earlier in the spring than at any other port on the Island. The anchorage at the place is good and safe, sheltered from all northerly winds. The department, to provide protection from southerly gales, and so afford a safe harbour of refuge at all times, in 1875, '76, '77, constructed a breakwater from the end of that previously built by the Local Government off Knight's Point on the eastern side of the harbour, the work in all being 1,180 feet long.

The work being exposed to the full force of the sea during southerly gales and being much injured by the "teredo" (sea worm) which is very destructive in all the island harbours, has, since construction, required most extensive repairs.

Department of Public Works.

During the past fiscal year the sum of \$1,825.93 has been expended in renewing and securing the close piling on the outer and inner portions, and in strengthening the inner face and body of the middle section, so as to prevent a breach being made through the work, the outer face-timbers of this part of the breakwater below low water being entirely destroyed, and the greater part of its ballasting washed out.

STEPHEN'S PIER.

Stephen's Pier, King's County, is situated on the southern side of the Montague River, six miles above its entrance into Cardigan Bay, and immediately below Lambert's pier and Montague bridge. The pier consists of two wings about 50 feet apart, extending out from the bank of the river to the edge of the channel, where there is a pier-head having a face of 100 feet. The wings are respectively 90 and 115 feet long, built of squared timber, close faced, the space between them being filled with brush, stone and gravel, while the pier-head is formed of pile bents, floor stringered and planked over.

Since 1st July, 1892, the planking and floor stringers of the pier-head have been repaired at a cost of \$200.43.

ST. PETER'S BAY.

This bay, King's County, is situated on the north coast of the island, 35 miles to the westward of East Point, is of considerable extent, running inland some 8 miles, with an average width of three-quarters of a mile, carrying a depth of from 2 to 3 fathoms of water at low tide; its entrance, however, is obstructed by a sand bar having on it only from 6 to 7 feet at low water, thus rendering the harbour available only for vessels of small size, large numbers of which resort to this point during the fishing season.

To improve the entrance and afford better shelter and some shipping facilities for the fishermen, works were begun by the department in 1878, consisting of a breakwater 226 feet long on the western side of the mouth of the harbour, its inner end to be connected with the high land by a breastwork to prevent a channel being formed through the sand flats.

The beach protection inward of the western breakwater constructed of piles, brush and stone having become weakened owing to the natural decay, was destroyed by the severe storm of December 1st, 1890, when nearly all the brush and stone work was carried away, leaving only the piling driven at 10 feet centres standing. A contract for its reconstruction was entered into 23rd May, 1892, and work being commenced 28th June, was satisfactorily finished by 30th September. It consists, as formerly, of a length of 800 feet of breastwork 7 feet 6 inches wide, constructed of round log open crib-work, the interior filled with brush and stone, the face logs of the crib-work being secured to the piles remaining of the original structure.

VERNON RIVER PIER.

Vernon River Pier, Queen's County, is situated at the head of navigation on the Vernon River, and about two miles above its entrance into Orwell Bay. The pier consists of a close faced timber block 120 feet in length, 30 feet wide, lying parallel to the channel, and having on the face a depth of 9 feet at low water or 17 feet at high water springs. The pier, which is on the lower side of, and distant 30 feet from the Vernon River bridge, is connected with the latter by an approach or platform averaging 30 feet wide.

During the past fiscal year the sum of \$249.28 has been expended in effecting general repairs to the pier, by the renewal of several floor stringers and face timbers, replanking portions of top and approach and putting in new guard timbers and some fender piles on the channel face and outer end.

VICTORIA PIER

Is situated at the head of navigation inward from "Crapaud Basin" at the village of Victoria, Queen's County, which is next in importance as a place of shipment to Summerside on the south-western coast of Prince Edward Island. The place is about half way between Charlottetown and Summerside Harbours, and about 11 miles south from "Emerald Junction" on the line of the Prince Edward Island Railway and is the outlet of probably the most fertile and best tilled district on the Island. The department has at different times expended large sums in dredging to improve the approach from the deep-water outside to "Victoria Pier" and on assuming control of the pier in 1884, it was put in a thorough state of repair by the renewal of all the floor stringers; planking, etc.

During the past fiscal year the sum of \$50 has been expended in renewing the fender piles at its outer end, and in making up the roadway approach with broken stones.

PROVINCE OF QUEBEC.

ANSE ST. JEAN.

Anse St. Jean is on the south-west bank of the Saguenay, about 25 miles from its mouth.

The renewal of the flooring of the wharf was completed over a length of 250 feet with red spruce plank, 5 inches in thickness. Twenty-five toises of stone were placed in the wharf and the shed painted. The movable slip was also completely renewed, the amount expended being \$499.23.

BAIE ST. PAUL.

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

During 1891-92, the extension of 75 feet to the wharf at this place was completed, and there is now a depth of 9 feet at low water spring tides at its outer end. The wharf is now 861 feet long with a width of 30 feet.

The last spring thaw and rains caused an extensive land slide which completely obstructed the road leading to the wharf on a length of 200 feet, so much so, that it was thought advisable to build another approach some distance out from the old one in order that should another landslide occur, which is very probable, the new approach will not be interfered with. The new work is built of timber, stone and gravel, it is 15 feet wide, 260 feet in length, butting with the inner end of the wharf, with an average height of 9 feet. Some of the planks in the top covering were renewed. The amount expended was \$898.47.

Spring tides rise 24 feet, neap tides 13.

CACOUNA.

Cacouna is on the south shore of the St. Lawrence, 131 miles below Quebec and on the line of the Intercolonial Railway.

Work in connection with the construction of an isolated block at this place was continued during 1892-93. When completed, this block will be 102 feet in length on top, 27 feet in width on bottom, and 24 feet on top, with a height at the outer end of 37 feet 8 inches.

The expenditure amounted to \$1,598.44 in building it up to a height of 13 feet 8 inches at the outer end and 12 feet at the inner, the work, however, is not completed.

Department of Public Works.

CAP À L'AIGLE.

Cap à l'Aigle is situated on the north shore of the St. Lawrence, in the County of Charlevoix, and is distant from Murray Bay 3 miles.

During the year the sum of \$149.94 was expended in repairing and replacing the building on the wharf which is used as a waiting room and freight shed, and in placing some elm sheathing at the head of the wharf and in renewal of planking.

CHICOUTIMI.

Chicoutimi, in the County of Chicoutimi, is at the head of navigation on the River Saguenay and 71½ miles above Tadousac.

The flooring of the wharf has been completely renewed on a length of 210 feet and a width of 110 feet, with red spruce plank 5 inches in thickness; the east side of the wharf, where the sheds are built, was raised 18 inches; the waiting room was painted both inside and outside, and seats constructed, and other renewals effected.

The depth of water at the end of the wharf is 7 feet at the lowest stage, 15 feet at ordinary and 17 at the highest.

The amount expended during 1892-93, was \$1,000.01.

ÉTANG DU NORD.

Etang du Nord is at the western end of Grindstone Island, one of the Magdalen Islands in the Gulf of St. Lawrence.

The breakwater, at this place, is exposed to heavy seas and is frequently damaged.

During the fiscal year 1892-93, the sum of \$1,495.40 was expended on repairs, in sheathing with hard wood the more exposed portion of the crib-work, and in putting in some stone ballast.

ILE AUX COUDRES.

Ile aux Coudres is an island which lies 1½ miles from the north shore of the St. Lawrence about 62 miles east of Quebec. It is about 9 miles in length by 3 in breadth, the upper end being nearly opposite Baie St. Paul.

General repairs were made to the flooring of the wharf which had become unfit for traffic. Face timbers and mooring posts were renewed, and 13 toises of stone placed in the wharf where required, the work costing \$252.46.

ILE VERTE.

Ile Verte, Temiscouata County, is on the south shore of the St. Lawrence, 17 miles below River du Loup.

The work executed on the wharf at this place during the fiscal year 1892-93, consisted in building up 120 feet in length of open crib-work by an average width of 23 feet to a height of 12 feet and filling it with stone ballast. Stone ballast was also put in the substructure built the previous year.

The outer block built some years ago was straightened, the expenditure during the year amounting to \$998.11.

KNOWLTON'S LANDING.

Knowlton's Landing, now called Tuck's Landing, is situated on the west shore of Lake Memphremagog, in the County of Brome, about 11 miles from the town of Magog, which is at the foot of the lake.

During the year six fender piles were driven along the front of the wharf and three at each corner. A warehouse, with waiting-room, 40 feet by 23 feet was built and covered with an iron plate roof at an expenditure of \$918.09, and the wharf is now in good condition.

LAKE MEGANTIC.

Lake Megantic is a fine sheet of water, 14 miles in length with a width varying from 1 to 2 miles. It is the source of the Chaudière River which flows into the St. Lawrence about three miles above Point Lévis. It is part of the dividing line between the counties of Beauce and Compton.

During the fiscal year the repairs to the pier at the village of Lake Megantic were continued but not completed. They consisted in making a permanent roadway of stone and gravel, at an expenditure of \$300.

LAPRAIRIE.

Laprairie is the chef-lieu of the county of the same name, and is situated on the south shore of the River St. Lawrence, 7 miles above Montreal. It is one of the stations of the Champlain Division of the Grand Trunk Railway. One of the steamers of the Richelieu and Ontario Navigation Company plies between Laprairie and Montreal, making several trips each day during the season of navigation.

During the year the retaining wall was further extended for a length of 420 feet to a height of 8 feet above low water, at an expenditure of \$2,499.51.

LES EBOULEMENTS.

The village of Les Eboulements is on the north shore of the St. Lawrence, 69 miles below Quebec, in the county of Charlevoix.

During the year, part of the planking of the wharf was renewed as well as the greater number of the mooring posts. The inclined landing, on the west side of wharf was repaired, as well as the landing and movable slip, the amount expended being \$799.83.

L'ISLET.

L'Islet in the county of the same name, is situated on the south shore of the River St. Lawrence, about 65 miles below Quebec.

The pier at this place has a total length of 1,080 feet and a width on top of 30 feet, except the head or T which has a width of 50 feet and is 116 feet in length.

During the year 1892-93, the sum of \$6,190.34 was expended in renewing the roadway over the whole of the wharf, as well as the slip and stairways, including stringers, cap timbers, fenders, etc.

The depth of water at its outer end is 5 feet at low and 14 at high water.

LONGUEUIL.

The town of Longueuil, the chef-lieu of the county of Chambly, is situated on the south side of the River St. Lawrence, nearly opposite the eastern end of the city of Montreal.

Considerable damage was done by the ice to the outer end of the government pier, a block 40 by 50 feet having been carried down stream about 12 feet. This opening was filled with cribwork and the plank covering removed and replaced with stone and gravel.

The amount expended was \$2,496.63.

Last spring, considerable damage was done by the ice shove, the outer end of the pier for a distance of 212 feet was moved bodily about 12 feet down stream.

Orders have been given to apply the appropriation for 1892-93 to the widening of the pier, but the amount is so small that only a portion of it will be thus improved.

MATANE.

Matane, in the county of Rimouski, is situated on the south shore of the St. Lawrence, 240 miles below Quebec.

Department of Public Works.

During the year an extension to the wharf of 185 feet in length by 30 feet in width was partially constructed, which, with the portion of 60 feet built in 1885-86, makes a total length of 245 feet by 30 feet, the average height of the wharf is about 20 feet, and the depth of water at L.W.S.T. is 5 feet.

The work built this year consisted of 4 piers, 30 feet by 20 feet, with spaces between each pier of 25 feet, which spaces were partially sheathed.

Ninety feet of the roadway was built, leaving 95 feet to complete. The amount expended was \$3,504.08. Spring tides rise 11 feet.

MURRAY BAY.

Murray Bay, Charlevoix County, is on the north shore of the St. Lawrence, 83½ miles below Quebec. The wharf at this place is an important one, the steamers of the Richelieu and Ontario Navigation Company calling daily (except Monday) on both trips.

During the year extensive repairs were effected on this wharf, consisting in the renewal of planking, cross ties and of the timbers supporting them—700 feet of cap timber 7 x 9 inches dimension were placed in position. Part of the sheathing was replaced. Fenders of elm and iron were placed at the head of the wharf. The movable slip at the head of the wharf was renewed in white elm. Mooring posts on the west side and at the head of the wharf were renewed, and the steps on the eastern side put in good order. The amount expended on the work mentioned above was \$1,780.98.

NICOLET.

The river Nicolet empties into the St. Lawrence on its southern shore, at the foot of Lake St. Peter.

The jetty built at the outlet of the river was considerably injured by the ice shove which took place on the 10th December, 1891.

The work done since the 1st July, 1892, consisted in repairing the damage done to the jetty, and in building two ice-piers for its protection, as well as strengthening the weak places in the jetty by means of stone rip-rap.

The amount expended was \$1,953.50.

RIMOUSKI.

Rimouski, the chief town of the county of Rimouski, is situated on the southern bank of the St. Lawrence 180 miles below Quebec.

The wharf at this place is 2,130 feet in length with a width varying from 20 to 50 feet, with an L at the outer end 100 feet in length by 30 feet in width, with a return of 125 by 30 feet. The depth at low water springs is 9.4 feet; spring tides rise 14 feet.

During 1892-93, the sum of \$2,963.89 was expended in continuing the sheathing on the west side of the wharf over a length of 451 feet.

RIVIÈRE DU LIÈVRE.

The Rivière du Lièvre flows into the Ottawa River, 18 miles below the city of Ottawa. The lock is 16 miles above the mouth of the river and 12 miles above the village of Buckingham.

During the fiscal year, 460 feet of booms were built which were placed in position in June last, some stone protection work was built and other necessary repairs and improvements were made.

RIVIÈRE DE L'ASSOMPTION.

Rivière de l'Assomption flows into the St. Lawrence at Repentigny.

Chute Monte-à-peine, which is 25 miles above the town of Joliette, and in the county of Joliette, was the most troublesome point on the river. The improvements commenced in 1889 were continued and completed; they consisted in strengthening the protection works and removing points which obstructed the channel at an expenditure of \$399.40.

RIVIÈRE ST. LOUIS FEEDER.

The River St. Louis Feeder connects the waters of Lake St. Francis with those of the River St. Louis, thereby increasing the volume of water in the latter, which supplies water power to the factories of the town of Beauharnois.

A terrific storm on Lake St. Francis caused some damage to the head gate of the feeder, which was repaired at a cost of \$48.35.

RIVER ST. MAURICE.

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 75 miles, there is a good channel for vessels drawing less than two feet of water.

The greatest impediments to navigation are at the rapid Manigance, and the shoals at the Mekinac and Pointe à Tom.

During the month of September, boulders were removed from the channel in the rapid Manigance, but the work had to be discontinued owing to a rise in the water. The amount expended on the work was \$1,279.18.

RIVIÈRE NOIRE.

The Rivière Noire, in the county of Charlevoix, empties into the St. Lawrence on its north shore, 108 miles below Quebec.

During the year 1892-93, the sum of \$199.86 was expended in blasting and removing boulders, which were a source of danger to schooners loading on the west side of the wharf, 622 cubic yards being removed.

RIVER OTTAWA AT MILLE ILES.

The improvements of the channel of the north branch of the River Ottawa between Ste. Rose and St. Eustache were carried on during the fall of 1892. There are four obstructions between these two places viz., Cloutier's Rapids, Pointe aux Lierres, the dam and Filion's Rapids. Cloutier and Filion's Rapids were deepened about 3 feet at an expenditure of \$999.91.

RIVER YAMASKA.

This river flows through the county of Yamaska, and empties into the St. Lawrence on its southern shore, at the head of Lake St. Peter, eight miles below Sorel.

The lock has been in good working order all summer. It was opened at the beginning of April and closed at the end of November, during which period there were 821 lockages; viz., 98 steamboats, 173 schooners and barges, 5 rafts of wood and 545 small craft of various dimensions.

Department of Public Works.

The pier at the head of the lock which was carried away by the ice shove which destroyed the railway bridge, was repaired.

About 80 toises of stone were also put at the foot of the dam.

The total amount of expenditure for staff was \$637.35 and repairs \$1,050.74.

STE. ANNE DES MONTS.

Ste. Anne des Monts, Gaspé County, is on the south shore of the St. Lawrence, 108 miles east of Rimouski.

In November, 1890, a contract was entered into for the construction of an isolated block of crib-work, 100 feet in length by 46 feet in width, measured on top.

On the 30th June, 1892, the work was practically completed, an estimate amounting to \$9,225.20 on a contract of \$9,294.00 having been given in favour of the contractor, and the whole was completed and a final estimate rendered in October, 1892.

ST. JEAN, ILE D'ORLÉANS.

St. Jean is situated on the south shore of the Island of Orleans, 18 miles east of Quebec.

During the month of October last, about 40 planks of the top covering were renewed and holes which had been scoured out in the approach filled with gravel. The amount expended was \$25.

Spring tides rise 22 feet, neap tides 14 feet.

ST. JEAN PORT JOLI.

St. Jean Port Joli is in the county of L'Islet and is on the south bank of the St. Lawrence, 54 miles below Quebec.

The pier at this place is 459 feet in length, and was built at the joint expense of the locality and the government. For a distance of 300 feet from the shore the width varies from $18\frac{1}{2}$ to 20 feet. On the next 65 feet it is increased from 25 to 38 feet, the width from this point to the end being 40 feet.

The depth of the water at the outer end of the pier is 4 feet at low water, spring tides rising 18 feet.

During 1892-93, the sum of \$4,927.61 was expended on the following improvements and repairs: 1st, closing with open faced rough cribwork the opening 45 feet long, which was bridged over. 2nd, in levelling up the existing outer block which had settled over $2\frac{1}{2}$ feet, and 3rd, renewing decayed timbers of the superstructure over the whole length and the flooring.

ST. LAURENT.

St. Laurent is situated on the south shore of the Island of Orleans, 10 miles east of Quebec.

It being found difficult to secure the pontoon under the slip of the wharf, it was decided to raise and lower the slip by means of two winches with chains and tackle, which were purchased and placed in position during the month of September last; 50 planks of the top covering were also renewed. The amount expended was \$250.65.

Spring tides rise 23 feet, neap tides 14 feet 6 inches.

ST. MICHEL DE BELLECHASSE.

St. Michel is situated on the south shore of the St. Lawrence, 16 miles east of Quebec.

During the months of August, September and October, the inner end of the wharf on a length of 120 feet was entirely rebuilt with white pine and the earth approach raised, new fenders placed at the outer end, and some planks of the top covering renewed.

The amount expended was \$1,009.00. Spring tides rise 19 feet, neap tides 13 feet.

TADOUSAC OR ANSE À L'EAU.

Tadousac or Anse à l'Eau is at the mouth of the River Saguenay on its northern bank.

The old wharf was renewed over a breadth of 28 feet, and a depth of 31 feet, and the crib constructed the previous year has been extended to connect with the old wharf. Sheathing of red spruce, 6 inches in thickness, has been placed on a length of 60 feet, and the old inclined landing has been completely renewed, and the wharf is now in good order.

There is a depth at it of 10 feet at low water and 17 at high.

The amount expended on the above work was \$1,798.02.

YAMACHICHE.

The village of Yamachiche is situated in the county of St. Maurice, on the north shore of the River St. Lawrence, sixteen miles above Three Rivers, at the foot of Lake St. Peter.

To provide wharfage facilities, a contract has been entered into for the construction of an isolated pier, measuring 24 feet by 48 feet.

By the close of the fiscal year, material was being delivered and work of construction about to be commenced.

PROVINCE OF ONTARIO.

BURLINGTON CHANNEL.

Burlington Channel (so-called) is the channel through Burlington Beach, connecting the waters of Lake Ontario with Burlington Bay.

Repairs have been made to the piers and ferry approaches, and a new punt was provided for foot passengers.

CLAPPERTON CHANNEL.

Robertson's Rock, Clapperton Channel, is situated in the main passage between Clapperton and Crocker Islands, being about 17 miles north-west from Little Current and about 1 mile from Clapperton light. The obstruction consists of a red granite reef, having an area of about 600 feet. The shoal is very irregular and four points have only from 6½ to 9 feet of water over them, but the whole of this area of 600 feet will have to be blasted and removed.

After the scows and plant had been repaired and put in order, they were removed to Clapperton, and work commenced on the 1st of June, 1892, and continued until 20th July of the same year, during which period 662 yards of solid rock were blasted and removed at a cost of \$5.07 per cubic yard, the total expenditure being \$3,360.25. As this work is in a very exposed place, and on account of the great amount of windy weather during the progress of the work, it was impossible to work more than half time. Altogether it was a very difficult place to work in, for often in less than an hour's time the sea would rise so that it was necessary to make for shelter.

Department of Public Works.

From the last examination, it was found that there still remains about 1,000 yards of rock to be removed to give 18 feet navigation, and it is very difficult to estimate the cost of this per yard, but it is safe to place it at \$5, which will represent a further expenditure of \$5,000.

No work was done during the season of 1893.

GODERICH.

Goderich is situated in the county of Huron, on the east side of Lake Huron, at the mouth of the Maitland River, about 68 miles from Sarnia, 60 miles from London, and 44 miles from Stratford.

An extension of the piers having been decided on and Parliament having appropriated money towards the same, on the 20th April last a contract was entered into with Messrs. Broder & McNaughton, of Ottawa, to extend the north pier 410 feet and the south pier 100 feet in length, and to dredge berths for the same, but up to the end of the fiscal year the contractors had not commenced the delivery of materials.

On the 2nd September, 1892, authority was given to expend the sum of \$700 for repairs to the breakwater and piers by day's labour.

Work was commenced on the 7th September and finished in May last. Other repairs were ordered to be made on the 13th June last, and \$244.62 was expended upon the same, the total amount expended on repairs during the year amounting to \$944.62.

KINCARDINE.

Kincardine is situated at the mouth of the River Penetangore, which flows into Lake Huron on its eastern side, 31 miles north of Goderich.

The northern end of the north pier having been seriously damaged by a steamer, and to prevent further destruction of the crib-work, the sum of \$217.34 was expended during the year in making good the damage done and in securing the work against further injury.

KINGSTON HARBOUR.

Kingston, Frontenac County, is at the foot of Lake Ontario, 172 miles from Montreal.

The removal of Point Frederic Shoal, work on which has been going on for some years, was continued until the 3rd November, 1892, when the plant was laid up.

It was resumed on 1st June, 1893, and was in progress at the end of the fiscal year. The total quantity of rock removed during 1892-93, amounted to 2,579 cubic yards measured on the scows.

LITTLE CURRENT.

Little Current is the passage between Cloche Island and the Great Manitoulin, is on the direct road to Sault Ste. Marie for vessels taking the north channel, and is distant from Collingwood about 140 miles.

On the return of the plant from Clapperton Island, work was resumed at Little Current on the 21st July, and continued to the end of September, when the plant was removed to McInnis Bank, Mudge Bay. During this period 1,531 cubic yards of rock were blasted and removed at a cost of one dollar and eighty-one cents (\$1.81) per yard, the total expenditure being \$2,773.60.

The work consisted in widening and straightening the north-east entrance of the channel and the removal of the projecting points on the edge of the cut the whole way through. The channel is now two hundred feet wide with an average depth of thirteen feet, but with a strong easterly gale, the water falls six inches, but soon rises again.

MEAFORD

Is situated on the Georgian Bay, 18 miles west of Collingwood and 20 miles to the east of Owen Sound. It is an incorporated town in the county of Grey and the terminus of the Northern Division of the Grand Trunk Railway.

At the last session of Parliament the sum of \$3,600 was voted for rebuilding 500 feet in length of pile protection work on the west side of the harbour.

Difficulty was experienced in obtaining the proper materials for the piles at the season of the year (mid-summer); the work was, however, commenced early in September last, and 150 feet in length of work completed, and all the materials required for the full length of 500 feet were delivered and paid for by the end of December last. The expenditure has been \$3,592.59.

A further sum to complete the work has been appropriated for 1893-94 the expenditure of which will place the several structures in thorough repair.

M'INNIS BANK.

McInnis Bank, Mudge Bay, lies directly in the track of steamers taking either the inside or outside channel of Clapperton Island.

This shoal consists of a nest of boulders covering a space of 300 feet long by 100 feet wide. Between these boulders there is sand and a depth of 18 feet of water.

On the 1st of October, 1892, the tug "John Harrison" towed the necessary plant up to Mudge Bay for the purpose of removing these boulders, but the stormy weather much retarded the progress of the work. However, when possible, work was continued until the 7th October, when the scows and plant were towed back to Little Current and laid up in winter quarters. During this time 65 yards of boulders were removed, some of them being very large. The shallowest part on this shoal now is 13 feet, but from the examination made, there yet remains about 500 yards of boulders to completely clear the shoal and leave a depth of 17½ feet of water.

There is no doubt but this obstruction has been a great impediment to navigation, and even its partial removal has given great satisfaction.

PORT ALBERT.

Port Albert is situated at the mouth of Nine Mile Creek, on the east shore of Lake Huron, 11 miles north of Goderich, in the township of Ashfield, county of Huron.

On the 19th November, 1892, authority was given to expend a sum not to exceed \$200 in repairing the north pier. This work was completed in February last at a cost of \$198.91.

On the 10th March last a contract was entered into with Mr. Patrick Navin, to construct an extension of 200 feet in length to each of the piers, and to dredge berths for the crib-work for same, and the work of framing timber for the cribs was commenced in June last.

PORT ELGIN.

Port Elgin is in the county of Bruce, and is situated on the eastern shore of Lake Huron, 4 miles from Southampton and 24 from Kincardine.

The breakwater at this place being in need of repair, work thereon was commenced on the 17th August, 1892, and completed on the 30th September of the same year, at a cost of \$700.

PORT HOPE.

The harbour of Port Hope, Durham County, is on Lake Ontario, 7 miles west of Cobourg, and 107 miles from Kingston.

Department of Public Works.

During the fiscal year ended 30th June, 1892, the cribwork on the west side of the railway wharf, which was old and defective, was broken up, rebuilt and refloored. Some new flooring was laid on the east side of the same wharf, 6 new snubbing posts were put in, and other repairs effected.

PORT ROWAN.

Port Rowan is situated on the north shore of Lake Erie, in Long Point Bay, 21 miles from the town of Simcoe, in the county of Norfolk.

Parliament having appropriated the sum of \$6,000 towards the construction of a landing pier at this place, plans and specifications were prepared and a contract let to Mr. Patrick Navin on the 5th December, 1892, for the same.

Up to the close of the fiscal year the greater portion of the outer end (crib-work) had been constructed.

RAINY RIVER.

The Rainy River which has a length of about 100 miles, connects the waters of Rainy Lake and Lake of the Woods. It is situated in the north-western portion of the province of Ontario, in the district of Algoma. Its navigation is impeded by rapids, the two principal being the Manitou and Long Sault Rapids.

To facilitate the navigation of this river, Parliament appropriated for expenditure during 1892-93, the sum of \$4,500. The work undertaken was the construction of two blocks of crib-work, the first at Manitou Rapids, the dimensions being 30 feet in length, 20 feet in width, and to a height of 3 feet above high water mark; the second at the Long Sault Rapids, the dimensions of this block being 25 feet in length, 20 feet in width, and of the same height above high water as that at the Manitou Rapids.

The object of these blocks is that boats, when ascending the river, can make a line fast to a snubbing post built on the blocks in question, and by using the capstans with which the boats are provided, haul themselves up these rapids.

RIVER BEAUDETTE.

The River Beaudette has its source in the county of Glengarry, and empties into Lake St. Francis at Point à Beaudette.

The work done during the fiscal year for the improvement of this river was the removal of a temporary dam opposite McMillan's farm, and of all windfalls across the river from Monroe's Mills to Glen Nevis, as well as driftwood and weeds.

SOUTHAMPTON.

Southampton is situated on the south shore of Lake Huron, in the electoral district of North Bruce, and is the terminus of the Wellington, Grey and Bruce Division of the Grand Trunk Railway.

On the 19th July last, authority was given to expend the sum of \$3,500 in leveling up the landing pier, the portion built in 1885—250 feet in length. Work was commenced in August. On the 26th of January last, a further sum of \$1,200 was authorized to be expended in repairs to the eastern breakwater, making a total of \$3,700.83.

The whole of the work was completed by the end of the fiscal year, and the amount expended was \$3,699.83.

THORNBURY.

Is situated on the west side of Georgian Bay, at the mouth of the Beaver River, in the county of Grey, east riding, 13 miles west of Collingwood. It is a station on the northern division of the Grand Trunk Railway.

The sum of \$3,000 was voted for the construction of 150 feet in length of pile protection work and in forming a slip in the landing pier for loading vessels from, also some much needed repairs to the pier.

The whole of the above work was completed by the 30th June last, and the amount expended was \$2,998.65.

TORONTO HARBOUR.

Work at Eastern Entrance.

The works at the eastern entrance which were begun in 1889, consist in build-ings 1,650 feet of crib-work, to partially close the Eastern Gap from Fisherman's Island, up to the new eastern channel which is to be opened by the construction of two rows of crib-work, respectively 2,420 feet and 2,280 feet in length, 400 feet distant one from the other, and by dredging between these two rows of crib-work to a depth of 16 feet at low water.

At the end of the fiscal year the whole of the protection work from Fisherman's Island to the east row of crib-work or east pier, was completed and the channel was dredged to a sufficient depth to enable vessels drawing 12 feet of water to use the eastern gap without difficulty.

During this fiscal year, 1892-93, good progress was made; 15 cribs were sunk in position, viz., 10 forming part of the east pier, 4 forming part of the west pier, and one to connect the west pier with the island breakwater, making a total to date of 46 cribs placed.

Seven hundred and fifty-five lineal feet of superstructure was constructed forming a total of 2,655 lineal feet completed; 19,723 cubic yards of stone were deposited in cribs and superstructure, and 2,655 lineal feet of superstructure were planked.

One hundred and thirty-four thousand nine hundred and eighty cubic yards of sand were removed, making a total of 568,168 cubic yards, and giving a channel of 12 feet average depth.

There remains at present date to complete these works, about 10 cribs to sink or 1,000 feet in length, and the completion of the superstructure over a length of work of 2,600 feet.

It is not possible to estimate the quantity of dredging to be done to obtain the full width of the channel to the depth of 16 feet below low water, as a great deal of filling-in will necessarily take place until both piers are completed.

Should the weather prove favourable, it is expected that the whole of the works at the eastern entrance, will be completed by the end of the year 1895.

PROVINCE OF BRITISH COLUMBIA.

COLUMBIA RIVER.

Below Revelstoke. The sum of \$2,461.09 was expended in improving the navigation of the Columbia River below Revelstoke, in removing rocks and shoals from the channel of the narrows between the Upper, and Lower Arrow Lakes. The results have been of great benefit to navigation.

Above Golden. On the 30th June the dredge built at Golden for improving the Columbia River above that point was nearly completed, the expenditure amounting to \$5,400.27.

Since that date it has steamed up the river to Mud Lake where operations with the intention of deepening the channel are in progress.

The hull of this vessel is 95 feet long by 25 feet beam by 3 feet 6 inches depth of hull outside measurements. It is self propelling, having a stern-wheel 9 feet 4 inches diameter, by 14 feet wide, driven by means of sprocket-wheels and chains, which can be disconnected when necessary, by the same engine that works the dredging machinery.

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COWICHAN RIVER.

The Cowichan River empties into Cowichan Bay on the eastern coast of Vancouver Island.

The sum of \$1,755.61 was expended on this river during last fall in endeavouring to keep the channel clear of logs and drift timber, and otherwise protect the adjoining lands between Somenos Village, the Esquimalt and Nanaimo Railway Bridge, and the Quamichan Indian Village some two miles below.

FRASER RIVER.

Mouth of river. The work of improving the channel through the sandheads at the mouth of the river has been continued, 24 mattresses having been placed in position, two on the north jetty and 22 on the south.

During a severe gale, several mattresses both in the north and south dams showing a little above low water level, owing to the unevenness of the bottom were stripped of the cross timbers and somewhat broken up. The damage done, however, was not of great consequence and can be made good at small cost.

The dams or jetties are now approaching the most exposed position where the wind and tide will act with greatest force upon them, therefore it will be necessary to take every precaution to prevent undermining and breaking up of the mattresses which might cause the opening of back channels behind the dams.

The results, since the inauguration of the works carried on across the sandheads have been, so far, eminently satisfactory, and when completed will be, it is thought, sufficiently stable to secure a normal depth at low water of at least 18 feet, if not more.

The expenditure during the year amounted to \$9,975.26.

Garry Bush. To prevent further erosion of the bank of the Fraser River at Garry Point, which has been going on since 1885, the department undertook, during the past fiscal year, the construction of works at an expenditure \$7,941.74.

These consist of brush mattresses 100 feet long by 28 feet wide by 3 feet deep, bound together with No. 6 B. H. G., galvanized iron wire, sunk with stones side by side along the bank of the river, the upper ends resting on the sloping bank a little above low water and the lower end held firmly in place on the bottom with large stones, in depths varying from 40 feet to 50 feet at low water. Between high and low water to protect the banks from wash, mattresses are placed longitudinally, they being first evenly sloped. The length of the bank now protected is about 660 feet, extending from Steve's wharf to a short distance below where Garry Bush once stood.

Snag boat. The snag boat "Samson" has been employed during the past year in connection with the removal of snags to the number of 267 from the navigable channel of the Fraser River, in attendance on the assistant engineer while superintending the works at the mouth of the river, in taking soundings, and in recovering and replacing and otherwise attending to the buoys at the mouth of the river marking the channel over the sandheads.

SKEENA RIVER.

This river is in the northern part of British Columbia.

The work performed on the Skeena River during the last and previous winters has been of much utility, enabling the steamer "Caledonia" owned by the Hudson Bay Co. to make several trips. The expenditure last year amounted to \$2,158.18, the work performed comprising the removal of several large rocks in the Gitchi-lache Cañon, aggregating 1,000 cubic yards.

The importance of safe and reliable navigation of this river to the prosperity of the northern parts of the province is unmistakable. Hitherto all the freight has been forwarded by Indians in canoes at great risk, the goods being frequently damaged and lives lost, consequently the cost per pound was excessive, but now that the

successful navigation of this river by a steamer has become a fact, the cost of living in the interior will be much reduced, and consequently there will be more encouragement to develop the mining resources of the interior.

WILLIAM'S HEAD.

Quarantine Station, British Columbia.

It having been decided to acquire property at William's Head, situated about 8 miles south of the city of Victoria on the coast of Vancouver Island, for the purpose of a quarantine station, orders were issued to take steps to purchase a property containing 60 acres. Mr. Weir, the owner, was offered \$3,000, which he refused to accept, thereupon, in accordance with the Minister's instructions, the matter was placed in the hands of the Minister of Justice and the land expropriated.

Afterwards Mr. Weir was seen with regard to the right of way through his property, viz., sections 56, 37 and 31, a distance of 9,691 feet, for the water pipe line. After some negotiation he agreed to grant a right of way 12 feet wide for the sum of \$250 and executed an indenture to that effect.

An agreement was also come to with Mrs. Conway, owner of the adjoining property, sections 40 and 42, through which the pipe line also passed, for the sum of \$100, but unfortunately, on the day the deed was to be signed, she died. The matter remains unsettled at the present time and it may be necessary to resort to expropriation, the mortgagees being inclined to repudiate the arrangement with the late Mrs. Conway.

Wharf. On the 7th of April last, James Leamy, of the city of Vancouver, entered into a contract for the erection of a deep water pile wharf at William's Head for the sum of \$13,125, the Government supplying the Muntz metal for covering the piles. The date for the completion was fixed for the 26th of June last, but on that date for various reasons the work was only about two-thirds done, the value of the work and material up to that time amounting to \$8,317.58.

The wharf is situated in Parry Bay, which opens towards the north, and Victoria, on the west side of William's Head. The position is well sheltered from the several prevailing winds and sea, and consequently affords safe mooring for ships of the greatest existing draught of water.

The wharf is 480 feet long by 40 feet wide, with an approach to the south of 320 feet, leading to the hospital residence and first class passenger shelter houses, with another to the north leading to the disinfecting apparatus house and to the Chinese and Japanese shelter-houses.

The superstructure of the wharf consisting of caps, stringers and flooring, all of heavy timber, rests on large piles placed at 10 feet centres, driven to bed-rock and covered from 1 foot above high water mark with 14 oz. Muntz metal, as a protection against the teredo. The bearing piles are strongly braced back and front, with brace piles of similar size, also metal covered, bolted to bearing piles and caps. Along the front are clusters of three fender-piles, not metalled, secured to front bearing piles by means of three turns of 1 inch c. s. wire rope. There are mooring bollards at set intervals. Slipways to facilitate landing have been placed in the front of the wharf at a convenient distance apart. To secure undoubtedly the requisite depth of water for ships of greatest draught, the dredge "Mud Lark" was engaged in dredging along the front line of the wharf for 99 days, at a cost of \$2,088.

Water Supply.—Arrangements were made in April last to commence the work of supplying water to the station from a small lake situated in the mountains, about $3\frac{1}{2}$ miles from the station, at an elevation of 226 feet above high water.

Proposals for supplying four inch pipe were asked from various firms in the province, as well as from the Pelton Water Wheel Co. of San Francisco. The offer of the latter being the most favourable both as to quality and price was accepted, and 17,500 feet of lap-welded, asphalted pipe, manufactured at McKeesport, Connecticut, fitted with the patent converse lock-joint was ordered. Pending its arrival,

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work was commenced by day labour in preparing the trench $3\frac{1}{2}$ miles for laying the pipe. This work comprised excavation in rock and earth, wood trestles and bridges, and certain works at the lake embracing a deep cut and drift through the rock to secure an efficient entry head, the construction of two earth dams at the outlet whereby there will be no waste during the dry season, and the lake raised about 5 to 6 feet, clearing and burning around the lake all timber and brush likely to fall in, and lastly, the construction of a good fence called the Russell patent, around the lake to keep off trespassers and to prevent cattle from wallowing in the water.

The line was carefully located with proper grades, so that in the course of laying the pipe, there were no unnecessary abrupt bends either vertical or horizontal. Where bends were necessary, the texture of the material of which the pipes were made was of such good quality, that they were bent cold up to 90 degrees without in any way injuring them. The converse lock-joint is an excellent one, which can, without any difficulty be made perfectly tight. When the pipe was laid with all the necessary entry-valves, stop-valves, blow-off air valves and relief-valves, and the water turned on not a leak appeared along the whole line.

The pipe was not quite ready by the 30th June, but on the 16th of the following month the water was admitted into the tanks of the hospital residence, and into the reserve tank capable of holding 20,000 gallons, situated on the highest point beyond the hospital.

The outlay on the water supply on the 30th June, amounted to \$15,915.72. The total cost, including all extras, will not pass the limit of the original estimate.

VICTORIA.

Work in connection with the removal of Pinnacle and Beaver Rocks, situated in the Inner Harbour, to a depth of 14 feet O. L. W. was continued until the appropriation was exhausted, the expenditure amounting to \$6,004.16.

At the beginning of the season it was necessary to overhaul the plant, which had suffered severely from being run into by steamers.

The year's work amounted to 554 lineal feet of holes drilled, loaded and exploded with 586 lbs., 60 per cent dynamite, and 597 tons rock were dredged and removed. The result has been the lowering of Pinnacle Rock over its entire area to 14 feet below zero on the tide gauge at the custom-house wharf, and the partial lowering of Beaver Rock to the same depth. This latter work will be completed in about 6 weeks.

II.—DREDGING OPERATIONS.

The question of dredging harbours and rivers has been for the last few years one of the important questions which has called forth great exertions from the Department of Public Works, owing to the progressive increase in the tonnage of vessels, and to the necessity of rendering harbours accessible at all stages of the tide.

A great number of navigable rivers have been considerably improved during the past 10 years, principally the St. Lawrence, the Detroit River, the Ottawa River and the St. John River, and it is a gratifying result to be able to point out that at the present date vessels with a draught of $27\frac{1}{2}$ feet can reach the port of Montreal, which is more than 1,000 miles from the seaboard.

The prosperity of the whole Dominion will depend principally upon the facilities afforded the maritime commerce in the shape of good and safe harbours on the oceans and lakes, and deep and easy channels in the navigable rivers, and in my opinion, expenditures, which will afford to vessels the means to penetrate as far inland as possible, and therefore to touch the largest industrial towns and the principal agricultural markets, are expenditures which will bring to the pockets of the whole people of this Dominion more wealth than any other expenditure.

During the fiscal year 1892-93, a great amount of dredging has been done in the Dominion, but the number of dredges at the disposal of the department, especially in the maritimes provinces, was not sufficient to enable the department to do all the work contemplated.

With the plant available, work was done at the following places:—

Nova Scotia.

McNair's Cove,
St. Peter's Canal (entrance of),

Pictou Harbour.

New Brunswick.

Bathurst,
Miramichi River,

Richibucto,
St. John River.

Prince Edward Island.

Cape Traverse,
Montague,
Murray Harbour,

St. Mary's Bay,
Sturgeon.

Quebec.

River St. Lawrence, ship channel
between Montreal and Quebec,
Charlemagne,
Châteauguay,

Dorval,
Longueuil,
River St. Maurice,
St. Placide.

Ontario.

Bath,
Belleville,
Bowmanville,
Cobourg,
Collingwood,
Gananoque,
Goderich,
Hamilton,
Kaministiquia River,
Kincardine,
Kingston,
Kingsville,
Lions Head,
Meaford,
Midland,
Mosquito Bay,

Napanee,
Newcastle,
Northport,
Owen Sound,
Penetanguishene,
Picton,
Port Arthur,
Port Credit,
Port Elgin,
Port Hope,
Port Stanley,
River Detroit,
Saugeen River,
Thornbury,
Whitby,
Wolf Island.

Manitoba.

Red River,

White Mud River.

British Columbia.

Victoria Harbour.

PROVINCE OF NOVA SCOTIA.

DREDGING AT M'NAIR'S COVE.

McNair's Cove, Antigonish County, is on the west side of St. George's Bay, about $1\frac{1}{2}$ miles south of Cape George.

The harbour at McNair's Cove is formed by a breakwater 400 feet in length. It is a local harbour, used principally by fishermen; the anchorage is not good.

The dredge "Geo. McKenzie" reached this place on the 30th July, 1892, and remained until the 28th of October of the same year. During that time she removed

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9,540 cubic yards of stone, boulders, old timber, gravel, etc. Much time was lost owing to stormy weather. The cost of the work was \$5,591.86 or 58.6 cents per cubic yard. The great cost is attributable to the exposed position of the cove and the detention caused by stormy weather.

DREDGING IN PICTOU HARBOUR.

Pictou Harbour is an important harbour on the southern shore of the Gulf of St. Lawrence. It is situated 5 miles to the southward of Caribou Point, and at the bottom of a bay which has a superficies of more than 2 square miles, between Logan Point and Mackenzie Head, and the bottom of the bay.

The town of Pictou is on the north shore of the harbour, 2 miles within the lighthouse, along the shore of a small bay, and the foot of a ridge, which rises to a height of 200 feet above the sea. Opposite the town, the harbour expands into three large arms, at the heads of which are the East, Middle and West Rivers.

The harbour of Pictou is an important one, owing to the valuable coal mines, iron mines, and quarries, and finely settled country, in its neighbourhood; and also owing to the fact that the town of New Glasgow is only $6\frac{1}{2}$ miles up the East River, and that the channel is navigable to that town for vessels drawing eight feet of water.

During the fiscal year 1892-93, 12,600 cubic yards were removed by the dredge "Geo. McKenzie," at a cost of \$7,385.48 or 58.0 cents. The great cost of the work is due to the fact that the dumping ground is at a very great distance from the seat of operations. This work included the dredging of a basin at New Glasgow, 940 feet in length, and from 20 to 80 feet in width, and from 9 feet to 15 feet in depth, to permit the launching of a steel steamer built there for the Department of Railways and Canals.

The work in the East River of Pictou is being proceeded with from year to year whenever a dredge is available for the work without detriment to other places. It is the intention of the department to make it navigable to a depth of 16 feet at low spring tides, but this work can only be done very slowly and gradually, unless a special appropriation is granted and a special plant constructed to do it.

The dredge "Geo. McKenzie," also worked at the head of the Middle River of Pictou, making a cut 400 feet in length by 15 in width, to a depth of 20 feet, in front of the wharf, also making a dock 400 feet in length, 50 to 125 feet in width and 13 feet in depth. The total quantity removed was 3,240 cubic yards of mud at a cost of 58.9 cents. Here again the great cost of the work must be attributed to the distance of the dumping ground.

The dredge "Canada" was employed in improving the harbour of Pictou from the 5th of November, 1892, to the 1st of December, 1892, opposite the Market wharf, removing 2,790 cubic yards at a cost of \$762 or 27.3 cents per cubic yard.

The dredge "St. Lawrence" reached Pictou on the 9th of November, 1892, and while waiting to go on the slip for repairs, was placed at work on the Middle River at Granton, near the wharf, where she made 2 cuts of 70 and 90 feet in length, 30 feet in width and 22 feet in depth, removing 4,820 cubic yards of clay and rock at a cost of \$946.48 or 19.6 cents per cubic yard.

DREDGING AT ST. PETER'S CANAL.

St. Peter's Canal unites St. Peter's Bay on the ocean to the Bras d'Or Lakes, its length being about 2,400 feet. This canal is of very great service to the numerous vessels engaged in the coal and gypsum trades, inasmuch as it gives them a short and safe route to the principal ports of Canada and the United States.

During the year the dredge "St. Lawrence" was sent to deepen the entrance into the canal from the Bras d'Or side, and between the 6th of July, 1892, to the 4th of August, removed 7,844 cubic yards of red clay and boulders, widening the lake end of the canal by 110 feet to a depth of 18 feet at low water, over a length of 630 feet, thereby making the canal at that end perfectly easy of access.

The cost of the work was 19.6 cents per cubic yard.

PROVINCE OF NEW BRUNSWICK.

DREDGING AT BATHURST.

Bathurst harbour at the mouth of the Nipisiguit River is 2 cables wide at the entrance between Alston and Carron points.

Outside the harbour there is a bar with only 7 feet at low water and 14 feet at high water spring tides. The distance from the outside of the bar in 18 feet of water to the entrance of the river is $1\frac{1}{2}$ miles; and for the whole of the distance the narrow channel is between sandy shoals.

In the entrance between the sandy points, there are 18 to 34 feet of water.

Within the entrance there is an extensive and well sheltered basin nearly 3 miles long and 2 miles wide, but nearly dry at low water, excepting the channels of the four rivers, which, after uniting their streams below Bathurst, flow through it to the entrance, forming by their junction what is called the Main Channel.

During the fiscal year 1892-93, the dredge "Canada" remained in Bathurst from the 8th of July to the 5th of November, and worked in the main channel on three bars, one near the entrance called the "Ripple bar," where the channel was deepened to 10 feet over a width of 160 feet and a length of 400 feet. The second one nearly half-way in the main channel, called the "Ballast bar" where the channel was deepened to 10 feet over a width of 160 feet and a length of 450 feet. The third one at the junction of the Tetagouche River, where a cut 130 feet in length by 100 feet, to a depth of 8 feet was made, the total quantity of sand removed being 10,050 cubic yards, at a cost of \$4,110.43 or 27.03 cents per cubic yard.

DREDGING AT THE MOUTH OF THE MIRAMICHI RIVER.

The Miramichi River empties into Miramichi Bay. It is navigable for all vessels which can cross the outer and inner bars, the minimum depth over these bars being 16 feet at low water and 20 feet at high water.

The ship channel from the Gulf of St. Lawrence to the entrance proper of the river is very tortuous, and considerable dredging has been done by the Dominion Government both to straighten and deepen it.

The Miramichi Bay is 13 miles long from Fox and Portage Island to Sheldrake Island (where the river may be said to commence) and 7 to 8 miles wide. The depth of water across the bay is on an average 16 feet.

The distance from Sheldrake Island to the town of Chatham is 7 miles up river, and to Newcastle 12 miles. Both these towns have splendid frontage on the river, with 30 to 35 feet in depth.

The principal obstructions to deep navigation are the outer bar, the Horse-shoe shoal and the inner bar.

During the fiscal year 1892-93, the dredge "St. Lawrence" worked on these three bars, deepening the channel to 21 feet, but it was again filled up, and there are only 18 feet in the channel to-day.

The quantity of materials (sand and gravel) removed was 35,725 cubic yards at a cost of \$7,016.88 or 19.06 cents per cubic yard.

DREDGING IN THE RICHIBUCTO RIVER.

The entrance of the Richibucto River is about 1,800 feet in width, and lies between two sand bars, several miles in length, called the north and south beaches.

The Richibucto is navigable for boats nearly to the head of the tide, a distance of about 22 miles, and any vessel which can pass the bar may be taken 13 miles up river.

The bar at the mouth is extremely dangerous owing to the fact that the channels shift constantly, and also on account of the strength of the ebb-tide. The bar extends from the north beach for 2 miles in a parallel line with the south beach. It is of

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sand, dry at low water, except in the three channels, known respectively as the north, middle and south channels.

The depths of water vary constantly; this summer the averages were 7 feet at extreme low water in the north channel, 8 feet in the middle channel, and 11 feet in the south channel, and as the tide rises 4 feet, it may be said that the deepest channel had during last summer 15 feet of water at high water.

The dredge "St. Lawrence" was sent to the Richibucto early in August to continue the work of deepening the middle channel, which was reported the most favourable one, and she remained at work until the 3rd October completing the channel to a depth of 15 feet, over a width of 150 feet, removing 13,475 cubic yards of sand at a cost of \$2,646.29 or 19.6 cents per cubic yard.

DREDGING ST. JOHN RIVER.

The St. John River is navigable between the city of St. John and the town of Fredericton for good sized vessels drawing as much as 8 feet of water. The principal obstruction is found near Oromocto village and is called the Oromocto Shoal.

During the fiscal year the dredge "New Dominion" worked on the shoal from the 12th of July, 1892, to the 10th of November, cutting a channel 2,275 feet in length to a depth of 14 feet over a width varying from 40 to 50 feet. The quantity of material removed was 28,385 cubic yards of sand and saw-dust, at a cost of \$6,463.15 or 22.7 cents per cubic yard.

On the 7th May, 1893, the "New Dominion" was taken up the Kennebecasis and resumed the work of straightening and deepening the channel at Lamb's Point, above the bridge, which had been begun the preceding year. A channel 400 feet in length, 50 feet in width to 12 feet depth was obtained.

The channel was also deepened from the wharf down at Perry's Point for a distance of 400 feet, and a basin 90 feet in width was made in front of the wharf.

The dredge was still at work at the end of the fiscal year, having removed 15,400 cubic yards of sand, clay and mud, at a cost of \$3,506.50 or 22.7 cents per cubic yard.

PROVINCE OF PRINCE EDWARD ISLAND.

DREDGING AT CAPE TRAVERSE.

Cape Traverse is situated on the south-west coast of Prince Edward Island, and is the point of the island nearest to New Brunswick.

The Intercolonial Railway has one of its termini at Cape Traverse, where a wharf of considerable length has been built. On the New Brunswick side at Cape Tormentine, a harbour has recently been formed, with a view of facilitating the passage between Prince Edward Island and New Brunswick.

The water at the wharf at Cape Traverse is very shallow, and it is doubtful whether a permanent channel can be kept open without artificial works. To ascertain the amount of silting up, a good channel was made to a depth of 12 feet over a width of 80 feet from the line of 12 feet at low water to the wharf and along the wharf. The quantity of materials removed, clay and sand, being 12,420 cubic yards at a cost of \$3,392.13 or 27.3 cents per cubic yard.

DREDGING AT MONTAGUE.

The Montague River is situated on the east shore of Prince Edward Island to the westward of Georgetown. It is navigable for vessels of considerable burthen nearly to the bridge, a distance of 4 miles.

In October, 1892, the dredge "Prince Edward" was sent to the Montague River to improve the channel by widening and straightening it, and she worked until the 30th of November, removing 15,990 cubic yards of mud.

On the 9th of May following, the work was resumed and continued until the 18th June, a further quantity of 10,350 cubic yards being removed, making in all 26,340 cubic yards, at a cost of \$5,699.68 or about 22 cents per cubic yard.

DREDGING AT MURRAY HARBOUR.

Murray Harbour is on the east coast of Prince Edward Island. At its entrance is a dangerous sand bar, over which 10 feet can be carried at low water in ordinary spring tides, but strong easterly winds send in a heavy sea, which makes the bar impassable.

The dredge "Prince Edward" on the 20th June, began operations cutting through a point and straightening the channel towards the steamboat pier to 12 feet in depth in low water and to a width of 58 feet. Work was in progress at the end of the fiscal year, the quantity of materials removed (sand and clay) being 3,432 cubic yards at a cost of \$742.65 or 21.6 cents per cubic yard.

DREDGING AT ST. MARY'S BAY.

St. Mary's Bay is on the east coast of Prince Edward Island. Its entrance is to the north-west of Panmure Island, between Panmure spit and the shoal off Grave Point; the entrance is narrow, but has a depth of water sufficient for vessels of large draught.

On the 18th of July, the dredge "Prince Edward" was sent to St. Mary's Bay to improve the approach to the wharf. Her work consisted in cutting a channel 1,200 feet in length and 107 feet in width to the wharf, and making a basin 163 feet in width across the end of the wharf, and dredging berths 100 feet in length by 53 feet in width along the sides of the wharf. This work was completed on the 30th September, the quantity of materials removed being 21,963 cubic yards of sand, mud, clay and stone, at a cost of \$4,752.55 or 21.6 cents per cubic yard.

DREDGING IN STURGEON BAY.

Sturgeon Bay is one of the small bays in Cardigan Bay. Its entrance is narrow, but good for vessels drawing considerable water.

During the fiscal year the works of dredging a channel 676 feet in length over a width of 107 feet, and to a depth of 12 feet at low water spring tides, and that of making a basin 167 feet wide across the outer end of the wharf, and berths on either side of the wharf 50 feet wide and 100 feet in length, was completed on the 13th of July, the further amount of materials dredged being 2,430 yards, at a cost of \$555.82 or 21.6 cents per cubic yard.

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CLASSIFICATION OF DISBURSEMENTS OF THE DREDGE "St. Lawrence" during the Year ending 30th June, 1893.

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.....	508	33	506	35	508	33	508	33	508	33	467	37	440	73	399	77	385	80	685	71	516	15	508	33	5,943	53	
Coal.....	214	50	273	70	470	78	55	20	470	78	55	20	120	82	105	58	96	62	.....	.....	323	41	175	50	1,189	68
Provisions.....	79	87	139	15	184	09	110	50	95	66	157	33	.....	.....	12	00	.....	.....	.....	.....	38	30	210	25	1,499	40
Stores.....	.....	.....	10	50	3	00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100	00	.....	.....	.....	.....	274	05
Equipment.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100	00
Water.....	.....	.....	.....	.....	8	60	.....	.....	13	55	29	80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	63	75
Repairs.....	.....	.....	15	25	.....	.....	.....	.....	2	42	.....	.....	7	00	.....	.....	357	70	.....	.....	.....	.....	.....	.....	176	13
Pilotage.....	48	50	47	50	65	00	152	50	94	13	2	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,193	75
Towage.....	6	93
Wharfage.....	.....	.....	.....	.....	26	50	.....	.....	32	00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Contingencies.....	6	43	10	00	8	87	61	18
Totals.....	851	20	992	45	793	35	779	93	1,226	87	721	07	568	55	521	28	848	57	785	71	1,060	92	2,192	93	11,342	83	
Working expenses.....	851	20	977	20	793	35	779	93	1,224	45	262	74	Nil.	.....	14	68	490	87	446	96	874	29	875	68	7,591	35
Repairs, ordinary.....	Nil.	.....	15	25	Nil.	.....	Nil.	.....	2	42	Nil.	.....	Nil.	.....	Nil.	.....	Nil.	.....	Nil.	.....	Nil.	.....	Nil.	.....	17	67
do extraordinary.....	Nil.	.....	Nil.	.....	Nil.	.....	Nil.	.....	Nil.	.....	458	33	568	55	506	60	357	70	338	75	186	63	1,317	25	3,733	81
Totals.....	851	20	992	45	793	35	779	93	1,226	87	721	07	568	55	521	28	848	57	785	71	1,060	92	2,192	93	11,342	83	

CLASSIFICATION of Disbursements of the Dredge "Canada" during the Year ending 30th June, 1893.

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.....	415	33	420	33	420	33	420	33	420	33	381	32	235	33	235	33	275	11	402	05	420	33	420	33	4,466	45	
Coal.....	72	75	151	80	55	20	120	19	55	20	79	10	31	02	33	90	40	78							404	81	
Provisions.....	21	47			393	26									25	53									839	21	
Stores.....	2	42	20	00	36	20									25	53									439	68	
Equipment.....																											
Water.....															17	00	100	86								969	22
Repairs.....																	2	50								65	00
Pilotage.....	50	00	67	50	65	00	65	00	55	00																969	22
Towage.....																										435	00
Wharfage.....																											
Contingencies.....	8	42									13	39					5	15								37	52
Totals.....	570	39	659	63	616	40	605	52	923	79	473	81	266	35	311	85	424	40	402	05	788	00	1,639	70	7,681	89	
Working expenses.....	570	39	659	63	616	40	605	52	923	79	92	49	Nil.		25	53	323	54	402	05	760	49	495	89	5,475	72	
Repairs, ordinary.....	Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		17	00	Nil.		Nil.		4	80	Nil.		21	80	
do extraordinary.....	Nil.		Nil.		Nil.		Nil.		Nil.		381	32	266	35	269	32	100	86	Nil.		22	71	1,143	81	2,184	37	
Totals.....	570	39	659	63	616	40	605	52	923	79	473	81	266	35	311	85	424	40	402	05	788	00	1,639	70	7,681	89	

Department of Public Works.

CLASSIFICATION of Disbursements of the Dredge "New Dominion" during the Year ending 30th June, 1893.

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.....	494	50	497	75	494	50	494	50	462	45	132	50	159	50	150	00	151	31	606	18	569	53	494	50	4,707	22	
Coal.....	294	55	2	50	163	55															291	96			752	56	
Provisions.....	18	26			17	25					5	97									97	10	125	01	263	59	
Equipment.....																											
Water.....									5	50	7	00	3	62	156	33			289	78	102	69	240	15	815	57	
Repairs.....					10	50																					
Pilotage.....																											
Towage.....	342	00	393	00	468	00	468	00	312	00											314	00	312	00	2,609	00	
Wharfage.....									5	00															5	00	
Contingencies.....											7	46											4	59	12	05	
Totals.....	1,149	31	893	25	990	25	1,126	05	784	95	152	93	163	12	306	33	151	31	895	96	1,375	28	1,176	25	9,164	99	
Working expenses.....	1,149	31	893	25	979	75	1,126	05	779	45	145	93	Nil.		Nil.		151	31	216	93	1,191	09	936	10	7,569	17	
Repairs, ordinary.....	Nil.		Nil.		10	50	Nil.		5	50	7	00	Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		Nil.	23	00
do extraordinary.....	Nil.		Nil.		Nil.		Nil.		Nil.		Nil.		163	12	306	33	Nil.		679	93	184	19	240	15	1,572	82	
Totals.....	1,149	31	893	25	990	25	1,126	05	784	95	152	93	163	12	306	33	151	31	895	96	1,375	28	1,176	25	9,164	99	

CLASSIFICATION of Disbursements of the Dredge "Prince Edward," during the Year ending 30th June, 1893.

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.....	494	50	497	75	494	50	494	50	494	50	317	50	155	00	150	00	157	50	190	66	492	50	582	15	4,471	06	
Coal.....	36	22			94	88					82	80	57	47	13	02							40	72	343	07	
Provisions.....	96	46	21	70			88	89					50	16			4	00					204	99	466	11	
Equipment.....	4	00	9	80																					13	80	
Water.....	40	00	47	00	40	00	47	50	40	00	20	00									40	00	42	96	317	46	
Repairs.....	77	15	51	42	54	44	54	44			17	80	40	00					131	54	56	63	8	22	387	20	
Pilotage.....											2,050	00													40	00	
Towage.....			675	00																					4,565	00	
Wharfrage.....													16	27												36	27
Contingencies.....																											
Totals.....	748	33	1,302	67	1,202	46	780	21	534	50	2,488	10	318	90	163	02	161	50	322	20	609	13	2,018	95	10,649	97	
Working expenses.....	671	18	1,251	25	1,202	46	725	77	534	50	2,470	30	163	90	13	02	161	50	190	66	552	50	2,018	95	9,955	99	
Repairs, ordinary.....	77	15	51	42	Nil		Nil		Nil		17	80	Nil	Nil	Nil		Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	146	37	
Do extraordinary.....	Nil		Nil		54	44	54	44	Nil		Nil		155	00	150	00	Nil	Nil	131	54	56	63	Nil	Nil	547	61	
Totals.....	748	33	1,302	67	1,202	46	780	21	534	50	2,488	10	318	90	163	02	161	50	322	20	609	13	2,018	95	10,649	97	

Department of Public Works.

CLASSIFICATION of Disbursements of the Dredge "Geo. McKenzie," during the Year ending 30th June, 1893.

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	578 66		514 85		494 50		621 88		756 91		317 50		155 00		150 00		157 50		177 49		400 02		793 15		5,117 46		
Coal	29 60		117 30		97 75				13 50		12 37												32 10		302 62		
Provisions	3 97														4 40						59 87		15 50		3 97		
Stores	75 00										27 62						180 00		52 30						182 39		
Equipment																									116 88		
Water	5 88		32 00		36 00		4 00		39 00																116 88		
Repairs			89 75		45 47		290 14		74 63		627 45														885 11		
Photage																										1,200 00	
Towage	1,015 00		725 00				6 00				1,297 60		30 00		30 00										4,273 60		
Wharfage					650 00																				650 00		
Contingencies			28 50																						49 74		
Totals	1,708 11		1,507 49		1,323 72		922 02		884 04		2,282 54		155 00		194 40		358 65		229 79		459 89		2,875 86		12,891 51		
																							937 50		937 50		
																							* 3,813 36		13,829 01		
Working expenses	1,708 11		1,417 74		1,278 25		498 50		577 90		1,655 09		Nil		30 00		157 50		177 49		459 89		1,921 28		9,881 75		
Repairs, ordinary	Nil		Nil		1 00		Nil		Nil		Nil		Nil		Nil		Nil		Nil		Nil		Nil		1 00		
do extraordinary	Nil		80 75		44 47		423 52		306 14		627 45		155 00		154 40		201 15		52 30		Nil		954 58		3,008 76		
Totals	1,708 11		1,507 49		1,323 72		922 02		884 04		2,283 54		155 00		184 40		358 65		229 79		459 89		2,875 86		12,891 51		
																							937 50		937 50		
																							* 3,813 36		13,829 01		

* Chequed out at Ottawa on account T. Robley's contract.

CLASSIFICATION and Quantities of Material removed by the following Dredges during the year ending 30th June, 1893.

Description of Material dredged.	"ST. LAWRENCE."												Grand Totals.
	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	
	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	838	745											1,583
Clay	6,000	263											6,263
Clay and stone					1,663								1,663
Sand—ordinary		3,587	9,887	12,624	5,957					1,050	7,000	12,250	26,774
Mud													25,381
Totals	6,838	4,595	9,887	12,624	7,620					8,050		12,250	61,864
"CANADA."													
Boulders													200
Gravel			2,090	1,700		* 200							3,790
Clay												3,700	3,700
Sand—ordinary	3,150	4,320	2,500	1,000	90							3,860	18,780
Sand—very fine.													1,070
Mud					2,700	90							2,790
Totals	3,150	4,320	4,590	2,700	2,790	290				4,860		7,560	30,280
"NEW DOMINION."													
Clay													1,000
Sand—ordinary	5,425	5,425	7,630	7,210	2,695					1,000		2,000	33,895
Sand—very fine.										3,510			5,000
Mud										2,000			3,890
Totals	5,425	5,425	7,630	7,210	2,695					6,510		8,890	43,785

* Removed during season.

Department of Public Works.

"PRINCE EDWARD."

Hard pan	293																		293
Clay	2,137	1,182	2,300																3,682
Clay and stone		936	1,470																3,607
Sand—ordinary	3,120	6,507	2,246	7,098	8,892														4,682
Mud			4,202																41,901
Totals	5,550	8,625	10,218	7,098	8,892														54,165

"GEO. MCKENZIE."

Hard pan and timber																				6,725
Gravel and sand	5,850	4,410	2,000	315																11,665
Clay			2,815		495															495
Mud					2,745															6,495
Totals	5,850	4,410	4,815	315	3,240															25,380

DETAILS Dredging in the Maritime Provinces

Dredge.	Locality.	County.	NEW BRUNSWICK.		
			Quantity.	Cost of each Work.	Total Cost.
			c. yds.	\$ cts.	\$ cts.
"New Dominion"	Oromocto	Sunbury	28,385	6,463 15	
	Kennebecasis River	King's	15,400	3,506 51	9,969 66
"Canada"	Bathurst	Gloucester	15,050	4,110 43	
	Pictou	Pictou			
	Cape Traverse	Prince.			4,110 43
"Prince Edward"	Sturgeon	King's			
	St. Mary's Bay	do			
	Montague	do			
	Murray Harbour South	do			
"St. Lawrence"	St. Peter's Canal	Richmond			
	Richibucto	Kent	13,475	2,646 29	
	Gordon Flats, Miramichi	Northumberland	22,425	4,404 95	
	Horse Shoe do	do	12,950	2,543 20	
	Middle River	Pictou			
	Outer Bar, Miramichi	Northumberland	350	68 73	9,663 17
"Geo. McKenzie"	East River	Pictou			
	McNair's Cove	Antigonish			
	Middle River	Pictou			
			108,035	23,743 26	23,743 26

Dredge.	NEW BRUNSWICK.		NOVA SCOTIA.	
	Quantity.	Cost.	Quantity.	Cost.
	c. yds.	\$ cts.	c. yds.	\$ cts.
"New Dominion"	43,785	9,969 66		
"Canada"	15,050	4,110 43	2,790	762 00
"Prince Edward"				
"St. Lawrence"	49,200	9,663 17	12,664	2,487 12
"Geo. McKenzie"			25,380	14,876 46
	108,035	23,743 26	40,834	18,125 58

Department of Public Works.

for the Year ending 30th June, 1893.

NOVA SCOTIA.			PRINCE EDWARD ISLAND.			Quantity by each Dredge.	Total Expenditure.
Quantity.	Cost of each Work.	Total Cost.	Quantity.	Cost of each Work.	Total Cost.		
c. yds.	\$ cts.	\$ cts.	c. yds.	\$ cts.	\$ cts.	c. yds.	\$ cts.
						43,785	9,969 66
2,790	762 00		12,420	3,392 13	3,392 13	30,260	8,264 56
		762 00	2,430	525 82			
			21,963	4,752 55			
			26,340	5,699 68			
			3,432	742 65	11,720 70	54,165	11,720 70
7,844	1,540 44						
4,820	946 68						
		2,487 12				61,864	12,149 29
12,600	7,385 48						
9,540	5,591 86						
3,240	1,899 12	14,876 46				25,380	14,876 46
40,834	18,125 58	18,125 58	66,585	15,112 83	15,112 83	215,454	56,980 67

PRINCE EDWARD ISLAND.		Total Quantity.	Expenditure Dredging.	Superinten- dence.	Total Expenditure.	Cost per Cubic Yard.
Quantity.	Cost.					
c. yds.	\$ cts.	c. yds.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
		43,785	9,164 99	804 67	9,969 66	0 22 769
12,420	3,392 13	30,260	7,681 89	582 67	8,264 56	0 27 312
54,165	11,720 70	54,165	10,649 97	1,070 73	11,720 70	0 21 639
		61,864	11,342 83	806 46	12,149 29	0 19 638
		25,380	13,829 01	1,047 45	14,876 46	0 58 615
66,585	15,112 83	215,454	52,668 69	4,311 98	56,980 67	0 26 44

EXPENDITURE for Dredging in Nova Scotia for the Twenty-one Years ended 30th June, 1893.

County.	Locality.	Total for the Twenty Years ended 30th June, 1892.		For the Year 1892-93.		Total Quantities.	Total Cost.	Cost for each County.	
		Quantity.	Cost.	Quantity.	Cost.				
		c. yds.	\$ cts.	c. yds.	\$ 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	1,725	4,443 82	9,540	5,591 86	11,265	10,035 68		
	Bayfield	1,710	4,405 19			1,710	4,405 19		
	Arsaig	3,540	3,853 30			3,540	3,853 30	29,972 09	
	Annapolis	Annapolis	2,825	1,635 68			2,825	1,635 68	1,635 68
Cape Breton	Lingan	22,267	9,275 56			22,267	9,275 56		
	Sydney	54,600	17,781 54			54,600	17,781 54		
	Little Glace Bay	40,450	16,936 02			46,430	16,936 02		
	Fort Caledonia	17,413	8,242 21			17,413	8,242 21		
	Benacadie Pond	20,860	5,993 90			20,860	5,993 90		
	Christmas Island	19,045	3,364 98			19,045	3,364 98		
	Cow Bay	3,255	1,892 32			3,255	1,892 32		
	Main à Dieu	4,680	2,720 76			4,680	2,720 76	66,207 29	
	Colchester	Tatamagouche	65,480	20,373 07			65,480	20,373 07	20,373 07
	Cumberland	Fairbro'ro	42,595	12,804 68			42,595	12,804 68	
Wallace		60,885	14,573 49			60,885	14,573 49	27,378 17	
Digby	Digby	12,585	5,056 29			12,585	5,056 29		
	Weymouth	88	28 62			88	28 62	5,084 91	
Guysboro	Guysboro	5,400	1,413 53			5,400	1,413 53		
	Larry's River	26,230	6,546 70			26,230	6,546 70		
	Port Mulgrave	3,532	1,749 78			3,532	1,749 78		
	Sherbrooke	1,260	496 49			1,260	496 49	10,206 50	
Halifax	Chezetcook	3,920	2,593 71			3,920	2,593 71		
	Halifax Ferry	6,177	2,063 38			6,177	2,063 38		
	Herring Cove	12,111	8,015 05			12,111	8,015 05		
	Ketch Harbour	2,989	985 59			2,989	985 59		
	Richmond Wharf	732	182 53			732	182 53		

Department of Public Works.

Roche's Wharf	1,750	620 28							1,750	620 28
Halifax railway terminus	19,290	6,187 88							19,290	6,187 88
Jeddore	21,515	4,958 56							21,515	4,958 56
North-west Arm	7,350	2,970 39							7,350	2,970 39
Cunard's Wharf	1,400	530 04	29,106 91						1,400	530 04
Whyocomaugh	19,760	3,491 31							19,760	3,491 31
Campbell's Pond	4,940	872 83							4,940	872 83
Port Hastings	270	190 37							270	190 37
Cheticamp	147,160	45,712 73							147,160	45,712 73
Mahou	116,117	46,140 72							116,117	46,140 72
Port Hood	4,353	1,258 92	97,666 88						4,353	1,258 92
Lunenburg	70,510	22,194 57							70,510	22,194 57
Mahone Bay	21,844	5,958 65							21,844	5,958 65
Vogler's Cove	11,610	5,075 53	33,228 75						11,610	5,075 53
Pictou	11,500	3,887 61							11,500	3,887 61
Aceadia Coal Co.'s Wharf	9,475	2,181 25							9,475	2,181 25
Albion Mines	126,145	33,085 16			12,600				138,745	40,490 64
Halifax Coal Co.'s Wharf	1,650	359 90							1,650	359 90
Pictou Public Wharf	7,020	1,634 82							7,020	1,634 82
do Market Wharf	73,930	20,527 55			2,790				76,720	21,289 55
do Railway Wharf	32,164	9,959 34							32,164	9,959 34
do Landing	7,345	2,880 01							7,345	2,880 01
Vale Colliery Wharf	1,385	682 13							1,385	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	26,310	5,705 09							26,310	5,705 09
Middle River	7,000	2,138 60							7,000	2,138 60
Dwyer's Wharf	720	283 22	116,226 27		8,060				15,060	4,984 40
Queen's	12,940	4,762 38							720	283 22
Richmond	20,410	9,227 04							12,940	4,762 38
St. Peter's Canal	82,986	25,895 51			7,844				20,410	9,227 94
St. Peter's	7,150	2,407 41							90,830	27,435 95
Grand Goulet	23,584	5,570 49							7,150	2,407 41
River Bourgeois	18,920	4,468 87							23,584	5,570 49
Marine Slip	320	56 53	47,626 75						18,920	4,468 87
Lockeport	34,048	10,591 41							320	56 53
Barrington	10,985 07									
Yarmouth	106,524	38,951 26							34,048	10,591 41
Windsor	5,450	1,627 60							24,580	10,085 07
Victoria	3,820	1,569 95							105,524	38,951 26
Dredge "C. B"									5,450	1,627 60
losses		762 98							3,820	1,569 95
	1,690,240	547,472 06	547,472 06	40,884	18,125 58	18,125 58	1,731,074		762 98	565,597 64

EXPENDITURE for Dredging in New Brunswick for the Twenty-one Years ended 30th June, 1893.

County.	Locality.	For the Twenty Years ended 30th June 1892.				For the Year 1892-93.				Total Quantity.	Total Cost.	Cost for each County.
		Quantity.		Cost.		Quantity.		Cost for County.				
		c. yds.	\$ cts.	\$ cts.	\$ cts.	c. yds.	\$ cts.	\$ cts.	\$ cts.			
Gloucester	Bathurst	72,607	20,629 52	20,629 52	15,050	4,110 43	4,110 43	87,657	24,739 95	24,739 95		
Kent	Richbucto	87,573	32,293 78	9,601 45	13,475	2,646 29		101,048	34,940 07			
	Cocagne	27,180	4,934 24					13,005	9,601 45			
	Buctouche	13,005	1,110 70					3,510	4,934 24			
	Priest's Point	3,510	1,310 07					4,140	1,110 70			
Northumberland	do	45	14 23	49,264 47			2,646 29	45	14 23			
	Robertson's Wharf											
	Horse-shoe, Miramichi	160,417	44,594 13		12,950	2,543 20		173,367	47,137 33			
	Outer Bar	13,125	4,682 67		350	68 73		13,475	4,101 40			
Queen's	Grand Dune	37,975	10,121 67					37,975	10,121 67			
	Gordon Flats			58,748 47	22,425	4,404 95	7,016 88	22,425	4,404 95			
	Grand Lake	93,555	16,372 96					93,555	16,372 96			
	do McMair's Cove	20,440	4,522 82					20,440	4,522 82			
Restigouche	Jemseg	61,305	12,117 74					61,305	12,117 74			
	Washadenook	48,975	6,340 83	39,354 35				48,975	6,340 83			
	Dalhousie	22,301	6,543 08					22,301	6,543 08			
	Traverse	29,400	9,008 64	15,551 72				29,400	9,008 64			
St. John	I. C. Ry. Terminus	139,810	37,130 01					139,810	37,130 01			
	Navy Island	25,294	9,296 79					25,294	9,296 79			
	Marble Cove	29,925	4,374 40					29,925	4,374 40			
	Murray's Mills	23,880	3,441 65					23,880	3,441 15			
	Indian-town Wharf	1,615	192 83					1,615	192 83			
	Long Wharf	7,137	2,680 24					7,137	2,680 24			
	Adams Wharf	7,513	3,247 29					7,513	3,247 29			
	Millar & Woodman	9,275	1,090 42					9,275	1,090 42			
	Hayford, Stetson & Co.	8,015	942 29					8,015	942 29			
	International Wharf	450	52 90					450	52 90			
Sumbury	Anchor Line Wharf	4,695	996 81	63,445 63				4,695	996 81			
	Oromocto	225,463	42,562 38	42,562 38	28,385	6,463 15	6,463 15	253,848	49,025 53	49,025 53		

Department of Public Works.

Westmoreland	Point du Chêne	69,700	21,123 92	21,125 92				69,700	21,125 92	21,125 92
York	Fredericton	39,395	7,699 15					39,395	7,699 15	
	St. Mary's Ferry	15,570	6,827 36					15,570	6,827 36	
	Gibson	30,395	4,379 52	18,906 03				30,395	4,379 52	18,906 03
King's	Bellisle Point	60,170	8,156 76					60,170	8,156 76	
	Kennebecasis River	92,925	14,414 23	22,570 99				108,325	17,920 74	26,077 50
		1,486,780	352,159 48	352,159 48	108,035	23,743 26	23,743 26	1,594,815	375,902 74	375,902 74

EXPENDITURE for Dredging in Prince Edward Island for the Twenty-one Years ended 30th June, 1893.

County.	Locality.	Total for the Twenty Years ended 30th June, 1892.		For the Year 1892-93.		Total Quantity.	Total Cost.	Cost for each County.	
		Quantity.	Cost.	Quantity.	Cost.				
King s.	Grand River.....	c. yds.	\$ cts.	c. yds.	\$ cts.	c. yds.	\$ cts.	\$ cts.	
	Montague River.....	46,110	8,963 97	26,340	5,699 68	46,110	8,963 97		
	Murray Harbour.....	106,140	17,119 43	3,432	742 05	132,480	22,819 11		
	Sturgeon.....	44,430	7,378 33	2,430	525 82	47,862	8,120 98		
	St. Mary's Wharf.....	13,586	5,540 45	21,963	4,752 55	16,026	6,066 27		
				39,002 18		11,720 70	21,963	4,752 55	50,722 88
	Charlottetown Wharf.....	41,303	10,264 56			41,303	10,264 56		
	do Ferry.....	4,045	670 61			4,045	670 61		
	Charl'town Stearn, Nav. Co.	7,668	4,904 15			7,668	4,904 15		
	do Connolly's Wharf.....	5,343	3,417 17			5,343	3,417 17		
do Peake Bros. do.....	5,355	3,424 85			5,355	3,424 85			
do P. E. I. Ry. do.....	4,950	2,077 52			4,950	2,077 52			
Crapaud.....	89,782	27,493 03			89,782	27,493 03			
Pownal.....	47,643	10,926 09			47,643	10,926 09			
Rocky Point.....	91,440	14,661 16			91,440	14,661 16			
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 Wharf.....	750	150 51			750	150 51			
Carr's Point.....	12,165	2,441 28			12,165	2,441 28			
Pinette.....	3,825	756 24			3,825	756 24			
Fort Augustus.....	3,195	631 68			3,195	631 68			
South Fort Ferry.....	33,015	5,528 75			33,015	5,528 75			
Red Point.....	7,161	3,879 60			7,161	3,879 60			
North Rustico.....	13,536	4,775 38			13,536	4,775 38			
South Rustico.....	11,649	4,109 67			11,649	4,109 67			
Gauthier's Creek.....	17,847	8,305 50			17,847	8,305 50			
Georgetown.....	1,002	408 32			1,002	408 32			
			121,987 25					121,987 25	
Summerside.....	29,396	8,013 37			29,396	8,013 37			
Hurd's Point Pier.....	41,070	7,289 95			41,070	7,289 95			
Tignish.....	11,387	13,005 45			11,387	13,005 45			
Cascumpec.....	1,157	538 42			1,157	538 42			
Cape Traverse.....			12,420	3,392 13				32,239 32	
			66,585	15,112 83				204,949 45	
		747,250	189,836 62	189,836 62	15,112 83	813,835	204,949 45		

Department of Public Works.

EXPENDITURE for Dredging in Quebec for the Twenty-one Years ended 30th June, 1893, from Appropriations—Maritime Provinces.

County.	Locality.	Total for the Twenty Years ended 30th June, 1892.				For the Year 1892-93.				Total Quantity.	Total Cost.	Cost for each County.
		Quantity.	Cost.	Cost for County.	Quantity.	Cost.	Cost for County.					
		c. yds.	\$ cts.	\$ cts.	c. yds.	\$ cts.	\$ cts.	c. yds.	\$ cts.	\$ cts.	\$ cts.	
Magdalen Islands, Co. Gaspe	House Harbour.						Nil.	6,800	2,392 92		2,392 92	
	Amherst Harbour.							495	242 05		2,634 97	
Témiscouata	River du Loup							2,587	825 47		825 47	
* Rimouski	Rimouski							8,123	3,997 59		3,997 59	
								.....	7,458 03		7,458 03

* From amount voted Quebec dredging.

STATEMENT of Dredging showing Quantities removed in each Province, and cost of each Work for the Twenty-one Years ended 30th June, 1893.

Fiscal Year.	NEW BRUNSWICK.		NOVA SCOTIA.		QUEBEC.		PRINCE EDWARD ISLAND.		Total Quantity. c. yds.	Total Expenditure. \$ cts.	Cost per cubic yard. \$ cts.
	Quantity. c. yds.	Cost. \$ cts.	Quantity. c. yds.	Cost. \$ cts.	Quantity. c. yds.	Cost. \$ cts.	Quantity. c. yds.	Cost. \$ cts.			
1872-73	38,060	13,240 50	23,280	8,422 70	6,800	2,392 92	.....	.....	61,320	21,663 20	0 35 328
1873-74	57,725	14,395 57	18,600	6,545 61	.....	.....	.....	.....	83,125	23,334 10	0 28 071
1874-75	78,223	17,325 05	24,416	13,238 83	.....	.....	18,655	9,892 80	121,294	40,456 77	0 33 354
1875-76	79,935	17,040 52	91,974	21,885 90	.....	.....	58,283	10,891 80	230,192	49,818 22	0 21 642
1876-77	97,680	23,161 90	127,785	34,846 74	.....	.....	74,460	12,758 27	299,935	70,766 91	0 23 594
1877-78	81,070	23,323 92	106,857	29,607 94	.....	.....	82,860	12,011 18	270,787	64,943 04	0 23 983
1878-79	132,555	27,400 22	116,307	28,267 59	.....	.....	46,490	9,164 07	295,352	64,831 88	0 21 951
1879-80	63,540	16,581 79	127,684	34,765 84	765	374 08	36,390	12,674 98	228,379	64,396 60	0 28 197
1880-81	44,315	12,385 85	87,118	23,061 64	2,317	693 44	46,335	9,298 53	180,085	45,439 49	0 25 232
1881-82	79,640	18,626 87	89,596	33,363 71	.....	.....	47,325	9,356 57	216,531	61,347 13	0 28 331
1882-83	48,565	13,422 70	143,616	42,996 93	.....	.....	68,535	11,090 37	260,716	67,500 00	0 25 890
1883-84	47,058	17,103 38	157,560	49,050 58	.....	.....	79,750	13,355 05	284,368	79,509 01	0 27 959
1884-85	128,997	24,460 35	76,164	25,250 73	8,123	3,997 59	55,075	8,668 01	268,359	62,376 68	0 23 242
1885-86	68,505	14,874 63	56,790	21,482 05	.....	.....	17,137	10,349 66	142,432	46,706 34	0 32 792
1886-87	69,440	11,452 86	53,400	25,621 19	.....	.....	6,137	6,214 74	128,977	43,288 79	0 33 056
1887-88	50,152	9,252 50	84,175	29,847 60	.....	.....	3,775	5,899 90	138,102	45,000 90	0 32 058
1888-89	63,633	16,598 08	56,910	32,697 00	.....	.....	24,240	15,502 95	146,783	64,798 03	0 27 029
1889-90	96,068	20,544 93	59,783	22,821 55	Nil	.....	31,422	11,085 39	177,273	54,451 87	0 30 071
1890-91	96,588	20,375 09	61,698	24,368 57	Nil	.....	19,004	8,843 92	177,290	53,045 55	0 30 023
1891-92	73,023	20,592 85	81,993	27,370 08	Nil	.....	31,382	12,788 34	188,398	60,757 25	0 32 249
1892-93	108,035	23,743 26	40,834	18,125 58	Nil	.....	66,585	15,112 83	215,454	56,980 67	0 26 044
Total	1,594,817	375,902 82	1,686,490	553,662 36	18,005	7,458 03	813,840	204,949 45	4,115,152	1,141,371 61	0 27 074

Department of Public Works.

STATEMENT of Dredging showing Quantities removed by hand in each Province and cost of each Dredging for the Twenty-one Years ended 30th June, 1893.

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.
1876-79.			245	555 13			245	555 13	245	555 13	2 26 58
1879-80.			12,370	3,666 90			12,370	3,666 90	12,370	3,666 90	0 29 64
1880-81.			11,140	2,560 25			11,140	2,560 25	11,140	2,560 25	0 22 98
1881-82.			10,640	2,650 00			10,640	2,650 00	10,640	2,650 00	0 24 90
1882-83.			8,190	2,500 00			8,190	2,500 00	8,190	2,500 00	0 30 52
1883-84.			5,460	2,500 00			5,460	2,500 00	5,460	2,500 00	0 45 75
1884-88.											
1888-89.											
1889-90.											
1890-91.											
1891-92.											
1892-93.											
Total	48,045		48,045	14,432 28			48,045	14,432 28	48,045	14,432 28	0 30 03

STATEMENT of Dredging in the Maritime Provinces, showing Quantities removed by and Expenditure of each Dredge, during Twenty-one Years, ended 30th June, 1893.

Dredge.	Total Quantities and Cost for Twenty Years ended 30th June, 1892.				1892-93.				Total for Twenty-one Years ended 30th June, 1893.					
	Total Quantity.		Cost.		Quantity.		Cost.		Total Quantity.		Total cost.		Cost per Cubic yd.	
	Yds.	Per Cubic Yard.	\$	Cts.	Yds.	Per Cubic yd.	\$	Cts.	Yds.	Per Cubic yd.	\$	Cts.	Yds.	Cts.
"New Dominion"	861,468	0 18 59	160,195 17	0 18 59	43,785	0 22 769	9,969 66	0 22 769	905,253	0 18 79	170,164 83	0 18 79	905,253	0 18 79
"Canada"	569,999	0 34 53	196,543 66	0 34 53	30,260	0 27 312	8,264 56	0 27 312	600,259	0 34 11	204,808 22	0 34 11	600,259	0 34 11
"Cape Breton"	534,938	0 25 99	139,074 33	0 25 99	.....	.....	.....	.....	534,938	0 25 99	139,074 33	0 25 99	534,938	0 25 99
"Prince Edward"	758,085	0 25 27	191,587 55	0 25 27	54,165	0 21 637	11,720 70	0 21 637	812,250	0 25 03	203,308 25	0 25 03	812,250	0 25 03
"St. Lawrence"	749,844	0 32 02	240,167 02	0 32 02	61,864	0 19 638	12,149 29	0 19 638	811,708	0 31 08	252,316 31	0 31 08	811,708	0 31 08
"Geo. McKenzie"	411,781	0 36 65	150,925 64	0 36 65	25,380	0 58 615	14,876 46	0 58 615	437,161	0 37 92	163,802 10	0 37 92	437,161	0 37 92
	3,886,615	0 27 62	1,078,493 37	0 27 62	215,454	0 26 44	56,980 67	0 26 44	4,101,569	0 27 68	1,136,474 04	0 27 68	4,101,569	0 27 68

Department of Public Works.

STATEMENT of Dredging performed by hand, in the Maritime Provinces, showing Quantities removed, and Expenditure at each locality for Twenty-one Years ended 30th June, 1893.

Locality.	Total quantity.	Total Cost.		Per Cubic yard.
	Yds.	\$	cts.	Cts.
Parrsboro', N.S.	42,595	12,804	68	0 30·06
Windsor, N.S.	5,450	1,627	60	0 29·86
	48,045	14,432	28	0 30·03

PROVINCE OF QUEBEC.

SHIP CHANNEL, RIVER ST. LAWRENCE BETWEEN MONTREAL AND QUEBEC.

The work of dredging on the ship channel between Montreal and Quebec, was carried on at four places during the fiscal year, viz.:—Grondines, Cap à la Roche, Pointe du Lac and Maisonneuve.

Three elevator dredges were employed up to November, 1892, and on the opening of the season of 1893, four continued the work.

Grondines.

Dredge No. 8, continued the work commenced in 1890, of dredging the channel through Horseback Bar. The channel already dredged was widened and a length of new channel, of 130 feet, was completed in 38 days, up to the end of the fiscal year.

Quantity removed consisting of hard-pan in patches, and in bedded boulders, 5,603 cubic yards, at a cost of \$8,357.98, or \$1.49 per yard.

To complete the channel through this bar, there remain two pieces to be dredged, one 1,600 feet long and the other 950 feet. It is expected that this will be completed before the close of the season of 1893.

Cap à la Roche.

The two rock dredges, Nos. 11 and 13, worked steadily at this point almost the whole of the working season in the fiscal year.

The work in hand was the continuation of the deepening of the channel, from 24 feet to 27½ feet, at low water.

Dredge No. 11 worked 138 days, completing a portion 810 feet in length and No. 13 worked 166 days, completing the piece of work it was engaged on.

Total quantity dredged at Cap à la Roche, consisting of hard shale rock 102,221 cubic yards, costing \$38,412.19, or 37.6 cents per yard.

This almost completes the Cap à la Roche channel, there remaining only some cleaning up of loose rock, and one piece of dredging 500 feet in length.

Pointe du Lac Curve.

The widening of this bend was commenced by dredge No. 12 in May, 1893, and continued to the close of the fiscal year, a length of 3,000 feet, with an average width of 60 feet being completed in 38 days.

Quantity removed consisting of soft clay 58,770 cubic yards, at a cost of \$5,960.10 or 10.1 cents per yard.

Maisonneuve.

Dredge No. 12 worked here for 96 days during the working season of 1892, removing a part of Forsyth shoal. The material consisted of hard-pan and boulders and was of a most difficult character.

Quantity removed 25,015 cubic yards, at a cost of \$15,057.25 or 60.2 cents per cubic yard.

Work was not resumed at this point in 1893, and to complete it there remains for one dredge five or six months' work.

Following are tables giving further particulars and details of work done.

Department of Public Works.

ABSTRACT of work done in deepening the Ship Channel in the River St. Lawrence between Montreal and Quebec, for Fiscal Year ended 30th June, 1893.

Vessel.	Locality of Dredging.	Time of Service.		Nominal working time 12 hours per day.		Dredging machinery in motion.		Quantity dredged in cubic yards, scow measurement.			Character of Soil.	Quantity dredged in cubic yards in each locality.			
		Days.	Total days.	Hours.	Total hours.	Hours.	Total hours.	Earth.	Rock.	Total.		Grondines.	Cap à la Roche.	Pointe du Lac.	Maison-neuve.
Dredge No. 8...	Grondines.....	38	38	380	380	156	156	5,603		5,603	Lumps of hard-pan and im-bedded boulders.....				
Dredge No. 11..	Cap à la Roche..	138	138	1,380	1,380	977	977		59,381	59,381	Shale rock.....	59,381			
Dredge No. 12..	Pointe du Lac..	38	38	380	380	258	258	58,770		58,770	Soft clay.....		58,770		
	Maison-neuve...	96	96	960	960	762	762	25,015		25,015	Hard-pan and boulders.....			25,015	
			134		1,340		1,020			83,785					
Dredge No. 13..	Cap à la Roche..	166	166	1,660	1,660	1,177	1,177		42,840	42,840	Hard shale rock.....	42,840			
			166		1,660		1,177			42,840					
Totals.....								89,388	102,221	191,609		5,603	102,221	58,770	25,015

PUBLIC WORKS

STATEMENT showing Classification of Cost of Dredging on the Ship Channel

Vessel.	Fuel.	Wages.	Board.	Stores and Materials.	Repairs.	General Expenses.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Dredge No. 8.....	369 05	731 91	225 96	478 35	2,154 94	1,725 72
do No. 11.....	1,703 25	2,599 33	919 25	1,076 89	1,276 68	2,836 21
do No. 12.....	1,655 24	2,601 64	845 69	642 62	3,223 56	3,451 46
do No. 13.....	2,196 91	2,736 72	964 83	360 12	776 06	2,300 96
Stone lifter No. 1.....	12 91	403 34	68 67	26 70	102 29	275 62
do No. 2.....	57 06	156 49	18 00	86 72	614 11	431 43
Tug "John Pratt".....	155 77	1,696 54	576 86	536 98	1,533 10	2,113 34
do "St. James".....	710 30	1,145 04	399 61	531 36	260 64	1,150 48
do "St. Francis".....	1,131 73	1,604 09	542 44	393 60	194 65	1,294 29
do "M. F. Parsons".....	745 42	1,320 15	417 42	287 88	202 53	1,006 67
do "C. J. Brydges".....	323 33	365 40	115 10	167 34	770 94	671 09
Totals.....	9,060 87	15,360 65	5,093 83	4,588 56	11,109 50	17,257 29

Department of Public Works

OF CANADA.

between Montreal and Quebec, for Fiscal Year ended 30th June, 1893.

Salaries and Official Expenses.	Total Cost.	Stone Lifter Service.	Tug Service.	Total Cost of Dredge and Plant.	Number of Working Days.	Cost per Day.	Number of Cubic Yards dredged.	Cost per Cubic Yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.		\$ cts.		\$ cts.
531 68	6,217 61	204 57	1,935 80	8,357 98	38	219 95	5,603	1 49
886 13	11,297 74	718 51	7,034 82	19,051 07	138	138 09	59,381	0 32·10
1,068 37	13,488 58	697 69	6,831 08	21,017 35	134	156 85	83,785	0 25·10
709 02	10,044 62	854 00	8,462 50	19,361 12	166	116 63	42,840	0 45·5
88 61								
132 92								
628 27								
354 51								
398 76								
310 20								
208 35								
5,316 82	67,787 52	2,474 77	24,264 20	67,787 52	.....	.....	.....	.....

DREDGING AT CHARLEMAGNE.

Charlemagne, in the county of L'Assomption, is on the River L'Assomption, and is opposite the end of the Island of Montreal, 16 miles from Montreal.

During 1892-93, the dredge "St. Louis" operated in the River L'Assomption, making a cut 1,050 feet long, 22 feet wide and to a depth of 10 feet at low water in front of the wharf to the main channel. Four other cuts were made, besides a short one at the end of the wharf. The dredge ceased operations on the 14th October, by which time it had removed 5,477 cubic yards of clay and 1,525 of hard-pan.

DREDGING AT CHATEAUGUAY.

Châteauguay Basin is at the mouth of the Châteauguay River, 5 miles from Caughnawaga and 14 miles from Montreal.

On the 11th May, 1893, the "St. Louis" was moved from Ottawa to Châteauguay Basin, and began dredging in the steamboat channel, continuing the work up to the close of the fiscal year, at which date a channel 800 feet in length, 75 in width and 8 feet in depth had been made, the quantity of material removed being 6,000 cubic yards of sand, clay and boulders.

DREDGING AT DORVAL.

Dorval, Jacques Cartier County, is on Lake St. Louis, on the south-west side of the Island of Montreal, a short distance above Lachine and 10 miles from Montreal.

The dredge "St. Louis" worked at Dorval from 7th July to 22nd August, 1892, deepening the approach from deep water to the boat landing, making two cuts, one 800 and the other 400 feet in length, 23 feet wide each, to a depth of 7 feet at low water. The quantity of materials removed was 6,340 cubic yards of clay, 85 of boulders and 1,740 of sand.

DREDGING AT THE LÉVIS DRY DOCK.

In the month of September, the dredging commenced in the spring on the bar, across the entrance to the dock was completed, making a channel 300 feet and 10 feet deep at low water spring tides. The entrance between the wing walls was also deepened.

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 2nd July, 1892, the dredge "St. Louis" was working in front of the wharf built by the department at Longueuil on a shoal of hard-pan, but after working three days in the removal of 200 cubic yards, the work was abandoned, a heavier and more powerful dredge being required to do the work.

DREDGING IN RIVER ST. MAURICE.

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

In order to enable the barges used by the lumber merchants to load at the highway bridge, the western channel of the St. Maurice has, during the past season, been dredged to a depth of 9 feet at low water.

On the 21st July, 1892, a dredge was set to work to cut, a channel through a shoal at the outlet of the river. Operations were discontinued on the 5th August, 1892, and during this time 7,200 cubic yards of sand were removed and dumped on the south shore of the St. Lawrence, below Doucet's Landing, at a cost of \$1,895.56.

The channel dredged during the previous years has filled in considerably.

Department of Public Works.

DREDGING AT ST. PLACIDE.

The village of St. Placide, county of Two Mountains, is on the north bank of the River Ottawa, about 18 miles above its junction with the St. Lawrence and 9 miles from St. Andrew's.

On the 19th October, 1892, the "St. Louis" commenced dredging in the steam-boat channel from the east end of the wharf at St. Placide out to deep water in the Ottawa, making a cut 200 feet long, 23 feet wide, and 8 deep. Operations ceased on the 10th November, by which time the dredge had removed 1,322 cubic yards of clay, boulders and stone.

PROVINCE OF ONTARIO.

DREDGING AT BATH.

Bath is an incorporated village in the county of Lennox, and is on the north shore of Lake Ontario, $3\frac{1}{2}$ miles from Ernestown.

On the 27th May, 1892, the dredge "Queen," and plant arrived at Bath where it worked for four days, making two cuts alongside of Ball's wharf of 75 and 50 feet in length, 25 feet in width, to a depth of 7 feet, and a short cut at the west side of Finkle's wharf. The material removed consisted of 80 cubic yards of boulders, and 900 of clay.

DREDGING AT BELLEVILLE.

Belleville, the shiretown of the county of Hastings, is situated on the Bay of Quinté, at the mouth of the River Moira, 43 miles west of Kingston. There are several important factories, and the harbour is a good one, though lacking in depth. Dredging has, however, been done by the department during the past few seasons, and the harbour improved thereby.

On the 2nd July, 1892, the dredge "Queen" was at work at the south end of Mill Island, continuing operations till 1st August, during which period 3 cuts of 349,444 and 461 feet in length, 25 in width each, and 11 feet deep at low water were made, the materials removed being 2,180 cubic yards of gravel, 3,227 of clay and stone, 226 of hard-pan, and 491 of boulders.

Work was resumed on 20th September, at the north and west sides of Mill Island, two cuts being made 474 feet in length, 50 feet wide and $6\frac{1}{2}$ feet deep, one cut 190 feet long and one 50 feet long, 25 feet wide, each to a depth of 6 feet. One cut was also made along the coal and lumber docks to a depth of 9 to 11 feet. The work closed for the season at Belleville on 15th November, by which date a further quantity of 4,446 cubic yards of gravel, 2,610 of clay and stone, and 1,296 of boulders had been removed.

The same dredge again took up the work in this harbour on 3rd June, 1893, and at the close of the fiscal year was engaged on the south side of Mill Island, taking off a point of land and making four connecting cuts of 213,238,227 and 145 feet long, 25 feet wide each to a depth of 11 feet, removing 2,798 cubic yards of gravel and 3,952 of clay and stones.

DREDGING AT BOWMANVILLE.

The harbour of Bowmanville, or Port Darlington, Durham County, is on the north shore of Lake Ontario, 40 miles east of Toronto. It is an artificial one, being formed by two parallel piers built at the mouth of a creek and extending out into the lake.

This harbour having become much silted up, to remedy this, a dredge was placed at work on the 20th July, 1892, and continued working until 8th August, during which period 18,400 cubic yards of sand were removed.

The dredge "Nipissing," which reached the place on the 6th June, 1893, was put to work in dredging to 14 feet between the piers and into the harbour, and at the close of the fiscal year it was still engaged on the work. Two cuts of 1,200 and 600 feet long and 25 feet wide each were made, 12,510 cubic yards of sand being removed.

DREDGING AT COBOURG.

Cobourg, the shiretown of the county of Northumberland, is situated on the southern coast of Lake Ontario, and is 69 miles east of Toronto by rail.

Between the 12th July and the 3rd of September, 1892, a dredge operated in this harbour deepening it to 12 feet at lowest stage of the water in Lake Ontario. The quantity of material removed amounted to 17,060 cubic yards of sand.

DREDGING AT COLLINGWOOD.

Collingwood, county of Simcoe, is on Nottawasaga Bay on the south shore of the Georgian Bay, and is one of the termini of the Grand Trunk Railway. It is 94 miles distant from Toronto. The harbour is a large and commodious one, being protected on the north and east sides by extensive breakwaters, and to facilitate shipping, the department has for several years had a dredge at work deepening the channel leading to the wharfs and at the wharfs themselves.

At the commencement of the fiscal year 1892-93, the departmental dredge "Challenge" was working in the harbour on a shoal between the range light and the railway wharf, making a channel 98 feet wide and 15 feet deep. Two cuts were also made to a depth of 15 feet through a bar opposite the town dock. Work was brought to a close, for a time, on 1st August, by which date 4,965 cubic yards of clay had been removed. Work was resumed on the 21st October, the dredge being engaged on a hard-pan bar outside the breakwater, making one cut 174 feet long 28 feet wide and 15 feet deep, and another 400 feet long, 25 feet wide and 15 feet deep, was also made between the range light and the railway wharf, the following material being excavated, viz.: 350 cubic yards of hard-pan and 1,000 of clay, work closing 9th November.

On the 27th May, 1893, the dredge "Challenge" resumed work in this harbour making one cut through the hard-pan bar outside the breakwater, leaving a channel 14 feet deep and 120 feet wide. Further dredging was also done between the range light and the railway wharf, the additional amount of materials removed from both shoals being 710 cubic yards of hard-pan and 4,180 cubic yards of clay.

DREDGING AT GANANOQUE.

Gananoque is in the county of Leeds on the north shore of the St. Lawrence. It is 18 miles north-east of Kingston, and 30 miles west of Brockville.

On the 17th November, 1892, the government dredge "Queen" commenced work at this place in dredging out seats for the piers of a new bridge, being engaged thereon till 28th November. On 17th April, 1893, work was resumed in the river and continued till 27th of the same month, the result being two adjoining cuts on the east side of 230 and 100 feet in length, and on the west side one cut 295 feet long, the whole to a depth of 12 feet at low water, 2,696 cubic yards of sand mixed with saw-dust being removed.

DREDGING AT GODERICH.

Goderich is in the county of Huron, and is situated at the mouth of the River Maitland, which flows into Lake Huron about 68 miles north from Sarnia.

At the commencement of the fiscal year the elevator dredge, "No. 9", was engaged in dredging in this harbour. Work was done both inside and outside the piers, commencing at a point 700 feet outside in the lake, the cutting being bell shaped, narrowing from 400 feet to 162 feet at the entrance to the piers finishing near the railway elevator. The total length of work from outside to inside of harbour was 3,000 feet, 20 feet of water being obtained outside and 18 feet between the piers and in the harbour.

Department of Public Works.

On resuming work in the spring of 1893, it was found necessary to go over a portion of the work done in 1892, as much filling had taken place during the winter, especially at the mouth of the piers. Dredging was begun 400 feet outside and was continued a distance of 312 feet between the piers. Work was also done in the harbour from the end of the piers to the elevator dock, the average depth obtained being 17 feet. At the close of the fiscal year the dredging was still in progress.

During 1892-93, a total of 239,240 cubic yards of hard-pan, sand, fine and ordinary gravel, boulders, clay, and stones were removed at cost of 6½ cents per cubic yard.

DREDGING AT HAMILTON.

Hamilton harbour is a large sheet of water enclosed by Burlington Beach, and is 37 miles west from Toronto.

On the 1st July, 1892, the dredging commenced under contract with Mr. F. B. McNamee on the 16th May was in progress on the shoal in front of the wharfs at the western end of the harbour, and continued until the 16th of August, when the work closed, the total number of cubic yards removed since the work commenced, being 50,989.

DREDGING AT THE KAMINISTIQUIA RIVER.

The River Kaministiquia empties into Thunder Bay, Lake Superior, to the westward of Port Arthur.

From this river, large quantities of wheat are shipped to the east, and to accommodate the steamers carrying this wheat, a large amount of dredging has been done on the bar in the bay and in the river itself.

At the elevators, the river is narrow, and vessels could not turn without much difficulty, to obviate which, a contract was entered into in April, 1892, for the formation of a turning basin at McKellar's Creek, and for dredging at other points where necessary.

Work which was in progress at the close of the fiscal year was continued in the river until the 14th September, 1892. When it was closed for the season, the quantity of material removed amounted to 48,408 cubic yards of clay, mud and sand.

On the 2nd of June, 1893, the dredge was placed to work on the bar off the mouth of the river, on a cut on the centre line of the range lights, to a depth of 16 feet. When this cut is finished two on each side of it are to be made to the same depth.

The quantity of material removed between the 2nd and the 30th June amounted to 7,595 cubic yards of sandy clay.

DREDGING AT KINCARDINE.

Kincardine is situated at the mouth of the Penetangore River, which empties into Lake Huron, 31 miles north of Goderich.

On the 3rd September, 1892, orders were given to resume dredging, and operations commenced on the 3rd and were continued until the 22nd October. The dredge worked 248½ hours and removed 10,445 cubic yards of clay, sand, &c.

On the 5th May last, dredging was again taken up and continued until the 20th May, when 3,800 cubic yards of silt and quicksand had been removed.

DREDGING IN KINGSTON HARBOUR.

Kingston is at the foot of Lake Ontario, 172 miles west of Montreal.

On the 5th May, 1893, the dredge "Queen" commenced operations in Kingston Harbour, the first work being done at the Rathbun wharf, where two cuts were made of 455 feet and 400 feet in length, 50 feet in width and 11 feet in depth. One cut 25 feet long, 25 feet wide and 10 deep was made at Anglin's wharf as well as one

on the east side of Anglin's Bay under the railway bridge; a short cut was also made outside the dry dock. Work ceased on the 27th May, the dredge having removed 1,824 cubic yards of clay and stone and 6,202 cubic yards of clay.

DREDGING AT KINGSVILLE.

Kingsville is in the electoral district of South Essex, on Lake Erie, and is distant about 25 miles from the mouth of the River Detroit. The harbour is formed by two piers built from the shore out into the lake.

The entrance to the harbour being obstructed by a bar, the dredge "Ontario" was put to work on the 4th July, 1892, to remove it, continuing work until the 23rd of the same month removing 5,580 cubic yards of hard pan and sand. Five cuts 335 feet long, 135 feet wide over all and to a depth of 12 feet at low water were made over the bar.

DREDGING AT 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.

From the 14th September to the 22nd October, 1892, a dredge worked at this place in the removal of an accumulation of gravel and stone, removing 15,900 cubic yards at a cost of \$2,492.45.

DREDGING AT MEAFORD.

Meaford is on the southern shore of Georgian Bay, and in the county of Grey, 115 miles north from Toronto.

From 1st to 23rd May, 1893, the departmental dredge "Challenge" was engaged in removing old piles and preparing ground for new pile work inside the harbour, making a cut 278 feet long, 25 feet wide, to a depth of from 13 to 10 feet, a short cut 70 feet long, 25 feet wide and 10 deep being also made. One cut 250 feet in length, 25 feet in width and 14 in depth was made outside the landing pier. The total quantity of material removed at this place was 7,830 cubic yards of clay and gravel.

DREDGING AT MIDLAND.

Midland, Simcoe County, is the terminus of the Midland Division of the Grand Trunk Railway on the Georgian Bay.

A dredge commenced work on the 16th July, and completed it on the 7th August, having removed 23,885 cubic yards of material in 401½ hours. The amount expended was \$4,999.96, and the price per cubic yard paid was 20 cents.

DREDGING AT MOSQUITO BAY.

Four days' dredging was done at this place during August, a cut 540 feet long, 25 feet wide, to a depth of 10 feet being carried from the wharf to deep water; 720 cubic yards of mud being removed.

DREDGING IN THE RIVER NAPANEE.

The town of Napanee is situated on the right bank of the River Napanee, about 5 miles above its mouth, on the Bay of Quinté.

On the 16th July, the departmental dredge "Nipissing" commenced work at the Rathbun wharf, making a channel 350 feet long, 50 feet wide and 10 feet deep at low water. Two cuts were made in front of the Downey's wharf 450 feet long each and one at Dafoe's wharf 375 feet long, the whole to a depth of 10 feet at low water. The dredge was also engaged in removing old piers and dredging a foundation for new bridge piers in the river. The total quantity of material removed was 4,820 cubic yards of mud, sand, clay and stone.

Department of Public Works.

DREDGING AT NEWCASTLE.

The harbour of Newcastle is on the north shore of Lake Ontario, 47 miles east of Toronto.

On the 21st August, 1892, the dredge "Nipissing" commenced the removal of a sand bar from between the piers and into the harbour, making two cuts, one 700 the other 600 feet in length, the width of the excavation being 50 feet, to a depth of 10½ feet, finishing work on the 12th September. Again, from the 30th April to 5th June, 1893, the same dredge was engaged in removing a further accumulation of sand from between the piers, two cuts 1,100 and 700 feet each being made and having 14 feet at low water. The total quantity removed at Newcastle by this dredge was 16,170 cubic yards of sand.

DREDGING AT NORTHPORT.

Northport, Prince Edward County, is situated on the Bay of Quinté, 12 miles from Belleville.

On 1st June, 1893, the dredge "Nipissing" did half a day's work at this place, taking out a cut 95 feet long, 25 feet wide and 9 feet in depth on the west side of the wharf. Three old piers were also removed on the east side. In all 395 cubic yards of clay and stone were excavated and placed in the wharf.

DREDGING AT 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 the company's line of steamers on the upper lakes.

For expenditure during 1892-93, \$15,000 was voted for dredging purposes at this place, and on the 17th August last, a contract was entered into with Mr. David Porter, of Warton, to dredge to a depth of 16 feet at low water at the rate of 11½ cents per cubic yard scow measurement, over the area as shown on the plan submitted to the tenderers.

Work was commenced on the 12th September, 1892, and up to the end of the fiscal year 119,100 cubic yards had been removed.

The department has now under contract the dredging of a new channel approach to this harbour, 150 feet wide and about half a mile in length. It is intended to dredge to a depth of 16 feet below zero of the gauge, now established, in order to give sufficient depth for vessels to enter at all stages of water level; the zero of the gauge is the lowest level known, and as recorded in February, 1892.

The material taken from the bed of Owen Sound Harbour both in the river and at the approach, is a fine *alluvium* earth and still finer sand. The material runs into the cuttings made by dredging and continues to do so until the sides of the cuttings form a natural slope. This will account for the large amount of dredging done, at this place, and the comparatively small result.

DREDGING AT PENETANGUISENE.

Penetanguishene is situated on the north of the Eastern Peninsula in Georgian Bay. It is the terminus of one of the branches of the Grand Trunk Railway.

There having been appropriated for expenditure in 1892-93, the sum of \$2,500 for dredging the harbour, work was commenced on the 18th August, and completed on the 1st September, the dredge working 160 hours and removing 13,261 cubic yards material. The amount expended was \$2,491.28.

DREDGING AT PICTON.

Picton harbour, Prince Edward County, is on the south side of the Bay of Quinté, 36 miles south-west of Kingston, and 8 miles to the eastward of Belleville.

The dredge "Nipissing" which was operating in this harbour on the 30th June, 1892, continued work during 1892-93, until the 12th July, making 3 cuts 200 feet long by 80 feet in width to a depth of 10 feet at low water, 3,540 cubic yards of mud being removed.

DREDGING AT PORT ARTHUR.

Port Arthur, Algoma District, is situated at the head of Thunder Bay, Lake Superior.

On the 15th September, 1892, a dredge was placed at work excavating a channel to 18 feet depth through the bar obstructing the free entrance of vessels between the opening left in the breakwater. When the water was too rough to work on the bar, the dredge operated inside the breakwater at the government dock, the elevator, and at points that required deepening, in order to give 16 feet of water. The work closed on the 5th November and resulted in the removal of 12,531 cubic yards of clay and a marked improvement to the navigation.

DREDGING AT PORT CREDIT.

Port Credit, in the county of Peel, is situated on the north-west shore of Lake Ontario, 14 miles west from Toronto.

The work of dredging a channel between the piers leading to the harbour which was in progress at the close of the fiscal year 1891-92, was continued during 1892-93, until the 8th July, 1892, by which time a further quantity of 3,515 cubic yards of clay and sand had been removed, making a total of 8,050 since the dredge commenced work.

The channel dredged was 600 feet in length, 50 in average width and to a depth of 10 feet at lowest lake level.

DREDGING AT PORT ELGIN.

Port Elgin is in the electoral division of the southern portion of the county of Bruce, on the eastern shore of Lake Huron, about 24 miles north from Kincardine.

The sum of \$2,500 was voted for expenditure in 1892-93, for the purpose of dredging the channel leading to the wharf and for urgent repairs to the breakwater, &c.

The dredging was commenced on the 4th July and completed on the 16th August. The dredge worked 300 hours and removed 10,775 cubic yards of clay and sand.

On the 22nd May, 1893, dredging was resumed and by the close of the fiscal year a further quantity of 13,915 cubic yards of clay and sand had been removed.

DREDGING AT PORT HOPE.

Port Hope is in the county of Durham on Lake Ontario, 63 miles east of Toronto.

Between the 19th September, and the close of navigation, 1892, the dredge "Nipissing" was engaged in deepening the west side of the west harbour to a depth of 11 feet, the material removed being 6,180 cubic yards of mud and 7,020 of sand.

DREDGING AT PORT STANLEY.

The harbour of Port Stanley is at the mouth of Kettle Creek, in the county of Elgin, on the north shore of Lake Erie, 84 miles from Port Colborne, and 24 miles from London, and is formed by two piers extending into the lake one on each side of the mouth of the Creek.

Department of Public Works.

The departmental dredge "Ontario" operated in this harbour between the 3rd September and 6th October, 1892, on a shoal between the piers, making two cuts 800 and 490 feet in length respectively, 50 feet wide over all, giving a depth of 12 feet at low water. A turning basin was also made in the harbour with a depth of 11 feet.

Work was resumed on 6th May, 1893, on a shoal outside of the piers and in the harbour, the depth of water obtained being 12 feet, and up to the close of the fiscal year 33,420 cubic yards of clay, sand and mud were removed.

DREDGING IN THE RIVER DETROIT.

The River Detroit connects Lake St. Clair with Lake Erie, emptying into the latter a little below the town of Amherstburg, and 18 miles below the city of Detroit. It is an important water-way, the whole of the shipping from the upper lakes making use of it.

On the 23rd July, 1892, the dredge "Ontario" was taken to Anderdon, and on the 25th it commenced dredging alongside of the docks and out to the main channel, making two cuts 660 feet long, 45 feet wide, and one cut 190 feet long, 25 feet wide, all to a depth of 12 feet. The work closed on the 25th August, and resulted in the removal of 7,520 cubic yards of clay, 3,860 cubic yards of clay and stone and 560 cubic yards of boulders.

On the 25th August, the plant was taken to Amherstburg and worked for one day in front of the coal dock, taking out 240 cubic yards of clay.

Work at Amherstburg was resumed on the 13th October in front of the docks, and continued until the 10th December, when work closed for the season, the quantity of material removed being 13,710 cubic yards of clay, boulders and gravel. Two cuts, 1,075 feet in length each, two of 700 and one of 195 feet (all adjoining), were made. These cuts are 23 feet wide each and 16 feet deep at low water.

On the 28th April, 1893, the plant resumed operations at Amherstburg, levelling off the ridges in several of the cuts made the previous season, 660 cubic yards of clay being removed.

The work done at this place has proved of great utility to the large number of steamers, both Canadian and foreign, that make Amherstburg a coaling station. Further work is, however, required at points in the neighbourhood to give safe navigation to the deep draught vessels which pass up and down in large numbers.

DREDGING IN THE RIVER SAUGEEN.

The Saugeen River empties into Lake Huron at the village of Southampton, 143 miles above Sarnia. The mouth of this river forms a small harbour much used by fishermen and small craft.

The water at the mouth being shoal, to make it safe for the entry of fishing boats a dredge was put to work on the 22nd August. It worked for 72 hours and removed 2,250 cubic yards of clay and stones at a cost of \$576.

DREDGING AT THORNBURY.

Thornbury is situated on the west side of Georgian Bay at the mouth of the Beaver River in the county of Grey, 13 miles west of Collingwood.

Between the 2nd August and the 21st October, 1892, the dredge "Challenge" was working at this place. Operations were commenced at the entrance of the harbour, 3 cuts 300 feet in length being made, leaving a channel 100 feet wide and 14 feet deep at low water. Four cuts were also made between the piers 275 feet in length each, with a total width of 100 feet, to a depth of 14 feet at low water. The ground for new piling in the inner portion of the harbour was prepared.

The following quantities of materials were removed during the period above named, viz., 2,190 cubic yards of hard-pan, 2,160 of gravel and 4,590 of sand, or a total of 8,940 cubic yards.

DREDGING AT WHITBY.

Whitby is situated on the north shore of Lake Ontario, in the county of Ontario, 30 miles east of Toronto.

The necessity for dredging having been brought to the notice of the department, a dredge was employed to give the relief required, and the work, which was commenced on the 1st July, 1893, was completed on the 19th of the same month.

The quantity of material removed was 16,300 cubic yards of sand, mud and clay, and the cost of removing the same \$1,485.

DREDGING AT WOLFE ISLAND.

Wolfe Island is a large island at the entrance of the St. Lawrence at the foot of Lake Ontario.

The dredge "Queen" was engaged at work between the 3rd August and the 13th September, commencing on a shoal in front of the town dock, making two cuts of 100 and two of 555 feet long each, the cuts being each 25 feet wide and the depth obtained 8 feet. Two cuts were also made on the east side of the dock, 572 feet in length and 6 feet in depth.

Further work was done in April and May, 1893, in front of the town dock, the total quantity of material excavated at this place being 10,492 cubic yards of clay.

Department of Public Works.

CLASSIFICATION OF DISBURSEMENTS OF THE DREDGE "CHALLENGE," DURING THE YEAR ENDED 30th JUNE, 1893.

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.....	342	00	342	00	395	00	554	00	231	33	30	00	30	00	30	00	379	57	323	50	395	00	336	17	3,388	57		
Coal.....	388	98	127	26	123	71	100	29	46	75	.....	.....	.....	.....	.....	.....	.....	.....	290	65	.....	.....	.....	.....	1,077	64
Wood.....	100	00	100	00	100	00	103	47	54	98	.....	.....	.....	.....	.....	.....	.....	.....	10	65	103	43	100	60	673	14
Provisions.....	59	01	.....	.....	.....	.....	5	50	6	10	.....	.....	.....	.....	.....	.....	.....	.....	105	12	8	84	14	09	198	66
Equipment.....	
Repairs.....	31	86	11	49	11	10	4	50	432	54	
Pilotage.....
Towage.....
Contingencies.....	3	71	3	62	6	42	14	52
Totals.....	925	56	584	37	636	23	782	28	771	70	30	00	30	00	49	42	669	25	893	57	570	42	550	70	6,493	50		
Working expenses.....	893	70	572	88	625	13	777	78	339	16	30	00	30	00	30	00	500	73	738	65	561	52	487	90	5,587	45		
Repairs, ordinary.....	31	86	11	40	11	10	4	50	432	54	
do extraordinary.....
Totals.....	925	56	584	37	636	23	782	28	771	70	30	00	30	00	49	42	669	25	893	57	570	42	550	70	6,493	50		

CLASSIFICATION OF DISBURSEMENTS OF THE DREDGE "ONTARIO," DURING THE YEAR ENDED 30th JUNE, 1893.

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.....	350	07	342	00	395	00	395	00	395	00	372	06	30	00	30	00	379	57	450	97	402	00	342	00	3,883	67			
Coal.....	133	95	226	15	175	00	349	82	142	55	108	15	.....	.....	.....	.....	.....	.....	.....	.....	231	95	351	50	1,719	07
Wood.....	.....	.....	100	00	100	00	100	00	100	00	55	34	.....	.....	.....	.....	.....	.....	.....	.....	102	85	102	90	775	54
Provisions.....	.....	.....	29	13	8	60	5	50	6	01	2	49	.....	.....	.....	.....	.....	.....	.....	.....	34	52	.....	.....	157	03
Stores.....	54	99	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	239	30
Equipment.....	37	07	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Repairs.....	9	69	21	99	4	60	456	94		
Pilotage.....		
Towage.....		
Contingencies..	3	35	11	52	6	25	6	68	2	80	48	47	123	45	
Totals.....	689	12	730	79	684	85	857	00	650	96	586	51	30	00	45	92	716	97	759	40	800	77	802	71	7,355	00	7,355	00	
Working expenses.....	679	43	708	80	684	85	857	00	646	36	586	51	30	00	30	00	525	29	559	18	787	93	802	71	6,898	06	6,898	06	
Repairs, ordinary.....	9	69	21	99	4	60	265	26	265	26
do extraordinary.....	191	68	191	68
Totals.....	689	12	730	79	684	85	857	00	650	96	586	51	30	00	45	92	716	97	759	40	800	77	802	71	7,355	00	7,355	00	

Department of Public Works.

CLASSIFICATION of Disbursements of the Dredge "Nipissing," during the Year ended 30th June, 1893.

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.....	323	00	307	84	359	17	375	00	308	47	300	00	300	00	312	66	379	57	312	66	385	00	328	00	3,178	71		
Coal.....	238	62	275	09	231	82	218	82	23	72	.....	.....	.....	.....	71	43	.....	.....	71	43	183	94	224	04	1,467	48
Wood.....	.....	.....	96	07	93	63	100	00	38	58	.....	.....	.....	.....	22	66	.....	.....	22	66	104	94	104	94	661	72
Provisions.....	100	90	3	97	21	90	13	60	2	00	.....	.....	.....	.....	54	97	.....	.....	54	97	.....	.....	7	50	3	50
Stores.....	46	34	.....	.....	103	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Equipment.....	
Repairs.....	15	00	
Pilotage.....	17	00	
Towage.....	
Contingencies.....	8	35	4	94	7	96	
Totals.....	732	21	699	97	814	96	715	38	372	77	300	00	300	00	640	83	576	81	640	83	693	73	706	00	6,047	52	6,047	52
Working expenses.....	717	21	699	97	814	96	715	38	372	77	300	00	300	00	479	48	495	29	479	48	691	98	673	98	5,751	02	5,751	02
Repairs, ordinary.....	15	00
do extraordinary.....
Totals.....	732	21	699	97	814	96	715	38	372	77	300	00	300	00	640	83	576	81	640	83	693	73	706	00	6,047	52	6,047	52

CLASSIFICATION of Disbursements of the Dredge "Queen," during the Year ended 30th June, 1893.

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.....	333 00	335 59	359 00	385 00	443 30	32 00	30 00	30 00	30 00	441 53	330 49	392 90	325 00	3533 86												
Coal.....	176 00	230 00	149 80	230 25	165 25						151 23	179 03	218 12	1,519 68												
Wood.....	100 00	100 00	100 00	100 00	93 63						51 36	104 91	106 60	756 50												
Provisions.....	47 26		56 45	9 80							11 60	25 00		225 84												
Stores.....			39 85								30 74			95 59												
Equipment.....	24 20	60 04	18 79	12 75	16 21						122 66	2 25	55 43	401 51												
Repairs.....				5 00										5 00												
Pilotage.....																										
Towage.....																										
Contingencies.....	14 46	11 23	4 88	4 95	20 91						15 51	5 19	7 00	92 02												
Totals.....	694 92	756 86	764 77	747 75	739 30	32 00	30 00	37 91	639 09	765 97	710 28	712 15	6,631 00													
Working expenses.....	670 72	696 82	745 98	735 00	723 09	32 00	30 00	30 00	537 57	643 31	708 03	656 72	6,229 49													
Repairs, ordinary.....	24 20	60 04	18 79	12 75	16 21				7 68	91 52	2 25	55 43	401 51													
do extraordinary.....																										
Totals.....	694 92	756 86	764 77	747 75	739 30	32 00	30 00	37 91	639 09	765 97	710 28	712 15	6,631 00													

Department of Public Works.

CLASSIFICATION OF DISBURSEMENTS OF THE DREDGE "St. Louis," DURING THE YEAR ENDED 30TH JUNE, 1893.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Totals.		
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
Wages.....	289	00	287	39	335	00	335	00	300	00	342	54	2,996	55	
Coal.....	70	75	283	22	126	80	.....	.....	379	57	269	76	824	84
Wood.....	90	15	80	32	90	00	.....	57	18	.....	69	78	577	88
Provisions.....	39	83	12	27	8	89	.....	20	00	7	00	92	89	92
Stores.....	.....	.....	.....	.....	.....	.....	.....	.....	41	35	19	48	60	83
Equipment.....	15	06	9	22	12	18	185	90	7	85	502	45
Repairs.....	.....	5	00	.....	9	00	.....	.....	81	52	75	00	89	00
Pilotage.....	.....	.....	.....	.....	20	00	.....	.....	10	51	.....	.....	40	00
Towage.....	7	19	6	91	4	26	.....	15	75	.....	12	40	74	74
Contingencies.....	.....	.....	11	52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	511	98	625	11	603	17	308	11	52	93	30	00	512	95	
Working expenses.....	496	92	625	11	593	95	385	93	41	00	30	00	431	43	
Repairs, ordinary.....	15	06	.....	.....	9	22	12	18	11	93	.....	.....	81	52
do extraordinary.....	.....	.....	8	06	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	511	98	625	11	603	17	398	11	52	93	30	00	512	95	
Grand Totals.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,259	18
Working expenses.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,756	73
Repairs, ordinary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	331	72
do extraordinary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	170	73
Totals.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,259	18

CLASSIFICATION of Disbursements of the Dredge "No. 9," during the Year ended 30th June, 1893.

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.....	611 54	620 75	703 50	703 50	747 04	38 75	118 06	398 06	519 01	771 48	629 19	563 14	6,424 02
Coal.....	965 22	406 25	639 47							198 41	1,292 75		3,502 10
Wood.....				180 00	141 83					64 00	165 00	165 00	1,246 01
Provisions.....	33 45	15 35	38 11	25 85	18 41					588 46	10 23		728 86
Stores.....	6 00	1 15						9 43			24 37		40 96
Equipment.....	226 06	266 91	51 55	88 06	53 22		122 80	172 32	1,487 70	234 63	12 75	57 47	2,723 47
Repairs.....													
Pilchage.....													
Towage.....				5 00	13 35					14 23	15 00		92 92
Contingencies..	2 17	11 23	10 00										
Totals.....	2,014 44	1,503 57	1,620 88	1,002 41	973 85	38 75	240 86	570 38	1,988 08	1,871 21	2,149 29	785 61	14,759 33
Working expenses.....	1,788 38	1,236 66	1,569 33	914 35	920 63	38 75	118 06	398 06	550 38	1,636 58	2,136 54	728 14	12,035 86
Repairs, ordinary.....	89 75	49 49	51 55	17 37	53 22					234 63	12 75	57 47	568 23
do extraordinary.....	136 31	217 42		70 69			122 80	172 32	1,437 70				2,157 24
Totals.....	2,014 44	1,503 57	1,620 88	1,002 41	973 85	38 75	240 86	570 38	1,988 08	1,871 21	2,149 29	785 61	14,759 33

Department of Public Works.

CLASSIFICATION and Quantities of Material removed by the following Dredges during the year ending 30th June, 1893.

"CHALLENGE."

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.
Hard-pan.....		1,590	600	240	110						120	590	3,250
Gravel.....		1,320		840							2,150		4,310
Clay.....	4,965				1,000						5,920		15,825
Sand—ordinary.....		240	1,680	2,670									4,590
Totals.....	4,965	3,150	2,280	3,750	1,110						8,190	4,580	27,975

"ONTARIO."

Hard-pan.....	1,875	560			280	260							1,875
Boulders.....					940	260							1,100
Gravel.....		5,180		2,015	4,060	3,200				150	3,300	1,500	3,215
Clay.....	2,580	3,860		2,695									22,665
Clay and stone.....											5,640	2,400	3,860
Sand—ordinary.....	3,705		8,990	1,620									22,355
Sand—very fine.....													8,690
Mud.....			1,790										1,790
Totals.....	8,160	9,600	10,700	6,330	5,280	3,720				150	8,940	12,590	65,550

"NIPISSING."

Clay and stone.....		120											120
Sand—ordinary.....	2,900	3,060	2,670	5,940	1,080						5,700	13,110	34,460
Sand—very fine.....		660									4,800		5,460
Mud.....	3,720	1,200	4,560	1,620									11,110
Totals.....	6,620	5,040	7,230	7,560	1,080						10,500	13,110	51,140

CLASSIFICATION and Quantities of Material removed by the following Dredges during the year ended 30th June, 1893.

"QUEEN."

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.....	226												226
Boulders.....	491	120	650	526							180		1,967
Gravel.....	2,180	1,388	2,246	812								2,798	9,424
Clay.....		6,156	3,204						184		7,950	395	17,889
Clay and stone.....	3,227		2,032	578						2,424	1,124	3,952	10,913
Sand—ordinary.....				272									2,696
Totals.....	6,124	6,156	4,712	4,928	2,188					2,608	9,254	7,145	43,115

"ST. LOUIS."

Hard-pan.....	210		576	949	262								1,735
Boulders.....	35	50		1,028								50	397
Clay.....	3,240	4,060	4,029	52								250	12,607
Clay and stone.....		1,740									1,470	4,230	520
Sand—ordinary.....													7,440
Totals.....	3,485	5,850	4,605	2,497	262						1,470	4,530	22,699

"No. 9."

Hard-pan.....	200			5,200	2,195							7,410	17,385
Boulders.....	950	950	2,750	3,000							1,560	6,580	11,340
Gravel.....				2,500	915						650	10,200	18,915
Clay.....		1,000									2,300	17,570	20,870
Clay and stone.....	7,450	6,150	5,940	3,700	1,540						3,210	5,540	33,530
Sand—ordinary.....	29,500	32,000	30,400	8,550	300								101,750
Sand—very fine.....										5,700	29,750		35,450
Totals.....	38,100	41,100	39,090	22,950	4,950					5,700	40,050	47,300	239,240

Department of Public Works.

DREDGE STATEMENT showing Material removed at different localities, total Annual 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.
Collingwood	1,060			10,145					11,205
Thornbury	2,190		2,160			4,590			8,940
Meaford			2,150	5,680					7,830
	3,250		4,310	15,625		4,590			27,975
Total annual expenditure, \$6,493.50. Cost per cubic yard, 23½ cents.									

DREDGE "NIPISSING."

Pictou								3,540	3,540
Adolphustown								180	180
Napanee					120	3,560	660	480	4,820
Mosquito Bay								720	720
Newcastle						11,370	4,800		16,170
Fort Hope						7,020		6,180	13,200
Bowmanville						12,510			12,510
					120	34,460	5,460	11,100	51,140
Total annual expenditure, \$6,047.52. Cost per cubic yard, 11½ cents.									

DREDGE "ONTARIO."

Kingsville	1,875					3,705			5,580
Anderdon		560		7,520	3,860				11,940
Port Stanley				4,290		18,650	8,690	1,790	33,420
Amherstburg		540	3,215	10,855					14,610
	1,875	1,100	3,215	22,665	3,860	22,355	8,690	1,790	65,550
Total annual expenditure, \$7,355. Cost per cubic yard, 11½ cents.									

DREDGE "QUEEN."

Belleville ...	226	1,787	9,424		9,789				21,226
Wolfe Island				10,492					10,492
Gananoque						2,696			2,696
Kingston				6,202	1,124				7,326
Bath		80		900					980
Northport					395				395
	226	1,867	9,424	17,594	11,308	2,696			43,115
Total annual expenditure, \$6,631. Cost per cubic yard, 15½ cents.									

DREDGE STATEMENT showing Material removed at different localities, &c.—*Continued.*

DREDGE "ST. LOUIS."

Location.	Hard-pan.	Boulders.	Gravel.	Clay.	Clay and Stone.	Sand, ordinary.	Sand, fine.	Mud.	Totals.
Longueuil	210								210
Dorval		85		6,340		1,740			8,165
Charlemagne.....	1,525			5,477					7,002
St. Placide.....		262		540	520				1,322
Chateauguay..		50		250		5,700			6,000
	1,735	397		12,607	520	7,440			22,699
Total annual expenditure, \$5,259.18. Cost per cubic yard, 23 $\frac{1}{8}$ cents.									

DREDGE No. 9.

Goderich	17,385	11,340	18,915	20,870	33,530	101,750	35,450		239,240
Total annual expenditure, \$14,759.33. Cost per cubic yard, 6 $\frac{1}{8}$ cents.									

Department of Public Works.

PROVINCE OF MANITOBA.

DREDGING IN THE RED RIVER.

The Red River of the north has its source in Elbow Lake in the west of the State of Minnesota, in about lat. 47° 7' N., long. 95° 25' W., and after a course of about 665 miles, 525 of which are in the United States, it empties into Lake Winnipeg at a point 21 miles below Selkirk.

At a point about 18 miles from Selkirk the river is divided into three branches, known as the east, centre and west. The western has been adopted as the best in the interests of navigation, and it is at the mouth of this branch that the departmental dredge "Winnipeg" has been working for several seasons.

The bar at the mouth of this branch through which a channel has been dredged, is a little more than a mile in length, and like all bars at the mouths of rivers similar to the Red River, any channel dredged through it will yearly become more or less silted up. Dredging operations have, therefore been carried on for a number of seasons, to keep the channel, leading to Selkirk, the head of navigation, open. On the 15th August, 1892, operations in the west channel were resumed by the departmental dredge "Winnipeg" and were continued until the end of October, during which period 42,780 cubic yards of clay and sand were removed. Some dredging was done before the close of navigation, for the Department of Marine and Fisheries, at the site of the Fish Hatchery at West Selkirk, the dredge removing 3,600 cubic yards of material, and for the service rendered the department received the sum of \$251.50, the actual working expenses of the plant.

Owing to the severity of the winter of 1892, the high stage of the water, and the thickness of the ice when running out, an enormous quantity of silt and sand was carried to the mouth of the river, and the forks were so blocked that, unless a large portion of the season had been taken up in dredging in the west channel, navigation would have been very much impeded.

An examination of the different channels showed that the eastern could be improved in a shorter time than the western, and the dredge "Winnipeg," was accordingly put to work in this channel on the resumption of work in 1893, and at the close of the fiscal year had removed 9,180 cubic yards of sand and clay, and made that channel practicable for the lake vessels.

DREDGING IN THE WHITE MUD RIVER.

The White Mud River empties into Lake Manitoba, 9 miles to the westward of Westbourne, in the county of Marquette.

Westbourne is on the line of the Manitoba and North-western Railway, and is the place of transhipment to and from Lake Winnipeg, and is distant from Portage la Prairie 17 miles.

During the year 1892-93, owing to the bad state of the plant, the dredge was only able to work in the river; lake work being out of the question.

The water in the lake being higher than usual, no interruption to navigation occurred, and the work done in the river proved of great benefit.

The quantity of material excavated by the departmental dredge "Priestman" was 11,927 cubic yards of hard-pan and gravel.

CLASSIFICATION of Disbursements of the Dredge "Winnipeg" and Plant, during the Year ended 30th June, 1893.

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.....	570 00	570 00	570 00	570 00	462 49	120 00	80 00	80 00	222 33	437 66	570 00	570 00	4,822 28
Coal.....	702 28	689 67	712 76	712 76	.....	.....	.....	.....	.....	10 00	750 00	.....	2,854 71
Wood.....	18 75	9 60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37 75
Provisions.....	292 28	292 28	282 86	292 28	220 00	.....	.....	.....	.....	143 33	243 57	235 71	2,002 31
Stores.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Equipment.....	435 93	.....	.....	37 69	124 00	.....	.....	.....	66 74	149 53	570 17	144 17	1,461 49
Repairs.....	227 77	25 90	48 99	65 67	.....	.....	.....	.....	.....	325 76	144 33	65 00	970 16
Photage.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Towage.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Contingencies.....	52 25	40 25	59 35	136 90	133 63	.....	.....	.....	12 20	53 35	76 12	67 35	631 40
Totals.....	1,578 23	1,649 46	1,659 87	1,815 30	940 12	120 00	80 00	80 00	301 27	1,119 63	2,354 19	1,082 23	12,780 30
Working expenses.....	1,350 46	1,623 56	1,610 88	1,749 63	940 12	120 00	80 00	80 00	234 53	793 87	2,209 86	1,017 23	11,810 14
Repairs, ordinary.....	227 77	25 90	48 99	65 67	.....	.....	.....	.....	66 74	325 76	143 33	65 00	970 16
do extraordinary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	1,578 23	1,649 26	1,659 87	1,815 30	940 12	120 00	80 00	80 00	301 27	1,119 63	2,354 19	1,082 23	12,780 30

Department of Public Works.

CLASSIFICATION OF DISBURSEMENTS OF THE DREDGE "PRIESTMAN" AND PLANT, DURING THE YEAR ENDED 30th JUNE, 1893.

Items.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Grand Totals.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Wages.....	355 00	355 00	355 00	355 00	265 00	30 00	30 00	30 00	30 00	212 33	250 00	250 00	2,517 33
Coal.....	302 06	302 06	.....	.....	.....	.....	.....	.....	.....	.....	152 50	.....	454 56
Wood.....	30 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	6 00	.....	36 00
Provisions.....	267 92	267 92	235 71	267 92	141 43	.....	.....	.....	.....	58 91	96 48	88 49	1,424 78
Stores.....	.....	.....	.....	.....	.....	.....	.....	14 60	.....	.....	.....	7 50	22 10
Equipment.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20 15	.....	63 36
Repairs.....	4 95	7 56	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pilotage.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	68 33	37 85	16 03	313 22
Towage.....	50 50	46 23	46 73	47 95	.....	.....	.....	.....	.....	.....	.....	.....	.....
Contingencies.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	708 37	978 77	637 54	670 37	406 43	30 00	30 00	44 60	30 00	370 27	562 98	362 02	4,831 35
Working expenses.....	703 42	971 21	637 54	670 37	406 43	30 00	30 00	44 60	30 00	339 57	542 83	362 02	4,767 99
Repairs, ordinary.....	4 95	7 56	.....	.....	.....	.....	.....	.....	.....	30 70	20 15	.....	63 36
do extraordinary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	708 37	978 77	637 54	670 37	406 43	30 00	30 00	44 60	30 00	370 27	562 98	362 02	4,831 35

STATEMENT showing the Material removed at different Localities, and the Average Cost per cubic yard, for Fiscal Year, 1892-93.

DREDGE "WINNIPEG."

Localities.	Hard-pan.	Gravel.	Sand and Clay.	Clay and Stone.	Sand, ordinary.	Sand, fine.	Mud.	Boulders.	Totals.
Mouth of Red River, Lake Winnipeg, West Channel			42,780						Cub. yds. 42,780
Mouth of Red River, Lake Winnipeg, East Channel			9,180						9,180
Red River, at Selkirk, for Fish Hatchery			3,600						3,600
Total									55,560
Total annual expenditure, \$12,780.30. Cost per cubic yard, 23 cents.									

DREDGE "PRIESTMAN."

White Mud River, Lake Manitoba	9,965	1,962							11,927
Total annual expenditure, \$4,831.35. Cost per cubic yard, 41½ cents.									

PROVINCE OF BRITISH COLUMBIA.

DREDGING AT VICTORIA (OUTER HARBOUR).

To carry out the deepening of the Outer Harbour to 30 feet at ordinary low water springs, a dredge was engaged between the 10th October, 1892, and the 24th February, 1893, on the work in question, during which period 28,125 cubic yards of material were removed, and vessels drawing 25 to 27 feet of water can now reach the wharfs.

Department of Public Works.

CLASSIFICATION of Disbursements of the Dredge "Pacific," during the Year ended 30th June, 1893.

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.....	565	00	565	00					1,130	00			610	00			1,165	00	565	00			997	46	6,727	46	1,081	40
Coal.....					378	75	4	32			177	50	88	75			195	00	241	40								
Water.....			3	45													5	40							13	17		
Provisions.....			140	68	138	24	89	94	169	33	211	68	25	90			370	48	174	54			154	50	1,545	79		
Stores.....					31	38	40	30	38	11	47	60	22	50			25	50					57	76	263	15		
Equipment.....							10	44			16	15	2	00			15	00					1	12	44	71		
Repairs.....			81	52			586	52	61	00	515	70	153	42			288	98	135	43			237	64	2,183	27		
Pilage.....																									250	00		
Towage.....																	25	75							54	55		
Contingencies.....					5	00			2	70			0	75			125	00	5	60			14	00				
Totals.....	565	00	790	65	761	14	1,128	80	1,401	14	968	03	903	32			2,216	11	1,194	55			1,462	48	12,163	50		
Working expenses.....	565	00	709	13	174	62	1,088	75	1,340	14	452	33	749	90			1,927	13	1,111	54			1,224	84	9,980	23		
Repairs, ordinary.....			81	52	10	50					47	60	9	12			134	08	83	01			107	27	608	53		
do extraordinary.....					576	02	40	05	61	00	468	10	144	30			154	90					130	37	1,574	74		
Totals.....	565	00	790	65	761	14	1,128	80	1,401	14	968	03	903	32			2,216	11	1,194	55			1,462	48	12,163	50		

CLASSIFICATION OF DISBURSEMENTS OF SNAAG BOAT "SAMSON," DURING THE YEAR ENDED 30TH JUNE, 1893.

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.....			464	99	513	91				186	15							616	41	487	73	619	54	810	00	3,512	58
Coal.....			22	00							27	50						40	50	30	00	37	50	30	00	373	82
Wood.....			147	05	152	68												154	56	92	38			250	57	187	50
Provisions.....					16	92												13	65			140	43			797	24
Stores.....																										171	00
Equipment.....			2	75				1	00	5	13							43	95	13	37	41	51	1,822	25	25	93
Repairs.....			68	50						9	82	11	95	17	05												
Pilotage.....																											
Wharfage.....																											
Contingencies.....			4	35	4	00						1	50					3	75	4	35	3	75	9	10	1	50
Totals.....			709	64	687	51	1	00	201	10	40	95	17	05	17	05		872	82	627	83	842	73	3,295	74	7,296	37
Working expenses.....			641	14	687	51	1	00	191	28	29	00	17	05				828	87	614	46	801	22	1,473	49	5,285	02
Repairs, ordinary.....			68	50					9	82	11	95						43	95	13	37	41	51	149	67	338	77
do extraordinary.....																								1,672	58	1,672	58
Totals.....			709	64	687	51	1	00	201	10	40	95	17	05	17	05		872	82	627	83	842	73	3,295	74	7,296	37

Department of Public Works.

DREDGING PLANT.

The dredging plant belonging to the department is as follows :—

In the Maritime Provinces.

The steam hopper dredge "St. Lawrence."
do do "Canada."
The dipper dredge "New Dominion" and 6 scows.
do do "Prince Edward," 5 scows and 1 water scow.
do do "George McKenzie," 5 scows and 1 water scow.
One stone scow, boiler, engine and grips.

In Quebec and Ontario.

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

In Manitoba.

The dipper dredge "Winnipeg," tug "Sir Hector," 2 scows and 1 coal barge.
Dredge "Priestman," tug "Victoria," and 2 scows.

In British Columbia.

The elevator dredge "Pacific," scows and tug "Princess."
The snag boat "Samson."

Ship Channel, River St. Lawrence.

Four elevator dredges, tugs "John Pratt," "St. James," "St. Francis," "C. J. Brydges," "M. F. Parsons," 3 stone lifters, 2 coal barges, 1 store ship, 12 dump scows of 80 yards capacity, 2 scows of 150 yards capacity, 1 sounding scow, and 2 flat scows.

NEW DREDGING PLANT.

Elevator dredge "Laval," in course of construction.

One tug, un-named, in course of construction.

The "Laval," which was in course of construction at the close of the fiscal year, is a steam elevator dredge, carvel-built, and will be 152 feet 6 inches in length over all, 31 feet in breadth, and 11 feet 11 inches in depth.

The boilers are two cylindrical straightway boilers, 18 feet 5 inches long, with a diameter of 6 feet 4 inches, and are built of $\frac{1}{2}$ -inch Dalzell steel of 60,000 lbs. tensile strength.

DREDGE VESSELS, REPAIRS.

During the year, repairs to hulls, machinery, scows, &c., were made on the following dredges and plant, the expenditure being as follows:—

"St. Lawrence"	\$ 3,751 48
"Canada"	2,206 17
"New Dominion"	1,595 82
"Prince Edward"	693 98
"George McKenzie"	3,009 76

NOTE.—The work on this dredge includes the lengthening of the hull 32 feet, and the construction of houses on the deck for the officers and crew.

" Queen "	\$ 400 51
" Nipissing "	296 50
" St. Louis "	502 45
" No. 9 "	2,723 47

NOTE.—This includes the cost of partial reconstruction of a hopper scow of 150 cubic yards capacity.

" Challenge "	\$ 906 05
" Ontario "	456 74
" Winnipeg "	970 16
" Priestman "	63 36
" Pacific "	2,183 27
" Samson "	2,011 35
" No. 8 " ship channel.....	2,154 94
" No. 11 " do	1,276 68
" No. 12 " do	3,223 56
" No. 13 " do	776 06
" John Pratt " do	1,533 10
" St. James " do	260 64
" St. Francis " do	194 65
" M. F. Parsons " do	202 53
" C. J. Brydges " do	770 94
Stone lifters, coal barges, store ship, scows, &c.....	<u>9,460 69</u>

NOTE.—This last item includes the cost of the partial reconstruction of six 60 yards scows, two 150 yards scows and two coal scows.

III. GRAVING DOCKS.

The Dominion Government owns and maintains three graving docks in Canada, namely, the Lorne graving dock at Lévis, in the province of Quebec; the Kingston graving dock at Kingston in the province of Ontario; and the Esquimalt graving dock at Esquimalt, near the city of Victoria, in the province of British Columbia.

The utility of graving docks is apparent. All vessels after a certain length of time, require to be examined, cleaned or repaired, and it is said that the cleaning and painting of the hull of a steamer often increases the speed by one-fifth and even one-fourth. In fact, experience has shown that a steamer should each year go into a graving dock for a length of time varying from 3 to 15 days for cleaning, painting and general repairs.

LÉVIS GRAVING DOCK.

The Lévis graving dock is situated at St. Joseph de Lévis on the southern shore of the St. Lawrence, 2 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 8 feet, making the total length of the dock inside the first meeting face of the caisson 484 feet.

The wing wall on the eastern side of the entrance extends 150 from the caisson into the river, while that on the western side extends 270 feet.

The depth of water on the sill is 26½ feet at high water spring tides and 20½ feet at high water neap tides, while the width at the entrance is 62 feet.

The dock is closed by a caisson, travelling on rollers, worked by a pair of high pressure auxiliary engines of 34 horse-power. These engines also work a small pump

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with a capacity of 900 gallons per minute which is used to clear the drainage well when the dock is in use.

The main pumps, two in number, are of the ordinary style of lift pumps, 4 feet in diameter with a 5 feet stroke, and discharge 14,000 gallons per minute. They are worked by a pair of jet condensing engines, 27½ inches cylinders and 3 feet stroke, and the horse-power is 400. Steam is supplied by three tubular boilers 14 feet 10 inches in length and 6 feet in diameter.

The dock proper is built of limestone from the Terrebonne quarries, the courses being exceptionally large and the stone of the best quality, laid in Portland cement. It is lighted with 12 arc lamps supplied from a Thomson and Houston dynamo, so that vessels can be docked at night and work carried on without interruption.

During the fiscal year, the dock property has been kept in excellent working condition with ordinary care to the pumping machinery and caisson. The north and east walls of the engine-house as well as the shop were painted three coats, the work being done by the dock staff.

The caisson was placed in the chamber and the bottom and lower portions of the sides and ends were scraped and painted with two coats. The timber facing was repaired to ensure a closer joint with the invert and side walls, and this has shortened the time of emptying the dock by from 30 to 45 minutes.

While the caisson was in the chamber undergoing repairs, the extraordinary high tide of May 16th rose above the stop logs and flooded the dock, causing the caisson to float, and raise with it the covering of the chamber as well as the cement in which the ends of the beams are bedded, also causing some slight damage to the folding bridge on the caisson. The sum of \$250 made good the damage referred to.

A 6 inch section pipe and a 5 inch delivery pipe were procured for the fire pumps to furnish clear water from the river outside of the caisson to the reservoir in the engine-room from which the boilers and jet condenser are fed, instead of using, as heretofore, water from the dock or caisson chamber which always contained sediment.

The following is a list of the vessels which occupied the dock during the year:—

Date.	Name of Vessel.	From	To	Amount.	Remarks.
				\$ cts.	
1892.					
Aug. 12....	SS. "America".....	Aug. 5..	Aug. 11..	538 75	
Sept. 27....	Bark "Prince Oscar".....	Sept. 24..		200 00	
Oct. 6....	do do.....	do 26..	Oct. 5..	397 90	
do 19....	Government str. "Alert".....	Aug. 30..	Sept. 15..	833 25	
do 29....	SS. "State of Georgia".....	Oct. 17..	Oct. 28..	1,696 08	
Nov. 15....	Government dredge No. 11.....	do 8..	do 11..	340 00	
do 21....	Stone lifter No. 3.....	Nov. 1..	Nov. 5..	320 00	
do 23....	Strs. "Montreal" and "Canada".....			200 00	
Oct. 9....	Government stone lifter No. 3.....	Nov. 14..	Nov. 19..	325 00	
1893.					
May 5....	Strs. "Montreal" and "Canada".....			1,300 00	Wintering.
do 19....	SS. "Hurona".....	May 19..		200 00	
June 16....	SS. "Wandrahm".....	June 15..		200 00	
July 15....	SS. "Hurona".....	May 21..	July 14..	6,842 45	
	Less, refund to Davis for actual outlay on SS. "Alert".....			13,393 43 87 00	
	Total.....			13,306 43	

The expenditure for maintenance and repairs amounted to \$8,470.07, thus leaving the net revenue of the dock for the year \$4,836.36.

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 which passes through the Welland Canal.

The following is a description of the dock proper, caisson, boilers, engines, &c.

The dock is 280 feet long from the inner face of invert to the foot of the stairs. The invert is 10 feet wide, hence 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 caisson is 59 feet in length on long face, 57 feet on short face, 13 feet wide by 22 feet deep. It is operated by a worm gear arrangement in connection with the auxiliary engines hereinafter alluded to.

The large steam boilers (battery of 4) are all connected and are provided with controlling valves so that one or more of them may be used at the same time. The length of shell is 14 feet, diameter 5 feet 6 inches, thickness of plates $\frac{3}{8}$ inch, 84, $3\frac{1}{2}$ flues same length as shell. Pressure of steam 100 lbs. to square inch.

The small auxiliary boiler is of the drop flue type. The shell is 9 feet by 4 feet, plates $\frac{3}{8}$ inch thick, has 250 drop flues $1\frac{1}{2}$ by 18 inches with circulating tubes. This boiler saves from 50 to 75 per cent of the fuel required by one of the large boilers to do the same amount of work.

The main engines, two in number, are of the vertical high pressure type. The cylinders being each 18 inches by 18 inches. These engines operate the two main pumps.

The main pumps are of the centrifugal type, having each a 20 inch diameter discharge and jointly capable of discharging 30,000 gallons per minute against a head of 33 feet.

The auxiliary engines are of the vertical high pressure type. The two cylinders are each 12 inches by 12 inches. These engines operate the auxiliary pump and the caisson.

The fire pump was made by the Knowles Co., of Boston. The steam cylinder is 15 inches by 21 inches and the water cylinder 10 inches by 21 inches. This pump can also be used to do the duty of the auxiliary centrifugal pump should the latter be disabled.

The pony engine and pump has two steam cylinders each 6 inches by 7 inches. The water cylinder is 4 inches by 7 inches. This pump is used for feeding the water supply to the boilers and for sprinkling purposes, and is capable of lifting 3,000 gallons per minute against a head of 32 feet.

During the fiscal year 1892-93, several material improvements were made to the dock.

A vertical boiler 4 feet in diameter by 9 feet in height was purchased.

This boiler will pay for itself, it is claimed, in one year, as it will save 40 per cent of the coal consumed in keeping the dock free from water flowing through the arterial drains while it is un-watered.

The fire pump was removed from the upper to the lower floor of the engine-room. A shed for the storage of coal, the dimensions of which are 30 feet by 40 feet was built on the wharf south of the machinery building, also a wooden fence of the best description was built around the whole government property for a length of 868 feet, with gates on Gore and Union Streets.

During the year, 51 vessels of various class and tonnage were docked, the amount of revenue being \$6,196.49.

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The following is a statement of the vessels which entered the Dock during the year:—

Name of Vessel.	From.	To.	Amount.	Remarks.
	1892.	1892.	\$	cts.
Barge "Corn Crib"	July 2		59	20
do "Glengarry"	do 5		52	00
Ship "Minnedosa"	do 6		154	10
Elevator No. 2	do 25		58	40
Tug "Glide"	do 8	July 9	40	00
Str. "Maynard"	do 11		20	00
Tug "Traveller"	do 12	July 13	41	45
Barge "Dakota"	do 28	do 30	141	00
Str. "Campana"	do 30	do 31	258	26
Steam barge "Resolute"	Aug. 5	Aug. 6	100	39
Tug "Thistle"	do 26	do 27	20	00
Str. "Jessie Brown"		do 29	20	00
Yacht "Joe"		do 29	20	00
Str. "Walter Vail"	Aug. 30	do 31	133	43
Barge "Dakota"	July 28		61	79
Dredge "Queen" and Tug "Ottawa"	Aug. 22	Aug. 26	104	20
Barge "Jennie"	Sept. 5		92	21
Tug "Walker"	do 7		27	71
Barge "Regina"	do 8		88	12
Str. "D. D. Calvin"	do 9	Sept. 10	177	41
do "Campana"		do 22	225	70
do "Buttironi"		do 19	136	53
Tug "Ottawa"		do 14	20	00
do "Bronson"		Oct. 4	20	00
Str. "Algonquin"		do 7	283	56
Barge "Iowa"	Oct. 10		73	00
do "Chicago"	do 11		70	00
Tug "Petrel"	do 18		82	35
Ship "Minnedosa"	do 24		154	10
Str. "Algonquin"	do 26		738	53
Sch. "Grantham"	Nov. 7	Nov. 8	114	27
Elevator "Ceres"	do 28		50	40
do	Dec. 1		50	40
Tug "Glide"	do 5		20	00
Barge "Alberta"	do 5		62	78
Tug "Jessie Hall"	do 7		40	00
Barge "Corn Crib"	do 7		79	92
do "Wheat Bin"	do 9		64	00
	1893	1893		
Tug "Walker"	April 25	April 28	27	72
Barge "Bella"	do 26	do 27	90	80
do "Maggie"	do 29		87	00
Str. "Algonquin"	Dec. 13	April 22	500	00
do "City of Owen Sound"	April 27	May 1	174	41
do "Iowa"	May 10	do 11	73	00
do "Algonquin"	April 22		865	05
Barge "Wheat Bin"	May 23	May 26	146	60
Tug "Thomson"	June 10	June 11	50	86
do "Mary"	do 14	do 15	23	00
do "Bronson"	do 24	do 25	20	00
do "Alcona"	do 16	do 17	149	04
do "Jessie Hall"	do 21	do 22	33	80
Total, 1892-93			6,196	49

ESQUIMALT GRAVING DOCK.

This dock, which was commenced by the Provincial Government, was taken over by the Dominion when but little work had been done, completed and opened in

July, 1887, when H.M.S. "Cormorant" was docked. It is situated in a small cove in Esquimalt Harbour, and the following is a description of the dock, engines, pumps and boilers :—

	Feet.	Inches.
Length of dock over keel blocks.....	430	
Width of inner invert	20	
do caisson chamber	15	10
do outer invert.....	15	
Total length of dock.....		
	480	10
Width of dock at coping.....	90	
do do entrance.....	65	
do do floor of dock.....	41	1
Radius of invert.....	16	6
Depth of water on invert at low water.....	24	6
do do ordinary high water.....	26	6
Total depth of dock above invert.....	33	6
Height of invert above floor of dock.....	3	
do keel blocks.....	2	10
Length of do	4	
do caisson (inside facing).....	67	
do do (outside facing reversible).....	71	
Width of do over teak meeting faces.....	15	8
2 condensing engines, cylinders 27 inches diameter, 36 inches stroke.		
2 lifting pumps, cylinders 48 inches diameter, 60 inches stroke.		
3 Cornish boilers, 6½ feet diameter and 14 feet in length.		
1 high pressure auxiliary engine, cylinders 16 inches diameter, 20 inches stroke.		
1 centrifugal pump, 14 inches suction, 12 inches discharge.		
1 return tubular boiler, 5 feet 3 inches diameter, and 14½ feet in length.		
1 hauling engine for caisson, cylinder 12 inches diameter; 14 inches stroke.		
1 centrifugal drainage pump, 6 inches suction; 5 inches discharge.		
1 Edison No. 4 dynamo, 1,600 C.P. 16 lamps around dock.		
1 engine for dynamo 8 inches diameter by 12 inches stroke.		
1 iron movable stopgate for caisson chamber.		
25 iron bollards around dock.		
1 wooden crane, 10 tons capacity.		
8 hand capstans.		
6 hydrants.		
2 hose reels and 300 feet of canvas hose.		
1 diving apparatus, complete.		
1 lathe, 6 feet bed.		
1 drilling machine.		
1 set of taps and dies complete.		
1 steam box for bending planks.		
2 iron warping buoys.		
2 dolphins to mark channel at entrance of dock.		

In accordance with authority the sum of \$4,075.58, has been expended in carrying out several essential repairs in the caisson chamber of the dock with beneficial economic results. After careful and repeated examinations it was determined that the leak, which necessitated constant pumping to keep the dock dry when occupied by a ship, occurred in the walls of the chamber, in the culvert and valve chambers connected therewith, and in the culvert on the opposite side of the dock, it was decided to (1) line the arched recesses of the chamber with selected hard burnt brick, laid in Portland cement compo; (2) point the remaining exposed joints of the rock faced ashlar; (3) close the culvert and valve chamber at the upper end of the chamber which were found to be of no practical use; and (4) fill in the culvert and valve on the opposite side of the dock also found to be of no utility. This work has been

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satisfactorily performed with the result that the times of pumping necessary to keep the dock dry have been reduced from intervals of 20 minutes to intervals of 3½ hours. The dock is now in a better condition than at any previous time since it was opened.

During the past year the dock has been occupied by 10 ships, covering a period of 259 days, the fees and other charges amounting to \$23,204.38, while the running expenses were \$13,196.61; of the 10 ships above mentioned four were men-of-war in dock 107 days, and the Dominion Government Steamer "Quadra" in dock 56 days. The remainder were merchant vessels.

It will thus be seen that the net earnings of the dock for 1892-93, amounted to \$10,007.77.

The following is a statement of the vessels which entered the dock during the year:—

Name of Vessel.	From		To		Amount.	Remarks.
	1892.		1892.		\$	cts.
Str. "Bushmills"	Aug.	31.	Sept.	1.	772	80
H.M.S. "Nymphé"	do	22.	Aug.	25.	190	70
Barge "Dominion"					50	00
Str. "Quadra"	June	27.	Aug.	17.	3,479	20
H.M.S. "Warspite"	Sept.	3.	Nov.	23.	4,336	66
			1893.			
Str. "Premier"	Nov.	26.	Jan.	6.	4,316	80
			1893.			
H.M. S. "Garnet"	April	4.	April	12.	485	58
Str. "Lorne"	do	15.	do	16.	532	60
Str. "Quadra"	March	20.	March	23.	580	60
Str. "Romulus"	April	18.	June	2.	7,301	25
H.M. S. "Champion"	June	3.	do	29.	1,158	19
Total, 1892-93					23,204	38

IV.—SLIDES AND BOOMS.

In connection with the different systems of slides and booms, owned and operated by the Dominion Government on the Ottawa River, the St. Maurice River, the Saguenay River, and in the Trent and Newcastle District, the information relative to the work performed, and revenue collected during the fiscal year 1892-93, will be found in the following reports, which are respectively the reports of:—

Mr. G. P. Brophy, Superintending Engineer of the Ottawa River Works; Mr. Thos. Berlinguet, Engineer in charge of the St. Maurice River Works; Mr. J. Rosa, formerly Engineer in charge of the works on the Saguenay River; Mr. R. B. Rogers, Superintending Engineer of the Trent and Newcastle District works; Mr. E. T. Smith, Collector of Slide and Boom Dues.

Owing to the reduction in the staff of the St. Maurice works, and a modification of the rules and regulations and tariff of tolls on those works, instead of an annual deficit, the revenue during 1892-93 exceeded the expenditure.

REPORT ON THE OTTAWA RIVER WORKS BY MR. G. P. BROPHY.

OTTAWA, 18th August, 1893.

SIR,—I have the honour to submit the following report of the works under my charge, on the Ottawa and tributary rivers, for the fiscal year ended 30th June last.

During the late summer and autumn months of 1892, comparatively low water prevailed in the streams, which delayed some of the drives of timber and logs and necessitated the laying up of some of the rafts until the following spring; but generally speaking, the mills were well supplied with logs and their sawing operations were up to a fair average.

After the bulk of the timber had passed the various stations, and the water had fallen sufficiently in the autumn months, the foundations of the works, where accessible, were examined, and a commencement made of the necessary works of repairs and reconstruction, which later on, were carried out to completion and may be described as follows:—

REPAIRS AT STATIONS ON THE OTTAWA RIVER (MAIN STREAM).

At Carillon Station, portions of the main guide-booms above the slide entrance were strengthened by the insertion of new planking, timbers and screw-bolts, and certain hardwood stop-logs, which had become unserviceable, were replaced by new ones.

At the Ottawa or South Chaudière Station.—The repair work consisted of strengthening the side piers of the 2nd slide, removing and replacing stone-filling; making good defects in guide booms; providing new stop logs and relaying the bottom planking in the slides where worn out. The buildings in connection with the general store-house were also repaired, extended and painted.

At the Hull or North Chaudière Station.—The boom fastenings, bulkheads and planking were repaired and the timbers in the side piers of the slide overhauled.

Roadway between Ottawa and Hull.—The roadway between Ottawa and Hull was cleaned from time to time and macadamized. The traffic here is so great and constant that the heavily loaded vehicles soon pulverize the ordinary limestone hitherto in use, but arrangements are now being made to place a coating of crushed granite in front of the Hull factories, and to lay at the Union Bridge approaches, sections of Belgian porphyry pavement and granite blocks, as a step towards obtaining a permanent roadway, where the thoroughfare is under the control of the Government. Near the northerly end of the Union Bridge, the sidewalks have been carried out to the full width of the mason work of the causeway, which has had the effect of adding to the safety and convenience of foot passengers at this place, and iron water pipes provided at fixed intervals to carry off the surface water from the roadway where the pavement is completed.

Chats Station.—The bottom of the slide was, for a considerable portion, replanked, and the side piers were strengthened by placing new timbers where required. A new oak spindle was provided for the boom and an oak post for the bulk-head.

Portage du Fort Station.—A section of the guide boom at the entrance of the slide was renewed; the bulk-head rebuilt; the pier corners faced with maple plank and the stop-log recesses lined with iron plates. Near the foot of the slide the side timbers and ties of the side pier had to be repaired and braced up, and the stone filling removed and replaced, and four new stop-logs were provided for governing the water at the bulk-head. The slide bottom was caulked to guard against leakage.

Mountain Station.—The side piers and bottom of slide had their timbers partially renewed, while the stone filling of the piers was levelled up and the guide boom strengthened.

Calumet Station.—Above the entrance to the upper slide five snubbing posts were erected along the shore with the view of enabling the raftsmen to have better control of their cribs at this point, and to guard against their being driven by cross winds into the swift current leading to the Grand Calumet Falls. The dam at the side of the basin between the second and third slides was repaired and strengthened and a new governing bulk-head constructed for the purpose of supplying water to the third slide; the aprons and bulk-heads of the upper slides were also repaired, and the booms and their fastenings adjusted.

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Joachim Station.—At this place the governing dams were repaired in their timbers and covering, and the bottom planking of the slide partially renewed where worn out and damaged by the passing timber.

Rocher Capitaine Station.—The slide planking was repaired, and the head of spikes having a tendency to project were driven so as to be countersunk; planking was laid on the bulk-head and certain minor repairs executed to the governing dam above the slide.

BRIDGES AT OTTAWA AND HULL.

Union Bridge.—The braces, transverse and lateral rods and counter rods of the superstructure were examined and the nuts adjusted.

Bridge across slide and hydraulic channels at the Chaudière. The iron rods were adjusted in their tensions and the roadway planking repaired where worn out by the heavy traffic.

Dufferin Bridge.—Some of the roadway block pavement having decayed, new blocks laid in tar and gravel had to be inserted, and at places where the iron guard of the water table had become detached, it had to be relaid.

Maria Street Bridge.—Having become dilapidated in some parts of its superstructure, the main truss timbers, needle-beams and hand railing were renewed, and such other repairs executed as will make the bridge serviceable until replaced by a more durable structure, which I understand is in contemplation.

REPAIRS ON TRIBUTARIES OF THE OTTAWA.

Gatineau River.—The outlet creek from the pond or lake in connection with the main boom, and the canal leading thereto, were obstructed by sand and debris to such an extent that, at low water season, logs could not pass the works to the lower sorting gaps; this deposit had therefore to be excavated and removed. A pier was faced with plank; the fences of the Government property and reserves repaired; the workmen's camp building and store-houses had their roofs made water-tight, and additional facilities were afforded at the sorting gaps, by the enlargement of the booms and the platforms at the openings.

Madawaska River.—At Arnprior Station, the boom fastenings and moorings were strengthened; the slide bottom and sides were repaired by the use of new timbers and plank; new stop-logs were provided and the apron faced with hardwood. At the foot of Long Rapids, the flat and pier dam was further strengthened; at Little Rapids, the pier dam was raised and the new portion stone-filled, while the old planking was removed to the new work. At High Falls and Chain Rapids slides the entrance bulk-heads were repaired and angle-iron plates inserted in the stop-log checks where the corners had given out, and at the former slide hardwood planking was laid on the bottom and sides where similar material had been worn out. At Ragged Chute, a portion of the governing dam was raised by building a stone-filled pier planked on front and top.

Coulonge River.—At the head of the Coulonge slide, immediately above the High Falls, the main guide boom had some of its timbers repaired and at Ragged Chute, about 35 miles up stream, a flat dam, which had become dilapidated through the action of the high water and the battering received from the passing timber and logs, was thoroughly overhauled and made serviceable for the purposes of the lumbermen.

Black River.—Some of the side and brace timbers of the slide were removed and replaced by new ones; the side dam strengthened and the projecting spikes in the bottom and sides of the slide countersunk.

Petewawa River.—At the lower single stick slides, and at the slide-master's house, near the mouth of the stream, some necessary repairs were executed, and at Cedar Lake main retaining dam and piers, where leakage had taken place, it was found necessary to staunch the same with gravel, to provide timbers at the weak

points, and to replank the sluice-ways with hardwood. Posts were planted in piers and the corners faced. The stop-log hoisting gear was also repaired and improved, and stone-filling done where required.

Dumoine River.—At the head of the High Falls slide, it was necessary to provide flatted timber for the extension of the booms.

WORK OF RECONSTRUCTION.

At *Calumet Station*, on the Ottawa River, a flat dam near the outlet of the third or lowest slide at this station, had been wrecked; it was rebuilt across the channel, and a timber apron provided to receive the impact of the cribs which have to pass this somewhat dangerous rapid. A new apron was also placed at the foot of the second or long slide, with suitable chain attachments.

Petewawa River.—Certain works in connection with the boom and piers near the mouth were rebuilt, as well as the foundation of the governing dam at Crooked Chute; and at Half Mile Rapid, a flat dam was reconstructed and some improvements effected in the channel above Bois-dur Station. At McDonell's station, the superstructure of the slide was widened, and for the most part rebuilt and the entrance pier extended. At the foot of the slide, the slide piers were rebuilt.

The heavy snow fall during the winter of 1892-93 in the Ottawa Valley, and more especially in the regions surrounding the sources of the main river and its principal tributaries, taken in connection with the copious rainfall at the time of the break up in the spring, had the effect of raising the waters to such a pitch as has not been experienced by the people of this district since the memorable year of floods (1876). Such a heavy body of water carrying with it sheets of ice of very great thickness, due to the unusually low temperature prevalent in the winter months, had a disastrous effect on the works under my control at many of the stations; for instance, on the 20th of April, a large sheet of ice was driven by a gale of wind from near the mouth of the Mississippi, and against the current of the Ottawa, to the range of boom piers near the mouth of the Madawaska, and cut ten of these piers down to a level below the then existing water mark. On the 23rd of April, the middle section of the dam at Little Rapids on the Madawaska, was carried away, and at a later date, very considerable damage was done to the head works at High Falls, Ragged Chute and Chain Rapids on the same stream. At the last mentioned station (Chain Rapids), the upper portions of the dam and the bulk-head were destroyed by fire, which, by some means, reached the works; its origin is not definitely known, but it is supposed that it had spread from a hunting party's camp fire that had carelessly been left to burn out. On the Coulonge, the main boom at the head of the Chute gave way, and on the 6th of May, the resident slide-master reported that a fall of stone from the precipitous banks had broken through the slide. On the Petewawa, on the 19th of May, the dam at the First Chute gave way and wrecked 200 feet in length of the single stick slide; while a break took place in the boom at the mouth, as well as at the end of the dam at the third chute.

At the Carillon slide, on the Ottawa, the lower apron was displaced, and at the Chaudière station, the side piers of the slide, and the lower booms were considerably disturbed. At Chenaux station, the main boom near the island broke without any escape of logs or timber, and at Portage du Fort, part of the side pier of the slide was carried off, and breakages caused to the booms.

In many of the above cases such repairs as were practicable were speedily executed, and the works made available for the purposes of the lumbermen, but in some instances, such as at the breakage of the dam and slide at the first chute on the Petewawa, and the cutting down of the boom support piers near the mouth of the Madawaska, temporary expedients had to be resorted to, to admit of the passage of timber and saw-logs, and it will not be possible to put these works in a thorough state of repair until the season of low water and after all the timber has passed. The same remarks apply to other damaged foundations which will only be accessible at the season of lowest water. When the water was at its highest register, an immense pressure was put on the works, and it was with the greatest difficulty that

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the slides and booms could be operated, indeed, at some of the stations where guide booms could not be stretched at that stage of the water, other arrangements had to be temporarily made for the passage of timber than through the slides. The high water of the spring and early summer months favoured early "drives," and timber and logs even from the more distant lumbering districts, were approaching the lower works before the end of the fiscal year; it is, therefore, expected that the "sweep" for 1893 will be nearly clean.

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 amount of revenue accrued therefrom as tolls, for the fiscal year covered by this report:—

	Pieces.
Square white pine timber.....	55,023
do red do	11,367
Flat do do	73
Boom and dimension.....	55,657
Spruce boom and dimension.....	320
Tamarack.....	7,248
Dimension.....	20,324
Long cedars.....	14,952
Cedars, 12 and 16 feet long.....	944
Railroad ties.....	202,849
Fence posts.....	64,526
Saw-logs.....	2,336,088
	2,769,371

Also 21 cribs rafting material, and 4,508 $\frac{3}{4}$ cords of pulpwood.
 The revenue accrued on the above was \$66,379.
 In respectfully submitting the above,

I have the honour to be, sir, your obedient servant,
GEO. P. BROPHY,
Superintending Engineer, Ottawa River Works.

LOUIS COSTE, Esq.,
 Chief Engineer, Department of Public Works,
 Ottawa.

REPORT ON THE ST. MAURICE RIVER WORKS, BY F. X. THOS. BERLINGUET.

THREE RIVERS, 1st September, 1893.

SIR,—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 of 1892 were small in comparison with those of previous years. The river commenced to rise on the 1st April, and reached its maximum height on the 7th May—corresponding to 12 feet 3 inches above the lowest water level, observed in 1889.

On the 12th August the water rose about 4 feet, and at the beginning of October it rose about two feet, which gives a good pitch for the floating of logs.

Instead of each lumber merchant having a drive of his own logs, as formerly, they this year combined to have a joint drive from the Piles down, which proved very satisfactory.

After the working season, the slides, piers, and booms were examined, and in the fall the necessary work of repairs and reconstruction were commenced, which may be described as follows:—

At Grandes Piles Station:—One mooring pier and one anchor pier were built, at Pointe à Magdeleine, to retain logs on the western side of the river.

At Grand' Mère Station :—Slight repairs were made to the main boom.

At Shawenegan :—Slight repairs were made, the sheathing at the head of the slide was renewed and some 500 feet of booms from the bay were removed to the island, at the head of the fall.

At Three Rivers Station :—Four mooring piers were rebuilt, and one repaired, at Cap aux Corneilles, to retain the logs on the eastern side of the river at a medium stage of the water level.

The following statement, furnished by the collector of slide and booms dues, in your department, shows the quantities of the various descriptions of timber that passed the Government works, together with the amount of revenue accrued as tolls, for the fiscal year covered by this report:—

Statement of the number of pieces of saw logs, &c., that passed through the Government slide and works on the St. Maurice River during the fiscal year ended 30th June, 1893.

Saw logs.....	420,883 pieces.
Cedar posts.....	420 "
Railway ties.....	8,151 "
Round timber.....	2,149 "

Total..... 431,603 pieces.

Also 13,610 cords of pulpwood.

The revenue accrued on the above was \$11,114.90.

The amount of expenditure for staff, maintenance and repairs for fiscal year ended 30th June, 1893, was:

Staff and maintenance expenses.....	\$6,480 61
Repairs at Grandes Piles Station.....	1,062 98
" Grand' Mère " 	295 42
" Shawenegan " 	222 88
" Three Rivers " 	1,468 15

Total expenditure for 1892-93..... \$9,530 04

The expenses for maintenance this year are \$6,893.61 less than those for 1891-92.

I have the honour to be, sir,

Your obedient servant,

F. X. THOS. BERLINGUET,

Acting Superintending Engineer.

LOUIS COSTE, Esq.,

Chief Engineer, Department of Public Works,
Ottawa.

REPORT ON THE SAGUENAY SLIDE AND BOOMS, BY MR. JOSEPH ROSA.

QUEBEC, 10th July, 1893.

SIR,—I have the honour to report as follows, on works executed, and the operations of the Saguenay Slide during the fiscal year ended 30th June, 1893.

The slide and booms were repaired, and as it was necessary to keep during the winter about 20,000 logs in the booms at the head of the slide, they were strengthened in order to stand the descent of ice in the spring.

During the fiscal year 1892-93, 20,900 pieces of timber, of the undermentioned dimensions and kinds passed through the slide:

394 white pine logs.....	12 to 14 feet long.
23,820 spruce do	12 to 14 do
392 do do	20 to 25 do
944 do do	25 to 30 do
350 do do	30 to 35 do

Department of Public Works.

On the 27th May last, 4 spans of the slide were destroyed by the large timber coming down and debris. These were replaced as soon as practicable.

The booms in the Grande Décharge were stretched in the autumn of 1892.

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

JOSEPH ROSA,
Superintendent.

LOUIS COSTE, Esq.,
Chief Engineer, Department of Public Works,
Ottawa.

REPORT ON THE TRENT AND NEWCASTLE DISTRICT WORKS, BY MR. R. B. ROGERS.

PETERBOROUGH, 14th October, 1893.

SIR,—I have the honour to submit the annual report on the works under my charge for the fiscal year ending 30th June, 1893.

The works under my supervision in this district are constructed for two purposes, namely, for the benefit of navigation, and to facilitate the descent of timber. The former are under the control of the Department of Railways and Canals, the latter are under the control of the Department of Public Works. The works are situated along the River Trent, between Trenton, on the Bay of Quinté, and Balsam Lake (a point about 15 miles from Lake Simcoe), a district about 170 miles in length.

There is a very large watershed reaching as far as the headwaters of the Madawaska on the north-east and those of the Muskoka on the north and west, comprising an area of over 2,000 square miles of watershed. The regulation of the water of this large watershed has become a very important matter to the many industries situated along the route.

The water during the fall of 1892 was very high, and remained so during the winter. The water during the last spring was also very high but it passed off without doing more than the ordinary amount of damage to the works.

The new rules and regulations which were passed last spring regarding the sizes of bags or booms of logs moving down the stream have been fairly well carried out, and it has made a great improvement in the navigation.

Most of the firms admit that bringing their logs down in the smaller bags, called for in the regulations, is a more economical method than the old method of using large bags. Most of the firms now have tugs of their own for towing their logs.

The following repairs were executed at the different stations during the year:

Fenelon Falls.

A jam of logs occurred in the middle of the slide which caused a break in the bottom and sides of the dam. This was repaired.

Buckhorn.

The glance booms to the slide were broken by the ice were repaired. A single stick boom was also put on the piers below the mouth of Massasaga Creek.

Katchuwanoe Lake.

Two new snubbing piers were built at the lower end of the lake to prevent the logs from drifting into the navigation channel.

Peterborough.

New movable iron crab winches were put on the slides to replace the old timber windlasses for raising and lowering the stop-logs. New floor timbers and floor were put on the centre slide. The booms in the lake above were also overhauled.

Hastings.

Boulders were removed from the channel at the bar, about two miles below Hastings, known as "Huycke's bar." This was not completed owing to the water raising so very high.

A number of minor repairs were also done to the several booms and slides along the works.

I inclose statement showing the number of pieces of timber, &c., &c., which passed through the river Trent and Newcastle District slides.

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

RICHARD B. ROGERS.
Superintending Engineer.

L. COSTE, Esq.,
Chief Engineer, Department of Public Works,
Ottawa.

STATEMENT showing the number of pieces of Timber, &c., which passed over the different slides on the River Trent and Newcastle District Works during the fiscal year ended 30th June, 1893.

Station.	Saw-logs.	Railroad ties.	Fence posts.	Long cedar.	Dimension timber.	Shingle bolts.	Boom timber.	Telegraph poles.
Fenelon Falls	125,824	49,142	14,023	3,000	.....	.....	1,153	.....
Bobcaygeon	93,500	11,544	14,426	2,000	.....	.....	860	.....
Buckhorn	93,500	11,544	14,426	2,000	.....	.....	860	.....
Lovesick	170,258	92,544	26,926	13,300	4,150	2,700	3,466	207
Burleigh	170,258	92,544	26,926	13,300	4,150	2,700	3,466	207
Young's Point	170,258	92,544	26,926	13,300	4,150	2,700	3,466	207
Lakefield	170,258	92,544	26,826	13,300	4,150	2,700	3,466	207
Peterboro'	170,258	92,544	26,966	13,300	4,150	2,700	3,466	207
Hastings	93,937	7,808	25,881	11,927	.....	.....	4,417	207
Heeley's Falls	93,937	7,808	25,881	11,927	.....	.....	4,417	207
Chisholm's Rapids	93,937	7,808	25,881	11,927	.....	.....	4,417	207

REPORT ON THE COLLECTION OF SLIDE AND BOOM DUES, BY MR. E. T. SMITH,
COLLECTOR.

DEPARTMENT OF PUBLIC WORKS,
COLLECTOR'S OFFICE, OTTAWA, 26th Oct., 1893.

SIR,—I have the honour of submitting my report on the revenue accrued from the slides and booms controlled by this department, and the collection thereof during the fiscal year ended 30th June last.

OTTAWA DISTRICT.

The revenue accrued during the past financial year was \$60,379.09, viz., \$16,118.27 more than the previous corresponding period. The increase being due to the larger quantities of square timber and saw-logs which passed through the works; as will be seen by reference to Statement No. 2, herewith, there were 48,482 more pieces of square timber or nearly three times as much as in 1891-92, and 212,862 saw-logs more than that year.

The collections likewise show a satisfactory increase, for, besides all the dues of 1892-93, there was collected of arrears and interest \$731.79, making a total of

Department of Public Works.

\$61,110.88, or \$11,924.63 more than the collections during the year ended 30th June, 1892.

Of the arrears of dues accrued since 1st July, 1889, there remains uncollected \$7,328.07, which is composed of Chaudière boorage of 1889-90, disputed and reported to the Privy Council, amounting to \$6,903.05; dues on a raft of timber, still in Quebec unsold, \$397.50 and \$28.42 amount of an account in the hands of a solicitor for collection. The remainder of the dues in arrear on 30th June, 1892, as shown in Statement No. 3, with my report for last year, consisted of the sum of \$590.70 since collected, and an overcharge of \$22.40 which was written off.

In short, the collections were as follows:—

Of dues accrued during fiscal year 1892-93.....	\$60,379 09
do do 1891-92.. ..	590 70
Interest on arrears.....	141 09
Total	\$61,110 88

The amounts outstanding uncollected on 30th June last, were as follows:—

Of dues accrued prior to 1st July, 1889, when the collection was transferred to this department.....	\$56,073 00
Accrued during year ending 30th June, 1890.....	6,903 05
do do do 1891.....	425 92
Total	\$63,401 97

showing a reduction of \$613.10 during the past year.

It will be observed that the amount of dues accrued prior to 1st July, 1889, stands at the same figure as it did on 30th June, 1892, namely, \$56,073. Statement No. 4, herewith, explains in detail of what this sum is composed, and why it has not been collected.

The amount of dues outstanding at Quebec on 1st July, 1889, that is to say, \$1,151.75, remains unchanged. A full explanation of this matter will be found in Statement No. 5, also herewith.

I have therefore much satisfaction in drawing attention to the fact that all the revenue accrued from the Ottawa District, since 1st July, 1889, apart from charges disputed on apparently good grounds, has been collected but \$425.92 as above explained.

Herewith inclosed are five statements relating to the Ottawa District, viz.:—

- No. 1. Statement of dues accrued, from each of the slides and works, during the year ending 30th June, 1893.
- No. 2. Statement of the number of pieces of timber, &c., which passed through the works, during the same period.
- No. 3. Statement of dues accrued since 1st July 1889, uncollected 30th June, 1893.
- No. 4. Statement of slide and boom dues outstanding at Ottawa, 30th June, 1889, uncollected 30th June, 1893.
- No. 5. Statement of slide dues outstanding at Quebec 30th June, 1889, uncollected 30th June, 1893.

ST. MAURICE DISTRICT.

The revenue accrued during the past fiscal year amounted to \$11,196.92, being the largest figure attained since the year ended 30th June, 1884.

The collections amounted to \$11,853.15, being the full amount of dues accrued during the past year, and the sum of \$656.23 arrears collected through the Department of Justice.

Statement No. 6, herewith, shows in detail the amounts of arrears uncollected 30th June last, in all \$15,922.39.

It is worthy of notice that while the collections were greater during the year just closed by \$4,093.31 than those of the previous year, a large saving was effected in the cost of collection by adopting the same methods as have been in use in the Ottawa District.

Instead of having a staff, which cost in 1891-2, for salaries and expenses \$1,043.86, the work was done from this office at a cost of \$130.75, for travelling expenses, of which the greater part was spent in familiarizing myself with the works on the St. Maurice, hence the actual saving was \$913.11.

It is proper that I should here disclaim any credit for the increased revenue, as that is entirely due to the larger output of saw-logs during the winter of 1891-2, nor do I wish it to be understood that the amount given as expended in travelling was the full amount so spent, as there were further travelling expenses incurred to the amount of \$103.85, which is properly chargeable against the arrears of dues accrued previous to the collection for this district being confided to me.

As the regulations in force at the beginning of the last fiscal year were contradictory and inapplicable to the new system then introduced, they were entirely remodelled, except as to the tariff of tolls, which remains practically the same, and came into force on the 13th of April last.

SAGUENAY DISTRICT.

The revenue from this district was \$638.88 which still remains uncollected.

The only parties using these works are Messrs. Price & Co., whose counter claim remains unadjusted.

Including the above, the total amount standing against this firm on 30th June last, was \$9,538.91, see Statement No. 7 herewith.

NEWCASTLE DISTRICT.

Instructed by the department I endeavoured to collect the arrears of dues accrued in this district outstanding on 30th June, 1892, amounting to \$6,490.77, of which, however, I only succeeded in getting \$715.17, in addition to which overcharges to the amount of \$8.60 were written off, leaving outstanding \$5,767. Statement No. 8.

In consequence of the proceedings taken, Messrs. M. M. Boyd & Co., deposited in the Exchequer Court the amount of the account against them, \$2,245.81, and entered an action for damages caused by the seizures and detention of their lumber. The case was tried at Peterboro' on the 8th of June last, but no decision has been yet handed down.

Pending the decision in this case it was considered better not to press for settlement of the other unpaid accounts.

The dues accrued during the past financial year amounted to \$38.55, which was collected.

In consequence of there being but one point in this district at which a toll was charged, and that a very small one, yielding an annual average revenue of but \$545.46, and as the annual expenditure for staff and maintenance of the works averaged in the vicinity of \$6,000 per annum, it was decided to impose tolls for the use of all the works under the control of this department between Cameron Lake

Department of Public Works.

and Heeley's Falls, in the hope of at least making them self-supporting; but from changes in the trade during the past year it is doubtful if the new tariff will produce sufficient revenue to meet the expenditure, at all events for the current year 1893-94.

As the regulations were not applicable, in view of the changes in the tariff, they were completely rewritten and amended, and were approved by Order in Council of 13th April last.

In conclusion, I have to remark that owing to the extremely unsatisfactory condition of the square timber market during the past summer, unless something unforeseen occurs, the output of the coming winter will be the smallest in the history of the trade for the last forty years, speaking for the Ottawa District only.

The output of saw-logs will be much the same in this district, as last winter; while on the St. Maurice a considerable increase may be looked for.

Regarding the Saguenay and Newcastle Districts I have no data upon which to base an opinion.

I have the honour to be, respectfully, sir,
Your obedient servant,

EDW. T. SMITH,
Collector of Slide and Boom Dues.

LOUIS COSTE, Esq.,
Chief Engineer, Department of Public Works,
Ottawa.

No. 1.—STATEMENT showing the Dues accrued, on each of the undermentioned Government Slides and Works, on the River Ottawa, and its tributaries, during the fiscal year ending 30th June, 1893.

Name of River.	Name of Slide or other Improvement.	Accrued to each Slide or Work.		Accrued to each River.	
		\$	cts.	\$	cts.
Ottawa	Rocher Capitaine slides	257	00		
	Des Joachim do	265	00		
	Calumet do	1,499	04		
	Portage du Fort do	416	75		
	Chats do	1,995	00		
	Chaudière do	6,232	66		
	Chenaux Boom do	5,834	81		
				16,500	26
Petewawa	Cedar Lake to Meno Rapids	875	54		
	New slide near Lake Traverse	1,271	08		
	Lake Traverse, Front Lake	1,442	28		
	Crooked Chute	859	28		
	Bois Dur to River Ottawa	3,799	10		
				8,247	28
Madawaska	Ragged Chute and High Falls slides and improvements	10,590	90		
	Improvements below High Falls to Arnprior	2,829	68		
	Slide at Arnprior	2,149	53		
	Boom at mouth	3,122	75		
				18,692	86
Dumoine	Lower improvements			10	26
Coulouge	Coulouge slides			4,909	94
Black River	Black River slides			3,210	92
Gatineau	Gatineau			8,807	57
	Total			60,379	09

No. 2.—STATEMENT showing the number of pieces of Timber, Saw-logs, &c., that passed through the Government Slides and Works on the River Ottawa, and its tributaries, during the fiscal year ending 30th June, 1893.

Square white pine timber.....	55,023	pieces.
do red do.....	11,367	do
Flat timber.....	73	do
Boom and dimension timber.....	55,657	do
Spruce boom and dimension timber.....	320	do
Tamarack do do.....	7,248	do
Dimension timber.....	20,324	do
Long cedars.....	14,952	do
Cedars 12 to 16 ft. long.....	944	do
Railway ties.....	202,849	do
Fence posts.....	64,526	do
Saw logs.....	2,336,088	do
Total.....	2,769,371	do

Also 21 cribs rafting material and 4,508½ cords pulpwood.
The revenue accrued on the above was \$60,379.09.

EDWD. T. SMITH,
Collector of Slide and Boom Dues.

OTTAWA, 30th June, 1893.

No. 3.—STATEMENT of Slide and Boom Dues accrued from the Ottawa River Works, since 1st July, 1889, outstanding on 30th June, 1893.

Name.	Year to which dues belong.	Chaudiere boomage in suspense.	Ordinary dues.	Total outstanding.	Remarks.
		\$ cts.	\$ cts.	\$ cts.	
J. R. Booth.....	1889-90.....	2,561 69	.....	2,561 69	} Chaudiere Boomage reported to Council and referred to the Treasury Board. Should be written off.
The Bronsons & Weston Lumber Co.....	1889-90.....	2,056 96	.....	2,056 96	
Perley & Pattee.....	1889-90.....	1,203 26	.....	1,203 26	
Wm. Mason & Sons.....	1889-90.....	167 66	.....	167 66	
Pierce & Co.....	1889-90.....	913 48	.....	913 48	
Robert Gorman.....	1890-91.....	.....	397 50	397 50	Dues secured.
Alex. Fraser, acct. of Thos. Stephens.....	1890-91.....	.....	28 42	28 42	Legal action taken to collect this.
Total.....	.....	6,903 05	425 92	7,328 97	

EDWD. T. SMITH,
Collector of Slide and Boom Dues.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 30th June, 1893.

Department of Public Works.

No. 4.—STATEMENT of Slidage and Boomage from Ottawa Slides and Works, accrued prior to 1st July, 1889, outstanding 30th June, 1893.

By Whom Due.	Bad and Doubtful	Chaudière Boomage in Suspense.	Other Slide and Boom dues disputed.	Total dues outstanding 30th June, 1893.	Year to which dues belong.	Remarks.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.		
John & Wm. McLean	53 14	See note A* in remarks.		53 14	1873	Insolvent.
James Yuill	9 29			9 29	1876	Overcharge.
John Rowan	342 50			342 50	1872 and 1873	Insolvent.
Leinieux & Charrette	21 30			21 30	1873	do
Tailion & Lepierre	148 10			148 10	1873 and 1874	do
Mosgrove & 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, 1863, 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
Costello Bros	90 62			90 62	1882	do
N. E. Cormier	428 34			428 34	1888	do
John R. Booth	9,871 93	398 88		10,270 81	1881 to 1888	do
Perley & Pattee	8,889 85	419 10		9,308 95	1880 to 1888	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	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
						\$398.88 counter claim for damages by the breaking of Conlonge boom.
						\$419.10 do
						A* Chaudière boomage. These parties claim that they have maintained these works wholly at their own expense since 1881.

No. 4.—STATEMENT of Slidage and Boomage from Ottawa Slides and Works, accrued prior to 1st July, 1889, outstanding 30th June, 1893—*Concluded.*

By Whom Due.	Bad and Doubtful debts.	Chaudiere Boomage in Suspense.	Other Slide and Boom dues disputed.	Total dues outstanding 30th June, 1893.	Year to which dues belong.	Remarks.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.		
J. & B. Grier.....	76 84			76 84	1883.....	Overcharge.
R. & W. Conroy.....	95 42			95 42	1882 and 1883.....	do reported in return S. 38, for March, 1886.
A. & P. White.....	101 00			101 00	1881.....	do
J. & G. Bryson.....			252 20	252 20	1886.....	Counter claim for damage by breaking of Coulonge boom.
B. Caldwell & Son.....	4 33			4 33	1887.....	Overcharge.
Total.....	23,997 28	31,005 54	1,070 18	56,073 00		

EDWD. T. SMITH,
Collector of Slide and Boom Dues.

OTTAWA, 30th June, 1893.

Department of Public Works.

No. 5.—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 amounts were uncollected as the parties claimed damages for loss caused by the Madawaska boom breaking away in 1860.

A decision on their claim was not arrived at until 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.

EDWARD T. SMITH,

Collector of Slide and Boom Dues.

OTTAWA, 30th June, 1893.

ST. MAURICE DISTRICT.

No. 6.—STATEMENT of Slide and Boom dues from the St. Maurice Slides and Works, outstanding on 30th June, 1893.

Name.	Years to which dues belong.	Amount.	Total.	Remarks.
		\$ cts.	\$ cts.	
George Baptist, Son & Co.	1878	469 95	4,859 02	Have counter claims for damages to logs caused by the booms not being stretched early enough in the spring of 1878 to permit 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		
Ross, Ritchie & Co.	1878	3,072 84	5,281 48	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	1883	2,173 68		
do	1884	21 96		
do	1886	1 62		
do	1887	4 38		
Alexander Baptist	1879		2,116 96	
Hall, Neilson & Co. acc't,	1886	750 41	1,440 90	Legal action is being taken to collect this.
do do	1887	690 44		
William Ritchie & Co.	1888	779 24	1,111 35	Of this amount, \$754.20 is claimed to be an overcharge.
do	1889	332 11		
Ritchie Bros.	1886	413 43	1,048 14	This amount is composed of overcharges in 1886 and 1887 of \$842.76 and overpayment in 1884 of \$205.38.
do	1887	634 71		
G. B. Hall	1890		49 34	Claims that this balance is an overcharge.
T. E. Normand	1890		14 28	
Treffé Biron	1891		92	
Total			15,922 39	

To make this balance agree with the Public Accounts there should be deducted \$7.93 overcredited to Alexander Baptist, and \$217.17 added thereto, being \$190.40 paid 23rd July, 1884, and \$26.77 overcharged in error to Wm. Little, not in any of collectors, returns, which will give balance due 30th June, 1893, of \$16,131.63.

EDWARD T. SMITH.

Collector of Slide and Boom Dues.

OTTAWA, 30th June, 1893.

SAGUENAY DISTRICT.

No. 7.—STATEMENT of Slide and Boom dues accrued at the Saguenay, outstanding on the 30th June, 1893.

Name.	Year to which Dues belong.	Amount.
Messrs. Price Bros. & Co.	1877 to 1892	\$ cts. 9,538 91

EDWARD T. SMITH,
Collector of Slide and Boom Dues.

OTTAWA, 30th June, 1893.

NEWCASTLE DISTRICT.

No. 8.—STATEMENT of Slide and Boom dues accrued from the Trent and Newcastle District River Works, outstanding on the 30th June, 1893.

Name.	Year to which dues belong.	Amount.	Remarks.
		\$ cts.	
M. Boyd.....	1882 to 1884, 1886 and 1892 ..	2,245 81	This amount is deposited in the Exchequer Court.
T. G. Hazlett.....	1881, 1882, 1884 and 1889 ..	885 25	
J. M. Irwin.....	1882, 1883, 1885 and 1888 ..	698 45	
D. Ulliott.....	1881 to 1887.....	547 68	
Geo. Hillard.....	1877 to 1883, 1886.....	354 15	This item appears in last year's return as \$354.90, which includes an overcharge of 75c., being ¼c. on 600 fence posts.
Green & Ellis	1880 to 1883, 1885, 1888 and 1889	157 01	
Irwin & Boyd	1881	59 79	
Thomson & McArthur.....	1880.....	52 78	Insolvent.
A. W. Parkins	1884, 1885, 1888, 1890 and 1891	65 92	
The Dickson Estate, T. G. Hazlett, agent	1883.....	137 50	
Jabez Thurston	1882.....	12 50	do
Alfred McDonald	1888.....	40 80	
John Parkins	1889.....	13 00	
McDougall & Ludgate.....	1879.....	65 07	do
Bigelow & Frounce.....	1882 to 1885.....	216 21	do
R. & J. Strickland	1882, 1883, 1885 and 1887 ..	215 08	do
		5,767 00	

EDWARD T. SMITH,
Collector of Slide and Boom Dues.

OTTAWA, 30th June, 1893.

Department of Public Works.

V.—BRIDGES.

During 1892-93, repairs were made to the undermentioned bridges, viz.:

- Grand River, bridge at York, Ont.
- Ottawa City, bridges at Ottawa, Ont.
- Battle River, bridge at Battleford, N.W.T.
- Belly River, bridge at Lethbridge, N.W.T.
- Bow River, bridge at Calgary, N.W.T.
- Old Man's River, bridge at Macleod, N.W.T.

The following is a detail of the work done:—

GRAND RIVER BRIDGE.

The Grand River Bridge is a structure connecting the eastern and western sides of the Grand River at York, Haldimand County.

On the 20th September, 1892, authority was given to repair the western approach to the bridge; work was at once commenced and completed by the 17th October, the amount expended being \$97. In June last it was found necessary to protect the slope of the embankment in front of the west abutment with rip-rap, and the sum of \$50 was expended upon this work.

OTTAWA CITY BRIDGES AND ROADWAY BETWEEN OTTAWA AND HULL.

A report on the work done on the bridges in the city of Ottawa and on the roadway between Ottawa and Hull, will be found in that of Mr. G. P. Brophy, superintending engineer of the Ottawa River Works, in section iv. of my report.

BATTLEFORD BRIDGE.

This bridge crosses the Battle River in the town of Battleford, between 2nd and 3rd Avenues. The town is situated at the junction of the Battle and Saskatchewan Rivers, and is on the line of the Canadian Pacific Railway 500 miles west from Winnipeg.

The repairs to and painting of this bridge which were in progress during the preceding year were completed. The expenditure during 1892-93 amounting to \$725.22.

BELLY RIVER BRIDGE, LETHBRIDGE.

Belly River Bridge is situated in the north-west quarter of section 1, township 9, range 32 west of the fourth principal meridian, and about 2 miles from the town of Lethbridge.

The construction of the east and west approaches to the bridge has been completed during the year ended 30th, June, 1892, and communication established between the two sides of the river.

During 1892-93 some further necessary work was done on the eastern approach to the bridge through what is known as the "Brick Yard Coulée."

After the work was completed, this place was visited by the heaviest rain storm ever witnessed in this part of the country and in a few minutes the coulées were swollen into rivers. The flow of water down the "Brick Yard Coulée" was such that, backed up by the debris carried down the coulée, the water rose 4 feet above the top of the bank, and as the bank was 20 feet in height at this point the water was 24 feet deep. When the bank started to give way, in ten minutes the whole of the bank including the culvert was carried into the river, while the rest of the road was not damaged.

BOW RIVER BRIDGE.

This bridge crosses the Bow River at the town of Calgary, N.W.T.

During 1892-93 the following repairs and improvements were made on this bridge. The chords were raised to original level and corbels were placed on the piers. Braces were provided and put in. The trusses were jacked up and the bolts and rods were tightened. Overhead joists, six in number, were provided and fixed.

The bases of the piers were rip-rapped with large flat bedded stones and the roadway of the bridge and the approaches were planked diagonally with Douglas fir, 3 inches in thickness.

The cost of these repairs amounted to \$1,773.50.

OLD MAN'S RIVER BRIDGE.

This structure crosses the Old Man's River, about $1\frac{1}{2}$ miles west of the town of Macleod, in the centre of the west half of section 10, township 9, range 26, west of the 4th meridian.

In April, 1891, a contract was entered into for the construction of a bridge across the river, to consist of two spans of 150 feet each, one pier, two abutments and excavation and trestle work approach on the north side, and an embankment on the south side, the whole being completed by the 31st December, 1891. Wind braces were also put in, this work being under the direct charge of an officer of this department.

Repairs to the bridge consisting principally in tightening up braces, rods, bolts, etc., were commenced in September and closed at the end of November, 1892. This work was much delayed by high winds which lasted for thirty-three consecutive days, their velocity at times being sixty miles an hour, and the bridge was thereby thrown out of plumb. It is now anchored at both ends to trees which, will no doubt, relieve it when subject to any great strain. The expenditure amounted to \$883.30.

VI.—SURVEYS AND EXAMINATIONS.

During the year surveys and examinations were made at the undermentioned localities:—

- Bass River, Colchester Co., N.S., construction of wharf.
- Bear River, Digby Co., N.S., removal of bridge.
- Canada Creek, King's Co., N.S., construction of block.
- Dunn's Lake, Antigonish Co., N.S., opening channel.
- Five Islands, Colchester Co., N.S., repairs to wharf.
- Grady's Island, Colchester Co., N.S., forming a boat harbour.
- La Have Island, Lunenburg Co., N.S., opening channel.
- Lawlor's Island, Halifax Co., N.S., construction of quarantine wharf.
- Mackay's Point, Victoria Co., N.S., deepening boat channel.
- Morden, King's Co., N.S., repairs to wharf.
- New Harbour, Guysboro' Co., N.S., construction of pier.
- New Haven, Victoria Co., N.S., removal of boulders.
- Porter's Lake, Halifax Co., N.S., opening channel.
- Salmon River, Digby Co., N.S., repairs to pier.
- Sydney, Cape Breton Co., N.S., construction of quarantine wharf.
- Western Head, Queen's Co., N.S., repairs to breakwater.
- Anderson's Hollow, Albert Co., N.B., extension of wharf.
- Buctouche, Kent Co., N.B., reconstruction of wharf.
- Campbellton, Restigouche Co., N.B., construction of block.
- Cape Tormentine, Westmoreland Co., N.B., strengthening wharf.
- Hopewell Cape, Albert Co., N.B., repair to wharf.

Department of Public Works.

Mispec, St. John Co., N.B., repairs to breakwater.
Partridge Island, St. John Co., N.B., construction of quarantine wharf.
Quaco, St. John, N.B., repairs to breakwater.
Cape Traverse, Prince Co., P.E.I., strengthening and extending pier.
Cascumpec, Prince Co., P.E.I., removal of rock.
Hurd's Point, Prince Co., P.I.E., repairs to pier.
North Rustico, Queen's Co., P.E.I., repairs to breakwater.
Souris, King's Co., P.E.I., repairs to breakwater.
Stephens, King's Co., P.E.I., repairs to pier.
Sturgeon, King's Co., P.E.I., repairs to pier.
Victoria, Queen's Co., P.E.I., repairs to pier and dredging.
Wood Island, Queen's Co., P.E.I., repairs to breakwater.
Baie des Bacons, Saguenay, Que., removal of boulders.
Baie St. Paul, Charlevoix, Que., extension of pier and removal of boulders.
Bic Rimouski, Co., Que., repairs to wharf.
Grandes Bergeronnes, Saguenay Co., Que., removal of boulders.
Kamouraska, Kamouraska Co., Que., repairs to wharf.
Newport River, Gaspé Co., Que., repairs to wharf.
Pond Creek, Ottawa Co., Que., construction of bridge.
Port Daniel, Bonaventure Co., Que., repairs to wharf.
Rimouski, Rimouski Co., Que., extension of wharf.
Rivière Blanche, Rimouski Co., Que., repairs to wharf.
Rivière Noire, Charlevoix Co., Que., removal of rocks.
Rivière Ouelle, Kamouraska Co., Que., repairs to wharf.
Rivière Saguenay, Que., dredging.
River St. Lawrence, Que., further improvements of ship channel.
River St. Louis, Beauharnois Co., Que., repairs at head gate, over reconstruction of two bridges.
St. Alphonse, Chicoutimi Co., Que., repairs to wharf.
Ste. Anne du Saguenay, Chicoutimi Co., Que., completion of wharf.
St. Jean d'Orleans, Montmorency Co., Que., repairs to wharfs.
St. Siméon, Charlevoix Co., Que., repairs to block.
Trois Pistoles, Temiscouata Co., Que., extension of wharf.
Fenelon Falls, Victoria Co., Ont., repairs to slides, &c.
Howe Island, Frontenac Co., Ont., construction of bridge.
Kingsville, Essex Co., Ont., repairs to wharf.
Leamington, do harbour accommodation.
Little Current, Algoma Co., Ont., removal of obstruction.
Nation River, Dundas do improvements.
Ottawa City bridges, Ont., repairs.
Port Hanley, Elgin Co., Ont., improving harbours.
Gimli, Lisgar Co., Man., construction of wharf.
Icelandic River, Lisgar Co., Man., construction of wharf.
Roseau River, Provencher Co., improvements.
Bow River, at Calgary, N.W.T., repairs to bridges.
Saskatchewan River, at Edmonton, N.W.T., construction of bridges.
Souris River, at Oxbow, N.W.T., construction of bridges.
William Head, Vancouver Island, B.C., construction of quarantine wharf.

VII.—TESTING OF CEMENTS, &c.

During the fiscal year ended 30th June last, the organization of a cement testing-room in the department was begun, and a number of different brands of cement have been received from manufacturers and others with a view of having them tested, but operations are not sufficiently advanced to warrant any statement as to the results being made in this report.

CREOSOTED TIMBER FOR WORKS IN THE MARITIME PROVINCES.

For a number of years, the attention of the department has been called to the necessity of adopting creosoted timber for works in the Maritime Provinces, where the destructive action of the sea worm is strongly felt, but it is only during the fiscal year 1892-93, that authority to specify for creosoted timber was given. Advantage was taken of that permission, and creosoted timber was specified in the new wharf now under course of construction at D'Escousse, in the county of Richmond, Cape Breton, and at Bayfield, in the county of Antigonish, Nova Scotia.

While the adoption of creosoted timber for works in the Maritime Provinces is a step in the right direction, and calculated to add to the stability and duration of the works in which it is used, this new departure presents the drawback that foreign lumber has to be used owing to the fact that there are no creosoting works in Canada.

It is hoped, however, that before long this new industry may be started in Canada, as the demand will without doubt go on increasing.

The process of creosoting consists in extracting by evaporation the sap and moisture from the timber and injecting heavy oils of tar, commonly called creosote, under heavy pressure, into the pores of the timber, thereby rendering it more solid and preventing germinal life from being developed within it.

The timber required for the D'Escousse wharf was treated at the Lehigh Valley Creosoting Works, Perth Amboy, state of New Jersey, in the presence of Mr. E. T. P. Shewen, assistant engineer of the department.

The plant comprises two cylinders six feet in diameter 60 and 80 feet long, circulating vacuum and force pumps and five oil tanks. In the bottom of each cylinder and extending almost the whole length, are seven rows of one inch and a half steam pipes.

The creosote used is genuine heavy oil, having a specific gravity by the hydrometer of 1.030 at a temperature of 83° Fahrenheit.

The timber treated was North Carolina yellow pine.

The process used is the Hayford's process which is conducted as follows:—

(1.) After the timber has been inclosed in the cylinder and before the creosote is let in, it is dried to some extent by means of steam admitted to the pipes laying at the bottom of the cylinder, but if very green, it is subjected to wet steam, the dry steam remaining, however, turned on in the pipes from the beginning to the end of the operation.

(2.) After steam has been turned on for two to twelve hours, according to the degree of moisture in the timber, the vacuum pump is worked for a period varying from one to two hours.

(3.) Creosote at a temperature of about 130° Fahrenheit is then let into the cylinder, partly by means of the vacuum and partly by the circulating pumps.

(4.) Force pumps are put on until the gauges of the tank floats indicate that the surface of the creosote has been lowered to the proper depth (previously calculated) to assure that the specified quantity of oil per cubic foot of timber has been injected.

The quantity of creosote specified was 16 lbs. per cubic foot.

The piles required were treated in two charges and the square timber was treated separately, with the following results:—

Charge No. 1, piles 18.5 lbs. per cubic foot.

Charge No. 2, piles 16.0 lbs. per cubic foot.

Charge No. 3, square timber 16.0 lbs. per cubic foot.

The quantity of creosote specified was therefore as far as inspection could show duly injected into the timber, but in many cases the penetration was very irregular, and only penetrated into the heart of the timber in a few cases.

The numerous experiments made by Mr. Shewen and by myself have fully convinced us both that the Hayford process, in vogue in the United States, cannot give better results than those cited above, and it is to be regretted that the process of Mr. S. B. Boulton which is adopted almost entirely in England, has not yet been adopted in the States.

Department of Public Works.

Mr. Boulton takes advantage of the difference between the temperature of the boiling point of creosote and water to evaporate the moisture of the wood by raising the oil to about 225 degrees, after it is introduced in the cylinder. The sap and moisture are withdrawn in the form of vapour through the dome of the cylinder by means of a vacuum condensed, and actually measured in a receiver. The oil takes naturally, the place of the evaporated sap and to make the impregnation sure the force pumps are applied.

Experiments made to ascertain the comparative quantities of moisture extracted and of creosote injected by the Hayford process and the Boulton process have been made. Six sleepers of the same species of timber and of precisely similar dimensions were treated by each process, the whole having been thoroughly saturated with water. The cubic contents of the six sleepers treated by Boulton's process was 18.57 cubic feet, the average loss of water was 6.45 lbs per cubic foot or 120 lbs. in all, and their gain of creosote 14.8 lbs. per cubic foot or 275 lbs. in all.

The six sleepers treated by the Hayford process showed an absorption of 116 lbs. of creosote in all or 6.29 per cubic feet, while the separate absorption was very irregular, namely 9.04 lbs., 4.52 lbs., 2.9 lbs., 6.13 lbs., 9.36 lbs. and 5.49 lbs. per cubic foot respectively. The conclusion arrived at is, therefore, that the Hayford process is not satisfactory, and that while the creosoting by that process does very materially improve the durability of the timber, it does not make it absolutely impregnable against decay, or against the sea-worm. The timber required for the Bayfield wharf was treated at the works of Messrs Eppinger and Russell in Brooklyn, N. Y. The process in vogue is apparently the same as that adopted at the Lehigh Valley Creosoting Works, and the results obtained very similar to those at Perth Amboy. I may add, however, that, Mr. Shewen, who inspected the works of Messrs. Eppinger and Russell, reports that he was not able to conduct inspection satisfactorily as part of the plant is not open to inspection, and he further states that after the opportunity that had been given him of inquiring into the mode of creosoting at Perth Amboy and in Long Island, he has reached the conclusion that the complex nature of the operation of creosoting is so eminently delicate and difficult, that good treatment can only be assured by the use of works outside the field of commercial competition altogether, where no temptation can arise to produce indifferent performance either from deliberation or neglect.

The most satisfactory results would be obtained, if the government erected creosoting works for the purpose of treating with the best oil and by the most approved process, all the timber required for the provinces on the seaboard lying within the region of the teredo and limnoria.

By the establishment of government creosoting works, not only will a considerable saving be effected in the first cost of creosoted timber, but a standard of efficiency will be reached much above that found in private works conducted primarily upon principles of commercial competition, and I may add, that it would permit the use of native timber, as from experiments made last summer it has been proven that both Canadian pine and hemlock can be successfully treated.

VIII.—APPLICATIONS TO CONSTRUCT WORKS.

Applications have been made by various corporations and private individuals for permission to construct works in or over navigable or un-navigable waters and the following is a statement of those which have been dealt with by me during the year:—
Victoria Harbour.—W. M. Clayton, erect and maintain boat-house and landing.
Telegraph Bay; Victoria Harbour, B. C.—Rithet & Co., construction of wharf.
Victoria, B. C.—Jacob Sehl, construction of wharf.

do	L. B. & G. B. Joseph, construction of wharf.		
do	V. Jacobson	do	do
do	Phoenix Brewing Co.	do	do

Rivière des Prairies.—Dominion Leather Board Co., construction of dam.

Cowichan River.—Construction of retaining booms at mouth of river.

River Assiniboine.—Curtis & Webster, to dam and bridge river at Portage la Prairie.

Verdun, Que.—Logie, construction of wharf.

Victoria.—Draeke and others, lease of water lot.

Nicomekel River.—Construction of bridge.

Rivière des Prairies.—Canadian Electric Light Co., construction of dam.

do Montreal Light and Power Co., construction of dam.

River St. Lawrence.—Canadian Electric Light Co., construction of dam and flumes at Lachine Rapids between Ile Heron and Mainland.

Serpentine & Nicomekel Rivers.—Construction of bridges by Provincial Government.

Victoria, B. C.—W. P. Sayward. Extension of wharf.

Rondeau, Ont.—Erie & Huron Ry. Co. Construction of works in Rondeau Harbour.

Victoria, B. C.—Okell & Morris Fruit Providing Co. Construction of wharf.

Strait of Georgia, B. C.—Bodwell & Irving. To work for coal under.

Victoria.—R. V. Colvin. Construction of wharf.

Gananoque.—Thousand Island Bridge Co. Bridge at mouth of river.

Halifax.—Taylor & Co. Water lot.

Victoria.—Hon. J. S. Helmcken. Construction of wharf.

Riv. Richelieu.—Chambly Mfg. Co. Construction of dams.

Grande Rivière Ste. Anne.—O. M. & C. Ry. Co. Construction of bridge.

Fraser River.—W. H. Squair. Lease of tidal lands.

Victoria.—Lowenburg, Harris & Co. Construction of wharf.

Kingsville.—W. A. Smith. Grant of water lot.

Burlington Bay.—Hamilton S. S. Co. Construction of wharf.

Gatineau River.—Construction of bridge.

Fraser River.—Bridge at New Westminster.

Toronto.—Extension of Windmill Line.

During the year 1892-93, 1,294 official papers were referred by the secretary of the department to this office for report or action. The number of letters received in my office from resident engineers and others during the same period amounted to very nearly 5,500, while the letters sent numbered 4,232.

I have the honour to be, sir,

Your obedient servant,

LOUIS COSTE,

Chief Engineer.

E. F. E. Roy, Esq.,
Secretary Department of Public Works,
Ottawa.

Department of Public Works.

APPENDIX No. 4.

STATEMENT

SHOWING THE

NAMES OF THE OFFICIALS EMPLOYED

ON THE

SLIDES AND BOOMS OF CANADA

ON THE 30TH JUNE, 1893

WITH

DATES OF APPOINTMENT, SALARIES, ETC.

APPENDIX No. 4.

STATEMENT showing Names, Dates of Appointment, Salaries, &c., of persons employed on the different Slides and Booms, on 30th June, 1889.

Name.	Date of Birth.	Position.	Where Employed.	Date of Appointment.	Salary.	Remarks.
<i>Collector of Slide and Boom Duex.</i>					\$ cts.	
E. T. Smith	Nov. 26, 1846	Collector	Ottawa	July 1, 1889	1,550 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, 5th 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 counter, Ottawa, for Dept. of Inland Revenue, 7th Jan. 1884, to 30th June, 1889.
John Redmond	August 2, 1838	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.
Joseph Boulanger		Asst. superintendent	do	Oct. 1, 1889	30 00 per month.	

Department of Public Works.

St. Maurice District.

Nap. Dagneau	Paymaster	Three Rivers	Aug. 1, 1886	50 00 per month.
Cyrus Lymburner	1883 Slide master	Mouth of St. Maurice	April 25, 1881	46 67 do
Jos. Page	7, 1845 Asst. do	Cap aux Cornelles	Dec. 10, 1879	60 00 do
Jos. Boulard	Gate keeper	do	1892	25 00 do
Louis Hamel	do	Mouth of St. Maurice	June 8, 1892	30 00 do
Chas. Langlois	1840 Asst. slide master	Shawenegan	Jan. 13, 1880	44 58 do
Arch. Pellerin	do do	do and (Gres)	Aug. 3, 1885	50 00 do
Jos Desaulniers	do do	do do	July 8, 1892	30 00 do
Thos. Larue	Sept. 3, 1827 Boom master	Grand Mère	Mar. 15, 1872	80 00 do
Alex. Taupin	do keeper	Grand Mère (gran)	July 8, 1892	30 00 do
Jos. Brousseau	do do	Grandes Piles	June 8, 1892	55 00 do
Azarie Bienvenue	Room master	Beleil Station	Jan. 1, 1882	100 00 per annum.

Richelieu District.

Ottawa District.

G. P. Brophy	Feb. 24, 1846 Superintendent	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. Actively employed about 7 months. Oversees repairs in winter. do do
D. Scott	do 15, 1830 Accountant	do	Oct. 1, 1884	1,500 00 do	
J. C. Scott	June 27, 1845 Measurer	do	April 1, 1889	2 75 per day	
J. Kent	Jan. 28, 1844 Clerk	do	Aug. 1, 1886	2 75 do	
Wm. Cain	April 22, 1840 Messenger	do	Jan. 1, 1892	1 25 do	
C. Leduc	July 8, 1846 Paymaster	do	May 1, 1888	1,200 00 per annum.	
J. Middleton	Aug. 8, 1834 Deputy slide master	Carillon	April 1, 1891	1 25 per day	
D. Noonan	June 17, 1847 Boom master	Gatineau	Mar. 21, 1878	500 00 per annum.	
J. Soulière	Nov. 8, 1829 Deputy slide master	Chaudière	1878	2 25 per day	
J. McDonnell	do 1, 1818 do	Hull	Mar. 1, 1877	1 25 do	
D. McFarlane	Feb. 26, 1836 do	Chats	do 27, 1860	480 00 per annum.	
John Harvey	May 22, 1831 Slide master	Armport	July 12, 1882	2 50 per day	
Joseph McCrea	Mar. 26, 1839 Boom master	Springtown	May 15, 1880	300 00 per annum.	
Patrick Barry	do 27, 1858 Slide master	High Falls	Mar. 10, 1888	300 00 do	
Duncan McLaren	Jan. 7, 1860 Deputy slide master	Portage du Fort	Sept. 7, 1881	436 25 do	
J. G. Poupore	Aug. 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	
Wm. Thomson	May 3, 1843 do	Mountain	Oct. 10, 1879	1 25 do	
D. Carmichael	Sept. 26, 1813 do	Calumet	Aug. 1, 1848	40 00 do	
A. Proudfoot	July 17, 1822 do	Coulouge	April 1, 1865	1 00 per day	
H. R. Downey	May 16, 1846 do	Des Joachims	July 1, 1889	300 00 per annum.	
Hugh Grant	Mar. 25, 1829 do	Dumoulin	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	Cheneaux	1865	2 50 do	
G. T. Johnson	Sept. 10, 1841 do	do	1872	1 75 per day.	

Employed about 6 months. Oversees repairs in winter.
do do
Employed about 3 months during season of navigation.
Employed 5 months during season of navigation. Oversees repairs in winter.
do do
do do
do do
do 6 months do
do do 7 in. do
do 4 months do
do do do
Employed 3 months during season of navigation. Will inspect works when required.
do do
do do
Paid during season of navigation, 7 months. Attends to repairs in winter.
do do

APPENDIX No. 4.—STATEMENT showing Names, &c., employed on the different Slides and Booms—*Concluded.*

Name.	Date of Birth.	Position.	Where Employed.	Date of Appointment.	Salary.	Remarks.
<i>Newcastle District</i>						
R. B. Rogers	Jan. 17, 1857	Superintendent.	Peterboro'	July 1, 1884	800 00	per annum. Receives \$800 per annum from Department of Railways and Canals.
G. H. Giroux		Clerk, supt.'s office.	do	do	400 00	do
Clement Armstrong		Slide master.	Chisholm Rapids	April 1, 1883	200 00	do
John Jordan		do	Fenslon Falls	Aug. 15, 1892	100 00	do
R. T. Hill		do	Buckhorn	July 1, 1891	100 00	\$250 per annum as lock master do R. & C.
Hamil Johnston		do	Heeley's Fall	July 15, 1893	200 00	Receives \$150 per annum from Department of Railways and Canals.
<i>Burlington Channel.</i>						
Thos. Campbell	April 1, 1832	Ferryman	Burlington	April 12, 1887	400 00	do
J. A. McDonald		Asst. ferryman.	do	do	360 00	do
<i>Yamaska District.</i>						
A. Labbé		Lock keeper	Yamaska	Sept. 1, 1885	1 25	per day
O. Mineau		do	do	do	1 25	do
<i>Rivière du Lièvre.</i>						
Alex. MacCallum		Lock master.	Rivière du Lièvre	May 14, 1892	40 00	per month.

R. STECKEL.

Department of Public Works.

APPENDIX No. 5.

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REPORT

ON

GOVERNMENT TELEGRAPH LINES

FOR THE FISCAL YEAR ENDED 30TH JUNE, 1893.

Department of Public Works.

APPENDIX No. 5.

REPORT ON GOVERNMENT TELEGRAPH LINES.

TELEGRAPH SERVICE OFFICE,
OTTAWA, 5th December, 1893.

SIR,—I beg leave to submit the following report upon the telegraph service for the twelve months ended 30th June, 1893. The accompanying tabular statements of lines, operating staff, &c., established in the several districts, are repetitions of those appended to the last annual report excepting that they contain amendments covering such changes as were made in the interval.

I have the honour to be, sir,
Your obedient servant,
D. H. KEELEY,
Acting Superintendent.

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

TELEGRAPH SERVICE—1892-93.

NEWFOUNDLAND.

The line from Port au Basque to Cape Ray has been operated as heretofore in conjunction with the Anglo-American Telegraph Company's system.

MARITIME PROVINCES.

Shippegan and Point Miscou, N.B.—In the fall of 1892, a line comprising 30½ miles of wire and 3¾ miles submarine cable was completed and put in operation between the above-named places, including five intermediate stations in telephonic connection, by the St. Lawrence Lumber Company for a bonus of \$4,000, including material supplied at cost price, under an agreement stipulating for its maintenance in perpetuity. The revenue of this line accrues to the company.

The Meat Cove line (North Sydney to Meat Cove, C.B.) continued in operation in conjunction with the Western Union Telegraph as in previous years. The loop line to White Point, 7¼ miles off the main route, was completed by Mr. R. G. Zwicker, in September, but in consequence of there being no operator available at the time, an office was not established. Arrangements are, however, under way to have one opened there as early as practicable.

The telegraph cable connecting the Magdalen Islands with the main land at Meat Cove ceased working on the 13th May. (It was subsequently found to be badly crushed by ice in the Meat Cove shore end and parted by a vessel's anchor nine miles further out. The cable was repaired by the ss. "Newfield" and communication with the Magdalen Islands was thereby restored on the 6th September, 1893, the steamer not being sooner available for the work.)

On the Cheticamp line (Mabou to Cheticamp, C.B.) two new offices have been established: South-west Margaree, opened on the 13th March, and Grand Etang opened on the 23rd April. This line and the Cape Sable line (Barrington to Cape Sable) have continued in operation as heretofore in conjunction with the Western Union telegraph.

Low Point, C.B.—A line was built between Lingan and Low Point, a distance of 5 miles, in 1881, and was operated at the expense of the Government, but the route of the Western Union telegraph line *via* Lingan was subsequently abandoned and their line was rebuilt *via* Low Point. The local traffic did not warrant the company in keeping the office open there and it was found necessary in the interest of the signal service to continue an annual payment of \$50, that had previously been allowed, to the operator. The office at Low Point continues in operation on that basis.

The Bay of Fundy system (Eastport to Campobello, Grand Manan and Whitehead Islands) continues in satisfactory operation.

RIVER AND GULF ST. LAWRENCE.

The telegraph cable connecting Anticosti Island with the mainland at Gaspé was crushed by ice in the South-west Point shore end in April, but communication was preserved by the prompt action of the district superintendent, and a new piece of cable was spliced in by the ss. "Newfield" later on in the season (13th September, 1893.) The other Anticosti cable, between Long Point of Mingan and Mechastie Bay continues in operation. The land lines have been maintained in a very satisfactory way; some brush clearances and general repairs are being made this season.

The Escuminac line (Chatham to Point Escuminac, N.B.) continues in operation as heretofore.

The Grosse Isle Quarantine line has also continued free of interruption and the north shore lines (Chicoutimi to Point Esquimaux) continue in the same satisfactory condition reported last year. In the interval, however, the facilities for handling traffic have been further increased by the Great North-western Telegraph Company having rebuilt and duplicated their line for some distance below Quebec, where the single circuit used to be over-crowded. The company has also extended its line *via* the Lake St. John Railway to Chicoutimi, and another outlet for the traffic of the north shore lines is thereby afforded in event of interruption of the line to Quebec.

ONTARIO.

The Bath, Amherst Island, and the Wolfe and Howe Island lines, continue in the hands of the lessee, the North American Telegraph Company.

The telephone cable connecting Pelee Island with Leamington was broken by a vessel's anchor on the 11th November, but by means of a steam tug it was repaired on the 27th of the same month. The line continued thereafter in working order as before.

Manitoulin Island, and Nairn Station, Canadian Pacific Railway. In the fall of 1892, telephonic communication was established between the above named places by the Manitoulin and North Shore Telegraph and Telephone Company. The connection comprises 35 miles of land line and a short stretch of cable across the navigable channel at Little Current. The Government contributed a bonus of \$1,000 towards the cost of this connection.

NORTH-WEST TERRITORY.

The line from Qu'Appelle to Edmonton has been maintained in operation as in previous years. It was found unnecessary to continue the services of a special lineman at Battleford and a transfer was made thence to Moose Jaw in order that the Wood Mountain line might be kept in more reliable condition. This latter line was overhauled in the course of the present season, and 100 new cedar poles were put into it. A half mile of new pole line was also erected in the village of Fort Qu'Appelle.

Department of Public Works.

The projected line from Moosomin to Cannington was not constructed; no one having been found to undertake the work for the amount of the appropriation provided for it.

The line from Dunmore to Fort Macleod has continued in the hands of the lessee, the North-west Coal and Navigation Company.

BRITISH COLUMBIA.

The Cape Beale line suffered severely from the storms of December last and was in places wholly broken down. General repairs were, however, immediately proceeded with, and communication between Victoria and Cape Beale was restored in January. Later on the line was overhauled and cleared of brush wood and has lately been in more reliable working order. This line and the Barkerville (Ashcroft to Barkerville) which has continued in satisfactory operation as heretofore, are operated in conjunction with the Canadian Pacific Railway telegraph system.

The construction of the telegraph line to Comox, which was begun under contract, was completed by the department as far as Wellington, in the fall of 1892. In the following April, it was extended to Nanaimo and put in operation, with offices established on commission at Nanaimo, Wellington, Union Mines, Courtney, and Comox, the two latter being reached by telephone. The total length of this line is 81 miles.

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.	Revenue.	Expenditure.	Remarks.
	\$ cts.	\$ cts.	
Lower St. Lawrence and Maritime Provinces:—			Signal Service messages, Meteorological Service messages and reports, and Fisheries bulletins are handled free of tolls.
Anticosti Island lines.....	407 71	2,150 62	
Bay of Fundy do.....	765 54	1,242 25	
Cape Ray do.....		500 00	
Cape Sable do.....	34 04	243 32	
Cheticamp do.....	281 26	861 56	
Escuminac do.....	168 09	415 74	
Low Point do.....		50 00	
Magdalen Islands do.....	363 64	1,903 91	
Meat Cove do (including St. Paul's Island,.....	707 33	1,243 72	
North Shore St. Lawrence (East of Bersimis).....	983 19	4,310 33	
do do (West of Bersimis).....	2,710 40	3,413 42	
Quarantine line.....	964 61	688 00	
Subsidies, stationery, line and office material, cable repairs and contingencies chargeable to the appropriation for Gulf lines.....		1,963 98	
	7,385 81	18,986 85	
Ontario: Pelee Island line.....	142 18	634 51	
	7,527 99	19,621 36	
North-west telegraph lines.....	1,799 63	16,328 37	
Total.....	9,327 62	35,949 73	

D. H. KEELEY,

Acting Supt. Government Telegraph Service.

OTTAWA, 5th December, 1893.

GOVERNMENT TELEGRAPH SERVICE.

NEWFOUNDLAND TELEGRAPH SYSTEM.

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 Cape Ray Lighthouse,	14		50 00 do		
Totals	14		100 00		

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.

Department of Public Works.

ANTICOSTI TELEGRAPH SYSTEM.

ANTICOSTI ISLAND SERVICE.

Stations.	Intermediate Distances.	Agents 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. General repairer. Plus \$1 per day when absent on duty. Chief operator since 1st August, 1882. District superintendent. Plus \$1 per day when absent on duty. NOTE.—A special allowance for maintenance of office \$50 per annum, has been added to the commission for offices marked*, since September, 1887.
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	J. Carbray	360 00 do	do 1, 1891.	
6 South-west Point Lighthouse	15	Miss G. Pope	300 00 do	Oct. 18, 1880	
		E. Pope	200 00 do	Aug. 1, 1882.	
7 Jupiter River	7		50 00 do		
8 Otter River	17½		50 00 do		
9 *Beccie River	22	M. Duguay	50 00 do	Oct. 1, 1886.	
10 Cape Eagle (Ellis Bay)	10		50 00 do		
11 West Point Lighthouse	14	A. Malouin	50 00 do	Aug. 1, 1881.	
12 *English Bay	3	F. Cabot	50 00 do	July 1, 1882.	
Totals	214		1,360 00		

GASPÉ SECTION.

1 L'Anse à Fougère		N. Bernier	17 00 do		Special allowance for the cable terminus. A testing station only
2 Gaspé Basin	28	J. J. Annett	150 00 do	Oct. 16, 1881.	
	28		200 00		

GOVERNMENT TELEGRAPH SERVICE—Continued.

MAGDALEN ISLANDS TELEGRAPH SYSTEM.

MAGDALEN ISLANDS SECTION.

No.	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	do lighthouse.....	1	N. Arsonault.....	50 00 do	Sept. 1, 1891.	2-wire loop.
5	Cap aux Meules do.....		W. Leslie.....	50 00 do	Aug. 9, 1883.	
6	House Harbour.....	8	A. LeBourdais, D. Supt.	500 00	do 17, 1880.	Plus \$1 per day when absent on duty.
7	Wolfe Island.....	28½	F. L. Jondas.....	50 00	June 1, 1888.	
8	Grosse Isle.....	11	N. Clark.....	200 00	June 1, 1888.	
9	Grand Entry.....	11	Mrs. F. Atkins.....	50 00	Feb. 18, 1882.	
	Totals.....	88½		1,400 00		

Department of Public Works.

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. 420 00	Nov. 7, 1880.	
2 Aspy Bay	10½	R. G. Zwicker	50 00 or com'n.	Aug. 1, 1882.	
3 Neil's Harbour (1-way house	15	M. McLeod	50 00 do	April 1, 1887.	
4 Ingonish, North Bay	9	J. M. Burke	50 00 do	do 1, 1882.	
5 South Ingonish	104	F. C. Brewer	50 00 do	Aug. 1, 1891.	
6 French River	23	John McDonald	50 00 do	April 1, 1889.	
7 St. Ann's, South Bay	19	Miss C. Morrison	50 00 do	do 1, 1884.	
8 Baddeck (Loop Line)	13	Miss Dunlop	50 00 do	Jan. 1, 1882.	
9 Englishtown	6	Miss Bingham	50 00 do	July 19, 1882.	
10 Kelly's Cove (N. Campbellton)	2	Miss M. C. Campbell	50 00 do	April 1, 1883.	
11 Big Bras d'Or	6	Mrs. E. Livingston	50 00 do	Jan. 1, 1889.	
12 North Sydney	12½				
Totals	128½		920 00		

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.

NOTE.—This line is at present operated and maintained by the Western Union Telegraph Company, but at the cost of the Government.

GOVERNMENT TELEGRAPH SERVICE—Continued.

NOVA SCOTIA TELEGRAPH SYSTEM.

CAPE SABLE SECTION.

No.	Stations.	Intermediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.		\$ cts.		
1	Barrington	0	W. U. Tel. Co.'s Agent ..	50 00	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 miles cable)	11	Miss E. A. Smith	50 00	do .. April 1, 1889.	
3	Cable Sable Island lighthouse (including ¼ mile cable)	6¾	I. K. Deane	50 00	do .. Dec. 18, 1883.	
	Totals	17¾		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.

Department of Public Works

MABOU-CHEVICAMP, C.B., TELEGRAPH SYSTEM.

Stations.	Intermediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
	Miles.		\$ cts.		
1 Mabou	0	Mrs. M. McDonald	50 00 or com'n	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	do	March 1, 1892.	
3 S.W. Margaree	12	Angus Collins	Com'n 50 per cent.	do 3, 1893.	
4 Margaree Harbour	5	Mrs. M. A. McLennan	\$50 00 or com'n	April 1, 1889.	
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 Chevicamp	8	Mrs. M. Fiset	\$50 00 or com'n	do 1, 1887.	
Totals	63				

CHATHAM-ESCUMINAC, N.B., TELEGRAPH SYSTEM.

1 Chatham	0	Great North-western Telegraph Co.	185 00	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.
2 Black Brook	5½	Miss M. Williston	50 00 or com'n	March 1, 1885	
3 Bate 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	H. W. Phillips, jun.	50 00 do	Feb. 1, 1885.	
6 Point Escuminac lighthouse	12				
Totals	42		435 00		

GOVERNMENT TELEGRAPH SERVICE—Continued.

BAY OF FUNDY, N.B., TELEGRAPH SYSTEM.

GRAND MANAN SECTION.

No.	Stations.	Inter- mediate Distance.	Agents and Operators.	Salaries per annum.	Date of Appointment.	Memo.
	<i>Long Eddy Cable Hut, to</i>	Miles.		\$ cts.		
1	Flagg's Cove.....	3	Mrs. C. C. Seely (D. Supt.)	420 00	Nov. 18, 1880	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 \$50 per annum.
2	Woodward's Cove.....	6	E. Cameron.....	50 00 or com'n.	April 1, 1885	
3	Grand Harbour.....	2	F. A. Newton.....	75 00 do	do 1, 1887	
4	Seal Cove.....	4½	P. Russell.....	50 00 do	May 1, 1891	
5	Southern Head lighthouse.....	5½	D. McKay, repairer.....	50 00 do	.....
	<i>Branch Line.</i>			60 00	May 1, 1881	Southern Head office closed 30th November, 1889.
6	Grand Harbour.....	0	W. Cheney.....	Commis'n, 25 p.c.	Feb. 1, 1891	
7	Cheney's Island (½ mile cable). Whitehead Island (¾ do).....	4½ 1½	E. Carroll.....	50 00 or com'n.	Dec. 1, 1890	
	Totals.....	27¼		755 00		

CAMPOBELLO SECTION.

	<i>Liberty Cove Cable Hut, to</i>					
1	Welchpool.....	7½	M. A. Batson.....	100 00 or com'n.	May 1, 1890	
2	Eastport, Maine, U.S.A.....	¾	J. Cushing.....	100 00	Dec. 26, 1881	
	Totals.....	8		200 00		

Department of Public Works.

GOVERNMENT TELEGRAPH SERVICE—Continued.

GROSSE ISLE QUARANTINE TELEGRAPH SYSTEM.

Stations.	Inter- mediate Distances.	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.....	13				
3 Orleans Island landing (cable).....	3½				
4 St. Pierre.....	3½	C. Turcott	50 00 or com'n	Mar. 1, 1885	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.
5 Ste. Pétrouille	4½	Mrs. Blais	50 00 do	Oct. 1, 1887	
6 St. Laurent	6½	M. Gobeil	50 00 do	Sept. 15, 1888	
7 St. Jean	7	P. Pouliot	50 00 do	July 1, 1888	
8 St. François	6½	M. Emond	50 00 do	Mar. 1, 1885	
9 Isle Réaux (including 2 miles cable).....	3½				
Isle Réaux (land line).....	2½				
Grosse Isle quarantine office (including 2 miles cable).....	3½	M. Langlois	50 00 do	Sept. 1, 1885	
Quarantine telephone.....	1½				
Totals	52½		485 00		

GOVERNMENT TELEGRAPH SERVICE—Continued.
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.	Previous to	
1	Bay St. Paul	0	F. Boivin	50 00 or com'n*	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	do	do	
3	St. Cruche	37	A. Gauthier (repairer)	do	do	
4	St. Alexis	31½	O. Pelletier	420	May 15, 1887	
5	St. Alphonse de Bagotville	3	A. Simard	50 00 or com'n	Jan. 1, 1889	
6	Chicoutimi	11½	D. Boly	do	April 1, 1885	
	Total	92		50 00 do	do 28, 1886	

NORTH SHORE SECTION.

1	Murray Bay	0	Mrs. F. Vincent	50 00 or com'n	Previous to	
2	Cap à l'Aigle	4	N. Duchesne	do	April 1, 1885	
3	Ste. Fidèle	6	A. N. Parent	do	June 1, 1888	
4	Port au Persil	7	A. Brassard	do	April 1, 1890	
5	St. Siméon	4	D. Gaudin	do	May 1, 1889	
6	Baie des Rochers	12	G. Savard	do	Dec. 1, 1887	
7	Riv. aux Canards	17	G. Bouillenne	do	June 1, 1887	
8	St. Etienne	13	N. Caron (Repairer)	100 00 do	Nov. 1, 1890	Mr. Bouillenne at River Canard has acted as repeating operator for the St. Etienne branch since, August, 1889.
9	Madoussac (Loop Line)	15	J. E. Caron	420 00 or com'n	Sept. 1, 1886	
10	Bergeronnes	12	M. Savard	do	Nov. 1, 1888	
11	Escourmains	8	J. H. Topping	50 00 do	April 1, 1885	
12	Baie des Bacons	8	P. Bouchard	do	May 6, 1892	Commission not guaranteed at Baie des Bacons.
13	Mille Vaches	8	J. A. Puisse	50 00 or com'n	April 1, 1885	
14	Portneuf Mills	11½		50 00 do	Portneuf Mills office closed June, 1889.	

Department of Public Works.

15 Portneuf light.....	6	S. Bouchard.....	50 00 or com'n.....	July 1, 1890
16 Sault au Cochon.....	7	(E. Courbron (repairer).....	420 00	April 1, 1888
17 Betsiamits.....	31	(J. Forrest.....	50 00 or com'n.....	Dec. 1, 1887
18 Pointe aux Outardes (cables).....	12	R. H. Montgomery.....	50 00 do	Oct. 1, 1889
19 Pointe Paradis, Manicouagan.....	26	(A. Lausier.....	500 00 per annum.....	May 21, 1893
20 River Godbout (cable).....	184	(N. A. Comeau.....	50 00 or com'n.....	Oct. 15, 1883
21 Pointe des Monts.....	54	L. F. Fafard.....	50 00 do	Dec. 28, 1883
22 Trinity Bay West.....	24	Z. Poulin.....	50 00 do	May 16, 1884
23 Trinity Bay East.....	24	A. Bilodeau.....	Accommodation of	do 1, 1889
24 Caribou Islands.....	7	I. Comeau.....	do	Sept. 1, 1889
25 Pentecost River.....	17	Dist. Supt.'s Office.....	180 00	July 1, 1888
26 Ste. Marguerite.....	47	A. Therriault.....	180 00	Jan. 2, 1884
27 Seven Islands.....	224	P. E. Vignault.....	50 00	May 1, 1885
28 River Moisie.....	154	D. Portier.....	50 00 or com'n.....	Nov. 1, 1888
29 Shelldrake.....	72	P. Touzel.....	50 00 do	Feb. 1, 1890
30 Thunder River.....	64	H. LeBrun.....	50 00 do	Oct. 1, 1889
31 Magpie.....	14	Geo. Molloy.....	50 00 do	do 1, 1889
32 St. John's River.....	9	B. Chambers.....	50 00 do	Nov. 1, 1889
33 Long Point.....	10	E. S. Vibert.....	180 00 do	Oct. 1, 1889
34 Mingan.....	7	M. J. Maloney.....	50 00 do	do 1, 1889
35 Pointe aux Esquimaux.....	24	D. Cormier.....	Comm'n only.....	May 21, 1893
Total.....	496			

Long Point is the repeating office for the Anticosti cable, in operation since September 1, 1891. The commission at Point Esquimaux is 50 per cent, without guarantee as to amount.

NOTE.—In the estimates the maintenance of the Chicoutimi and North Shore lines is provided for under head of North Shore Line. They are operated conjointly.

GOVERNMENT TELEGRAPH SERVICE—Continued.

ONTARIO : PELEE ISLAND TELEGRAPH SYSTEM.

No.	Stations.	Inter-mediate Distances.	Agents.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.				
1	Leamington	7	J. McR. Selkirk	\$50	Nov. 1, 1888.	Accountant and general agent. The commission is upon the receipts for the Government line.
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	North Point Lighthouse (¼ mile loop	1	J. E. Quick	do	Dec. 1, 1890.	
5	North dock	1½	C. B. Quick	do	Nov. 1, 1888.	
6	West dock	5	A. M. McCormick	do	do 1, 1888.	
7	South dock	4½	F. B. McCormick	do	do 1, 1888.	
	Total	32½				

This line is operated with telephones.

Department of Public Works.

LINES IN THE NORTH-WEST TERRITORY.
QU'APPELLE-EDMONTON SECTION.

Stations.	Inter- mediate Distances.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
	Miles.		\$ cts.		
1 Qu'Appelle.....	0	E. W. Warner.....	720 00	Jan. — 1883	
2 Fort Qu'Appelle.....	17	Miss F. Johnston.....	600 00	Mar. 1, 1885	
3 Touchwood.....	46	A. Von Lindeburg.....	600 00	Nov. 1, 1883	
4 Humbolt.....	78	A. Guimont.....	600 00	May 1, 1884	
5 Saskatoon (14 miles loop).....	69	(C.P.R. Tel. Co's. J. Harrington, repairer.....	300 00	Jan. 1, 1892	
6 Henrietta.....	52	W. Saisoury, repairer.....	600 00	Oct. 1, 1886	
7 Battleford.....	47	L. P. O. Noel.....	720 00	Apr. 15, 1890	
8 Fort Pitt.....	89	J. F. Lake, repairer.....	600 00	Aug. 1, 1891	
9 Moose.....	45½	L. Picard, repairer.....	600 00	July 1, 1891	
10 Saddle Lake.....	45	N. Potvin.....	600 00	Aug. 1, 1891	
11 Victoria.....	37	W. C. Gillis, repairer.....	720 00	Jan. — 1887	
12 Fort Saskatchewan.....	49	W. G. Ross, agent.....	Com. 25 p. c.....	Dec. 1, 1886	
13 Edmonton.....	24	(G. Voyer..... W. McKay, repairer.....	300 00	Mar. 1, 1893	
			720 00	May 1, 1886	
Branch Line— *Edmonton.....	0				
St. Albert.....	9				
Total.....	607½				

The repairer formerly stationed at Battleford was transferred to Humboldt, in November, 1892, and thence to Moose Jaw, in May, 1893.

The office at Edmonton has been operated jointly with the C. P. R. Tel. Co. since 1st January, 1892.

* The St. Albert branch line is operated with telephones.

GOVERNMENT TELEGRAPH SERVICE—Continued.

NORTH-WEST TELEGRAPH LINES.—WOOD MOUNTAIN AND FORT MACLEOD SECTIONS.

No.	Stations.	Intermediate Distances.	Staff.	Salaries per Annum.	Date of Appointment.	Memo.
1	<i>Fort Macleod Line</i> — Galt Junction.....	Miles. 0		\$ cts.		
2	Lethbridge.....	107				
3	Macleod.....	28½				
4	Fort Macleod.....	½				
1	<i>Wood Mountain Line</i> — Moose Jaw.....	0	J. M. Rutherford, Agt. H. Sikes, repairer.....	240 00 600 00	June 1, 1885 do 1, 1893	The Fort Macleod line has been leased to the Northwest Coal and Navigation Co. Moose Jaw Office is operated jointly with the Canadian Pacific Telegraph Co.
2	Wood Mountain.....	90½	J. H. Thompson, Agt.	180 00	do 1, 1890	
	Total.....	226½				

Department of Public Works.

GOVERNMENT TELEGRAPH SERVICE IN BRITISH COLUMBIA.
ASHCROFT—BARKERVILLE.

Office.	Inter- mediate Distances.	Agents and Operators.	Positions.	Salaries per Month.	Date of Appointment.	Memo.
	Miles.			\$ cts.		
Ashcroft Station.....	0					This line is now operated by the Canadian Pacific Railway Co. for the Government. The arrangement being terminable at any time.
Cache Creek.....	4					
Clinton.....	26					
Bridge Creek.....	53					
Soda Creek.....	78					
Quesnelle.....	54½					
Stanley.....	48					
Barkerville.....	13					
	276½					
<i>Branch.</i>						
New Westminster.....	18					This line was leased for 99 years to Messrs. J. A. Laidlaw and J. Wilson, on the 30th October, 1887.
Ladner's Landing (½ mile cable).....						
Total.....	294½					

VICTORIA—CAPE BEALE.

Victoria.....	0					This line is operated by the Canadian Pacific Railway Co. for the Government. The arrangement being terminable at any time.
Otter Point.....	26					
Jordan River.....	10					
Port San Juan.....	30					
Carmanah lighthouse.....	24					
Cape Beale.....	28					
Total.....	118					

Department of Public Works.

APPENDIX No. 6.

NATIONAL ART GALLERY

CURATOR'S REPORT

FOR THE FISCAL YEAR ENDED 30TH JUNE, 1893.

Department of Public Works.

APPENDIX No. 6.

NATIONAL ART GALLERY.

OTTAWA, 2nd December, 1893.

SIR,—I have the honour to report that the following pictures which are at the Columbian Exposition, Chicago, have been purchased by the Royal Canadian Academy and presented to the Gallery:—

Oil painting by F. Brownell.

do W. A. Sherwood.

do Mrs. G. A. Reid.

Water colour by J. A. Fraser, R.C.A.

During the fiscal year, 16,717 visitors have registered their names.

I have the honour to be, sir,

Your obedient servant,

JOHN W. H. WATTS.

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

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 1894.

Department of Public Works.

APPENDIX No. 7.

THE NAMES with the date of appointment, &c., of the principal Officials of the Department of Public Works, from 1841 to 1894.

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, Thos. A	Secretary	Aug. 17, 1841	
Keefe, Samuel	Chief Engineer	do 17, 1841	
Rubidge, F. B	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	Mar. 10, 1848
Taché, Hon. E. P	do	Mar. 11, 1848	Nov. 26, 1849
Chabot, Hon. J	do	Dec. 15, 1849	Mar. 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	Mar. 29, 1864
Chapais, J. C	do	Mar. 30, 1864	June 30, 1867
Casgrain, Hon. Chas. Eus	Second Commissioner	Aug. 1, 1846	
Cameron, Hon. M	Assistant Commissioner	Mar. 11, 1848	
Wetenhall, John	do	Feb. 2, 1850	
Bourret, Hon. Jos	do	April 20, 1850	
Killaly, Hon. H. H	do	Feb. 15, 1851	
Keefe, Samuel	Deputy Commissioner	May 6, 1859	
Trudeau, Toussaint	do	Mar. 15, 1864	
Begly, Thomas A	Secretary	Sept. 25, 1847	
Trudeau, Toussaint	do	Dec. 13, 1859	
Braun, Frederick	do	Mar. 8, 1864	
Page, John	Chief Engineer	Oct. 31, 1853	July 2, 1890

APPENDIX No. 7.—The names with the date of appointment, &c., of the principal Officials of the Department of Public Works, from 1841 to 1894—*Concluded.*

Names.	Capacity or Office.	Date of Appointment Served.	
		From.	To.
<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. 3, 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
Smith, Hon. Frank	Acting Minister	Aug. 14, 1891	Jan. 11, 1892
Ouimet, Hon. Jos. Alderic	Minister	Jan. 11, 1892	
Trudeau, Toussaint	Deputy Minister	July 1, 1868	Oct. 1, 1879
Baillairgé, G. F.	do	Oct. 4, 1879	Dec. 18, 1891
Gobeil, A.	do	Dec. 18, 1891	
Chapleau, S.	Secretary	Oct. 4, 1879	
Ennis, F. H.	do	Nov. 4, 1880	Jan. 13, 1885
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	April 11, 1893
Perley, H. F.	Chief Engineer	Nov. 25, 1880	Oct. 21, 1891
Baillairgé, 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	
Fuller, Thomas	do	Oct. 31, 1881	

Department of Public Works.

APPENDIX No. 8.

LIST

OF

ENGINEERS, ENGINEMEN, FIREMEN AND CARETAKERS

EMPLOYED IN THE

PUBLIC BUILDINGS THROUGHOUT THE DOMINION

ON THE 30TH JUNE, 1893

GIVING

Date of Appointment, Salary Paid, &c.

APPENDIX No. 8.

STATEMENT showing the Engineers, Enginemen, Firemen, Caretakers, Hoist Attendants and Watchmen employed at the Dominion Public Buildings on 30th June, 1893.

Place.	Building.	Name.	Date of Birth.	Position.	Date of Appointment.	Salary per Month.	Time employed per Annum.	Total Salary per Annum.
						\$ cts.		\$ cts.
Anherst.	Post office.	James Morrison.	May 2, 1824	Caretaker.	Nov. 2, 1886	33 33	12 months	400 00
Antigonish.	Public building	Angus McDonald.	March —, 1820	do	Feb. 5, 1891	33 33	12 do	400 00
Amnapolis	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
Halifax.	Dominion building	John Powell.	Aug. 21, 1836	Engineer	Oct. 1, 1871	62 50	12 do	750 00
do	do	Richard Power.	do 15, 1834	Fireman.	do 1, 1871	50 00	9 do	450 00
do	do	J. F. Sullivan.	Sept. 16, 1822	Caretaker.	do 31, 1885	33 33	12 do	400 00
do	do	W. H. Gray.	Nov. 26, 1848	Watchman	Sept. 10, 1891	39 00	12 do	468 00
do	Examining warehouse.	Wm. Power.	Feb. 6, 1834	Caretaker.	Jan. 26, 1887	41 67	12 do	500 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 McEachren.	do 24, 1847	do	Jan. 30, 1890	33 33	12 do	400 00
Pictou.	Custom-house	Geo. Robson.	do 22, 1822	do	Jan. 31, 1888	33 33	12 do	400 00
Sydney, South	Post office and C. house.	N. H. McNeil	Dec. 25, 1845	do	Dec. 8, 1890	38 33	12 do	400 00
Truro	Post office	Hugh McCulloch	June 2, 1825	do	Sept. 22, 1892	33 33	12 do	400 00
Windsor	do	Aug. H. Parsons	March 3, 1846	do	do 23, 1886	33 33	12 do	400 00
Yarmouth.	Public building	Robert Speers.	Sept. 15, 1824	do	Dec. 23, 1872	33 33	12 do	400 00
Charlottetown	Dominion building	D. McLeod.	June 9, 1842	Engineer	Sept. 12, 1872	28 00	12 do	336 00
do	do	J. S. McLeod	Nov. 14, 1868	Fireman.	Dec. 13, 1887	28 00	12 do	336 00
do	do	Geo. Walker	Aug. 28, 1825	Messenger.	Jan. 18, 1875	37 50	12 do	444 00
do	do	Wm. Byrne.	do	do	Jan. 5, 1892	37 50	12 do	444 00
do	do	D. F. Macdonald.	March 15, 1858	Caretaker.	Dec. 1, 1890	33 33	12 do	400 00
do	do	Martin Lambert.	Nov. 12, 1846	do	Jan. 12, 1887	13 33	12 do	120 00
Montague	Public building	James Brazil.	Nov. 12, 1816	do	Nov. 5, 1885	33 33	12 do	400 00
Summerside	Dominion building.	J. A. McLancon.	Jan. 20, 1825	do	April 13, 1887	33 33	12 do	400 00
Bathurst	Post office.	R. B. Adams	do 13, 1854	do	May 16, 1889	10 83	12 do	130 00
Chatham.	do	Jas. R. Reid	Aug. 15, 1823	do	Oct. 1, 1889	8 33	12 do	100 00
Charlton, St. John.	do	Wm. Gould	Jan. 1, 1853	do	Nov. 26, 1890	33 33	12 do	400 00
Dalhousie.	do	Jas. Perkins.	Oct. 5, 1847	do	May 31, 1881	33 33	12 do	400 00
Fredericton.	do	E. B. Hicks.	Jan. 11, 1832	do	Jan. 11, 1886	33 33	12 do	400 00
Moncton.	do	Patrick Keating.	March 13, 1840	do	Oct. 23, 1886	33 33	12 do	400 00
Newcastle.	do							

Department of Public Works.

St. Stephen	do	Samuel Topping	April 2, 1839	do	May 25, 1887	33	33	12	do	400 00
Sussex	do	Thomas Asbill	Feb. 18, 1826	do	Oct. 19, 1883	33	33	12	do	400 00
St. John	Custom-house	G. H. Jones	June 2, 1835	Engineer	Feb. 17, 1880	60	60	12	do	720 00
do	do	Christopher White	Nov. 20, 1844	Fireman	Nov. 9, 1885	50	50	12	do	500 00
do	do	Jas. A. Paul	Aug. 1, 1837	Caretaker	Oct. 13, 1891	41	67	12	do	500 00
do	Post office	Henry Howe	May 1, 1853	Engineer	Nov. 4, 1881	55	50	12	do	600 00
do	do	Ed. Haney	Feb. 22, 1849	Hoist attendant	do 27, 1882	50	00	12	do	600 00
do	Penitentiary	Geo. Campbell	do 22, 1817	Caretaker	Oct. 29, 1880	37	50	12	do	450 00
do	Post office	Wm. Kennedy	March 2, 1-25	do	Feb. 1, 1890	33	33	12	do	400 00
do	do	J. R. Woods	March 18, 1817	do	Nov. 8, 1889	8	33	12	do	100 00
P. Q.	Public building	Israel Baldwin	Nov. 16, 1839	do	June 27, 1889	33	33	12	do	400 00
Grosses Isle	Quarantine	F. X. B'gin	do	Engineer	April 22, 1893	50	00	12	do	600 00
do	do	V. Chagny	do	Fireman	do 22, 1893	50	00	12	do	150 00
Hull	Post office, &c	J. H. Kerr	Sept. 29, 1826	Caretaker	Feb. 14, 1893	12	50	12	do	400 00
do	do	Chas. Guilbault	do	do	Oct. 15, 1885	33	33	12	do	400 00
Lachine	do	F. Caisse	do	do	Sept. 22, 1893	8	33	12	do	100 00
do	do	Thos. Ryan	June 18, 1836	Foreman engineer	March 4, 1882	100	00	12	do	1,200 00
Montreal	Dominion buildings	M. Boyer	Feb. 18, 1848	Fireman	do 4, 1893	45	00	12	do	600 00
do	Examining warehouse	Alex. Daudelin	do	do	do 1, 1893	60	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. D. Thibault	Jan. 28, 1861	Electric light and hoist attendant	June 1, 1885	60	00	12	do	720 00
do	do	Alfred Filiatrault	Nov. 5, 1860	Messenger	Aug. 1, 1892	33	00	12	do	400 00
do	Inland revenue	Louis St. Jean	do	Fireman	Dec. 1, 1892	45	00	12	do	540 00
do	Custom-house	J. H. Marchand	Sept. 6, 1849	do	do 2, 1882	50	00	12	do	600 00
do	Drill hall and armories	C. Daudelin	June 18, 1843	do	July 16, 1892	2.00	p.d.	12	do	72.0 00
do	Dominion buildings	Wm. McDonald	Sept. 17, 1839	Engineman	Feb. 21, 1890	45	00	12	do	540 00
do	Examining warehouse	J. H. Delongchamp	Feb. 25, 1856	Engineer	Dec. 4, 1885	75	00	12	do	900 00
Quebec	do	Jas. Mathews	Sept. 25, 1871	Fireman	Aug. 27, 1892	40	00	12	do	320 00
do	Culler's office	Thos. McLaughlin	Aug. 23, 1819	do	Sept. 8, 1886	45	00	12	do	360 00
do	Custom-house	John O'Neil	June 23, 1819	do	Nov. 10, 1888	45	00	12	do	340 00
do	Post office	John R. Mountain	Nov. 1, 1848	Acting fireman	July 12, 1884	33	33	12	do	400 00
do	do	Z. Boucher	do	Caretaker	Dec. 12, 1894	33	33	12	do	400 00
do	do	Thos. Rawson	May 20, 1841	do	Sept. 27, 1886	33	33	12	do	400 00
do	Public building	P. St. Michel	Feb. 26, 1829	Fireman	Aug. 5, 1893	25	00	12	do	200 00
do	Post office	Widow J. Forrant	Oct. 27, 1814	Caretaker	May 30, 1888	16	66	12	do	150 00
do	Public building	Wm. Comper	May 20, 1826	Watchman	Dec. 28, 1881	12	50	12	do	400 00
do	Custom-house	Medard Grignon	June 25, 1828	Caretaker	March 11, 1890	33	33	12	do	400 00
do	Post office	Ph. Gravel	do 3, 1828	do	Feb. 1, 1891	25	00	12	do	300 00
do	Custom-house	Jos. Carboneau	do 24, 1828	do	July 27, 1883	33	00	12	do	400 00
do	Post office	Geo. McLeod	April 10, 1838	Messenger	Feb. 1, 1891	35	00	12	do	300 00
do	Post office	John Lovegrove	Dec. 19, 1836	Caretaker	Nov. 5, 1885	33	33	12	do	400 00
Ont.	do	Wm. Moulton	March 23, 1839	do	Jan. 30, 1891	33	33	12	do	400 00
do	do	Mrs. Wm. Shepherd	June 13, 1831	do	April 6, 1888	33	33	12	do	400 00
do	do	John Squires	April 24, 1842	do	Oct. 27, 1880	50	00	12	do	600 00
do	do	Fred. Edwards	March 3, 1844	do	March 2, 1886	33	33	12	do	400 00
do	do	J. P. Reeves	Nov. 27, 1820	do	Oct. 17, 1883	50	00	12	do	600 00
do	do	Widow Aug. Meinke	do 23, 1844	do	Dec. 27, 1887	33	33	12	do	400 00
do	do	James McBride	Oct. 5, 1840	do	Jan. 29, 1881	33	33	12	do	400 00

STATEMENT showing the Engineers, Enginemen, 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.
Clifton.	Post office.	Gilbert Campbell	Feb. 11, 1849	Caretaker	Oct. 8, 1885	33 33	12 months.	400 00
Clitham.	do	Henry Dunn.	May 25, 1841	Engineman	Sept. 23, 1884	50 00	12 do	350 00
Chatham.	do	W. W. Mitchell	May 25, 1848	Caretaker	Jan. 7, 1885	33 33	12 do	400 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, 1843	do	Sept. 4, 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, 1834	do	Oct. 29, 1888	33 33	12 do	400 00
Gananoque.	do	Thos. P. Richardson	Feb. 25, 1834	do	May 1, 1889	33 33	12 do	400 00
Goderich.	do	Lewis Elliot.	April 8, 1832	do	July 2, 1890	50 00	12 do	600 00
Hamilton.	do	Wm. Hornby	Nov. 14, 1829	do	Oct. 9, 1886	45 00	6 do	270 00
do	do	Thos. Beatty.	do 14, 1848	Fireman	Nov. 7, 1887	50 00	12 do	600 00
do	do	Thos. Nicholson.	Dec. 17, 1857	Engineman.	March 2, 1887	50 00	12 do	600 00
do	do	Wm. Harris.	May 20, 1841	Fireman	Dec. 12, 1889	45 00	12 do	540 00
Kingston.	do	William Johnson.	Sept. 12, 1842	Engineman.	May 31, 1881	65 00	12 do	780 00
do	do	M. Maddon.	Dec. 22, 1838	Fireman	Oct. 12, 1878	55 00	6 do	350 00
do	do	M. Mulken.	Sept. 4, 1837	Engineman	Sept. 18, 1888	50 00	12 do	600 00
do	do	M. Greer.	Oct. 12, 1839	Caretaker.	March 16, 1884	50 00	12 do	600 00
do	do	John Price.	do 6, 1836	Engineman.	Jan. 14, 1884	50 00	12 do	600 00
do	do	Wm. Galbraith.	March 28, 1853	Caretaker	Nov. 16, 1893	33 33	12 do	400 00
Lindsay.	do	John Hearns.	May 29, 1830	do	June 22, 1889	33 33	12 do	400 00
Napanee.	do	John Wilkins.	do	do	Sept. 15, 1886	33 33	12 do	400 00
Orangeville.	do	S. Baskerville.	do	do	Nov. 24, 1893	48 00	12 do	350 00
Orillia.	do	Jos. Dunlop	May 5, 1829	Watchman	Sept. 11, 1890	1 25	Work'g day.	576 00
Ottawa.	do	R. Bolland	June 10, 1827	Caretaker, tower.	July 15, 1880	1 25	Every night.	391 25
do	do	R. Nash.	do	do	March 17, 1879	1 25	do	547 50
do	do	Geo. Sleeman.	do	do	Sept. 1, 1881	1 50	do	1,040 00
do	do	J. H. Thompson	Oct. 31, 1845	Engineman.	May 15, 1889	86 66	12 months.	780 00
do	do	W. H. Graham	Sept. 8, 1829	Asst. engineer	Aug. 8, 1889	65 00	12 do	547 56
do	do	Nap. Riendeau.	April 19, 1869	Fireman	June 15, 1889	45 63	12 do	547 56
do	do	Jas. Montgomery	Oct. 18, 1837	do	Jan. 23, 1892	45 63	12 do	547 56
do	do	M. Loyer.	Nov. 1, 1882	do	June 18, 1889	49 63	12 do	500 00
do	do	John Irwin.	do 17, 1842	Caretaker	do 8, 1887	41 66	12 do	500 00
Peterborough.	do	Wm. Armstrong	Sept. 9, 1846	do	June 11, 1888	29 00	12 do	240 00

Department of Public Works.

Port Hope	do	Levy Reynolds.	Feb. 15, 1889	do	Nov. 17, 1882	33 33 12	do	400 00
Port Arthur.	Public building.	John Whitehead	June 14, 1884	do	Sept. 21, 1893	33 33 12	do	400 00
Penbrooke.	do	Samuel Hamilton	April 6, 1892	do	Oct. 2, 1890	33 33 12	do	400 00
Prescott	Post office and C. house	Rufus Henderson.	May 1, 1847	do	Dec. 27, 1884	33 33 12	do	400 00
Stratford.	do &c.	J. H. Roberts	Feb. 4, 1843	Engineer.	Feb. 9, 1883	50 00 12	do	600 00
St. Catharines.	do &c.	Wm. Bryson.	Sept. 15, 1832	Caretaker.	Aug. 5, 1885	33 33 12	do	400 00
St. Thomas	do &c.	Jas. Russell.	May 12, 1840	do	Sept. 25, 1890	33 33 12	do	400 00
Strathroy	Public building.	Wm. J. Johnston	do	do	Sept. 30, 1893	33 33 12	do	400 00
Toronto.	do	Wm. Bell	Sept. 22, 1852	Fireman engineer.	Jan. 13, 1891	100 00 12	do	1,200 00
do	Dominion buildings	Chas. H. Baillie	Oct. 16, 1865	Fireman	Jan. 1, 1889	50 00 12	do	300 00
do	Inland revenue building	Chas. Faragher.	Feb. 10, 1844	do	Nov. 28, 1874	65 00 12	do	780 00
do	Custom-house	Fred. Cosgrave.	Sept. 26, 1864	Engineer.	Dec. 23, 1886	35 00 12	do	660 00
do	Examining warehouse.	Ed. Appleton.	do	Fireman	Dec. 1, 1887	30 00 12	do	600 00
do	do	Alex. Dey	Dec. 19, 1851	Hoist attendant	March 2, 1888	50 00 12	do	600 00
do	do	Wm. Chenery	July 5, 1855	do	Sept. 3, 1888	46 50 12	do	600 00
do	do	W. J. Slean	Feb. 23, 1831	Watchman	May 9, 1885	50 00 6	do	558 00
do	do	Jas. Richardson	Dec. 29, 1864	Engineer	Nov. 1, 1880	50 00 6	do	300 00
do	Post office.	Henry L. Bell	do	Fireman	Dec. 1, 1889	50 00 6	do	300 00
do	do	Samuel Fitzgerald	April 8, 1835	do	Dec. 31, 1889	33 33 12	do	400 00
do	do	John Somers	May 13, 1844	Caretaker.	Aug. 31, 1889	33 33 12	do	400 00
do	Public building.	David Allan	Aug. 6, 1833	Engineman.	Oct. 9, 1880	50 00 12	do	600 00
do	Post office	F. Parker	March 6, 1844	Caretaker.	July 20, 1891	33 33 12	do	400 00
do	do	W. Courtis	Nov. 24, 1825	do	Aug. 18, 1890	40 00 12	do	480 00
do	Public building.	Andrew McLean	May 11, 1857	do	June 1, 1888	70 00 12	do	840 00
do	do	John Faucett	Aug. 19, 1852	Engineman.	Jan. 1, 1889	45 00 6	do	270 00
do	Post office.	J. R. Alexander	March 17, 1849	Fireman	March 16, 1892	45 00 12	do	540 00
do	do	Patrick Dillon	May 10, 1843	Hoist attendant	June 7, 1892	45 00 12	do	540 00
do	do	Jos. Coutu	April 11, 1853	Watchman	Jan. 31, 1891	33 33 12	do	400 00
do	do	Jos. Gagnier	May 14, 1848	Caretaker.	June 14, 1888	33 33 12	do	400 00
do	Court-house	A. G. Hamilton	do	do	Aug. 25, 1893	33 33 12	do	400 00
do	do	George Northgraves.	do	do	Jan. 11, 1892	50 00 12	do	600 00
do	Land and registry office	Geo. Cassie	Nov. 4, 1822	do	July 13, 1893	50 00 12	do	600 00
do	Post office.	Ralph Johnson	Aug. 12, 1812	do	Aug. 25, 1893	33 33 12	do	400 00
do	do	John McMurphy.	do	do	do	do	do	do
do	do	Geo. E. Windsor.	do	do	do	do	do	do
do	Public building.	do	do	do	do	do	do	do
do	Public buildings.	Atwell King	do	do	do	do	do	do

R. STECKEL.

Department of Public Works.

APPENDIX No. 9.

STATEMENT

SHOWING

NAMES, DATES OF APPOINTMENTS, SALARIES, &c.

OF

PERSONS EMPLOYED

ON THE DIFFERENT

GRAVING DOCKS

30TH JUNE, 1893.

Department of Public Works.

APPENDIX No. 9.

STATEMENT showing Names, Dates of Appointments, Salaries, &c., of persons employed on the different Graving Docks,
30th June, 1893.

Name.	Date of Birth.	Position.	Where employed.	Date of Appointment.	Salary.	Remarks.
<i>Esquimaux Graving Dock, British Columbia.</i>						
John Devereux		Dockmaster.	Esquimaux	Sept. 17, 1887	\$166.66 per month.	
A. C. Muir		Engineer	do	April 1, 1887	100.00 do	
J. W. Muir		Asst. engineer	do	Jan. 11, 1892	80.00 do	
A. D. Greeves		Carpenter	do	Dec. 1, 1887	80.00 do	
F. M. Jones		Stoker.	do		60.00 do	
D. Magell		do	do		60.00 do	
John Stock		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.
Honoré Lamontagne		Dock foreman.	do	9, 1891	83.33 per month.	
Wm. Macdougall		Mech'l engineer.	do	June	75.00 do	
Napoleon Lemelin		Asst. mech'l engr'r	do	1, 1888	45.00 do	
Narcisse Lemelin		Fireman	do	do	32.00 do	
Theodore Chabot		Caretaker and watchman	do	April 9, 1891	45.00 do	\$45 per month, 1st April to 1st Dec.; \$1.25 per day, 1st Dec. to 1st April.
<i>Kingston Graving Dock.</i>						
James Wilson		Dockmaster.	Kingston	July 2, 1892	\$1,400.00 per annum.	
Robert McLeod		1st engineer.	do	do	75.00 per month.	
Thos. Levett		2nd do	do	1, 1892	50.00 do	
Wm. Gahagan		Fireman.	do	do	45.00 do	
Patrick Hurley		Caretaker	do	do	45.00 do	
C. Staley		Watchman	do	do	45.00 do	

R. STECKEL.

Department of Public Works.

APPENDIX No. 10.



STATEMENTS

SHOWING

1st.—CONTRACTS LET BY THE DEPARTMENT OF PUBLIC WORKS OF CANADA, FROM
THE 30TH JUNE, 1892, TO THE 30TH JUNE, 1893.

2nd.—PROPERTY PURCHASED OR SOLD BY THE DEPARTMENT OF PUBLIC WORKS
DURING THE FISCAL YEAR ENDED 30TH JUNE, 1893.

3rd.—PROPERTY LEASED TO AND BY THE DEPARTMENT OF PUBLIC WORKS
DURING THE FISCAL YEAR ENDED 30TH JUNE, 1893.

Department of Public Works.

APPENDIX No. 10.

OTTAWA, 25th October, 1893.

SIR,—I have the honour to inclose the following statements, which are required for insertion in the Annual Report of 1892-93, 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,
F. X. R. SAUCIER.

E. F. E. Roy, Esq.,
Secretary, Dept. Public Works.

No. 1.—CONTRACTS let by the Department of Public Works of Canada, from the 30th June, 1892, to the 30th June, 1893.

Works.	Names of Contractors.	Date of Contract.	Amount.
			\$ cts.
PUBLIC BUILDINGS.			
<i>Government House, Parliament and Departmental Buildings.</i>			
Parliament and Departmental Buildings—Removal of snow	W. H. Cuddie	Nov. 17, 1892	600 00
Parliament Building—Blackman fan and rheostat	Canadian General Electric Co.	Dec. 7, 1892	325 00
Parliament and Departmental Buildings—Supply of ice	The Ottawa Ice Co.	Feb. 9, 1893	p. block 05
Parliament and Departmental Building and Rideau Hall—Coal supply	C. C. Ray & Co.	July 6, 1892	14,191 80
Parliament and Departmental Buildings—Lumber for covering steps	H. Philion & Co.	Nov. 19, 1892	180 00
Rideau Hall—Repairs to roof	A. Chabot	Aug. 19, 1892	420 00
do Removal of snow	N. Cardiff	Nov. 16, 1892	400 00
do Supply of ice	The Ottawa Ice Co.	Feb. 9, 1893	p. block 07½
<i>Nova Scotia.</i>			
Amherst Post Office Building—Supply of coal	Acadia Coal Co.	Sept. 10, 1892	228 90
Annapolis do do	Canada Coal Co.	do 7, 1892	178 35
Antigonish do do	R. L. McLean	do 1, 1892	75 00
Arichat do do	Hugh Fraser	do 16, 1892	98 26
Baddeck do do	do	do 16, 1892	97 50
Dartmouth, erection of post office building	Rhodes, Curry & Co.	Oct. 15, 1892	5,395 00
Halifax Post Office—Whitewashing	D. Driscoll & Co.	July 9, 1892	125 00
do Public Buildings—Supply of coal	Glance Bay Mining Co.	Sept. 1, 1892	931 90
do Dominion Building—Retubing boiler	N. Evans	Nov. 24, 1892	132 00
do Examining Warehouse—Alterations and repairs	R. Walsh	April 22, 1893	177 50

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>Nova Scotia—Concluded.</i>			
Lawlor's Island quarantine station—Disinfecting apparatus.....	Carrier, Laine & Co.....	Jan. 3, 1893	6,325 00
Lawlor's Island quarantine station—Shelter for disinfecting apparatus.....	S. M. Brookfield.....	do 30, 1893	3,515 00
Lawlor's Island quarantine station—Tank and shelter.....	do.....	April 13, 1893	460 00
Lawlor's Island quarantine station—Detention building for 3rd class passengers.....	Rhodes, Curry & Co.....	May 29, 1893	7,181 00
Lawlor's Island quarantine station—Painting.....	J. Harrison & Co.....	Sept. 8, 1892	300 00
Lunenburg—Erection of public building.....	The Oxford Furniture Co.....	Dec. 21, 1892	18,500 00
New Glasgow, post office building—Supply of coal.....	Acadia Coal Co.....	Sept. 10, 1892	120 00
North Sydney do do.....	Jas. Kenna.....	do 9, 1892	210 00
do do 2 Oxford boilers.....	G. F. Muir Forbes.....	Oct. 3, 1892	460 00
Pictou, custom-house building—Supply of coal.....	Intercolonial Coal Mining Co.....	Sept. 13, 1892	101 43
Sydney, post office building do.....	Jas. Kenna.....	do 9, 1892	165 00
Truro do do.....	Acadia Coal Co.....	do 10, 1892	140 00
do do painting and tinting.....	L. B. McElhenny.....	April 20, 1893	225 00
Windsor do new furnace for heating apparatus.....	F. F. Murphy.....	Nov. 4, 1892	389 00
do do supply of coal.....	Canada Coal Co.....	Sept. 7, 1892	117 00
Yarmouth do do.....	Acadia Coal Co.....	do 10, 1892	162 50
<i>Prince Edward Island.</i>			
Charlottetown, Dominion building—Supply of coal.....	Chas. Lyons.....	Sept. 24, 1892	438 75
Montague, post office building do.....	Jas. Kenna.....	do 9, 1892	54 00
Summerside do do.....	Chas. Lyons.....	do 24, 1892	327 88
<i>New Brunswick.</i>			
Bathurst, post office building—Supply of coal.....	R. R. Call.....	Sept. 8, 1892	339 80
Carleton do do.....	R. P. & W. F. Starr.....	Aug. 29, 1892	36 03
Chatham do do.....	R. R. Call.....	Sept. 8, 1892	117 53
do erection of public building.....	Jos. Treen.....	Dec. 12, 1892	11,978 00
Dalhousie, post office building—Supply of coal.....	R. R. Call.....	Sept. 8, 1892	237 08
Fredericton do do.....	Jas. Tibbitts.....	do 29, 1892	314 35
Moncton do do.....	Acadia Coal Co.....	do 10, 1892	173 88
Newcastle do do.....	R. R. Call.....	do 8, 1892	331 21
Partridge Island, quarantine station—Repairs to Marine Hospital.....	W. L. Prince.....	April 11, 1893	600 00
Partridge Island, quarantine station—Boiler and fittings for disinfection.....	D. M. Lachlan.....	Mar. 9, 1893	344 00
Partridge Island, quarantine station—Repairs to doctor's residence and hospital.....	E. Bates.....	Dec. 14, 1892	1,200 00
Portland, post office building—Supply of coal.....	R. P. & W. F. Starr.....	Aug. 29, 1892	28 80
St. John, public buildings do do.....	do do.....	do 29, 1892	73 23
do custom-house—Stone for repairs.....	R. J. Foxwell.....	Sept. 17, 1892	398 57
do do Steel joists.....	Jas. MacPherson.....	Oct. 22, 1892	1,757 00
do do Supply of coal.....	R. P. McGivern.....	Jan. 30, 1893	539 57
do do Partition blocks.....	The Montreal Cotta Lumber Co.....	Mar. 24, 1893	1,375 00
do do do.....	The Rathbun Co.....	do 24, 1893	1,375 00
do post office—Alterations and fitting up of upper portion.....	A. Christie Wood Working Co.....	May 10, 1893	813 00
do custom-house—Time ball machinery and elevator shaft.....	W. H. Allan.....	do 29, 1893	548 00
do custom-house—Lumber for windows and door frames.....	W. H. Quinn.....	June 16, 1893	2,415 76
St. Stephen, post office building—Supply of coal.....	C. D. Hill & Co.....	Sept. 10, 1892	121 00
Sussex do do.....	R. P. & W. F. Starr.....	Aug. 29, 1892	207 62
Woodstock do do.....	W. S. Dibblee & Son.....	Sept. 7, 1892	194 34

Department of Public Works.

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>Quebec.</i>			
Aylmer, post office building—Supply of coal	Hector McRae	Aug. 26, 1892	165 00
Coaticook do do	E. J. Smith	Sept. 5, 1892	206 70
Fraserville do do	N. Dion	Nov. 8, 1892	249 75
do do Heating apparatus	Vandry & Matte	July 22, 1892	1,000 00
do do Well, cesspit and water closets	N. G. Pelletier	Aug. 5, 1892	900 00
do post office and customs fittings	P. Bouffard	Oct. 6, 1892	1,650 00
do post office building—Fences, sidewalks, &c.	N. G. Pelletier	June 5, 1893	600 00
Grosse Isle, quarantine station—House for medical assistant	F. Poitras	Oct. 18, 1892	4,000 00
Grosse Isle quarantine station—shelter building for disinfecting apparatus	F. Poitras	Oct. 18, 1892	5,600 00
do do repairs	do	do 18, 1892	2,250 00
do do steam disinfecting apparatus	Carrier, Lainé & Co.	do 15, 1892	15,650 00
do do bacteriological supplies	Dr. Hermann Rohrbeck	Jan. 20, 1893	428 40
do do painting steamer "Challenger"	A. Verreault	April 10, 1893	265 00
do do electric contact thermometers and telemanometers	Garth & Co.	do 12, 1893	1,152 00
do do establishing water service	do	do 5, 1893	4,200 00
do do baths	do	do 4, 1893	876 00
do do shelter building for 1st cl. passengers	F. Poitras	Feb. 22, 1893	12,330 00
do do plumbing work and cooking ranges	Garth & Co.	June 12, 1893	1,334 50
do do additional rooms in attic of cabin passengers' building	F. Poitras	do 22, 1893	390 00
do do alterations	do	do 16, 1893	3,924 32
Hull post office building—supply of coal	Hector McRae	Aug. 26, 1892	208 00
Joliette do do	Evans Bros.	do 25, 1892	207 04
Lachine do do	do	do 25, 1892	36 88
Laprairie do heating apparatus	E. Chanteloup	Feb. 13, 1893	825 00
do do fittings and alterations in basement and attic	O. Lefebvre	April 19, 1893	1,800 00
Montreal post office and northern receiving house—supply of coal	Evans Bros.	Aug. 25, 1892	683 96
do custom house—supply of coal	P. McCrory	do 25, 1892	601 32
do examining warehouse—supply of coal	J. O. Labrecque, Cousineau & Co.	do 25, 1892	1,827 58
do revenue and immigration buildings—supply of coal	Lacoste & Lacoste	do 25, 1892	325 85
do post office—finishing and completing the second floor	E. St. Louis	Oct. 14, 1892	6,180 00
do do two standard electric passenger elevators	The Royal Electric Co. and Miller Bros. & Toms	May 25, 1893	5,300 00
Quebec post office—tinting walls and ceilings	B. Leonard	July 13, 1892	553 55
do do safe	J. & J. Taylor	do 28, 1892	446 90
do Governor General's quarters at Citadel—supply of coal	G. M. Webster & Co.	Aug. 29, 1892	78 78
do public buildings—supply of coal	Madden & Ellis	do 29, 1892	2,789 86
do marine agency and immigration building—Supply of coal	do	Nov. 24, 1892	469 00
do Louise embankment—alterations in immigrant shed for disinfecting apparatus	E. T. Nesbitt	Mar. 4, 1893	990 00
do immigrant shed—bi-chloride of mercury mixing tank	Garth & Co.	April 18, 1893	465 00

No. 1.—CONTRACTS let by the Department of Public Works, &c.—Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.
PUBLIC BUILDINGS—Continued.			\$ cts.
Quebec—Continued.			
Quebec post office—new hardwood floor.....	F. Labbé.....	June 16, 1893	480 00
do immigrant building—sundry works.....	E. T. Nesbitt.....	do 16, 1893	674 00
St. Henri—erection of post office.....	Viau & Lachance.....	Aug. 24, 1892	8,864 80
St. Jérôme post office building—supply of coal.....	Evans Bros.....	do 25, 1892	292 46
St. Hyacinthe—erection of post office.....	L. P. Morin.....	Nov. 5, 1892	8,350 00
do post office building—heating apparatus.....	A. Blondin.....	Feb. 9, 1893	1,200 00
do do fittings.....	Paquet & Godbout.....	June 21, 1893	1,100 00
St. John's do supply of coal.....	Bissett.....	Sept. 1, 1892	176 00
do do repairs.....	McQuillen & Monbleau.....	April 26, 1893	600 00
St. Vincent de Paul penitentiary—dimension stone.....	C. Bastien.....	Aug. 2, 1892	4,625 00
do do stone.....	do.....	Dec. 15, 1892	0 18½
			per cub. ft.
Sherbrooke post office building—supply of coal.....	Lucke & Mitchell.....	Sept. 20, 1892	269 30
Sorel do do.....	Leclair & Lavallée.....	do 2, 1892	198 00
Three Rivers public buildings do.....	Z. Marchand.....	do 1, 1892	572 59
West Farnham—erection of public building.....	O. Lefebvre.....	Feb. 14, 1893	4,957 00
Ontario.			
Almonte post office building—supply of coal.....	T. White.....	Sept. 7, 1892	135 00
Amherstburg do do.....	O. W. Shipman.....	do 8, 1892	115 00
Barrie do do.....	O. H. Lyon & Son.....	Aug. 31, 1892	249 58
Belleville do do.....	The Downey Co.....	Sept. 9, 1892	327 00
Berlin do do.....	Frank Frank.....	do 1, 1892	144 18
Brampton do do.....	R. Blain.....	do 1, 1892	119 80
Brantford—repairs to roof of post office.....	J. Tilley.....	Aug. 1, 1892	63 00
do post office building—incandescent electric lighting.....	The Brantford Electric and Power Co.....	May 1, 1893	300 00
do do supply of coal.....	T. Elliott.....	Sept. 6, 1892	per annum 354 50
Brockville public building do.....	W. T. McCullough.....	Aug. 31, 1892	288 00
Carleton Place post office building do.....	A. Steele.....	Oct. 15, 1892	224 00
do do wall and fencing.....	R. Cameron.....	Dec. 20, 1892	346 20
Cayuga do heating and lighting.....	Cayuga Natural Gas Co.....	Sept. 16, 1892	60 00
Chatham do supply of coal.....	Thos. Elliott.....	do 6, 1892	per annum 218 55
Clifton do do.....	Histrop & Thomas.....	do 9, 1892	275 55
Cobourg do do.....	Geo. Spence.....	do 10, 1892	256 00
do do furniture, &c.....	Geo. M. Stephens.....	July 21, 1892	1,035 00
Cornwall do supply of coal.....	Flock Bros.....	Sept. 3, 1892	195 00
Galt do do.....	A. C. Fraser.....	do 2, 1892	180 00
Gananoque public buildings do.....	The Rathbun Co.....	do 12, 1892	222 75
Goderich post office building do.....	Thos. Elliott.....	do 6, 1892	198 40
Guelph do do.....	J. A. Nelles.....	do 1, 1892	282 54
do do stone sidewalk.....	The Guelich Silica Barrytic Stone Co.....	March 9, 1893	330 00
Hamilton do supply of coal.....	Thos. Myles & Son.....	Aug. 31, 1892	20 00
do do do.....	T. McIlwraith, T. F. McIlwraith and C. Hamilton.....	do 31, 1892	925 00
Kingston public buildings do.....	Jas. Sowards.....	Sept. 1, 1892	359 04
Lindsay post office building do.....	The Rathbun Co.....	do 12, 1892	158 94
London do do.....	W. H. Winnett.....	do 9, 1892	494 47
London custom-house building do.....	D. Daly & Son.....	do 1, 1892	586 93
Napanee post office building do.....	The Rathbun Co.....	do 12, 1892	131 25
Orangeville do do.....	J. Morrison.....	Oct. 19, 1892	96 80
Orillia do heating apparatus.....	McGuire & Bird.....	Dec. 27, 1892	981 00
do do fittings.....	J. R. Eaton.....	April 18, 1893	1,029 00
Ottawa experimental farm—supply of coal.....	Hector McRae.....	Aug. 26, 1892	40 50
Ottawa, removal of snow—Langevin block, post office, geological and fisheries museums, printing bureau and cartier square.....	Wm. Kilt.....	Nov. 17, 1892	415 00

Department of Public Works.

No. 1.—CONTRACTS let by the Department of Public Works, &c.—Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.
<i>PUBLIC BUILDINGS—Continued.</i>			\$ cts.
<i>Ontario—Continued.</i>			
Pembroke post office building—supply of coal.....	Dunlop & Chapman.....	Aug. 22, 1892	168 67
Peterborough public buildings do	The Rathbun Co.....	Sept. 12, 1892	180 13
Petrolia post office building—heating apparatus.....	McGuire & Bird.....	Jan. 18, 1893	1,169 00
do do fittings.....	Joshua Garratt.....	May 9, 1893	2,300 00
Port Arthur do supply of coal.....	Western Coal Co.....	Aug. 31, 1892	40 00
do do heating apparatus.....	Purdy, Mansell & Mashinter.....	Jan. 19, 1893	1,345 00
do do fittings.....	Tobin & O'Keefe.....	June 6, 1893	2,400 00
Port Hope do supply of coal.....	Brown & Henning.....	Sept. 8, 1892	458 82
Prescott public buildings do	Jas. Buckley.....	do 7, 1892	316 25
St. Catharines post office buildings do	Devaney & Son.....	do 7, 1892	210 46
St. Thomas do do	Thos. Elliott.....	do 6, 1892	365 58
Stratford do do	P. R. Jarvis.....	do 8, 1892	400 90
Strathroy do do	W. J. Anderson.....	do 21, 1892	178 53
Toronto public buildings do	Whiteside & Bell.....	Aug. 29, 1892	3,082 18
do granolithic pavement for customs-house and examining warehouse	R. Forsyth.....	do 9, 1892	2,540 00
Trenton post office building—electric illuminating of tower clock.....	Trenton Electric Light Co.....	May 8, 1893	4 00
do do supply of coal.....	J. Funnell, jr.....	Sept. 3, 1892	150 00
Walkerton do do	Traill Bros.....	do 2, 1892	143 71
Windsor do do	Thos. Elliott.....	do 6, 1892	446 00
do do repairs.....	Laesser & Murdoch.....	Dec. 30, 1892	2,130 00
<i>Manitoba.</i>			
Brandon—erection of industrial school.....	T. M. Harrington & T. Chambers.....	June 30, 1893	21,564 00
do post office building—supply of coal.....	Sinclair & Co.....	Oct. 19, 1892	972 48
Winnipeg—do do	Alberta Railway and Coal Co.....	do 8, 1892	2,325 00
do other public buildings—do	Thos. D. Robinson.....	Sept. 9, 1892	2,186 35
do Fort Osborne—mess room, &c., at barracks	Jas. & Jno. McDiarmid.....	do 12, 1892	24,575 00
do do heating apparatus for infantry school.....	N. D. McDonald.....	Oct. 28, 1892	3,200 00
do do heating apparatus for hospital.....	C. & W. Plaxton.....	April 24, 1893	350 60
<i>North-west Territories.</i>			
Calgary—erection of public building.....	Walter Alford.....	Mar. 15, 1893	27,975 00
Edmonton—erection of land, registration and crown timber offices	do	Sept. 1, 1892	7,800 00
Indian Head—implement house for experimental farm	Jas. Conn.....	Oct. 19, 1892	2,246 00
Lethbridge—erection of public building.....	Wm. Oliver.....	June 5, 1893	13,600 00
Moose Jaw—erection of court-house and outbuildings.....	Jno. Symonds.....	Dec. 3, 1892	3,348 00
Prince Albert—erection of land and registration offices	T. E. Baker.....	Aug. 31, 1892	6,854 00
Regina—court-house and post office—supply of coal.....	The Smith & Ferguson Co.....	Oct. 14, 1892	172 70
do do do additional do	McCaul & McKinnon.....	Feb. 10, 1893	849 05
do other public buildings—supply of coal.....	J. A. McCaul & McKinnon.....	Oct. 19, 1892	849 05
do erection of court-house	C. Willoughby.....	May 9, 1893	32,175 00
<i>British Columbia.</i>			
Vancouver—post office fittings	F. W. Hart.....	May 4, 1893	3,100 00
do post office building—2 Oxford hot-water heaters.....	The Gurney-Massey Co.....	June 21, 1893	632 00
do do fittings for customs and inland revenue offices.....	Robertson & Hackett.....	do 27, 1893	1,380 00
do do heating apparatus.....	W. Leek.....	do 16, 1893	2,438 00
Victoria—erection of an hospital at artillery barracks.....	G. McFarland.....	July 6, 1892	3,620 00
do do powder magazine do	W. Rockett.....	April 27, 1893	3,180 00

No. 1.—CONTRACTS let by the Department of Public Works, &c.—*Concluded.*

Works.	Names of Contractors.	Date of Contract.	Amount.
PUBLIC BUILDINGS— <i>Continued.</i>			\$ cts.
<i>British Columbia—Continued.</i>			
William's Head—quarantine station—disinfecting apparatus	Albion Iron Works Co.	Mar. 28, 1893	9,500 00
do hospital for quarantine station	Bishop & Shelborne	May 5, 1893	7,796 00
do officers' residence for quarantine station	G. McFarland	do 6, 1893	3,646 00
do quarantine station—shelter houses for 1st class passengers, Chinese and Japanese passengers	Bishop & Shelborne	June 26, 1893	12,146 00
HARBOURS AND RIVERS.			
<i>Nova Scotia.</i>			
Bayfield—construction of wharf	S. O'Donoghue	Nov. 14, 1892	23,200 00
D'Escousse do	McDonald & Moffat	Oct. 14, 1892	4,800 00
Donald's Head—extension to breakwater	G. Wilson	Dec. 16, 1892	1,628 80
Lawlor's Island—quarantine station—construction of wharf	A. McKinnon	April 1, 1893	8,900 00
<i>Prince Edward Island.</i>			
Bay Fortune—Extension to and rebuilding of a portion of the breakwater	C. Townshend & J. McKinnon	Aug. 2, 1892	1,975 00
Big Miminigash—extension of and strengthening the south pier	Jas. Barclay	July 18, 1892	2,447 00
Nine Mile Creek—new block at outer end of pier	A. McDougall & J. A. McNevin	Aug. 27, 1892	274 00
Port Selkirk—reconstruction of 2 central blocks of the pier	Morrison, Compton & Nicholson	Mar. 25, 1893	783 00
<i>New Brunswick.</i>			
Tracadie Harbour—public landing pier	G. & J. Robertson	Aug. 21, 1892	4,475 00
Pointe du Chêne (Shediac Harbour)—reconstruction of the outer end of the northern portion of the breakwater	Heney & Smith	June 17, 1893	35,373 00
<i>Quebec.</i>			
Yamachiche—Isolated pier	F. A. Verrette	Jan. 24, 1893	1,480 00
<i>Ontario.</i>			
Goderich—Extension of piers	Brewder & McNaughton	April 20, 1893	35,555 00
Owen Sound—Dredging in harbour	D. Porter	Aug. 17, 1892	11½ c. p. c. yd.
Port Albert—Extension of piers	P. Navin	March 19, 1893	10,497 00
Port Rowan—Landing pier	do	Dec. 5, 1892	8,413 00
<i>British Columbia.</i>			
William's Head—Quarantine station—Construction of wharf	Jas. Leamy	April 7, 1893	13,125 00
<i>Dredge Vessels and Plant.</i>			
Steam-Elevator Dredge, "Laval"—2 cylindrical boilers	P. J. Powers	July 7, 1892	3,700 00
Elevator Dredge No. 9.—Supply of steam lump coal	O. W. Shipman	May 1, 1893	Sched. rates.
<i>Telegraph Lines.</i>			
Construction of telegraph line—Shippegan to Point Miscon	The St. Lawrence Lumber Co.	Dec. 2, 1892	2,337 00

Department of Public Works.

No. 2.—STATEMENT of Property purchased or sold by the Department of Public Works, during the Fiscal Year ended 30th June, 1893.

Date of Conveyance.	Vendors.	Purchasers.	Description of Property.	For what Purpose.	Area.	Price.
July 7, 1892	Hudson's Bay Company.	Her Majesty.	Edmonton, Alberta, lots 49 and 50, block 5, subdivision of Hudson's Bay Co.'s Reserve	Site for registry office.		Free grant.
Sept. 6, 1892	J. Nillock	do	Medicine Hat, Assiniboia, lots 6, 7 and 8, block 7.	Site immigration building		550 00
do 20, 1892	James A. Dease <i>et al.</i>	do	Port Rowan, Ont., parts of lots D and F, block H.	For approach to wharf	3 roads 40 perches	1 00
Nov. 9, 1892	Corporation of Lethbridge	do	Lethbridge, Alberta, lots 7 and 8 in block 9.	Site for court-house and custom-house	125 ft. on Baroness Road by 125 ft. on Coult's Street.	Gift.
do 9, 1892	Alberta Ry. and Coal Co.	do	do do lots 9, 10 and 11 in block 9.	Approach to wharf	1/4th of an acre	1 00
Aug. 13, 1892	Thos. Cash <i>et ux.</i>	do	Irish Cove, on Great Brass d'Or Lake, piece of land.	Site for court-house	16,875 sq. ft.	8,000 00
Dec. 17, 1892	C. P. R. town site, trustees	do	Regina, Assa., lots 16, 17, 18, 19 and 20, block 345.	Approach to wharf		
18-Jan. 18, 1893	R. Buck	do	West Farnham, Que., southern central part of Cadastral lot No. 331	Site for post office building		
Nov. 18, 1892	W. J. Fraser <i>et ux.</i>	do	Chatham, N. B., piece of land	do	33,800 sq. ft.	1,500 00
April 24, 1893	John Landry	do	D'Escoisse, N.S., lot No. 1.	Approach to wharf	1/20ths of an acre	4,750 00
do 24, 1893	Simon Landry <i>et ux.</i>	do	do do 3	do	1/20ths do	1 00
do 24, 1893	Jos. Provost <i>et ux.</i>	do	do do 2 A	do	1/20ths do	1 00
do 24, 1893	Max. Provost <i>et ux.</i>	do	do do 2 B	do	1/20ths do	1 00
May 15, 1893	Margaret Landry <i>et al.</i>	do	Boularderie, C. B., N.S., piece of land	do	1/20ths do	1 00
do 24, 1893	R. D. McLeod <i>et ux.</i>	do	Smith's Falls, Ont., front part of lot No. 240	Site for post office	1/20ths do	1 00
Nov. 5, 1892	Wm. Corbett <i>et ux.</i>	do	do	No. longer required by department	5,400 sq. ft.	2,500 00
June 13, 1893	Her Majesty.	La Barque du Peuple.	Three Rivers, Que., Cadastral lot No. 1126	For a pier	1 ac. 3 r. 20/100 per.	600 00
Aug. 12, 1892	Samuel Slocum <i>et al.</i>	Her Majesty.	Port George, N.S., piece of land.	Site for court-house	280 x 260 ft.	1 00
June 28, 1893	J. P. Dill.	do	Wolseley, Assa., block No. 2, Dill's addition.			Free grant.

F. X. R. SAUCIER,

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 25th October, 1893.

No. 3.—STATEMENT of Property Leased to and by the Department of Public Works during the Fiscal Year ended 30th June, 1893.

Date of Lease.	Lessor.	Lessee.	Property Leased.	For what purpose used.	Duration of Lease.	Rent payable.
1892. Sept. 7	Her Majesty	Wm. Hudson	Richibucto Harbour, N.B., piece of land on the beach.	Not required by Department.	10 years	\$ 5 per annum.
1893. Jan. 5	Lowenburg, Harris & Co.	Her Majesty	Victoria, B.C., rooms in Five Sisters' Block, corner Government and Fort streets.	Resident engineer's office	5 do	55 per month.
April 27	Her Majesty	D. Robertson & J. Rowland.	Walkerton, Ont., strip of land on eastern portion of post office lot.	Private enterprise	During pleasure.	1 per annum.
May 18	D. & J. McCarthy	Her Majesty	Sorel, Que., McCarthy's ship yard.	St. Lawrence ship channel.	5 years	1,200 do
do	Her Majesty	John Wilson	New Westminster, B.C., lot No. 1, block 13, corner Begbie and Columbia streets.	Private enterprise.	10 do	250 do
June 26	do	La Corporation de la Cité de Québec.	Old Parliament Grounds	For a public garden.	21 do	1 do
do	do	W. C. Dunham.	Portland, St. John, N.B., part of building, corner Main and Simonds streets.	Private enterprise.	1 do	260 do

F. X. R. SAUCIER,

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 25th October, 1893.

Department of Public Works.

APPENDIX No. II.

OFFICIAL CORRESPONDENCE

DEPARTMENT OF PUBLIC WORKS

FROM 1st JULY, 1867, TO 30th JUNE, 1893

Department of Public Works.

APPENDIX No. II.

OFFICIAL CORRESPONDENCE.

LETTERS Received and Sent from 1st July, 1867, to 30th June, 1893.

	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

NUMBER of Cheques sent by Accountant's to Secretary's Branch and Mailed, from 1882 to 1893.

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

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
1192.....	do do do 1893.....	822

LETTERS Received and Sent, Chief Architect's Office, from 1st January, 1880, to 30th June, 1893.

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

*The exact number of letters received cannot be accurately given, but would bear about the same proportion to letters sent as last year.

LETTERS Sent from Chief Engineer's Office, from January, 1880, to 30th June, 1893.

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

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. 12.

TABULAR STATEMENT

SHOWING THE DATES OF THE

CLOSING AND OPENING OF NAVIGATION

AT THE

PRINCIPAL PORTS OF CANADA

ON THE SEABOARD, THE RIVER AND GULF OF ST. LAWRENCE, AND
ON THE GREAT LAKES

1892-93

APPENDIX No. 12.

STATEMENT showing the Dates of the Closing and Opening of Navigation, at the undermentioned Ports in Canada, in 1892 and 1893.

Ports.	Provinces.	Location.	Date of Closing, 1892-93.	Date of Opening, 1893.	Remarks.
Arichat, C.B.	Nova Scotia	South entrance, Strait of Canso, Atlantic Ocean.	Jan. 28.	Mar. 22.	
Bathurst.	New Brunswick.	Baie des Chaleurs	Dec. 14.	May 1.	
Bellefleur.	Ontario	Lake Ontario	Nov. 28.	April 23.	
Campbellton	New Brunswick.	Baie des Chaleurs.	Dec. 6.	May 10.	
Charlottetown	P. E. Island	Gulf of St. Lawrence.	do 24.	April 8.	
Collingwood	Ontario	Georgian Bay.	do 1.	do 16.	
Gaspe.	Quebec.	Gulf of St. Lawrence.	do 3.	May 5.	
Georgetown.	P. E. Island.	do	Jan. 13.	April 10.	Vessels could have come in at the wharfs up to December 25th. Navigation open for steam vessels of the "Stanley" class the year round, but closed to sailing vessels between the dates given.
Goderich.	Ontario	Lake Huron	Dec. 3.	do 22.	Always open and clear of ice.
Halifax.	Nova Scotia.	Atlantic Ocean.	Nov. 28.	April 2.	
Kincardine.	Ontario	Lake Huron.	Dec. 26.	do 12.	
Kingston.	do	Lake Ontario.			
Louisburg, C.B.	Nova Scotia	Near the eastern entrance, Gulf of St. Lawrence, Atlantic Ocean.	Dec. 17.	April 24.	No ice formed on this harbour last winter.
Montreal.	Quebec.	Gulf of St. Lawrence.	do 30.	do 15.	
North Rustico.	P. E. Island.	Near the eastern entrance, Gulf of St. Lawrence.			
North Sydney, C.B.	Nova Scotia	Near the eastern entrance, Gulf of St. Lawrence, Atlantic Ocean.	Dec. 6.	April 12.	Open all winter.
Owen Sound.	Ontario	Georgian Bay.	do 5.	do 10.	No ice formed to prevent vessels from entering this harbour until the end of January, 1893.
Perce.	Quebec.	Gulf of St. Lawrence.	do 23.	do 13.	
Pictou.	Nova Scotia.	Lake Superior.	do 18.	May 22.	
Port Arthur.	Ontario	Lake Erie.	do 20.	April 20.	
Port Dover.	do	Lake Ontario.	do 12.	do 3.	
Port Hope.	do	Lake Erie.	do 25.	Mar. 25.	
Port Stanley.	do	Lake Erie.	Nov. 25.	April 20.	
Quebec.	Quebec.	River St. Lawrence.	do 30.	do 17.	
St. Johns.	do	River Richelieu.			
St. John.	New Brunswick.	Bay of Fundy.	Jan. 9.	April 24.	Navigation at this port is never closed. Last winter being an extraordinary cold one, navigation was closed for a long period.
St. Peter's, C.B.	Nova Scotia.	Atlantic Ocean.	Dec. 18.	do 3.	
Sarnia.	Ontario	Lake Huron			

Department of Public Works.

Sault Ste. Marie	do	Lake Superior	do	6	do	29
Shediac	New Brunswick	Gulf of St. Lawrence	do	21	do	14
Sorel	Quebec	River Richelieu	do	16	do	26
Sydney, C. B.	Nova Scotia	Entrance, Gulf of St. Lawrence	Jan. 10	do	do	26
Tadoussac	Quebec	River St. Lawrence	Nov. 27	Mar.	do	25
Three Rivers	do	do	do	25	April	28
Toronto	Ontario	Lake Ontario	Dec. 22	do	do	7
Warton	do	Georgian Bay	Nov. 30	do	do	18
Windsor	do	Detroit River	Dec. 17	do	do	18
Winnipeg	Manitoba	Red River	Nov. 30	May	do	8
York Factory	North-west Ter.	Hudson's Bay	do	do	do	do

Ferry boats ran all winter.

Vessels would not commence running on Lake Winnipeg till about the 1st of June and discontinue about the 15th of November.

Ice seen close to the month of the river till August.

Boat left York Factory for Churchill 15th July, as soon as it was thought she would make a passage without being delayed by ice.

Department of Public Works.

APPENDIX No. 13.

L I S T

OF SOME OF THE

ACTS OF PARLIAMENT PASSED AT THE SESSION OF 1893

HAVING REFERENCE TO THE

DEPARTMENT OF PUBLIC WORKS

OR WORKS UNDER ITS CHARGE

Department of Public Works.

APPENDIX No. 13.

List of some of the Public Acts of the Parliament of Canada, passed at the Third Session of the Seventh Parliament, ended on the First day of April, 1893, and having reference to the Public Works Department, or works under its charge.

Subject.	Full Title of the Statute.	Chapter.	Page in Statute Book.
Sums granted to Her Majesty for the financial year ending 30th June, 1894, 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, 1893, and the 30th June, 1894, and for other purposes relating to the public service.	1	3
Respecting superannuation of persons appointed to the Civil Service of Canada.	An Act to amend the Civil Service Superannuation Act....	12	69
Respecting Government Insurance for Civil Service officers.	An Act respecting Government Civil Service Insurance.....	13	71
Public Officers.....	An Act further to amend the Act respecting Public Officers.	14	75
Legal Holidays.....	An Act to amend the law relating to Holidays.....	30	107

F. X. R. SAUCIER.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, 8th November, 1893.

Department of Public Works.

APPENDIX No. 14.

DETAILED STATEMENT OF EXPENDITURE

ON ACCOUNT OF

REPAIRS, Etc.

TO

PUBLIC BUILDINGS, CANADA

For the Fiscal Year ended 30th June, 1893

BY

O. DIONNE, Esq., ACCOUNTANT

APPENDIX No. 14.

DETAILED STATEMENT of Expenditure on account of "Public Buildings, Repairs," &c., for fiscal year ended 30th June, 1893.

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 and chimney tops, &c.	Lumber, &c.	Brick and stone- work, plastering, &c.	Painting, glazing, &c.	Extraordinary re- pairs, &c.	Sundries.	\$	cts.	\$								cts.		
<i>Nova Scotia.</i>																					
1	Amerhet post office											22	94						22	94	1
2	Annapolis do											6	12						6	12	2
3	Antigonish do	5	45									21	95						33	75	3
4	Archat do	28	52					2	00			200	00						238	02	4
5	Baddeck do	125	75					155	00			280	75						280	75	5
6	Halifax Dominion building											1	00						1	00	6
7	do examining warehouse.											2	50						2	50	7
8	do penitentiary.																		1,000	00	8
9	do steamboat inspector's office.																				9
10	New Glasgow post office.											27	87						27	87	10
11	Pictou custom-house.											1	50						5	00	11
12	Sydney post office.											26	00						26	00	12
13	Truro do											10	50						10	50	13
14	Windsor do											20	00						423	14	14
15	Yarmouth do											3	00						3	00	15
<i>Prince Edward Island.</i>																					
16	Charlottetown Dom. building											270	27						270	27	16
17	Montague post office.											10	30						10	30	17
<i>New Brunswick.</i>																					
18	Bathurst post office											73	85						73	85	18
19	Carleton do											2	00						2	00	19
20	Chatham do											0	85						94	75	20
21	Dalhousie do											2	25						142	42	21
22	Fredericton do											30	50						32	96	22
23	Moncton do											7	23						45	50	23

Department of Public Works.

24	Newcastle do						154 50	78 95	233 45
25	Portland do								130 90
26	St. John custom-house								22 00
27	do do (temporary)	257 52							4,311 32
28	do engineer's office								537 25
29	do examining warehouse								270 83
30	do inland revenue office								60 00
31	do post office	193 00							193 00
32	St. Stephen's post office	5 35							5 35
33	Sussex do	10 00							54 91
34	Woodstock do	0 53							3 13
	<i>Quebec.</i>								
35	Avlmer post office		1 82						2 72
36	Hull do		0 65						8 80
37	Joliette do		2 40						4 33
38	Lachine do								49 45
39	Montreal cattle inspector's office								85 70
40	do custom-house	208 76	518 80				85 70		2,402 29
41	do examining warehouse	19 62	93 25						255 75
42	do inland revenue office								93 25
43	do post office	140 38							24 04
44	Quebec citadel buildings	104 90	141 90						1,541 85
45	Quebec cutlers' office								5 50
46	do custom-house	138 33	11 00						250 73
47	do examining warehouse	61 25	12 40						478 04
48	do observatory		13 50						58 11
49	do old parliament grounds								50 00
50	do post office								149 00
51	do Queen's wharf building								10 80
52	do signal service inspector's office								42 79
53	Sherbrooke post office	26 60	35 04				7 75		480 10
54	Sorel do	21 00							26 00
55	St. Jérôme do	2 50							152 35
56	St. Johns do								38 10
57	Three Rivers custom-house								123 53
58	do post office								20 25
59	Valleyfield do	1 50							256 50
	<i>Ontario.</i>								
60	Almonte post office						61 00		67 00
61	Amherstburg post office	14 00							47 25
62	Belleville do	46 25	2 75				1 50		134 19
	Carried forward	1,649 10	13,501,017 06	193 00	1,203 22	4,564 36	481 77	6,113 73	15,992 00

a Taxes.

b Fitting up rooms for janitor, per agreement.

c Taxes.

APPENDIX No. 14.—Expenditure on account of "Public Buildings, Repairs," &c.—Continued.

No.	NAME OF BUILDING.	REPAIRS.										Total for repairs.	Wages.	Rent.	Furniture, carpets, &c.	Maintenance of buildings, &c.	Grand total.
		Hardware, metal, &c., plumbing,	Repairing roofs and chimneys	Lumber, &c.	Brick and stone, &c., plastering,	Painting, glazing, &c.	Extraordinary repairs, &c.	Sundries.	Total for repairs.		\$						
	Brought forward.....	1,649 10	279 72	208 76	13 50	1,017 06	193 00	1,203 22	4,564 36	481 77	6,113 73	968 76	3,863 38	15,392 00			
	Ontario—Concluded.																
63	Berlin post office.....					9 15		12 00	12 00				43 18	55 18	63		
64	Brantford do.....	15 90	4 00			11 50		5 50	34 55				38 20	72 75	64		
65	Brantford do.....		71 00						82 50				31 51	114 01	65		
66	Brockville do.....		18 25					24 13	42 38				48 98	91 36	66		
67	Cayuga do.....	4 45			7 50	31 90			43 85				158 62	202 47	67		
68	Clifton or Niagara Falls post office.....	18 00				3 25			21 25					21 25	68		
69	Cornwall post office.....							19 00	19 00				17 50	36 50	69		
70	Dundas do.....	0 75						0 75	0 75					0 75	70		
71	Galt do.....	3 00						4 00	7 00					7 00	71		
72	Gananoque do.....					4 24		3 50	7 74				7 16	14 90	72		
73	Guelph do.....				330 00				330 00				43 38	373 38	73		
74	Hamilton civil service ex. office.													20 00	74		
75	do custom-house.....					12 00			12 00				49 56	61 56	75		
76	do post office.....	15 00				51 48	670 50	7 50	744 48			181 91	561 81	1,488 20	76		
77	Kingston civil service ex. office.												8 85	21 35	77		
78	do custom-house.....												23 92	83 02	78		
79	do post office.....	5 46						85 33	90 79	42 70			29 37	162 86	79		
80	Lindsay do.....	4 50						89 76	4 50				13 75	18 25	80		
81	London custom-house.....												2 50	2 50	81		
82	do post office.....					1 60			1 60			5 50	2 00	3 60	82		
83	Napanee do.....												8 25	13 75	83		
84	Orangeville post office.....												305 00	305 00	84		
85	Ottawa civil service exam. office												1,700 00	1,700 00	85		
86	do examining warehouse.														86		
87	do experimental farm.....	2 75	19 14						21 89			20 00	250 00	445 89	87		
88	do geological museum.....	40 15		102 52		64 50		6 00	213 17			7 00		264 67	88		
89	do Govt. printing bureau..														89		

Department of Public Works.

90	do	post office.	32 19	13 50	6,168 71	76,975 71	1,805 59	45 09	659 50	183 33	6,805 27	1 48 25	1,036 77
91	do	public buildings	3,185 65	220 76	286 85	4,159 96	1,805 59	23,702 73	83,650 39	2,041 50	6,805 27	1,223 42	116,423 31
92	do	supreme court.	8 00					8 00			444 00	97 25	549 25
93	do	Pembroke post office.	2 25					2 25				5 55	7 80
94	do	Port Colborne post office.	160 00		8 95	175 23		344 18				3 00	347 18
95	do	Port Colborne do	8 50					16 50				36 61	53 11
96	do	Port Hope do	4 00		3 60			47 60			20 60	20 60	68 20
97	do	Prescott do	371 82	542 41	584 34	341 98	1,482 13	240 31	7,496 58		1,048 24	3,303 05	240 31
98	do	Rideau Hall.						67 90				64 18	15,238 42
99	do	Stratford post office.						21 25					91 93
100	do	St. Catharines post office.						7 55					9 52
101	do	St. Thomas do						21 35					29 33
102	do	Toronto civil service ex. office.						56 88		10 92	49 10		56 88
103	do	do do	13 31					450 12					60 02
104	do	do do						30 00					104
105	do	do do						70 06					30 00
106	do	do do	26 57					43 49				90 00	160 06
107	do	do do	195 91		35 20			750 83			103 25		1,248 35
108	do	Trenton do	23 15		2 00			55 91					57 91
109	do	Walkerton do	49 40		1 40			73 55			150 25		223 80
110	do	Windsor do						2,256 45			57 50		2,313 95
<i>Manitoba.</i>													
111	do	Brandon post office.						14 00				2,280 90	313 90
112	do	Winnipeg architect's office.						29 80					29 80
113	do	do do	33 84		5 60			39 44					39 44
114	do	do do			1 44			1 00			244 20		246 64
115	do	do do							37 50				37 50
116	do	do do						3 84				1 25	5 09
117	do	do do	28 62					75 12				30 00	105 12
<i>North-west Territories.</i>													
118	do	Calgary court-house.											3 85
119	do	do do	10 40					10 40					10 40
120	do	do do							15 00		164 50		179 50
121	do	do do	30 23					30 23					30 23
122	do	do do			46 85			46 85					46 85
123	do	do do	3 93					44 25		30 50		12 00	90 68
124	do	do do						19 47					19 47
125	do	do do						42 06					42 06
												162,411 95	...
												10,399 33	...
												10,280 38	...
												11,205 66	...
												92,906 68	...
												37,709 90	...
												4,894 13	...
												8,451 25	...
												927 21	...
												1,359 03	...
												5,068 58	...
												5,896 83	...

d Heating apparatus and sundry alterations, &c. *e* Local improvement rates, \$154. *f* Electrical materials, &c., \$5,397 38; ventilation, House of Commons, \$638. 83.
g Fitting up rooms for Controller of Customs. *h* Painting as per agreement, \$2,130. *i* Taxes on site, \$259 90.

APPENDIX No. 14.—Expenditure on account of "Public Buildings, Repairs," &c.—*Concluded.*

No.	NAME OF BUILDING.	REPAIRS.										Total for repairs.	Wages.	Rents.	Furniture, carpets, &c.	Maintenance of buildings, &c.	Grand total.	No.
		Hardware, plumbing, &c.	Repairing roofs and chimneys	Lumber, &c.	Brick and stone-work, plastering, &c.	Painting, glazing, &c.	Extraordinary repairs, &c.	Sundries.	\$		cts.							
	Brought forward.....	5,896 83	1,359 03	5,068 58	927 21	11,112 87	8,451 25	4,894 13	37,709 90	92,806 68	11,205 66	10,280 38	10,389 33	162,411 95				
	<i>North-west Territories—Con.</i>																	
126	Regina government house (new).	65 46				19 88		130 02	215 36					289 36	126			
127	do do (old).	4 40	15 00			2 97		110 00	132 37					132 37	127			
128	do post office.	5 65							5 65					5 65	128			
	<i>Miscellaneous.</i>																	
129	London, Eng., High Commissioner's office.															21 78	129	
130	Dominion buildings generally							116 73	116 73					2,844 24	130			
	Totals	5,972 34	1,374 03	5,068 58	927 21	11,135 72	8,451 25	5,250 88	38,180 01	92,806 68	11,205 66	10,344 38	13,265 35	165,802 08				

j Travelling expenses.

O. DIONNE,
Accountant.

PUBLIC WORKS DEPARTMENT,
OTTAWA, 14th February, 1894.

DOMINION OF CANADA

ANNUAL REPORT

OF THE

DEPARTMENT OF RAILWAYS AND CANALS

FOR THE PAST

FISCAL YEAR FROM 1st JULY, 1892, TO 30th JUNE, 1893

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

1894

[No. 10—1894.] *Price 20 cents.*

Department of Railways and Canals.

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, 1892, to the 30th of June, 1893.

All of which is respectfully submitted,

JOHN HAGGART,
Minister of Railways and Canals.

OTTAWA, March, 1894.

Department of Railways and Canals.

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Department of Railways and Canals.

REPORT.

1892-93.

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, 1893.

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 Nos. 1, 2 and 3) 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 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, being returns made for the fiscal year ended on the 30th of June, 1893, will be of interest.

The number of railways in actual operation, embracing under one head all amalgamated lines and including the Government roads, was 65. The number of miles of completed railway was 15,320, besides 2,012 miles of sidings. The number of miles in operation was 15,020, of which 14,883 miles were laid with steel rails.

The paid up capital amounted to \$872,156,475. The gross earnings aggregated \$52,042,397. The working expenses were \$36,616,033, leaving the net earnings for

*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 the 5th October, 1893, and the General Report contains information on points relating to subsidized lines of railways up to the end of December, 1893.

the year \$15,426,364. The number of passengers carried was 13,618,027, and the quantity of freight conveyed 22,003,599 tons. The total number of miles run by trains was 44,385,953.

RAILWAY EXPENDITURE—CAPITAL ACCOUNT.

BEFORE AND SINCE CONFEDERATION.

The following list shows the total amount, charged to Capital Account, expended by the Government for construction of railway works, embracing the period prior to Confederation and extending down to the 30th of June, 1893 :

Intercolonial Railway	\$47,385,117 42
(a) Eastern Extension Railway (to 1891, inclusive) ..	1,324,042 81
(a) Oxford and New Glasgow Railway	1,833,114 94
(a) Montreal and European Short Line Railway (to 1891, inclusive)	333,924 73
(a) Cape Breton Railway	3,701,113 93
(b) Carleton Branch Railway (to 1888, inclusive)	88,410 48
Prince Edward Island Railway	3,750,565 38
Canadian Pacific Railway—Works built by the Government and transferred to the Canadian Pacific Railway Company	30,818,414 14
Canadian Pacific Railway—Other expenditure on surveys, explorations, telegraph lines, Dawson Route, Fort Frances Lock, &c.	6,639,581 43
Annapolis and Digby Railway	616,979 89
	<hr/>
	\$96,491,265 15

SUBSIDIES TO RAILWAYS.

Canadian Pacific Railway	25,000,000 00
(c) Canadian Pacific Railway Extension to Quebec	1,500,000 00
(d) Canada Central Railway	1,525,250 00
(e) Other railways	10,319,902 34
	<hr/>
	\$134,836,417.49

This amount does not include the annual subsidy of \$186,600 payable for twenty years to the Atlantic and North-west Railway Company; nor the annual payment of \$119,700 to the Provincial Government of Quebec, being 5 per cent on the sum of \$2,394,000 granted by 47 Vic., ch. 8 (1884), for the line between Ottawa and Quebec. Both these items are dealt with by the Finance Department.

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):—

- (a) Now included in the Intercolonial Railway system.
 (b) Transferred to the Corporation of St. John, N.B.
 (c) 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.
 (d) Including \$85,250 refunded to the Town of Pembroke.
 (e) Including value of old rails transferred.

Department of Railways and Canals.

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—

	Miles.	
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	
		755

Grand Trunk Railway Route—

	Miles.	
By Intercolonial Railway to St. John, N.B.....	275	
New Brunswick Railway.....	90	
Maine Central Railway.....	224	
Total up to Danville Junction.....	589	
By Grand Trunk Railway to Montreal.....	270	
		859

Témiscouata Railway Route—

	Miles.	
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	
		814

MONTREAL TO THE PACIFIC COAST.

CANADIAN PACIFIC RAILWAY.

NOTE.—A somewhat detailed statement of the Government transactions with this 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 Mon- treal)	159	
Montreal (at the head of Atlantic Ocean Navigation) to St. Martin's Junction.....	13	
St. Martin's Junction to Callander	331	
<div style="display: inline-block; vertical-align: middle;"> For this portion the company were subsidized direct under their contract. </div> <div style="display: inline-block; vertical-align: middle; font-size: 3em; margin-left: 5px;">{</div>	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
Port Moody to Vancouver on Burrard Inlet.....	15	
		2,562
Total, Montreal to Vancouver, Burrard Inlet	2,906	

This railway was opened for through traffic on the 28th of June, 1886.

By the Act 51 Vic., c. 32, approval and ratification were 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 $3\frac{1}{2}$ per cent on an issue of the company's bonds 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 fifteen 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 sections, 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.”

Department 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 moneys 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, A.D. 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 made their award, 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 having been \$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 so awarded was to be expended under the supervision of an officer of the Government, for the improvement of the railway in certain specified directions.

There remain still to be dealt with two unimportant claims in respect of steel rails.

As to these, however, the arbitrators, after hearing evidence, considered that they are of a character for settlement by the department rather than by arbitration, it being merely a question whether certain amounts, deducted from the company's subsidy of \$25,000,000, as the value of rails and fastenings on sections of the railway transferred to the company under their contract, should, properly, have been deducted. In the one case it is the opinion of the Department of Justice that the deduction made was not a proper deduction; and the other case being one of adjustment of prices only, these matters will be dealt with by the department accordingly.

The award included the sum of \$202,675.20 for works executed during the progress of the arbitration, leaving the balance, \$376,580, to cover work remaining to be done.

* The date of the company's contract.

The total value of the work so executed from the date of the award, 31st July, 1891, up to the 31st August, 1893, as returned by the Government officer in charge, is \$234,435.56, making the total expenditure under the award \$437,110.76, and leaving the sum of \$142,144.44, still to be expended.

It should be noted that for the year ended on the 30th of June, 1893, the company had under traffic in Canada, 5,782 miles of railway, and that its gross receipts were \$20,795,304.66 (as against 5,537 miles of railway and receipts \$20,789,104.17 the previous year).* The total expenditure for working expenses was \$12,665,587.12, making the net earnings \$8,129,717.54. These figures are taken from the sworn statement of the company, furnished in accordance with the Railway Act. (See Railway Statistics, App. 24.)

GOVERNMENT RAILWAYS IN OPERATION.

The several lines maintained by the Government during the past fiscal year ended the 30th June, 1893, were:—

	Miles.
The Intercolonial	1,142
do wharf branches.....	12½
	1,154½
Windsor Branch (maintained only).....	32
Prince Edward Island Railway.....	211
	1,397½

The through ocean mail line from Point Lévis, opposite Quebec, to Halifax, is 675 miles in length.

Details respecting these railways and their operations will be found in Appendices Nos. 4 and 5, 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 1892-93 show the following as the financial position of these roads for the fiscal year and the mileage operated:—

—	Mileage in operation.	Working expenses.	Earnings.	Profit.	Loss.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Intercolonial, including the Eastern Extension, the Oxford and New Glasgow and the Cape Breton Railways...	1,142	3,045,317 50	3,065,499 09	20,181 59	.....
Windsor Branch (earnings, one-third of entire receipts; expenditure on maintenance).....	32	16,889 95	34,316 11	17,426 16	
Prince Edward Island.....	211	226,422 17	162,690 42	.....	63,731 75
				37,607 75	63,731 75
Total operated mileage.....	1,375	.....	Net loss	.....	26,124 00

*In the annual report for 1891-92, the mileage receipts and expenditure do not correspond with the statements for that year now given. This is due to the fact that there had been included in the returns for 1891-'2, the mileage of this railway through the state of Maine.

Department of Railways and Canals.

The gross earnings of all the Government roads for the past fiscal year show an increase over those of the preceding year of \$126,112.11, and the gross working expenses a reduction of \$459,968.14.

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 (including wharf and freight branches) is 1,154½ miles.

The following are the through distances :—

	Miles.
Lévis (opposite Quebec) <i>via</i> St. Joseph and St. Charles Junction (14 miles) to Halifax	675
Lévis to St. John	578
Lévis <i>via</i> Truro { to Sydney	827
{ to North Sydney	820

NOTE.—At Lévis, passengers make connection with the Canadian Pacific Railway and 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 1892-93 there was an addition of \$296,916.58 to the Capital Account expenditure, making the total expenditure of the whole road chargeable to "Capital," as amalgamated under the Act 54-55 Vic., ch. 50 (1891), up to the 30th of June, 1893, \$54,246,850.23.

The additions of the year included \$56,934.62 for increased accommodation at Halifax ; \$120,526.49 for property acquired at St. John ; \$46,252.27 for the train ferry between Mulgrave and Point Tupper ; \$13,730.47 for the Cape Breton Division of the railway, and \$16,813.06, the cost of fitting the automatic air brake to freight cars, and of supplying locomotive steam for heating passenger cars.

REVENUE ACCOUNT.

The gross earnings for the year amounted to \$3,065,689.09. The expenditure was \$3,045,317.50, making the excess of earnings over expenditure \$20,181.59.

The expenditure was less than that of the previous year by \$394,059.50. Compared with the previous year the passenger traffic produced \$1,002,912.76, an increase of \$41,484.80 ; the freight traffic amounted to \$1,868,823.84, an increase of \$65,294.81, and the mails and sundries produced \$193,762.51, an increase of \$13,277.51 : total increase, \$120,057.12.

The value of stores, including fuel and steel rails in hand at the end of the fiscal year, was \$502,127.66.

GENERAL OBSERVATIONS.

In comparing the traffic of the year with that of the previous year, the following special features are of interest :—

The number of passengers carried was 1,292,878. The through passenger business shows an increase of 4,968, but the total fell off to the extent of \$9,822, leaving the total decrease 4,854. On the other hand, the freight traffic, amounting to 1,388,080 tons, comprised an increase of 279,845 tons in local freight and a decrease of 156,340 tons in through freight, making a total increase in the traffic of the year of 123,505 tons. Of barrels of flour there were carried 856,913, a decrease of 97,102. Of grain there was carried 1,514,619 bushels, a decrease, compared with the previous very exceptional year, of 2,262,058 bushels; 352,975 bushels were for shipment at Halifax. Lumber showed an increase, 181,211,013 feet being carried, an increase of 5,736,673 feet. There was also an increase of 5,480 in the number of live stock, 93,369 being conveyed over the line. Of coal from the Nova Scotia collieries, 543,296 tons were carried, an increase of 109,490 tons, of which 402,653 tons were for local stations, the balance, 140,643 tons, going *via* St. John and the Chaudière to points west, an increase of 99,278 tons. Of raw sugar, 10,137 tons, a decrease of 11,500 tons, was carried, none of this article going west of Chaudière, whereas in the previous year 11,102 tons had been carried west. Of refined sugar, 22,623 tons were carried, a decrease of 10,098 tons, both the west bound and the local traffic being less. Of fresh fish, 6,898 tons, an increase of 3,238 tons, and of salt fish 7,249 tons, an increase of 2,486 tons, were carried.

The further application of the automatic air brake to freight cars and the heating of passenger cars with steam derived direct from the locomotive has during the past year been carried out, and there are now 747 freight cars on the road so fitted: 200 passenger cars are heated in this manner.

Thirty miles of track were relaid with the heavier steel rail, 67 pounds to the yard.

All necessary repairs have been made to the several bridges, wharfs, buildings and structures along the line, and the whole road and rolling stock have been maintained in an efficient condition. Details of these works will be found in the Chief Engineer's report, p. 74.

The docks and transfer bridges, the steam ferry boat and barges for the train ferry between Mulgrave and Point Tupper, have been built and freight in cars is now conveyed by this ferry service across the strait; the passenger trains will be similarly transferred in the season of 1894: meantime passengers are conveyed by the ferry. The snowfall during the winter, like that of the preceeding year, was unusually light, and the cost of dealing with it was proportionately less.

The more economical handling of the road has resulted, for the first time in nine years, in a balance to the profit of the Government, and that without impairing the efficiency of the railway. During the past year 1,142 miles have been operated at a cost of over half a million dollars less than the cost of operating 971 miles in 1889-90.

Various interesting statistical and comparative tables and other detailed information will be found in the appended reports of the Chief Engineer of Railways and Canals, and in those of the General Manager and other officers of the Intercolonial Railway. (See Appendix 5, p. 61.)

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WINDSOR BRANCH.

This road is 32 miles in length. It extends from Windsor Junction on the Intercolonial Railway, to Windsor.

The Windsor and Annapolis Railway Company have operated this line for the past 21 years under an agreement dated the 21st of September, 1871. 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.

Under date the 19th of November, 1892, an Order in Council was passed authorizing, for a further term of 21 years, arrangements with the company which are practically the same as those of the agreement of 1871, and the agreement was signed, accordingly, under date the 13th of December, 1892.

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 earnings and expenditure for the year ended the 30th of June, 1893, were as follows :—

Proportion of one-third gross earnings credited to the branch.....	\$ 34,316.11
Expenditure for maintenance of way and works.....	16,889.95
	<hr/>
Government profit.....	\$ 17,426.16

The amount accruing to the Government as its share of the earnings was \$807.27 more than in the previous year, and its expenditure for maintenance was \$2,624.42 less.

The road has been maintained in good order. Details will be found in the appendices. (See Appendix 5, p. 96.)

CARLETON BRANCH RAILWAY.

The road extends from Fairville, where it joins the line of the New Brunswick Railway Company, to Carleton, on the south side of the harbour of St. John, N.B., a distance of $3\frac{68}{100}$ miles.

By the Act 54-55 Vic., chap. 15, authority was given for the sale of this railway to the corporation of the city of St. John for the sum of \$40,000. Under date the 20th of May, 1891, an Order in Council was passed authorizing the completion of the arrangements for transfer, and the deed of transfer to the city of St. John was executed on the 3rd of September, 1892. Under the provisions of the said deed the road is leased to the Canadian Pacific Railway for a term of 999 years. The deed was confirmed by the Act of 1893, 56 Vic., chap. 6.

DIGBY AND ANNAPOLIS RAILWAY.

This link of the Western Counties Railway, forming part of that line, was completed by the Government and handed over to the company for operation on the 27th of July, 1891. The expenditure up to the close of the fiscal year 1892-93, was \$616,979.89.

The construction of this section by the Government has been carried on under the authority of the special Act, 52 Vic., chap. 8 (1889), an appropriation of \$500,000, contingently granted by the Act 50-51 Vic., chap. 25, as a subsidy, having by such special Act been made available, and funds for further payments having been provided by special votes.

Under date of the 10th of November, 1893, an Order in Council was passed authorizing the transfer of this section of road to the Western Counties Railway Company.

Further information on this matter will be found in the statements in this report respecting Subsidized Railways, under the head of "Western Counties Railway Company."

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
	<hr/>
	211
	<hr/>

This 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 1891-92, was \$3,750,081.38, and the expenditure during the past fiscal year was \$484, making a total of \$3,750,565.38.

REVENUE ACCOUNT.

On revenue account the gross earnings amounted to \$162,690.42 and the expenditure to \$226,422.17, the over expenditure being \$63,731.75.

Compared with the previous year the gross earnings show a total increase of \$5,257.73. The railway carried 132,111 passengers, a decrease of 7,278, producing \$67,445.41; 56,718 tons of freight, an increase of 5,653, producing \$76,347.51, and the earnings from mails and sundries amounted to \$18,897.50, an increase of \$2,397.25.

Compared with the previous year, the expenditure was less by the sum of \$63,284.21.

The cost per mile run by trains was 98.35 cents, a reduction of 19.84 cents; and per mile of railway \$1,078.20, a reduction of \$301.85.

The engine mileage was less by 17,410 miles, the train mileage less by 14,895 miles and the car mileage less by 67,890 miles.

The value of stores on hand at the close of the fiscal year was \$92,400.51.

The railway and the rolling stock has been efficiently maintained.

Details of operations will be found in Appendix 5, p. 101.

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Communication between the Prince Edward Island Railway and the Intercolonial is afforded in summer by steamer between Summerside and Pointe 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 ice-boats 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.

GOVERNMENT ACTION AS TO SUBSIDIZED LINES.

NOTE.—The numbers within brackets after the title of the company refer to the list of railways subsidized by Parliament. Appendix 22, p. 226.

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 31st of December, 1893.

Since the system of subsidy of railway enterprise was commenced, the following are the sums paid over, namely:—

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

\$10,319,902 34

Add to the above for the six months that have elapsed since, namely, from the 30th of June, 1893, to the 31st December, 1893.....		551,671 30
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Total payments to the 31st December, 1893.....		<u>\$10,871,573 64</u>
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The Canadian Pacific Railway is not included in the above, nor is the payment to the Canada Central, nor that to the Quebec Government for the line from Ottawa to Quebec, nor advances made on mortgage to the St. John Bridge Company, to the Albert Railway Company, and to the Fredericton and St. Mary's Bridge Company, nor the annual subsidy to the Atlantic and North-west Railway Company payable for 20 years. These matters are dealt with by the Finance Department.

The total number of companies to whom payments have been made on subsidy account up to the 31st December, 1893 (with the above exceptions), is 69.

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 earned and paid prior to the 1st of July, 1892.

A tabulated statement of payments will be found in Appendix 3, page 28.

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 Provincial Act 45 Vic., ch. 53.

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 work 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., chap. 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 8th 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 their agreement.

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 the 100th mile was transferred to the section between the 40th and the 70th,

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making the grant for this section also \$6,400 a mile. The company undertook to construct the section from the 70th to the 100th mile without subsidy, and have deposited bonds to the value of £83,000 stg. as security to that effect.

For subsidy purposes the time for completion was extended by an Order in Council of the 14th of June, 1888, to the 1st of January, 1890.

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 of September, 1893, and up to Gaspé Basin to the 30th of September, 1895.

The following shows the position of this subsidy:—

Original subsidy, granted in 1883, \$3,200 per mile, for 100 miles.....	\$320,000
Special vote, 1885.....	300,000
	\$620,000

Actual present position :

Miles.		
0 to 20—20 miles (special vote).....		\$300,000
20 to 40—20 \$6,400 per mile.....		128,000
40 to 70—30 \$6,400 do		192,000
70 to 100—30 Nil.....		
		\$620,000

Total payments up to the close of the fiscal year 1889-90 covering the distance, 60 miles, up the River Grand Cascapedia.....	524,175
Balance.....	\$ 95,825

No payments were made during the fiscal year, but subsequently there has been paid \$31,825, making the total payments for 70 miles of railway \$556,000 up to the 31st of December, 1893.

Beauharnois Junction Railway Company.

(See No. 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 of 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 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 $\frac{9}{10}$ 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, but no further payment has been made up to the 31st of December, 1893.

Belleville and North Hastings Railway Company.

(See Annual Report of 1888-89.)

Brockville, Westport and Sault Ste. Marie Railway Company.

(See Nos. 48, 181, 193, 240 and 267.)

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 the 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.

Up to the close of the fiscal year, 1891-92, payment had been made to the extent of \$105,200. No further payment has been made up to the 31st of December, 1893.

Brantford, Waterloo and Lake Erie Railway Company.

(See No. 104.)

By the Act 50-51 Vic., ch. 24, 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 $16\frac{3}{4}$ 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.

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Buctouche and Moncton Railway Company.

(See Nos. 65, 101 and 248.)

By the Act 49 Vic., ch. 10 (1886), assistance was authorized for the construction of a railway about 30 miles long, to connect Buctouche, N.B., with the Intercolonial Railway at or near Moncton, the subsidy not to exceed \$96,000.

By the Act 50-51 Vic., ch. 24, an additional subsidy of \$6,400 was granted for 2 miles additional, the distance between the points named being actually 32 miles, making the total subsidy \$102,400.

Under an Order in Council of the 10th September, 1886, an agreement, dated the 14th of that month, was entered into with the Buctouche and Moncton Railway Company for the execution of the work. During the fiscal year 1890-91, there was paid the sum of \$1,600.43, making the total payments \$67,020. No further payments have been made up to the 31st of December, 1893.

By the Subsidy Act of 1892, the unpaid balance of the foregoing subsidies was revoked, and authority has been given by an Order in Council of the 16th of December, 1893, for entry into contract for the completion of the work thereunder.

Canada Atlantic Railway Company.

(See Annual Report for 1888-89.)

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 C. P. R. 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. The location plans have been approved.

Caraquet Railway Company.

(See Annual Report for 1888-89.)

Central Railway Company of New Brunswick.

(See Nos. 40, 143, 156 and 205.)

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 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 had 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 4½ 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 44½ 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 certain 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 old rails to the company.

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 31st of December, 1893.

Chignecto Marine Transport Company.

(See No. 5.)

On the 3rd of February, 1882, this company (which received incorporation the same year, by Act 45 Vic., chap. 76) made a proposal to the Government for the construction of a line of railway for the transport of ships overland across the Isthmus of Chignecto from Tidnish, on Baie Verte, in the Gulf of St. Lawrence, to a point at or near the mouth of the River La Planche, in the Bay of Fundy, and by the Act 45 Vic., ch. 55, authority was given for the grant of a subsidy of \$150,000 a year, for 25 years, in aid of the work.

No definite action was, however, taken until the 6th of October, 1885, when an Order in Council was passed authorizing entry into agreement with the company, subject to the approval of Parliament ; and such agreement was executed on the 4th of March, 1886. Under its terms, the subsidy payable is to be \$170,602 a year for 20 years, or such portion thereof as may be required to bring the net earnings to 7 per cent per annum on the authorized share and bond capital of the company, \$5,500,000, and to be granted only during the satisfactory performance of the services contemplated, such services comprising the raising, transport and lowering of vessels of 1,000 tons burden, registered, with full cargo. Should the earnings exceed 7 per cent per annum, one-half of such surplus is to be paid to the Government until repayment of the whole amount received by said company under their subsidy.

By a special Act, 49 Vic., ch. 18 (1886), this agreement was confirmed and ratified.

By a further special Act, 51 Vic., ch. 4 (1888), the time for the completion of the work for subsidy purposes, was extended to the 1st of July, 1890, with, if required, a further extension for 24 months, but under penalty.

The company duly submitted plans, and these have been approved by Order in Council. Good progress was, for a time, made, and it was expected that the works would have been completed early in 1892. They have been, however, suspended, owing, it is understood, to financial causes.

By the Act 54-55 Vic., ch. 12 (1891), the date for completion for subsidy purposes has been extended to 1st of July, 1893, the penal cause in this regard contained in the Act 51 Vic., ch. 4, being repealed.

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By the Act 55-56 Vic., ch. 37 (1892), authority was given to the company to issue new mortgage bonds to the value of £350,000 sterling, and by an Order in Council passed on the 9th of July, 1892, a recommendation to Parliament to extend the time, further, to the 6th of July, 1894, has been promised, provided that the works are actually in progress, and that satisfactory evidence is given that the capital necessary for completion has been received. No action, however, being taken in this direction.

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 No. 124.)

By the Act 50-51 Vic., ch. 24 (1887), the grant to this company of subsidy to the extent of \$44,800 was authorized for 14 miles of their railway, from a point on the Spring Hill and Parrsboro' Railway, near Spring Hill, to a point on the Oxford and New Glasgow Railway near Oxford.

The company having applied, they were admitted to contract on the 12th of April, 1888, under an Order in Council of the 12th March, the work to be completed by the 1st August, 1891. During the fiscal year 1890-91, the sum of \$10,450 was paid to this company, making, with previous payments, \$39,850. No further payments have been made since, up to the 31st of December, 1893.

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 Louisburg, Cape Breton.

By an Order in Council, dated the 7th of November, 1893, entry into contract with the above company for the work from a point half a mile north-westerly from Bridgeport to Louisburg Harbour, was authorized; plans of location also were approved. No payment on subsidy account has been made up to the 31st of December, 1893.

Drummond County Railway Company.

(See Nos. 99, 175 and 214.)

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, Que.

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 \$76,800, 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.

During the fiscal year there was paid to the company the sum of \$13,435, making the total payments up to the 31st of December, 1893, \$195,840.

Elgin, Petitcodiac and Havelock Railway Company.

(See Annual Reports for 1885-56 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.)

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 of 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.

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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.

There has been no further payment up to the 31st of December, 1893. The total amount paid the company being \$40,345.

Great Northern Railway Company.

(See Nos. 33, 37, 72, 79, 154, 215, 231, 308 and 309.)

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, 1885, 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 for a line from Montcalm to the Canadian Pacific Railway between Joliette and St. Félix de Valois was authorized.

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.

Also, by the same Act, a subsidy not exceeding \$48,000 was granted to the company for 15 miles of their railway from Montcalm to the Canadian Pacific Railway, between Joliette and St. Félix de Valois in lieu of the subsidy granted by 53 Vic., ch. 2.

No payments have been made during the past fiscal year, or subsequently, and the total payments to the company up to the 31st of December, 1893, amount to \$78,688.

Guelph Junction Railway Company.

(See Annual Report of 1888-89.)

Harvey Branch Railway Company.

(See Annual Report of 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.)

Irondale, Bancroft and Ottawa Railway Company.

(See Nos. 24, 159 and 30.)

By the Act 47 Vic., ch. 8 (1884), 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 August, 1886.

Under the authority of an Order in Council of the 14th of February, 1887, \$15,000 has been paid. 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 past fiscal year the sum of \$17,000 was paid, and since that date the further sum of \$32,000, making the total payments up to the 31st of December, 1893, \$64,000.

Joggins Railway Company.

(See Annual Report for 1891-92.)

Kingston, Napanee and Western Railway Company.

(See Napanee, Tamworth and Quebec Railway Company.)

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 No. 241.)

This company under its old name, received a subsidy amounting to \$118,400, of which particulars will be found in the annual report for the year 1889-90.

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By the Act 56 Vic., ch. 50, confirmation was given to an agreement for the amalgamation of the two companies named.

By the Act 55-56 Vic., ch. 5 (1892), authority was given for the grant of a subsidy to this company to the extent of \$224,000 for 58 miles of railway from Cedar Creek to Ridgeway in lieu of previous subsidies.

On the 20th of December, 1892, a contract was entered into with the company for work under the above subsidy, covering the whole distance, 58 miles. The road to be completed by the 1st of December, 1894.

No payments have been made up to the 31st of December, 1893.

L'Assomption Railway Company.

(See Annual Report of 1886-87.)

Leamington and St. Clair Railway Company.

(See Annual Report of 1888-89.)

Lake Témiscamingue Colonization Railway Company.

(See Nos. 55, 84, 119, 122, 169, 216, 278 and 282.)

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.

By the Act 50-51 Vic., ch. 24, the grant of a 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. The location has been approved by an Order in Council of the 8th of September, 1893.

During the fiscal year 1888-89 the sum of \$26,360 was paid, making a total of \$52,760 paid to this company. No further payment has been made up to the 31st of December, 1893.

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.

Lotbinière and Megantic Railway Company.

(See No. 253.)

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 des Chaillons, in the county of Lotbinière, to a point at or near Glen Lloyd, in the county of Megantic.

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 des Chaillons towards Glen Lloyd.

On the 17th July, 1893, a contract was entered into with the company for the work so subsidized.

No payments have been made up to the 31st of December, 1893.

Montfort Colonization Railway Company.

(See No. 245 and 310.)

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 56 Vic., ch. 2 (1893), this subsidy was revoked with an addition fixing the gauge at "three feet."

On the 16th of 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.

No portion of the subsidy has been paid up to the 31st of December, 1893.

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Montreal and Champlain Junction Railway Company.

(See Nos. 51, 125, 136 and 247.)

By the Act 48-49 Vic., ch. 59, a subsidy was authorized to be granted to this company for a line from Brosseau's to Dundee, not exceeding \$30,000. The work was completed and the subsidy was paid in the year 1885-86.

By the Act 50-51 Vic., ch. 24 (1887), a further subsidy, not exceeding \$64,000, was authorized to be granted to this company, and the contract was signed on the 25th of January, 1888, for a line from Fort Covington to Massena Springs.

By the Act of 51 Vic., ch. 3 (1888), a further subsidy of \$9,600 was authorized for 3 miles additional, making a total of \$73,600.

By the Act 55-56 Vic., ch. 5 (1892), the balance of \$15,100, remaining unpaid of the subsidies voted in 1887 and 1888, was revoked.

The line from Fort Covington to Messena Springs has been completed, and during the past fiscal year the sum of \$15,100 was paid, making the total payments \$103,600 up to the 31st of December, 1893.

Montreal and Lake Maskinongé Railway Company.

(See Annual Report for 1890-91.)

Montreal and Sorel Railway Company.

(See Nos. 47 and 210.)

By the Act 48-49 Vic., ch. 59, a subsidy not exceeding \$72,000 was authorized to be granted to this company for a line from St. Lambert to Sorel. Under an Order in Council of the 2nd of October, 1885, a contract was made with the company on the 14th, and under the authority of Orders in Council, the last dated the 10th of November, 1886, payments have been made, amounting in all to \$69,922, the road, 44.67 miles long, having been completed, with the exception of a small quantity of work, to secure the finishing of which \$1,550 was retained. No further payment was made, and the said balance lapsed on the 1st of August, 1889.

By the Act 53 Vic., ch. 2 (1890), the sum of \$40,000 was granted for the repair of this road. The work was undertaken by the Great Eastern Railway Company, and is being carried out under requirements laid down by this department, and the inspection of its engineers. During the fiscal year 1890-91 there was paid from this subsidy the sum of \$17,116.07, making the total payments on that account \$23,835.57, and the total payments to the company, \$93,757.57. No further payments have been made up to the 31st of December, 1893.

Montreal and Western Railway Company.

(See Nos. 78 and 206.)

By the Subsidy Act of 1886, 49 Vic., ch. 10, authority was given for the grant of a subsidy in lieu of previous subsidies to the Montreal and Western Railway Company for 70 miles of their railway from St. Jérôme north-westerly towards Le Désert, Que., the amount being \$5,151 per mile, not exceeding in the whole \$361,270.

For this subsidy another for the same amount was substituted by the Act 53 Vic., ch. 2 (1890), special authority being given for payment in named sections less than 10 miles in length.

Under authorization of an Order in Council dated the 4th of June, 1888, a contract was made with the company for the work on the 6th. The whole of the railway for the 70 miles subsidized, from St. Jérôme to a point 3 miles beyond La Chute and Iroquois has been completed. During the past fiscal year payments were made to the extent of \$133,388, and subsequently the further sum of \$106,350, the total amount paid to this company up to the 31st of December, 1893, being \$348,134.

Montreal and Ottawa Railway Company.

(Formerly the Vaudreuil and Prescott Railway Company.)

(Name changed by 53 Vic., ch. 58.)

(See Nos. 97, 186 and 237.)

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 of August, 1891.

The company, on the 4th of 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. A draft contract covering this subsidy was approved by an Order in Council on the 21st of September, 1891, but has not yet been signed.

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.

Nothing was paid from the subsidy to this company during the fiscal year, but subsequently the sum of \$23,640 was paid, making the total \$73,600 up to the 31st of December, 1893. 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

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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, and under date the 26th December, for the distance of $6\frac{1}{2}$ 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 of 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 on the 11th of December, 1893, the distance being $1\frac{37\frac{1}{2}}{100}$ 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 there has been paid the sum of \$1,856, and subsequently the further sum of \$9,600, making the total payments up to the 31st of December, 1893, \$204,400.

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 under subsidy, the date for completion being fixed as the 1st of December, 1894.

During the past fiscal year the sum of \$32,945.84 was paid, and subsequently the further sum of \$5,454.16, making the total payments up to the 31st of December, 1893, \$38,400.

Northern and Pacific Junction Railway Company.

(See Annual Report of 1890-91.)

Northern and Western Railway Company.

(See Annual Report of 1889-90.)

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 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 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; no further payment has been made up to the 31st of December, 1893.

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, 56 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, authority has been given by an Order in Council of the 20th of December, 1893, for entry into contract with them for the work, subject to the provision that satisfactory plans and profiles of the road must be furnished by the 1st of July, 1894.

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,

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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, Manotic and Franktown, the road to be completed by the first of July, 1888. This subsidy lapsed on the 1st July, 1888.

By the Act 50-51 Vic., chap. 24, a further subsidy of \$19,200 for a further distance of 6 miles was granted.

By the Act 52 Vic., chap. 3 (1889), a subsidy not exceeding \$172,400 was authorized to this company for a line from Cornwall to Ottawa, but no contract was entered into for the work.

By the Subsidy Act of 1892, 55-56 Vic., ch. 5, the subsidy granted in 1889 was revoked, the length being set down as $53\frac{87}{100}$ miles.

No portion of these subsidies has been paid up to the 31st of December, 1893.

Ontario and Quebec Railway Company.

(See West Ontario Pacific Railway Company, and Annual Report for 1891-92.)

Ontario, Belmont and Western Railway Company.

(See No. 246.)

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, the road to be completed by the 1st of August, 1896.

No portion of this subsidy has been paid up to the 31st of December, 1893.

Orford Mountain Railway Company.

(See No. 228.)

By the Subsidy Act 53 Vic., ch. 2, the grant of a subsidy limited to \$99,200 was authorized in favour of the above company, for 31 miles of their railway between Eastman and Kingsbury, Que., and on the 16th of December, 1891, the company were admitted to contract for the work for a distance of 10 miles, namely, from Eastman to Lawrenceville. The work was completed and the subsidy paid in 1892.

By an Order in Council dated the 20th June, 1892, authority was given for entry into contract with the company for the balance of the work, $16\frac{1}{2}$ miles, between Lawrenceville and Kingsbury, and such contract was signed on the 10th of September, 1892.

The road between Lawrenceville and Kingsbury has been completed, and in August, 1893, the subsidy applicable, \$52,800, was paid, making the total payments to this company \$84,800.

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 Acts 51 Vic., ch. 65, 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 : the date for completion being fixed as the 1st of November, 1894.

The location plans have been approved for the whole distance covered by the three subsidies.

The sections between Ottawa and Renfrew have been completed, and authority was given in September and December, 1893, to open them for traffic.

No portion of the subsidies has been paid up to the 31st December, 1893.

Ottawa and Gatineau Valley Railway Company.

(See Nos. 8, 26, 58, 151 and 305.)

By the Act 48-49 Vic., chap. 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 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, 1893, the unpaid balance, \$89,248, was revoked.

During the past fiscal year, there has been paid to the company the sum of \$104,380, and subsequently the sum of \$53,376, making the total payments up to the 31st December, 1893, \$284,128.

The opening of the road for traffic up to the 54th mile from Hull has been authorized.

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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 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 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.

By the special Act 54-55 Vic., ch. 91, the corporate powers of the company were revived, and its name was changed as above.

No portion of the subsidy has been paid up to the 31st of December, 1893.

Parry Sound Colonization Railway Company.

(See Nos. 153 and 312.)

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 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, McMurrick 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.

During the past fiscal year payments were made to the extent of \$28,820, making the total payments up to the 31st of December, 1893, \$59,220.

Philipsburg Junction Railway and Quarry Company.

(See No. 255.)

This company was incorporated by the Quebec Act 51-52 Vic., ch. 107 (1888), for the construction of a railway from Philipsburg to Stanbridge.

By the Subsidy Act 55-56 Vic., ch. 5 (1892), the grant of a subsidy to the extent of \$21,600 was authorized for a railway between the points named, $6\frac{7}{10}$ miles.

On the 27th of February, 1893, a contract was entered into with the company for this work, the distance being set down as $6\frac{3}{4}$ miles, the road to be completed by the 1st of March, 1894.

No payments were made during the fiscal year, but subsequently the sum of \$18,688 has been paid up to the 31st of December, 1893.

Port Arthur, Duluth and Western Railway Company.

(Formerly the "Thunder Bay Colonization Railway Company.")

(See Nos. 139, 195 and 291.)

This company was originally incorporated as the "Thunder Bay Colonization Railway Company." It was declared to be a body corporate under its present name by the Dominion Act 51 Vic., ch. 84, which authorized it to receive all grants voted to the previous company.

By the Subsidy Act 51 Vic., ch. 3 (1888), the grant of a subsidy to the extent of \$271,200 was authorized in favour of the above company, for 84 $\frac{3}{4}$ miles of their railway from Port Arthur towards Gun Flint Lake, a point on the international boundary line; this being in place of subsidies previously granted for the construction of a railway from Murillo station to Crooked Lake.

A contract was entered into with the company on the 24th of December, 1889. The location of the entire line has been approved.

By the Act 53 Vic., ch. 2 (1890), a subsidy limited to \$16,000 was authorized for a branch, 5 miles long, to the Kakabeka Falls.

By the Subsidy Act 55-56 Vic., ch. 5 (1892), the unpaid balance, \$114,125, of the subsidy voted in 1888, was revoted, and this amount was paid during the past fiscal year, making the total payments to the company \$271,200.

The road has been completed from Port Arthur to the boundary line and its opening for traffic authorized in June, 1893.

Pontiac and Renfrew Railway Company.

(See Annual Report of 1889-90.)

Pontiac Pacific Junction Railway Company.

(See Nos. 25, 137 and 211.)

This line was subsidized by Parliament in 1884, 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, Que., to Pembroke, crossing the River Ottawa at a point "not east of Lapasse"; the first twenty-seven miles to be completed by the 1st September, 1885 (extended to 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 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. No contract has been entered into for the work contemplated by this Act.

By the 5th clause of the Act 52 Vic., ch. 3, it was specially provided that the several subsidies in aid of this railway should be extended to the 22nd of May, 1892.

Department of Railways and Canals.

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.

The road is open from Ottawa to Fort Coulonge, 68 miles.

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. No further payments have been made up to the 31st of December, 1893.

Quebec Central Railway Company.

(See Nos. 22, 142 and 219.)

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.

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. There has been no further payment beyond the \$60,342 made in 1885-86, up to the 31st of December, 1893.

Quebec and Lake St. John Railway Company.

(See Nos. 2, 14, 49, 82, 126, 140, 177, 220, 232 and 300.)

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 this line, were 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 the 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.

The road is in operation up to Roberval, on Lake St. John, 190 miles from Quebec.

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. The location for these 30 miles has been approved by an Order in Council of the 17th of November, 1888.

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 October, 1892, a contract has been entered into 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.

Department of Railways and Canals.

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.

During the past fiscal year there has been paid the sum of \$76,471.77, making the total payments up to the 30th of June, 1893, for both main line and branches, including the first 50 miles of the Chicoutimi branch, \$921,399.50. Since that date there has been paid the further sum of \$81,600, making the total payments to the company up to 31st of December, 1893, \$1,002,999.50.

Quebec, Montmorency and Charlevoix Railway Company.

(See Nos. 164 and 304.)

By the Subsidy Act 52 Vic., ch. 3 (1889), the grant of a subsidy to the extent of \$96,000 to the above company was authorized for 30 miles of their railway from the east bank of the River St. Charles to or near to Cape Tourmente, Que.

A contract was entered into with the company on the 14th of November, 1889, for this work, from Hedleyville to St. Joachim.

By the Subsidy Act 56 Vic., ch. 3 (1893), the unpaid balance, \$30,400, of the previous subsidy was revoked.

During the fiscal year 1889-90 the sum of \$65,600 was paid from this subsidy, the distance covered being 20½ miles, viz., from Quebec (the east side of the River St. Charles) to Ste. Anne. No further payments have been made up to the 31st of December, 1893.

The location plans for the whole distance have been approved.

Shuswap and Okanagan Railway Company.

(See No. 167.)

This company was incorporated by the Act 49 Vic., ch. 82 (1886), for the construction of a line of railway from a point on the Canadian Pacific Railway, at Sicamous Narrows, B.C., running up the left bank of the Shuswap River to a point near the north end of Lake Okanagan.

By 51 Vic., ch. 88 (1888), this Act was amended, and the company were allowed two years to commence and five to complete their main line.

By the Subsidy Act of 1889, a subsidy to the extent of \$163,200 was authorized for the said railway, the estimated distance being 51 miles.

The contract for this work was signed on the 11th of February, 1890, the date for completion being fixed as the 4th May, 1893. The road is completed.

During the fiscal year 1891-92 the sum of \$162,260 was paid to the company, no further payment has been made up to the 31st December, 1893.

By the special Act 54-55 Vic., ch. 72 (1891), an agreement for the lease of the road to the Canadian Pacific Railway Company, when completed, for a term of 25 years, was approved and ratified, and powers were given to extend the line to a point on the international boundary at or near Lake Osoyoos.

South Norfolk Railway Company.

(See Annual Report of 1888-89.)

St. Catharines and Niagara Central Railway Company.

(See Nos. 96, 176, 190 and 265).

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 of 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 of 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 further distance of 14 miles.

By the Act 50-56 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.

During the fiscal year 1890-91, the sum of \$11,760 was paid to this company, covering the distance, 12 miles, between St. Catharines and Niagara River. No further payments have been made up to the 31st of December, 1893.

The payments made to this company aggregate \$38,400.

St. Clair Frontier Tunnel Company.

(See annual reports of 1890-91 and 1891-92.)

St. John Valley and Rivière du Loup Railway Company.

(See Nos. 90, 118, 225 and 274.)

By the Act 49 Vic., ch. 10 (1886), a subsidy of \$70,400 was authorized for 22 miles of railway, from Fredericton to Prince William, New Brunswick, and by the Act 50-51 Vic., ch. 24, a subsidy of \$70,400 was authorized, in favour of the St. John Valley and Rivière du Loup Railway Company, for 22 miles of railway from Prince William towards Woodstock.

The company having applied for both subsidies, they were admitted to contract on the 26th of June, 1888, under an Order in Council of the 21st of May, the time for completion being fixed as the 31st of July, 1890. This covers both subsidies, aggregating \$140,800. The location plans were approved by an Order in Council of the 23rd May, 1888, covering the distance, 44 miles, from Fredericton to Woodstock.

Department of Railways and Canals.

By the Act 53 Vic., ch. 2 (1890), both the above subsidies were, in effect, revoked.

By the Act 55-56 Vic., ch. 5, a subsidy limited to \$48,000 was authorized for 15 miles of railway extending from the north end of the line subsidized by 53 Vic., ch. 2.

Up to the 31st of December, 1893, no payments have been made.

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 1st of September, 1893.

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 31st of December, 1893.

St. Lawrence and Adirondack Railway Company.

(See No. 218 and 293.)

By the Subsidy Act 53 Vic., ch., 2 (1890), a subsidy not exceeding \$57,600 was granted to the above company for 18 miles of their railway from Valleyfield to Huntingdon, on the Montreal and Champlain Junction Railway.

On the 29th of April, 1891, a contract was entered into with the company for this work, the time for completion being fixed as the 1st July, 1893.

In December, 1891, the road was inspected and reported as complete—the actual distance being 12.58 miles. During the past fiscal year there has been paid to the company the sum of \$40,256, being the amount applicable to the actual distance of the road.

By the Subsidy Act 55-56 Vic., ch. 5, a subsidy not exceeding \$25,024 was granted to the company for $5\frac{42}{100}$ miles, from Huntingdon towards the international boundary, and for a further distance of $2\frac{49}{100}$ miles. During the past fiscal year there has been paid to the company the sum of \$24,448, and subsequently the further sum of \$297.60

as the balance due, making the total payments up to the 31st of December, 1893, \$65,001.60, covering the whole distance, $20\frac{31\frac{3}{4}}{1000}$ miles, from the junction with the Canada Atlantic Railway near Valleyfield, to the international boundary, which is now completed.

This road connects the Canada Atlantic Railway at Valleyfield with the Montreal and Champlain Junction Railway at Huntingdon.

St. Lawrence, Lower Laurentian and Saguenay Railway Company.

(Named 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 Nos. 3, 62, 127, 141, 226 and 279.)

Towards the construction of a line from Rivière du Loup or Rivière Ouelle, or from some point between them, to Edmundston, Parliament, in 1882, voted a subsidy of \$240,000, and by the Act 48-49 Vic, ch. 58, a further subsidy, not exceeding \$258,000, was voted for the same work, making a total subsidy of \$498,000.

Under express provisions of this Act a charter was granted by Orders in Council of the 3rd and 7th of October, 1885, to certain persons constituting "The Témiscouata Railway Company," their object being to build the said road; and such charter, being published in the *Canada Gazette* of the 10th of that month, has force and effect as if an Act of Parliament. This charter was subsequently confirmed and amended by the special Act 50-51 Vic., ch. 71 (1887). Under the said charter the company have power to construct a road from the Intercolonial Railway at Rivière du Loup to Edmundston. On the 21st June, 1886, a contract was duly entered into with the company for the work subsidized, the whole to be completed by the 1st of August, 1889. The location of the road, $80\frac{1}{2}$ miles, *via* Lake Témiscouata and the River Madawaska, was approved by an Order in Council of the 30th of September, 1886.

On the 22nd of November, 1888, the company were permitted to open the road for traffic.

By the Act 51 Vic., ch. 3 (1888), a subsidy of \$100,000 was granted to this company for 20 miles of their branch railway from Edmundston towards the River St. Francis, in lieu of a subsidy granted the previous year.

The company having applied to be admitted to contract, authority was given by an Order in Council passed on the 31st of December, 1888, which also approved of the location; and the contract was signed on the 22nd of January, 1889.

By the Act of 1890, 53 Vic., ch. 2, a subsidy to the limit of \$51,200 was authorized for a further distance of 16 miles. A contract under this subsidy was made with the company on the 20th of October, 1891, covering the distance, 12 miles, between Clair's siding and Connor's station. The branch up to this point, $31\frac{1}{2}$ miles, has been completed.

Department of Railways and Canals.

By the Act 55-56 Vic., ch. 5 (1892), an additional subsidy of \$1,800 a mile, limited to \$21,600, was granted for the first 12 miles of the section subsidized by the Act 53 Vic., ch. 2.

During the past fiscal year there has been paid the sum of \$21,150, making the total payments up to the 31st of December, 1893, \$645,950.

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 thirteen 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, Newport 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 with the company for this work; the date for completion being fixed as the 1st of August, 1896.

No payments were made during the past fiscal year, but subsequently the sum of \$14,000 was paid, making the total up to the 31st of December, 1893, \$24,400.

Tobique Valley Railway Company.

(See Nos. 130, 227, 235 and 244.)

By the Act 50-51 Vic., ch. 24 (1887), authority was given for the grant of a subsidy of the extent of \$89,600 for 14 miles of the railway of the above company from Perth Centre station, on the New Brunswick Railway, towards Plaister Rock Island, in lieu of a subsidy previously granted. A contract was made with the company for the work on the 4th of September, 1888. By the Act 54-55 Vic., ch. 8 (1891), this subsidy was, in effect, revoked, having elapsed.

By the Act 53 Vic., ch. 2 (1890), a subsidy limited to \$35,200 was authorized for a further distance of 11 miles.

By the Act 55-56 Vic., ch. 5 (1892) a subsidy limited to \$9,600 was granted for a further distance of 3 miles from the north end of the 11 miles subsidized in 1890.

Under date the 30th of November, 1892, a contract was entered into with the company for the work covered by these two subsidies.

The first section of 14 miles was completed in December, 1891.

During the past fiscal year there was paid the sum of \$41,674.46, and subsequently the further sum of \$19,341.54, making the total payments to the company up to the 31st of December, 1893, \$134,016.

Toronto, Grey and Bruce Railway Company.

(See Annual Report for 1887-88.)

United Counties Railway Company.

(See No. 297.)

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.

No payments were made during the fiscal year, but subsequently the sum of \$59,277 was paid up to the 31st of December, 1893, for the section between St. Hyacinthe and Ste. Angèle, and the remaining distance from Ste. Angèle to Iberville has been inspected.

Vaudreuil and Prescott Railway Company.

(See *Montreal and Ottawa Railway Company*.)

Waterloo Junction Railway Company.

(See Annual Report for 1891-92.)

Western Counties Railway Company.

(Name changed to "**The Yarmouth and Annapolis Railway Company**" by 56 Vic., ch. 63.)

By the Act 50-51 Vic., ch. 25 (1887), assented to on the 23rd of June, 1887, confirmation was given to an agreement made by the Government with the Western Counties Railway Company on the 31st of January, 1887, contingent on such confirmation, the agreement itself being thereby, in some respects, modified, as expressed in a subsidiary agreement. Under the provisions of the said Act and agreements, covenants have been entered into which may be summarized as follows:—

The company agreed to withdraw a suit pending against the Crown in respect of the Windsor Branch Railway, releasing the Government from all claims, and also releasing to the Government all right and title to the branch. They also undertook to build and complete the railway between Annapolis and Digby, N.S., and to complete, equip and put in first class order the whole of the line from Yarmouth to Annapolis; also to settle all liens on their property, and their indebtedness. In order to the fulfilment of the above, they undertook to deposit with the Government the total proceeds of the sale of their debentures, &c., the issue of which was limited

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to \$4,200,000. The Government, on its side, in consideration of these premises, undertook to pay to the company the sum of \$500,000, the amount to be credited to the company and added to the proceeds of the sale of the debentures, which proceeds the Government agreed to hold for the purpose, the whole to be applied, under certificate of the Government Chief Engineer and Order in Council, to the payment of interest on the debentures, &c., to be issued, to the building and completion of the railway above mentioned, and to the satisfaction of the company's existing obligations; the balance, if any, to be paid to the company. The dates to which the company were bound, as modified by the terms of the Act, were as follows:—

Work to be commenced by the 13th of July, 1887, and the railway between Annapolis and Digby to be completed by the 12th of September, 1888, the company to complete to the satisfaction of the Government, by the 12th of September, 1887, all arrangements for the settlement of its indebtedness. Provision was made, also, for the completion of the line between Annapolis and Digby by the Government, at its option, from the funds in its hands, in the event of failure on the part of the company to make commencement of work, to progress with the same, or to satisfy the Government as to the arrangement of the settlement of its indebtedness by the dates so fixed.

The company did not make deposit of moneys; nor did they take any practical steps to carry out the work contemplated. Under the circumstances, and in view of representations urging that the Government should itself undertake the work, a survey was made of the country between Digby and Annapolis, under instructions given in October, 1888:

By the special Act 52 Vic., ch. 8 (1889), authority was given for the construction of this link of railway out of the appropriation of \$500,000 granted by the Act 50-51 Vic., ch. 25. The work was, accordingly, taken in hand by the department, and completed. The company was placed in possession for operating purposes on the 27th of July, 1891. The total Government expenditure up to the 31st December, 1893, is \$616,979.89.

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 and 281.)

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.

Under an Order in Council of the 29th of August, 1892, a contract dated the 16th of September, 1892, has been made with the company, to construct the 26 miles so subsidized, the date for completion being fixed as the 1st January, 1894.

No portion of the subsidy has been paid up to the 31st of December, 1893.

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, Appendices, p. 261.)

Alberta and Athabasca Railway Company.

(Name changed by 52 Vic., ch. 65, to the "North-western Railway Company of Canada," which see.)

Alberta Railway and Coal Company.

(Part leased to the Canadian Pacific Railway Company.)

(See Nos. 13 and 25.)

(See also "North-western Coal and Navigation Company," in Annual Report of 1891-92.)

This company was incorporated in 1889 by the Act 52 Vic., ch. 50 (amended by the Act 53 Vic., ch. 85), for the construction of a railway from a point on the North-western Coal and Navigation Company's line, at or near Lethbridge, southerly to the international boundary line; the Act giving them powers to acquire, by purchase or lease, the railway property and assets of that company.

By the Land Subsidy Act, 52 Vic., ch. 4, as amended by the Act 53 Vic., ch. 3, the grant of 6,400 acres per mile was authorized in favour of this company for the distance, set down as about 50 miles, from Lethbridge to the international boundary.

The road was built and inspected, and under date of the 8th of December, 1890, the company were authorized to open it for public traffic, the distance being 64.62 miles.

Under the terms of an agreement dated the 6th of January, 1890, the company purchased the property and interests of the North-western Coal and Navigation Company the purchase being confirmed by the Act 54-55 Vic., ch. 77, which vested the same absolutely in the Alberta Railway and Coal Company, as from the 4th of March, 1891.

By the Act 52 Vic., ch. 4, as amended by the Act 53 Vic., ch. 3 (1890), a grant of 2,600 acres of land in addition to the land subsidy granted to the North-western Coal and Navigation Company, by the Act 48-49 Vic., ch. 60, was authorized for

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109½ miles of railway from Dunmore Station on the Canadian Pacific Railway to Lethbridge, on the condition that the gauge of the said railway be made standard width, and on the 3rd of July, 1893, a contract was entered into with the Alberta Railway and Coal Company for the work of changing the gauge from 3 feet to the standard gauge, 4 feet 8½ inches.

On the 20th of December, 1893, after inspection, this work was reported as completed according to contract.

By an Order in Council dated the 5th of July, 1893, approval was given to an agreement entered into between the company and the Canadian Pacific Railway Company for the lease of their said road between Dunmore and Lethbridge for a term ending on the 31st of December, 1897, with option of purchase.

Brandon and South-western Railway Company.

(See No. 19.)

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. This 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.

Calgary and Edmonton Railway Company.

(Leased to the Canadian Pacific Railway Company.)

This company was incorporated by the Act 53 Vic., ch. 84 (1890), for the construction of a railway from the Canadian Pacific Railway at Calgary northward to Edmonton, and southward to the international boundary, also northerly to Peace River.

By the Act 53 Vic., ch. 5, authority was given for entry into a contract with this company for the conveyance of men, supplies, materials, and mails, for 20 years; a payment to be made annually of the sum of \$80,000 therefor, computation to be made from the date of the completion of the road between Calgary and a point on the North Saskatchewan River near Edmonton. The Act further gave power to the company to lease the said railway to the Canadian Pacific Railway Company.

On the 21st June, 1890, a contract for transport service was made, accordingly, with the Government, this contract calling for completion of the first 100 miles by the 1st of November, 1891, and of the whole road by the 1st November, 1893.

By the Land Subsidy Act of 1890, 53 Vic., ch. 4, a grant of land to the extent of 6,400 acres per mile was made for the line from Calgary north to Edmonton, about 190 miles, and also for a line south from Calgary to the international boundary, about 150 miles.

On the 26th of December, 1890, the company entered into a definite contract for the work of constructing, under this subsidy, both the northern line to Edmonton and the southern line to the boundary, the dates for completion being as follows :

From Calgary northward, 100 miles, by the 1st of November, 1891 ; the balance to Edmonton within two years thereafter.

From Calgary southward, 50 miles, by the 1st of November, 1892, and to a point on the Old Man's River, by the 1st of November, 1893 ; the balance to the international boundary by a date to be fixed by the Governor in Council.

On the 6th of July, 1891, permission was given to open the first 100 miles north from Calgary for traffic ; and on the 10th of August, 1891, the whole road from Calgary to Edmonton, 192 miles, was officially reported as fit to be opened. By an Order in Council of the 2nd of May, 1892, the date from which the completion of the road for subsidy purposes is to be computed has been fixed as the 1st of July, 1891.

On the 7th of December, 1891, the first 50 miles southward from Calgary was officially reported as fit to be opened for public traffic, and on the 14th of October a further distance of 54.10 miles was allowed to be opened for public traffic. On the 3rd of November, 1892, the Government Chief Engineer reported that the section from Calgary southwards to the north bank of Old Man's River, $104\frac{10}{100}$ miles, was completed according to contract.

An agreement has been entered into for the lease of this railway to the Canadian Pacific Railway Company.

Canadian Pacific Railway Company.

(Nos. 17, 18 and 29.)

By an Order in Council of the 18th of May, 1889, but subject to approval by Parliament, a grant of lands, to the extent of 6,400 acres per mile, in favour of the Canadian Pacific Railway Company, was authorized in aid of the construction of a branch from a point at or near Brandon, on their main line, south-westerly to or near Township 3, Range 27, west of the 1st Principal Meridian, and thence westerly, a total distance of 100 miles—this they termed their "Souris Branch"; also, for a line, 25 miles, running from such point in Township 3, easterly to Deloraine, the western terminus of the then existing line of the Manitoba South-western Colonization Railway, making in all 125 miles subsidized, and the total grant 800,000 acres. A further Order of the 18th of June, 1889, authorized the conveyance of the subsidy on completion of each 20-mile section.

By the Land Subsidy Act 53 Vic., ch. 4, this grant was confirmed.

By the Land Subsidy Act of 1891, 54-55 Vic., ch. 10, a subsidy of 6,400 acres per mile, for a further distance of about 60 miles, to La Roche Percée, was granted.

By an Order in Council of the 14th of June, 1889, but also subject to approval by Parliament, the grant of a subsidy to the Canadian Pacific Railway Company of land to the extent of 6,400 acres per mile was authorized for a branch starting from a point on the above mentioned south-westerly or "Souris" branch, and running eastwards to Glenboro', the length of railway so subsidized being stated to be about 60 miles, the subsidy to be conveyed on the completion of each 20-mile section.

By the Land Subsidy Act 53 Vic., ch. 4, this grant was confirmed.

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The whole of the work contemplated by the above subsidies has been executed, and the several sections of railway are in operation.

The southerly branch from the main line starts at Kemnay, 8 miles west from Brandon, and runs south through Souris and Napinka to Melita, 59·25 miles; thence westerly to Estevan, a further distance of 97·70 miles. The subsidized sections running eastwards from this line are:—1st, from Souris to Glenboro', 45·24 miles, completing the connection with the existing railway to Winnipeg *via* Holland and Elm Creek; and, 2nd, from Napinka to Deloraine, 18 miles, completing the connection with the existing railway *via* Gretna to Winnipeg.

Great North-west Central Railway Company.

(See No. 7.)

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 has been 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.

Lac Seul Railway Company.

(See Annual Report of 1891-92.)

Manitoba and North-western Railway Company.

(See Nos. 4 and 6.)

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.

A 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 Shelmouth, about 26 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 Act 50 Vic., ch. 78 (1890), relative to this railway, the company were bound to complete 17 miles in the calendar year 1890 and 20 miles a year thereafter.

By the Act 55-56 Vic., ch. 45 (1892), disabilities arising under the foregoing Act in consequence of non-completion of 20 miles during the then current year were removed.

The main line is in operation for traffic purposes from Portage la Prairie to Yorkton, 219 miles.

Manitoba and South-eastern Railway Company.

(See No. 24.)

This company was subsidized in lands by the Act 53 Vic., ch. 4 (1890), for a line from Winnipeg southerly or south-easterly to a point, on the west side of the Lake of the Woods, about 110 miles. A formal contract has been made with the company under date the 3rd June, 1892. Under this contract, the first 30 miles were to be completed by the 1st of September, 1892, 60 miles further by the 1st of September, 1893, and the whole road by the 1st of September, 1894. Plans of location of the first 30 miles starting from Winnipeg have been approved by an Order in Council passed on the 18th of March, 1892.

Manitoba South-western Colonization Railway Company.*(Leased to the Canadian Pacific Railway Company.)*

(See Annual Report of 1890-91.)

Department of Railways and Canals.

Medicine Hat Railway and Coal Company.

(See No. 12.)

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 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.

North-western Coal and Navigation Company.

(Purchased by the Alberta Railway and Coal Company.)

(See Annual Report of 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.)

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 work so subsidized, the work to be completed by the 1st of November, 1894.

Winnipeg and Hudson Bay Railway and Steamship Company.

(See No. 1, 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's 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.

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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 this 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.

Wood Mountain and Qu'Appelle Railway Company.

(See No. 8.)

By the Act 49 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 Qu'Appelle, to the Manitoba and North-western Railway, about 240 miles, 6,400 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 Railway 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 were 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.

THE 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 *præter* that a brief record should here be made of the matters submitted to the Committee during the calendar year from January to December, 1893, and of the decisions arrived at. They are as follows:—

Keele Street Subway under the Grand Trunk and Canadian Pacific Railways, Toronto Junction. Application of the Town of Toronto Junction for extension of time for completion of, for five years.—Granted.

Crossings at rail level by the Davenport Street Railway of the Grand Trunk and Canadian Pacific Railways on St. Claire Avenue, and of the Grand Trunk Railway on the Davenport Road, all near the city of Toronto. Application by the Davenport Street Railway Company for variations of orders issued as regards apportionment of costs.—Orders varied.

Crossing at rail level by the Kingston, Napanee and Western Railway of the Kingston and Pembroke Railway near the Harrowsmith station.—Approved.

Occupation of John Street, in the village of Eganville, by the Atlantic and North-west Railway.—Approved.

Junction of the Tring and Megantic branch of the Quebec Central Railway with the Quebec Central Railway at Megantic.—Approved.

Gareau Street proposed crossing of the Grand Trunk Railway in the town of St. Henri (Montreal).—Not approved.

Branch line of the Grand Trunk Railway from Montreal to Côte St. Paul.—Sanctioned.

Branch line of the Grand Trunk Railway to Queenston Quarries, in the township of Niagara, Ont.—Sanctioned.

Drain across Grand Trunk Railway in the 1st Concession of the township of Sandwich East, county of Essex, Ont.—Ordered.

Department of Railways and Canals.

Crossing at rail level by the United Counties Railway of the South-eastern Railway and junction of the same with the Drummond County Railway at Ste. Rosalie.—Approved.

Crossing at rail level by the United Counties Railway of the Montreal, Portland and Boston Railway at Rougemont.—Approved.

Crossing at rail level by the United Counties Railway of the Montreal, Portland and Boston Railway at Ste. Angèle.—Approved.

Crossing at rail level by the United Counties Railway of the Grand Trunk Railway at St. Hyacinthe.—Approved.

Crossing at rail level by the Lake Erie and Detroit River Railway of the Erie and Huron Railway in the township of Harwich, near Blenheim.—Approved.

Application of the Lake Erie and Detroit River Railway Company for variation of order directing an interlocking switch and signal system to be introduced at the crossing at rail level by their railway of the Leamington and St. Claire Railway, at the village of Leamington.—Use of crossing without such appliances authorized until further notice.

Bridge carrying the Thousand Islands Railway across the Gananoque River.—Approved.

Crossing at rail level by the Ottawa, Arnprior and Parry Sound Railway of the Canadian Pacific Railway at Arnprior.—Approved.

Crossings by the Canadian Pacific Railway of streets between Eastern Avenue and Parliament Streets, inclusive, Toronto.—Approved. Gates and watchmen to be provided at Eastern Avenue and Trinity Street.

Canadian Pacific Railway siding along Beachell Street, Toronto.—Approved.

Opening of public road at Grand Trunk (Belt Line) and Canadian Pacific Railway crossing of Government road allowance, 2nd Concession, east of Yonge, near Toronto.—Pending.

Protection at Toronto (electric street) Railway crossings of the Grand Trunk and Canadian Pacific Railways east of the Don.—Pending. Temporary arrangement in force.

Application for apportionment of cost of protection ordered at Canadian Pacific Railway crossings of Dufferin and Bathurst Streets, Toronto.—Apportionment order made.

Interlocking signal appliances at crossings at rail level by the Canada Southern Railway of the Grand Trunk Railway at Hagarville, Appin, Yarmouth, Southwold, Welland and Canfield.—Approved, and trains allowed to pass without stopping.

Interlocking signal appliances at the Grand Trunk (Belt Line) Railway crossing of the Canadian Pacific Railway near the Don, Toronto.—Approved, and trains allowed to pass without stopping.

Interlocking signal appliances at the Canada Southern Railway crossing of the Grand Trunk Railway at Port Dover Junction.—Approved, and trains allowed to pass without stopping.

Brantford Street Railway crossings of the Grand Trunk Railway on Colborne and Oxford Streets, Brantford.—Approved.

Crossing at rail level by the United Counties Railway of the Canadian Pacific Railway near Iberville.—Approved.

Extension of Lansdowne Avenue, Toronto, across the Grand Trunk and Canadian Pacific Railways.—Pending.

Protection at a crossing of the Canada Southern Railway at Niagara Falls.—A flagman provided by the company.

Complaint *re* insufficiency of protection at the Lake Erie and Detroit River Railway crossings of the Canada Southern Railway at Pelton, McGregor and Leamington and the Erie and Huron crossing of the Canada Southern Railway at Courtright.—Pending.

Peterboro' and Ashburnham Street Railway crossings of the Canadian Pacific and Grand Trunk Railways in the city of Peterboro'.—Approved.

Montreal Park and Island Railway crossing of the Canadian Pacific Railway at St. Louis du Mile End.—Approved.

Street crossings of the Canadian Pacific Railway in the town of Magog.—Pending:

Complaint *re* passenger tolls charged on Grand Trunk Railway between Hamilton and Suspension Bridge Niagara and between Oshawa and Toronto.—Discharged, no ground for complaint being found to exist.

Interlocking signal appliances at the Ottawa, Arnprior and Parry Sound Railway crossing of the Canadian Pacific Railway at Arnprior.—Approved, and trains allowed to pass without stopping.

Interlocking signal appliances at the Lake Erie and Detroit River Railway crossing of the Erie and Huron Railway near Blenheim.—Approved, and trains allowed to pass without stopping.

Interlocking signal appliances at the Lake Erie and Detroit River Railway crossing of the Canada Southern Railway at Pelton.—Approved, and trains allowed to pass without stopping.

Crossing at rail level by the Montreal Park and Island (Electric) Railway of the Canadian Pacific Railway at St. Louis du Mile End.—Approved.

Two public road diversions by the Montreal and Western Railway Company at Chute aux Iroquois.—Approved.

Closing of a portion of Thistle Street, and formation of certain new streets by the Grand Trunk Railway Company at Sarnia.—Pending.

Crossing at rail level by the Drummond County Railway of the Grand Trunk Railway near the Aston Station.—Approved.

Substitution of a double for a single track crossing of the Ottawa Electric Railway on the Canada Atlantic Railway on Bank Street, Ottawa.—Approved.

Manitoba Central Farmers' Institute. Complaint *re* discrimination in Railway charges.—Pending.

Montreal Street Railway crossings of the Grand Trunk Railway at Montreal and St. Henri.—Pending.

Drain across Canada Southern Railway in Township of Tilbury West. Question as to construction of.—Pending.

Crossing at rail level by the United Counties Railway of the Canadian Pacific Railway near Iberville. Application for a change in the location of the crossing as already authorized.—Granted.

Department of Railways and Canals.

Crossing at rail level by the Ottawa, Arnprior and Parry Sound Railway of the Kingston and Pembroke Railway near Renfrew.—Approved.

Deviation of a public road in the townships of De Salaberry and Grandison by the Montreal and Western Railway Company.—Approved.

RAILWAY LEGISLATION OF THE SESSION OF PARLIAMENT.

56 VICTORIA (1893).

CHAP.

- 2 An Act to authorize the granting of Subsidies in aid of the construction of the lines of railway therein mentioned.
- 4 An Act relating to the granting of subsidies in land to railway companies.
- 6 An Act to confirm the sale of the Carleton, City of Saint John, Branch Railroad.
- 38 An Act respecting the Alberta Railway and Coal Company.
- 39 An Act to incorporate the Atlantic and Lake Superior Railway Company.
- 40 An Act to incorporate the Calgary Street Railway Company.
- 41 An Act respecting the Canadian Pacific Railway Company.
- 42 An Act respecting the Central Counties Railway Company.
- 43 An Act respecting the Chilliwack Railway Company.
- 44 An Act to incorporate the Cleveland, Port Stanley and London Transportation and Railway Company, and to confirm an agreement respecting the London and Port Stanley Railway.
- 45 An Act respecting the Columbia and Kootenay Railway and Navigation Company.
- 46 An Act respecting the Drummond County Railway Company.
- 47 An Act respecting the Grand Trunk Railway Company of Canada.
- 48 An Act to give effect to an agreement between the Grand Trunk Railway Company of Canada, the Canadian Pacific Railway Company, and the Corporation of the City of Toronto.
- 49 An Act respecting the Grand Trunk, Georgian Bay and Lake Erie Railway Company.
- 50 An Act respecting the Lake Erie and Detroit River Railway Company.
- 51 An Act respecting the London and Port Stanley Railway Company.
- 52 An Act to consolidate and amend certain Acts relating to the Manitoba and North-western Railway Company of Canada.
- 53 An Act respecting the Manitoba and South-eastern Railway Company.
- 54 An Act to revive and amend the Act to incorporate the Moncton and Prince Edward Island Railway and Ferry Company.
- 55 An Act to amend the Act to incorporate the Montreal and Atlantic Railway Company.
- 56 An Act to incorporate the Nakusp and Slocan Railway Company.
- 57 An Act respecting the Nelson and Fort Sheppard Railway Company.
- 58 An Act to revive and amend the Act to incorporate the North Canadian Atlantic Railway and Steamship Company and to change the name thereof to "The Quebec and Labrador Railway and Steamship Company."
- 59 An Act respecting the Port Arthur, Duluth and Western Railway Company.
- 60 An Act respecting the St. Lawrence and Adirondack Railway Company.
- 61 An Act respecting the Temiscouata Railway Company.
- 62 An Act respecting the Toronto, Hamilton and Buffalo Railway Company.
- 63 An Act respecting the Western Counties Railway Company, and to change the name of the Company to the Yarmouth and Annapolis Railway Company.

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56 Victoria (1893)—*Continued.*

- 64 An Act to amend the Act to incorporate the Buffalo and Fort Erie Bridge Company.
 65 An Act to incorporate the Canada Atlantic and Plant Steamship Company, Limited.
 66 An Act to incorporate the North American Canal Company.

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 and lakes.
2. The Richelieu navigation, from the St. Lawrence to Lake Champlain.
3. The River Ottawa.
4. The Rideau navigation, from Ottawa to Kingston.
5. The Trent navigation.
6. St. Peter's Canal, Bras d'Or Lake, Nova Scotia.

TOTAL EXPENDITURE ON CANAL WORKS AND MAINTENANCE.

The following list shows the total amount charged to capital account, expended by the Government for construction and enlargement of each of the canals of the Dominion; embracing the period prior to Confederation and extending down to the 30th June, 1893:—

Lachine Canal.....	\$ 9,686,684	51
Beauharnois Canal.....	1,611,690	26
Soulanges Canal (under construction).....	264,572	00
Williamsburg Canals (being enlarged).....	2,940,551	13
Cornwall Canal (being enlarged).....	4,649,574	35
St. Lawrence River and Canals, surveys, &c.....	943,178	36
Murray Canal.....	1,247,470	26
Welland Canal.....	23,762,294	61
Sault Ste. Marie Canal (under construction).....	1,475,344	45
Ste. Anne Canal.....	1,170,215	63
Carillon and Grenville Canals.....	4,025,553	00
Culbute Canal.....	379,494	46
Rideau Canal, (including the Perth branch).....	4,560,285	60
Trent Canal.....	1,088,483	87
St. Ours Lock.....	121,537	65
Chambly Canal.....	637,206	76
St. Peter's Canal.....	645,994	94
Total.....	\$59,210,131	84

In addition to the above there has been expended from

"Income" as follows:—

Renewals.....	1,941,198	13
Repairs.....	4,550,801	97
Staff and maintenance.....	5,608,661	52

Making the total expenditure..... \$71,310,793 46

The total revenue received amounts to \$9,850,578.56.

Details as to the above will be found in Appendix No. 2, p. 2.

Department of Railways and Canals.

TOTAL EXPENDITURE AND RECEIPTS FOR THE YEAR.

The total expenditure on the several canals for the fiscal year ended 30th June, 1893, was as follows:—

Construction, charged to capital.....	\$ 2,069,573 30
Renewals, charged to income.....	196,185 84
Repairs.....	204,759 39
Staff and maintenance.....	291,588 97

The collection of the revenue derivable from the canals of the Dominion, formerly in the hands of the Department of Inland Revenue, was assumed by this department, under an Order in Council of the 4th of June, 1889, as authorized by the Act 52 Victoria, chapter 19. Details relating to the Canals Revenue and various commercial statistics for the *season of navigation* of the year 1892, will be found in the appendix, "Canals Revenue and Statistics," No. 23, p. 266.

The net canal revenue for the fiscal year was \$357,089.87, as against \$324,475.24 in the previous year, an increase of \$32,614.63.

The amount of the refunds of tolls for grain and other food products was \$40,032.40 in the year 1892-93, as against \$52,270.10 in the previous year. No refunds were allowed for the season of 1893.

The following statement shows the amount collected on each canal for Canal Revenue proper, and hydraulic rents, &c., during the Fiscal Year ended 30th June, 1893. Details will be found in the report of the Inspector, Appendix No. 18, p. 205.

Name of Canal.	Tolls.	Wharfage and Storage.	Fines.	Other Receipts.	Hydraulic Rents, &c.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Welland.....	202,106 45		182 09	163 52	5,691 10	208,143 16
St. Lawrence.....	67,200 84	2,705 34	124 00	14,977 73	29,373 14	114,381 05
Chambly.....	21,836 22		20 00	1 00	130 00	21,987 22
Ottawa.....	41,161 09		10 00	28 00	21 00	41,220 09
Rideau.....	5,145 43	186 32	13 00	176 00	2,638 55	8,159 30
Trent Valley.....	607 91			44 25	63 00	775 16
St. Peter's.....	2,948 18					2,948 18
Murray.....	619 94					619 94
Total.....	341,686 06	2,891 66	349 09	15,390 50	37,916 79	398,234 10
						Less—Refunds of tolls.....
						41,144 23
						Net Revenue.....
						357,089 87

The following features of the principal canal traffic during the season of navigation of 1892 will be found of interest:—

On the Welland Canal 955,554 tons of freight were moved, of which 528,569 tons were agricultural produce. On the St. Lawrence canals the quantity moved was 966,755 tons, of which 464,672 tons were agricultural produce. On the Ottawa canals the total quantity moved was 647,011 tons, of which 628,449 tons were the produce of the forest. 261,954 tons of grain (wheat, barley, corn, oats, pease and rye) passed down the Welland and St. Lawrence canals to Montreal, and of this quantity 195,244 tons, after

transhipment at Canadian ports, were exported. 201,540 tons of grain passed down the Welland Canal from United States ports to United States ports.

During the season a total of 268,830 tons of grain arrived at Kingston, at the head of the River St. Lawrence, in vessels which had passed down the Welland Canal. Of this quantity Canadian vessels carried 158 cargoes, aggregating 159,018 tons, and United States vessels carried 89 cargoes, aggregating 109,812 tons. 4,341 tons were taken to Ogdensburg and transhipped to Montreal.

It seems proper here to record, briefly, certain facts relative to the tolls charged for the passage of wheat and certain other food products through the Welland and the St. Lawrence Canals.

In the year 1882, tolls on the Erie Canal were abolished.

In the year 1884, on urgent representations from shippers and others interested in the grain trade, Orders in Council were passed with a view to meeting this abolition of Erie Canal tolls. They reduced for the then current season, by one-half, the tolls for passage through the Welland and the St. Lawrence Canals on wheat and certain other food products shipped for Montreal or other Canadian ports east of Montreal.

In the following year, 1885, tolls were further reduced on such products to 2 cents a ton, and thenceforward, year by year, up to and including 1891, this concession has been made by special Orders in Council.

In the year 1892, the reduction was conditioned by the provision that it should be applicable only to products actually exported.

By a Presidential Proclamation dated the 18th of August, 1892, the United States adopted a system of tolls on the St. Mary's Falls Canal, levying 20 cents per ton on all freight carried "to any port in the Dominion of Canada," although it may be noted the St. Mary's Falls Canal was transferred from the control of the state of Michigan to that of the Federal Government, with the distinct proviso that it should be for ever free from toll, and such transfer took place subsequently to the Treaty of Washington and the undertaking of the state, conformably thereto, that British subjects should have the use of the canal on terms of equality with the inhabitants of the United States.

By an Order in Council dated the 13th of February, 1893, the Dominion canal tolls on the said food products for passage eastward through the canals named were fixed at 10 cents per ton, without reference to destination, and thereupon, by a Proclamation dated the 21st of February, 1893, the President of the United States suspended the toll for passage through the St. Mary's Falls Canal imposed by his previous Proclamation.

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, affords 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.

The difference in level between the point on the St. Lawrence near to Three Rivers, where tidal influence ceases, and Lake Superior, is about 600 feet.

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The Dominion canals, constructed between Montreal and Lake Erie, are the Lachine, Beauharnois, Cornwall, Farran's Point, Rapide Plat, Gallops and Welland. Their aggregate length is $70\frac{1}{2}$ miles; total lockage (or height directly overcome by locks) is 533 $\frac{1}{4}$ feet; number of locks, 53.

Communication between Lakes Huron and Superior is obtained by means of the St. Mary's Falls Canal, situated on the United States side of the River St. Mary.

This canal is a little over a mile in length, with a bottom width of 100 feet, and has one lock, the dimensions being:—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. By it there is afforded a 16-foot navigation between the two lakes.*

* From the report of the Chief of Engineers, U. S. army, dated the 30th of September, 1892, for the fiscal year ended the 30th June, 1892, the last available, it appears that the construction of the proposed new and larger lock is in progress, taking the site occupied by the two old locks built in 1855, the canal itself being deepened to correspond, so as to give a navigable depth of 20 feet. The dimensions of the new lock will be—length 800 feet between gates, width 100 feet throughout, with 21 feet of water on the sills, with a single lift, approximating 18 feet. The estimated cost of this new lock and work of canal deepening is set down at \$4,738,865. For this work an appropriation of \$250,000 was made by Congress in August, 1886. The total expenditure up to the 30th of June, 1892, was \$818,103.38. On the 1st of July, 1892, there was an unexpended balance of appropriations amounting to \$1,931,923.25. For the fiscal year ending on the 30th June, 1894, in addition to the balance in hand a further sum of \$2,000,000 should, it is stated, be made available, in view of the importance of losing no time in the prosecution of the work, the enormous traffic being now dependent on a single lock.

From the same report and its appendices it appears that during the *fiscal year* ended the 30th of June, 1892, the canal now in operation was closed on the 6th of December, 1891, and opened on the 18th of April, 1891; being opened for 233 days; that 11,557 vessels, &c., passed through, aggregating 9,828,874 registered tons, and carrying 10,107,603 tons of freight and 25,697 passengers, the number of lockages being 5,615. The cost of operation and care of the canal during the fiscal year 1891-92 was \$61,389.74, in which is included for repairs the sum of \$21,665.12.

A special report deals with the operation of the canal during the *season of navigation* of the calendar year 1891. From this it appears that during the season the canal was opened for 225 days, that 10,191 vessels passed through in 4,981 lockages, carrying 8,888,759 tons of freight and 26,190 passengers, the total value of freight being \$128,178,208.51, against \$102,214,948.70 in 1890.

The total number of registered craft using the canal during the season was 652, of which 396 were steam and 256 sailing vessels. The largest single cargo carried was 3,136 tons. There were 101 steamers carrying 2,000 tons and upwards, and 8 sail vessels carrying 2,500 tons and upwards.

The total amount of freight paid was \$9,849,022.81; the total mile-tons (the number of miles run multiplied by the freight tonnage) was 7,292,462,269; the cost per mile per ton was 1.35 mills, as against 1.3 in 1890. The average distance freight was carried was 820.4 miles. The principal items of freight were as follows:—Wheat, 38,816,570 bushels; grain other than wheat, 1,032,104 bushels; flour, 3,780,143 barrels; coal, 2,507,532 net tons of 2,000 lbs.; iron ore, 3,560,213 net tons.

Compared with the season of 1890, there was an abnormal increase in the quantity of wheat and its products: the quantity of wheat carried in the season of 1890 having been 16,217,370 bushels. On the other hand the quantity of iron ore, which during the whole period from 1881 has averaged about 50 per cent of the total freight passing through the canal, suffered a great reduction, 25 per cent less being carried during the season of 1891. The total freight of the season of 1891 showed a reduction of about 2 per cent. The traffic for the *fiscal year*, however, shows that this deficiency was made up, and that the total freight for the year exceeds by 1,768,622 tons that of any preceding fiscal year. To the low stage of water in the lakes, making an average of 14.42 feet in the canal the lowest record, and to a stoppage of 5 days in the canal traffic, due to the sinking of a vessel in the St. Mary's River, by which 275 vessels were delayed, is in part attributed the decrease in the season's operations.

The total valuation of all registered vessels using the canal in the season of 1891 is set down at \$34,066,800, against a total valuation in 1887 of \$19,773,950, and in 1890 of \$29,635,500.

In connection with the enlargement of this canal there has been undertaken, and is in progress, the work of improving the southern channel of the river below the falls, known as the Hay Lake channel in American waters. It is proposed to make a channel 300 feet wide, and of a navigable depth of 20 feet. The improved route will leave the present navigable channel of the river at a point, Sugar Island rapids, about 2 $\frac{1}{2}$ miles below the canal; will pass through these into Hay Lake; then by way of Middle Neeshib; rejoining the present navigable channel at the foot of Sugar Island; saving a distance of 11 miles (16 miles in place of 27), and giving a route which can be so marked by lights as to be navigable at night, an advantage which is not to be afforded by the present channel, except by the use of many lights. The estimated cost of the work is set down in the report of U. S. engineers, quoted, at \$2,659,115. The total expenditure up to the 30th June, 1892, amounted to \$1,109,806.09.

A large lock and canal are in course of construction by the Dominion Government on the Canadian side of the river. This canal will be known by the name of "The Sault Ste. Marie Canal." A general description of the work will be found in the present report. (See Appendix 6, p. 121.)

The following indicates the main features of the works executed 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 will be 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.

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 channel has been surveyed and sounded, and plans have been prepared in readiness for work. A certain amount of dredging has been done as a test of the material and of the best means for its removal.

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) is being constructed on the north shore of the river. It will be about 14 miles in length.

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.

Cornwall Canal.—The works of the Cornwall Canal are all under contract. The two lower locks, &c. were completed in 1882. The four other locks are built, but some work remains to the dam in connection with them. The excavation of the canal proper is in progress. The north channel of the River St. Lawrence between the mainland and Sheiks Island will be utilized by means of dams in place of deepening and widening the canal at this point.

Farran's Point Canal.—Nothing has been done towards the enlargement of the canal at Farran's Point beyond the necessary surveys.

Rapide Plat Canal.—At the Rapide Plat the guard lock is finished and in use; the works remaining to be done to complete the enlargement are in progress.

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, $7\frac{3}{8}$ 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 lock, practically completed, will give access from the river. With the exception of preliminary surveys, nothing has yet been done towards the enlargement of the remainder of the canal.

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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.

Welland Canal.—The enlargement of this canal is completed.

Sault Ste. Marie Canal.—Work is in progress on this canal. The lock masonry is completed.

LACHINE CANAL.

	Old Line.	New Line.
Length of canal	8½ statute miles.	8½ 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.

This channel 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 the affording 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, and between 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. Through Lake St. Louis down to the Lachine Canal—a distance of about 15 miles—the existing channel, which is wide and deep, would be available for about 11 miles. Over the lower four miles, however, the channel will require to be deepened and widened at a number of places. Some experimental dredging has been carried on in order to determine the nature of the material to be removed, and the best way of dealing with it.

The canal was closed on the 30th of November, 1892, and opened on the 4th of May, 1893.

A serious leak in the north canal bank opposite the Montreal woollen mills at St. Gabriel locks occurred on the 19th December, 1892, the repair of which involved considerable time and expenditure.

On the 10th of May, 1893, the St. Gabriel bridge was struck by the tug "Wm. Paul" and injured.

The extent of the increasing traffic on Wellington street, Montreal, and the hindrance experienced by it at the bridge crossing of the canal has for some years rendered

it absolutely necessary that steps should be taken to increase the crossing accommodation. It was finally decided after consideration of various schemes to replace the old and inadequate bridge with one of greater capacity, and during the winter of 1892-3 the works necessary in this connection, which included a new railway bridge, were undertaken, and pushed forward with the vigour required to ensure completion before the opening of navigation.

The navigation of the canal was carried on through the season without interruption.

The water level was satisfactorily maintained.

The report of the acting Superintending Engineer gives details of the repairs and new works executed, and shows generally the condition of the canal. (App. 9, p. 139.)

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$445,983 21
Renewals, chargeable to income.....	50,937 40
Repairs.....	51,616 79
Staff and maintenance.....	53,185 00
Total.....	<u>\$601,722 40</u>

The works were satisfactorily completed within the time contemplated, and the water was let into the canal on the 1st of May. The extent of the work required to be executed, the shortness of the time available and the fact that work had to be carried on under the disadvantage of a severe winter season, entailed heavy expenditure. This expenditure is, however, so much in excess of the anticipated cost that it has been deemed proper in the public interests to have the whole circumstances of the case investigated, and a special commission was accordingly appointed, which has sat in Montreal and taken extensive evidence in the matter. The commission has not yet reported.

BEAUHARNOIS CANAL.

Length of canal.....	11¼ statute miles.
Number of locks.....	9
Dimensions of locks.....	200 feet by 45 feet.
Total rise or lockage.....	82½ 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, 15¼ 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 1st of December, 1892, and was reopened for traffic on the 1st of May, 1893.

Owing to a break in the bank near lock No. 12, navigation was interrupted for 15 hours.

Details of repairs will be found in Appendix 9, p. 143.

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The expenditure on this canal for the past fiscal year was as follows :—

Construction, chargeable to capital.....	\$ Nil.
Renewals, chargeable to income.....	Nil.
Repairs.....	14,107 11
Staff and maintenance.....	20,348 34
Total.....	<u>\$34,455 45</u>

CORNWALL CANAL.

Length of canal.....	11½ statute miles.
Number of locks.....	6
Dimensions of locks (three).....	200 feet by 55 feet.
“ of two lower entrance locks and the guard lock.....	270 by 45.
Total rise or lockage.....	48 feet.
Depth of water on sills.....	9 “
“ at the two lower entrance locks... ..	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.

This canal was closed on the 4th of December, 1892, and reopened on the 1st of May, 1893.

All necessary repairs were carried out. On the 3rd of August, 1892, the barge “Toronto,” in tow, carried away the gates of lock No. 19, causing a delay of 28 hours. On the 2nd of June, 1893, the steamer “Hall” carried away the lower gates of the same lock, stopping navigation for 26 hours.

Navigation was satisfactorily maintained during the season. (See Appendix 12, page 165.)

NEW WORKS.

The two locks at the new lower entrance (taking the place of three on the old line) were completed in 1882. Their dimensions are those of the general enlargement scheme, namely: length, 270 feet; breadth, 45 feet; depth of water, 14 feet. The basin between these two locks is 825 feet long. The guard-lock also is completed and in use.

The remaining three locks are all practically completed. 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

*NOTE.—Though the bottom breadth is, as stated, 100 feet, it must be observed that this is the bottom breadth of the old, or 9 feet navigation canal.

the existing canal at this point has been abandoned. The work of constructing the necessary dams across the channel was placed under contract on the 19th of June, 1893, and is in progress.

The work of the year is described in detail in the appendices to the present report. (See Appendix 12, page 166.)

The expenditure on this canal for the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$352,536 13
Renewals, chargeable to income.....	nil.
Repairs.....	9,668 14
Staff and maintenance.....	15,173 01
Total	<u>\$377,377 28</u>

WILLIAMSBURG CANALS.

The Farran's Point, Rapide Plat, and Galops Canals are collectively known as the Williamsburg Canals.

These canals were closed on the 13th of December, 1892, and reopened on the 27th of April, 1893.

No accidents of importance are reported, and navigation is stated to have been well maintained.

The expenditure on these canals during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$372,193 29
Renewals, chargeable to income.....	3,675 00
Repairs.....	8,347 97
Staff and maintenance.....	8,676 03
Total	<u>\$392,892 29</u>

The only accident of importance occurred in June, 1893; the steamer "Acadia" having struck a stone at a point where the dredging operations for the canal enlargement had left it. The vessel sank, necessitating the unwatering of the canal. For details of work see Appendix 12, page 168.

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 on water surface.....	90 "

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 enlargement of this canal has not been commenced, but surveys have been made and plans prepared. (See Appendix 12, page 169.)

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RAPIDE PLAT CANAL.

Length of canal.....	4 miles.
Number of locks.....	2 “
Dimensions of locks.....	200 feet by 45 feet.
Total rise, or lockage.....	11½ feet.
Depth of water on sills.....	9 “
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 19½ 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 of this canal, in conformity with the proportions of the general scheme is in progress. The works 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 in progress. (See Appendix 12, page 170.)

GALOPS CANAL.

Length of canal.....	7⅝ miles.
Number of locks.....	• 3
Dimensions of locks.....	200 feet by 45 feet.
Total rise, or lockage.....	15½ feet.
Depth of water on sills.....	9 “
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 that point were placed under contract in November, 1888. The guard-lock and lift-lock are both completed in readiness to receive their gates, and the other works are in progress.

It is proposed that, by the use of this new lift-lock, vessels qualified to stem the current of the Iroquois and Cardinal Rapids should 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.

No steps have, so far, been taken towards the enlargement of the 7 miles of the canal east of this lock, beyond the preliminary surveys.

In the river opposite the canal the formation of a new channel through certain shoals in the Galops Rapids was commenced in 1880, and was reported as completed in 1888. The channel so improved is about 3,300 feet in length and 200 feet wide. The intention of the department was to afford a safe passage at a low stage of the river water (9 feet on the mitre sills of the lock at the upper entrance of the old Galops Canal) for vessels drawing 14 feet. It was considered advisable to allow a clear margin of 3 feet below the keel of a vessel of this draught, the depth to be, consequently, 17 feet. The work was believed by the superintending engineer to be completed in 1888, and was so reported by him.

On further examination, however, it was found that at certain points, the depth is less than 17 feet, and under these circumstances a very close examination and survey with a vessel specially fitted with appliances for testing the depth under the difficult conditions of the case has been made under the supervision of Mr. Kennedy, the Chief Engineer to the Montreal Harbour Commissioners, as an independent authority. Mr. Kennedy's report shows that there are obstructions in the channel by which the navigable depth of water, at certain places is reduced considerably below that required for vessels of the draught contemplated.

The new channel has been navigated by many of the large propellers and other vessels drawing over 9 feet of water, but in view of the results of Mr. Kennedy's examination it cannot be regarded, at present, as safe.

To fully carry out the design, some work will be necessary in order to obviate certain cross currents, the action of which required to be ascertained by actual experience after the excavation of the channel.

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 $\frac{3}{4}$ of a mile than the southern channel in American waters now in use. (See Appendix 12, page 171.

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 $\frac{1}{4}$ 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.

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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, 12½ 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 highest water of the season gave a depth of 14 feet 9 inches, and the lowest a depth of 12 feet.

The canal was closed on the 15th of December, 1892, and reopened on the 13th of April, 1893.

Navigation was maintained satisfactorily and without accident. (Appendix 13, page 175.)

The expenditure on the canal, during the past fiscal year, was as follows :—

Construction, chargeable to capital.....	\$30,838 79
Renewals, chargeable to income.....	Nil.
Repairs	5,341 62
Staff and maintenance	5,499 62
Total	\$41,679 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	25
{ guard.....	1	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, <i>via</i> lock at	
aqueduct.....	300 "
" Chippawa Cut to River Nia-	
gara.....	1,020 "
Number of locks—one at aqueduct and one at	
Port Robinson.....	2

WELLAND RIVER BRANCH—*Continued.*

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.

The canal was closed to navigation on the 12th of December, 1892, and reopened on the 24th of April, 1893.

On the 24th of October, 1892, the steamer "Arabian" caused serious damage at lock No. 4, the lock gates being carried away, resulting in a delay to navigation of 34 hours.

During the fiscal year there was an increase of 101,640 tons in the registered tonnage of vessels using the canal.

Tables will be found on page 186 showing the highest and lowest depth of water at the new entrance locks at Port Dalhousie and at Port Colborne for each month throughout the past fiscal year.

Details as to repairs executed will be found in the appendices. (See Appendices 15, p. 183 and 16, p. 187.)

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital	\$ 8,259 94
Renewals, chargeable to income	25,103 13
Repairs	65,016 84
Staff and maintenance	104,926 73

Total	<u>\$203,306 64</u>
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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 the 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.

SAULT STE. MARIE CANAL.

This canal is being constructed through St. Mary's Island, on the north side of the rapids of the River St. Mary, and, with that river, will give communication 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. A considerable amount of excavation is required to form channels of approach both at the upper and at the lower entrances. The total length of this canal and its approaches will be 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 $16\frac{1}{4}$ 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 June, 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, thereunder, 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 20th 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 will be 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, 255 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 canal proper will have a width at low water level of 152 feet, and a bottom width of 145 feet. The depth will be made suitable to navigation at extreme low water level by vessels drawing 20 feet.

The expenditure on this work during the past fiscal year amounted to \$589,801.25, making the total expenditure up to the 30th of June, 1893, \$1,475,344.45. Since that date and up to the 31st of December, 1893, there has been expended the further sum of \$768,546.30, making the total expenditure \$2,243,890.75.

The masonry of the lock has been all executed, and the remainder of the work is making satisfactory progress, with every prospect of completion in readiness for operation next summer.

Details of the works will be found in the appendices. (See Appendix 6, page 121.)*

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 River Canals, to the city of Ottawa; thence by the River Rideau and the Rideau Canal to Kingston, on Lake Ontario—a total distance of 245½ miles.

After leaving the Lachine Canal the works constructed to overcome difficulties of navigation are:—

The Ste. Anne's Lock ;
 Carillon Canal ;
 Grenville Canal ;
 Rideau Canal ; } Ottawa River Canals.

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.....	8½	
From Lachine to Ste. Anne's Lock.....	15	23½
Ste. Anne's Lock and piers.....	½	23½
From Ste. Anne's Lock to Carillon Canal.....	27	50½
The Carillon Canal.....	½	51½
From Carillon Canal to Grenville Canal.....	6½	57½
The Grenville Canal.....	½	63½
From the Grenville Canal to entrance Rideau navigation.....	56	119½
Rideau navigation, ending at Kingston.....	126½	245½

*For information respecting the new American canal, see page lxvii of the present Report.

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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 sills	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 Ottawa River which forms the Lake of Two Mountains, 23½ miles from Montreal harbour.

This lock was closed to navigation on the 28th of November, 1892, and reopened on the 29th of April, 1893.

Navigation has been conducted without interruption during the year.

Both the old and the new locks are available. (See Appendix 9, p. 130.)

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital	\$ Nil.
Renewals, chargeable to income	6,521 88
Repairs	2,800 03
Staff and maintenance	2,581 08
Total	\$11,902 99

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, 1892, and reopened on the 1st of May, 1893.

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.

During the past year the repairing and strengthening of this important work has been continued, a length of 750 feet being repaired during the year. (See Appendix 9, p. 131.)

From the head of the Carillon Canal to the foot of the Grenville Canal there is a navigable stretch of 5½ 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.

The canal was closed on the 30th November, 1892, and reopened on the 1st of May, 1893. (See Appendix 9, page 132.)

The expenditure on these two canals, the Carillon and the Grenville, during the past fiscal year was as follows:—

Construction, chargeable to capital	\$ 207 00
Renewals, chargeable to income	42,298 74
Repairs	10,669 28
Staff and maintenance	16,762 71
Total	<u>\$69,937 73</u>

Tables showing the depth of water at the above canals during the past fiscal year will be found in Appendix 9, p. 138.

UPPER OTTAWA RIVER.

CULBUTE LOCKS AND DAMS.

Number of locks	2
Dimensions of locks	200 by 45 feet.
Total rise, or lockage	18 to 20 "
Depth of water on sills	5 "
Aggregate length of dams	625 "

From the Grenville Canal to the city of Ottawa, a distance of about 56 miles, the river is navigable. Beyond the city, for a distance of 107 miles, to L'Islet or Culbute, continuous navigation is rendered impracticable by the undermentioned rapids:—

The Chaudière, the Des Chênes, the Chats, the Chenaux, the Portage du Fort and the Grand Calumet.

The Culbute works, situated at L'Islet, surmount the Culbute and L'Islet Rapids on the north channel of the Ottawa.

These works comprise two locks and three contiguous dams, all built of wood. The dams reduce the rapids to smooth water, enabling the river to be navigated from the head of the locks to Des Joachims, a distance of 37 miles.

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There is a navigation route of 80 miles, with a minimum depth of 7 feet at extreme low water, between Des Joachims and Bryson; making a total above and below Culbute of 117 miles.

The abandonment of this work, and the removal of the dams, which, as was reported last year, is in contemplation, has not yet been carried out. (See Appendix 9, page 133.)

The expenditure on this canal during the fiscal year was as follows :—

Construction, chargeable to capital.....	Nil.
Renewals, chargeable to income.....	\$ 1,420 65
Repairs	13 55
Staff and maintenance	749 00
Total	<u>\$2,183 20</u>

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; navigable 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.

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 bottom.....	40 "
Breadth of canal at surface of water.....	40 " in rock. 64 " in clay.

The Perth branch of 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 River Rideau, 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, and at Kingston Mills, on the 30th of November, 1892, and recommenced at Ottawa on the 9th of April, and at Kingston Mills on the 1st of May, 1893.

Throughout the season the water supply required for navigation was maintained.

There was no interruption to navigation.

Details of repairs and other works will be found in the appendices. (See Appendix 11, p. 161.)

The expenditure on this canal for the past fiscal year was as follows :—

Construction, chargeable to capital.....	\$ Nil.
Renewals, chargeable to income.....	24,274 71
Repairs.....	18,789 50
Staff and maintenance.....	35,022 49
	<hr/>
Total.....	\$78,086 70

RICHELIEU AND LAKE CHAMPLAIN.

This system, commencing at Sorel, at the confluence of the Rivers 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, the 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.

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The following table shows the distance between Sorel and New York :—

Sections 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	½ 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, fourteen miles from Sorel, the River Richelieu is divided by a small island into two channels. The St. Ours Lock is in the eastern channel.

There is a navigable depth in the Richelieu of 7 feet between St. Ours Lock and Chambly Basin, a distance of thirty-two miles.

Navigation closed on the 30th of November, 1892, and reopened on the 18th of April, 1893.

The season passed without either accident or delay. (See Appendix 9, p. 151.)

The expenditure on this lock during the past fiscal year was as follows :—

Construction, chargeable to capital	\$ Nil.
Renewals, chargeable to income	Nil.
Repairs	1,994 34
Staff and maintenance	2,136 66
	\$ 4,131 00

CHAMBLY CANAL.

Length of canal	12 miles
Number of locks	9
Dimensions of locks :—	
Guard Lock, No. 1, at St. Johns	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 1st of December, 1892, and was reopened on the 8th of May, 1893.

There were no accidents, and navigation was uninterrupted.

A description of the several works of repairs and improvement executed during the year will be found in the appendices. (See Appendix 9, p. 145.)

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital	\$ Nil.
Renewals, chargeable to income.....	21,127 65
Repairs	12,451 03
Staff and maintenance.....	19,310 29
Total.....	\$ 52,888,97

TRENT RIVER NAVIGATION.

The term "Trent River Navigation" 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.

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 in contemplation was as follows:—

Through the River Trent, Rice Lake, the River Otonabee and Lakes Clear, 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 235 miles.

The execution of this scheme, commenced in 1837, was subsequently deferred. By certain works, however, below specified, sections of these waters were made practicable for navigation. 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.....		14½
“ Heeley's Fall Dam to Peterboro'.....	51¾	
“ Peterboro' to Lakefield.....		9½
“ Lakefield to a point across Balsam Lake.....	61	
	132¼	32¾
Total distance, Bay of Quinté to Balsam Lake.....		165

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Unnavigable
Miles.

From Sturgeon Point on Sturgeon Lake, 48 $\frac{3}{4}$ miles from Lakefield, the branch through the town of Lindsay to Port Perry at the head of Lake Scugog.....	<u>27$\frac{1}{2}$</u>
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The works by which the Trent Valley 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, 9 $\frac{1}{2}$ miles from Peterboro', and Balsam Lake, the headwaters of the system; opening up a total of about 160 miles of direct and lateral navigation.

At Lakefield, 9 $\frac{1}{2}$ 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 2 $\frac{1}{2}$ 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, 15 $\frac{3}{4}$ 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.

The following is a list of the locks, with their dimensions:—

1 lock at Rosedale.....100' x 30' x 4' 6" to 6' 6" depth water on mitre sill.

(Maintained by the Ontario Government.)

2 locks at Fenelon.....134' x 33' x 5' 0" to 7' 6" do do

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 5' 4" to 7' 0" do do

1 do Young's Point. do 5' 0" to 14' 0" do do

(A Provincial Government work.)

1 lock at Peterborough..134' x 33' x 5' 0" to 10' 0" do do

1 do Hastings..... do 7' 0" to 10' 6" do do

1 do Chisholms..... do 5' 0" to 8' 6" do do

13

The water level during the whole year, was above the average.

Navigation closed on the 26th of November, 1892, and reopened on the 10th of April, 1893.

Details of the several repairs executed will be found in the appendices. (Appendix 10, p. 158.)

The expenditure on this canal system during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$ 5,962 47
Renewals, chargeable to income.....	10,838 90
Repairs.....	2,087 17
Staff and maintenance.....	3,739 86
	<hr/>
Total.....	\$22,628 40
	<hr/> <hr/>

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.

Navigation was closed on the 9th of January, and reopened on the 24th of April, 1893.

The repairs and improvements carried out are described in the appendices. (See Appendix 18, p. 203.)

The expenditure on this canal during the past fiscal year was as follows:—

Construction, chargeable to capital.....	\$ 811 59
Renewals, chargeable to income.....	9,987 78
Repairs.....	1,856 30
Staff and maintenance.....	2,938 15
	<hr/>
Total.....	\$15,593 82
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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 five lift-locks, overcoming a total rise of 82½ feet. The number of locks on the Beauharnois Canal, including the guard-locks, is nine. The dimensions of the locks will be those of the enlarged system, namely, length 270 feet, width 45 feet, depth of water on sills 14

Department of Railways and Canals.

feet. The estimated cost of the work is \$4,750,000. All the work of construction of the canal and locks has been placed under contract, and is in progress.

Estimated at contract rates, about one-tenth of the work of construction, apart from lock-gates, bridge superstructures, &c., had been executed up to the 30th of September last.

Information will be found in the report of the superintending engineer showing briefly the position of the works. (See Appendix 7, page 124.)

The expenditure on this work for the past fiscal year was \$210,336.24, making a total of \$264,572 up to the 30th of June, 1893. Since that date, there has been expended a further sum of \$366,265.10, making the total expenditure up to the 31st of December, 1893, \$630,837.10.

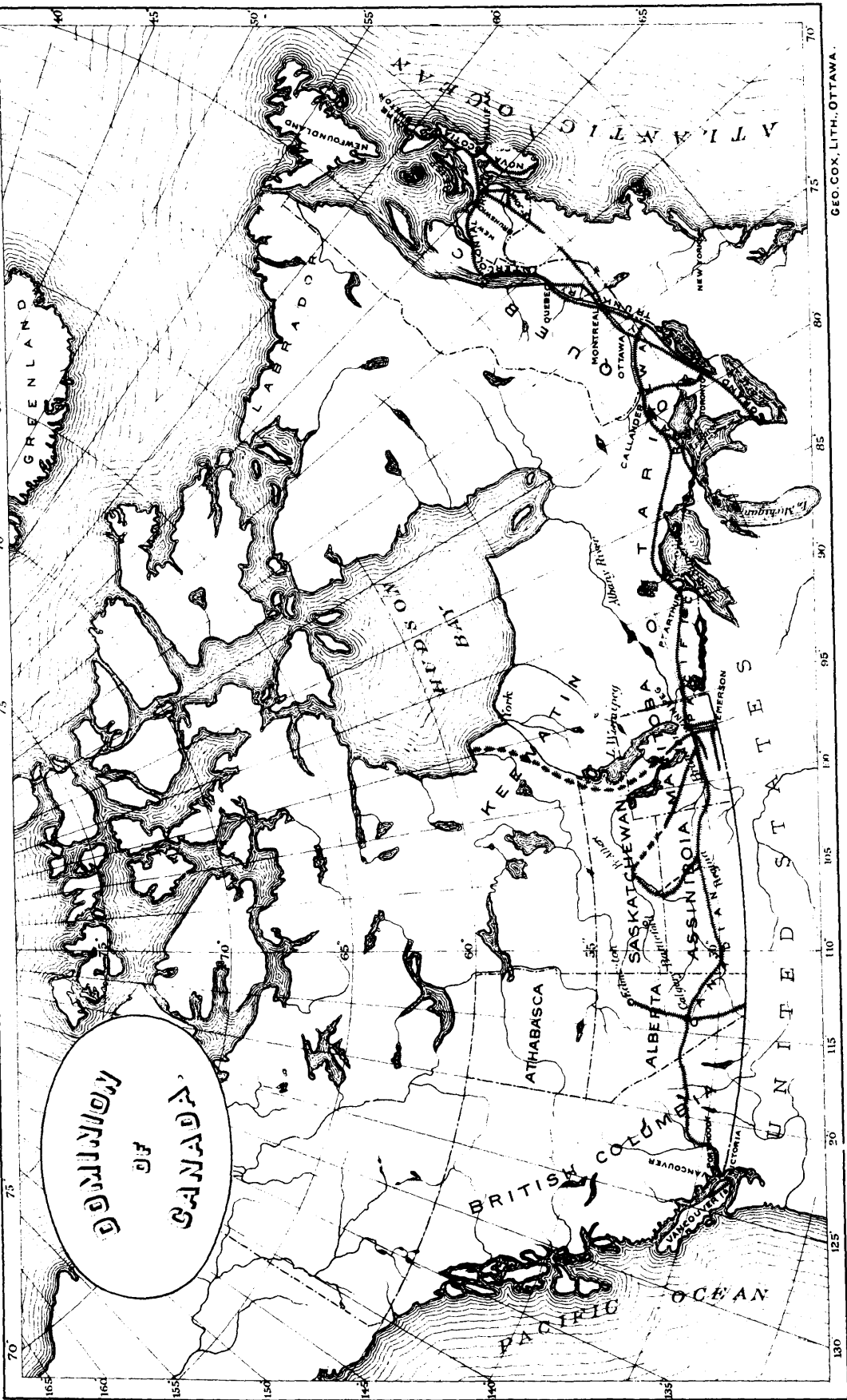
I have the honour to be,

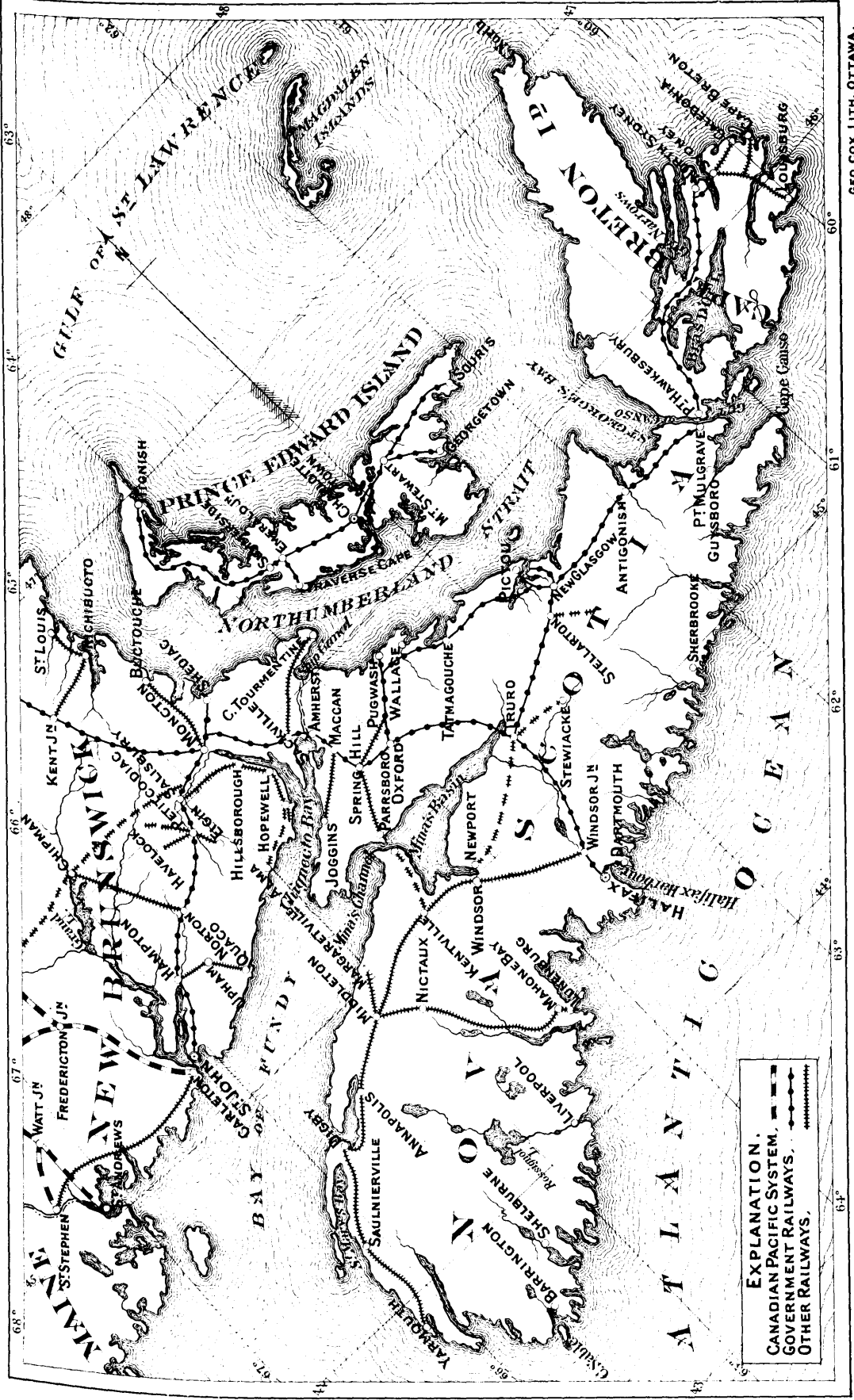
Your Excellency's most obedient servant,

JOHN HAGGART,

Minister of Railways and Canals.

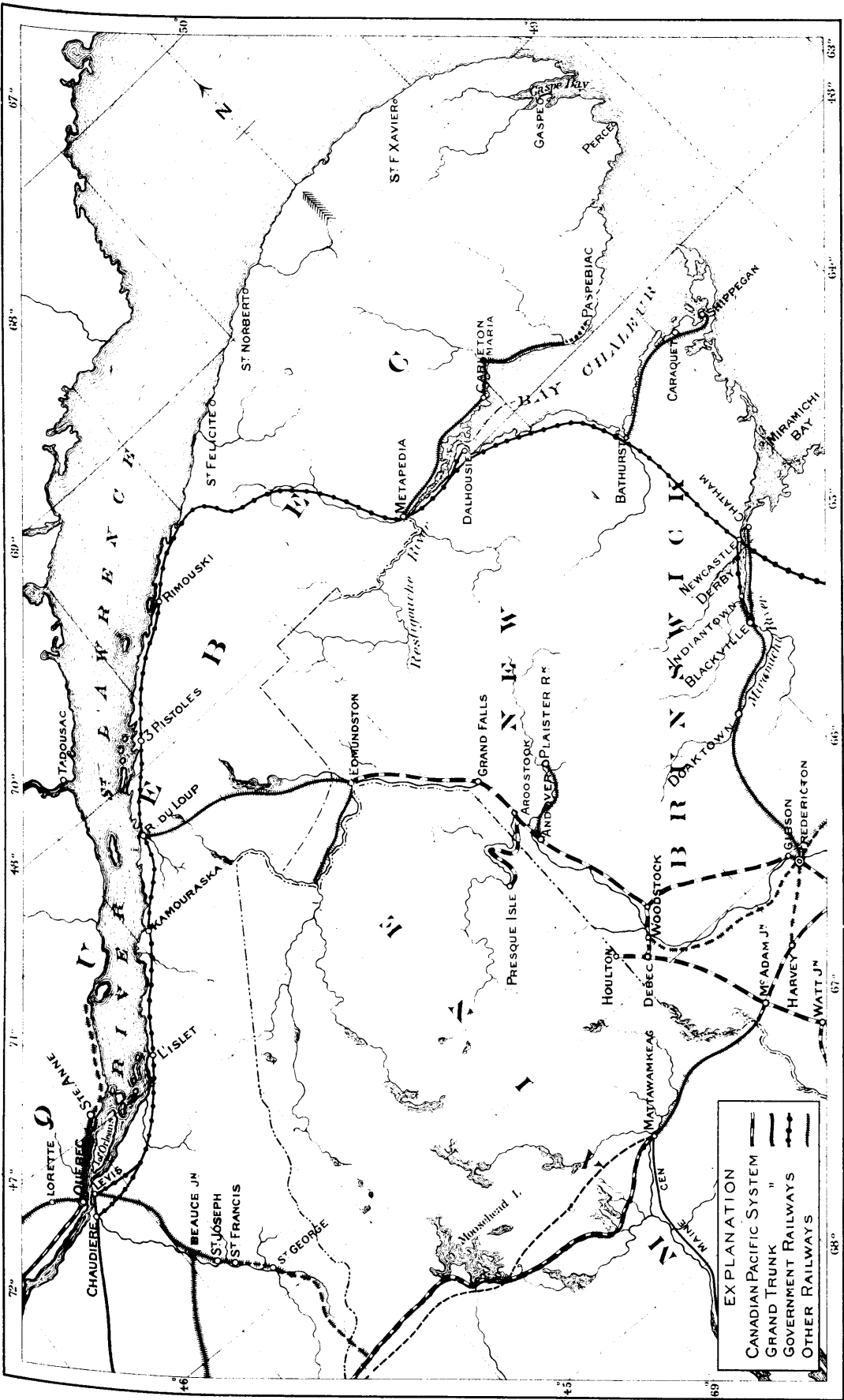
31st December, 1893.





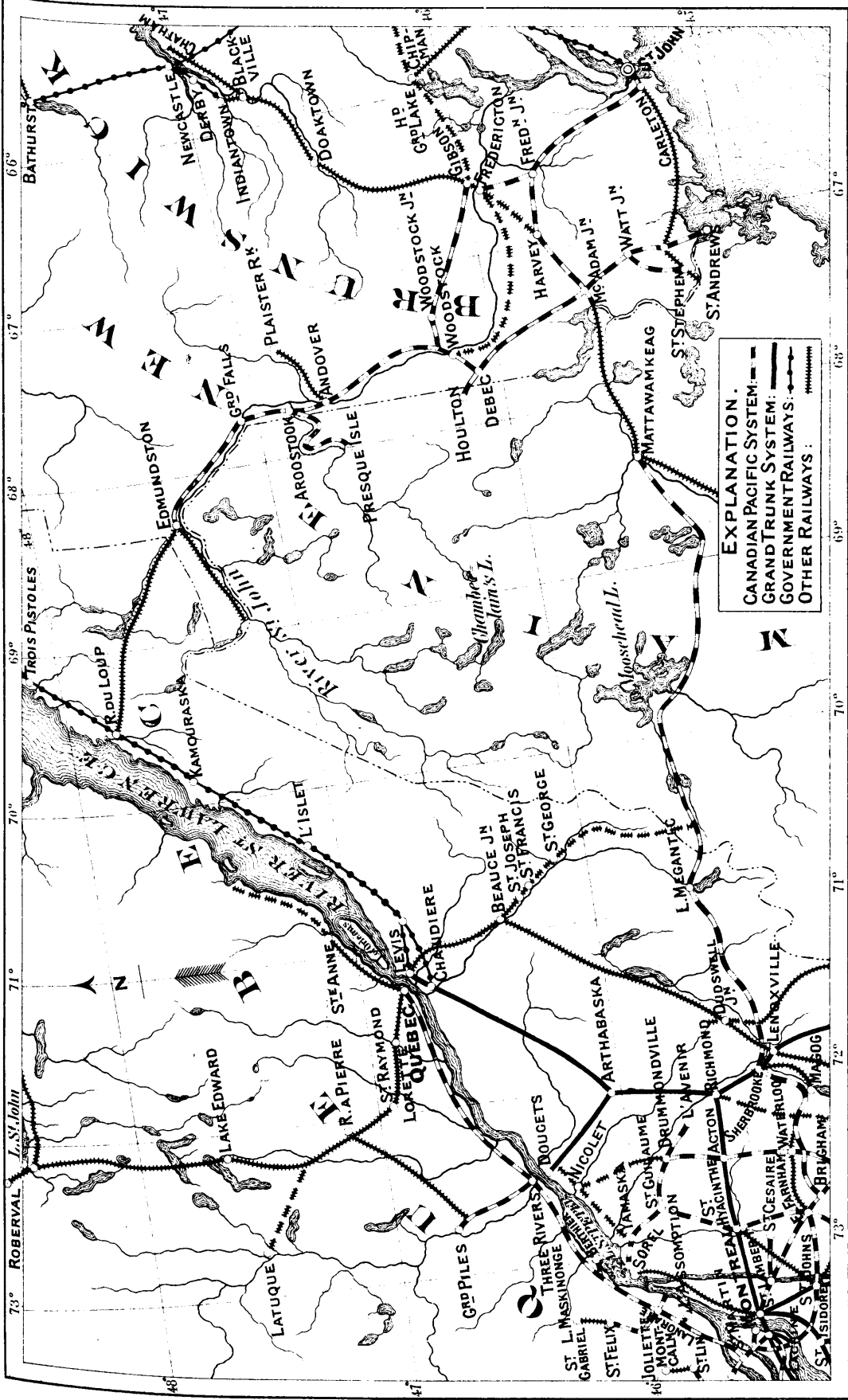
EXPLANATION.

- CANADIAN PACIFIC SYSTEM.
- GOVERNMENT RAILWAYS.
- OTHER RAILWAYS.

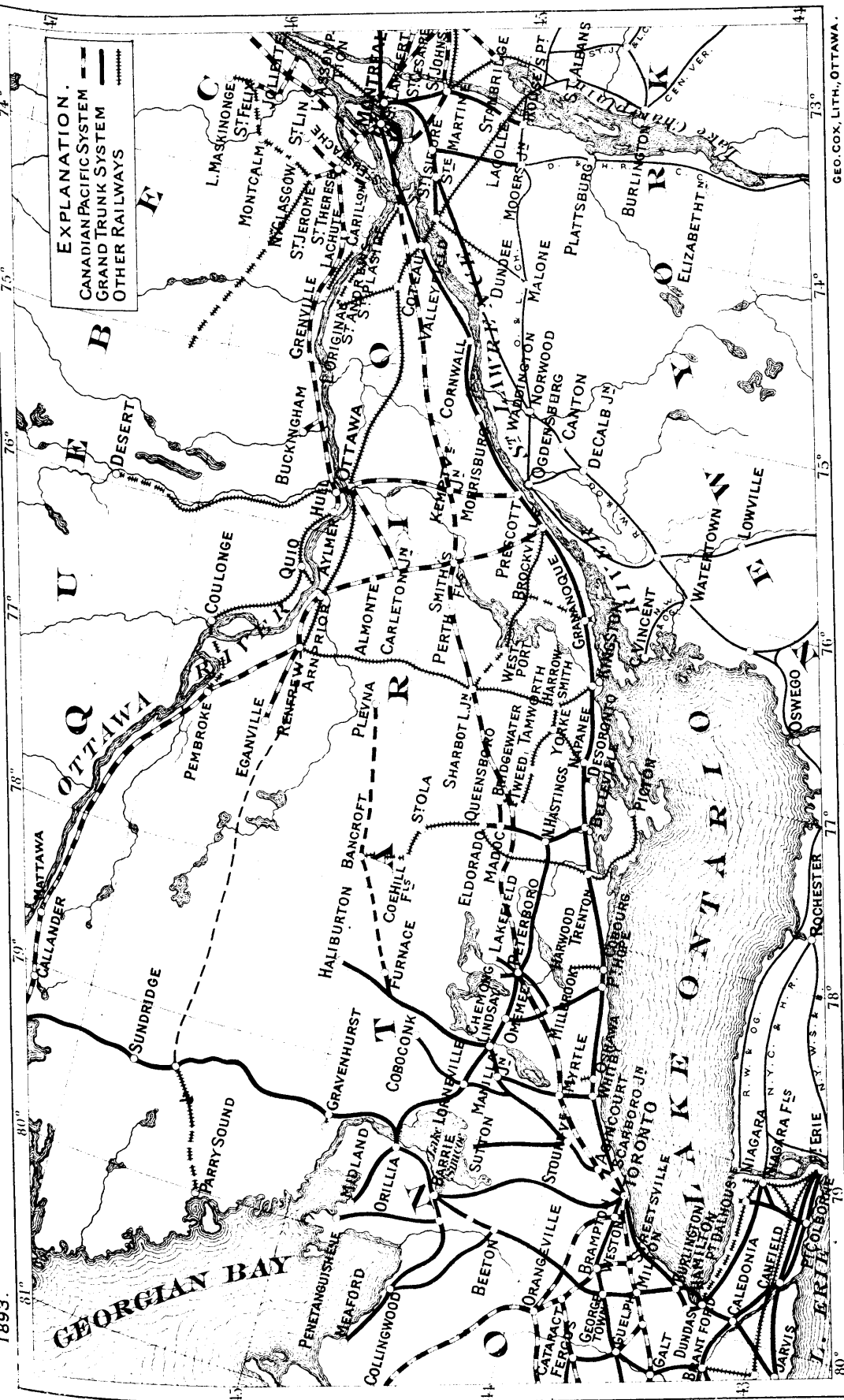


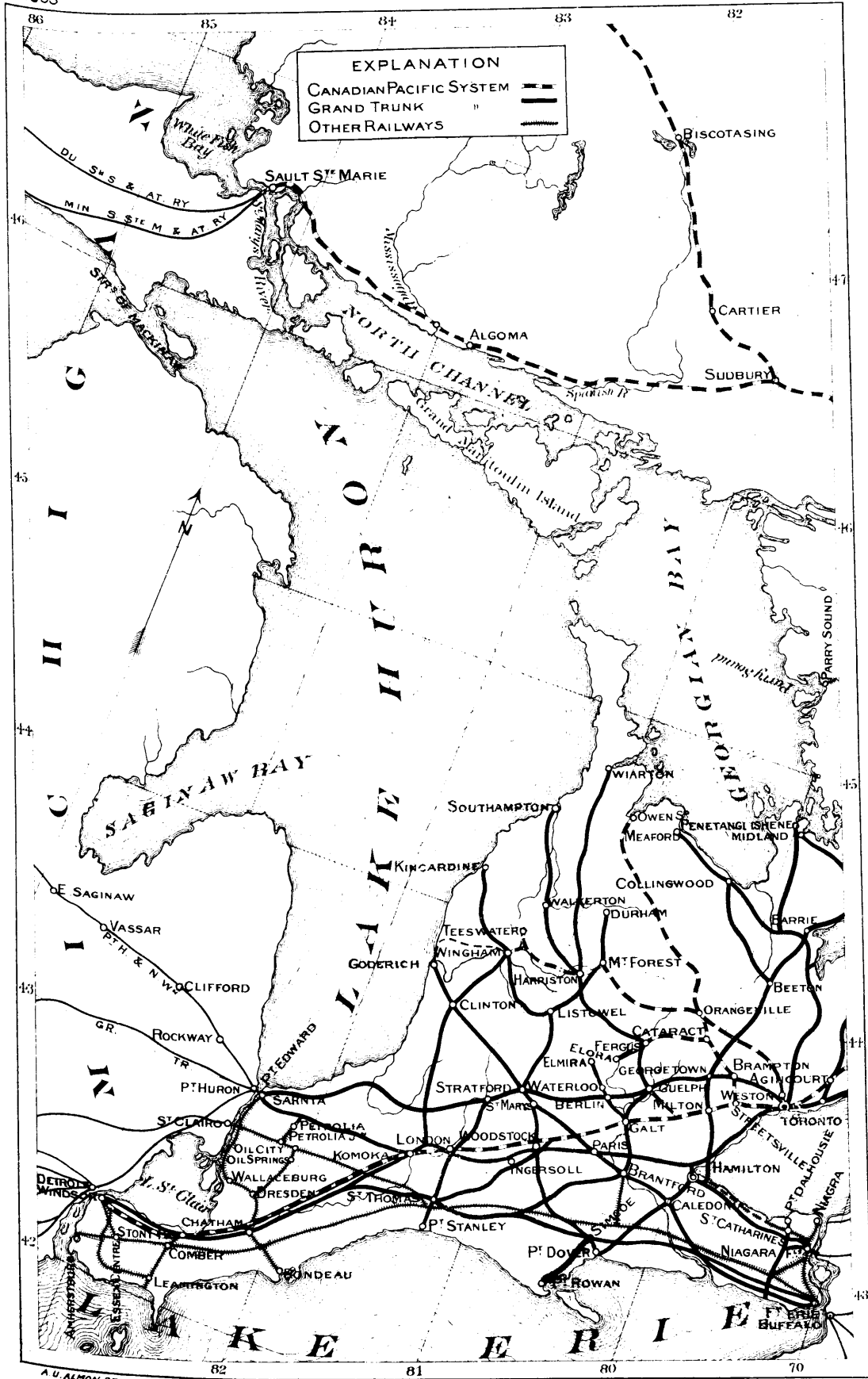
EXPLANATION

- Canadian Pacific System
- - - Grand Trunk
- Government Railways
- Other Railways



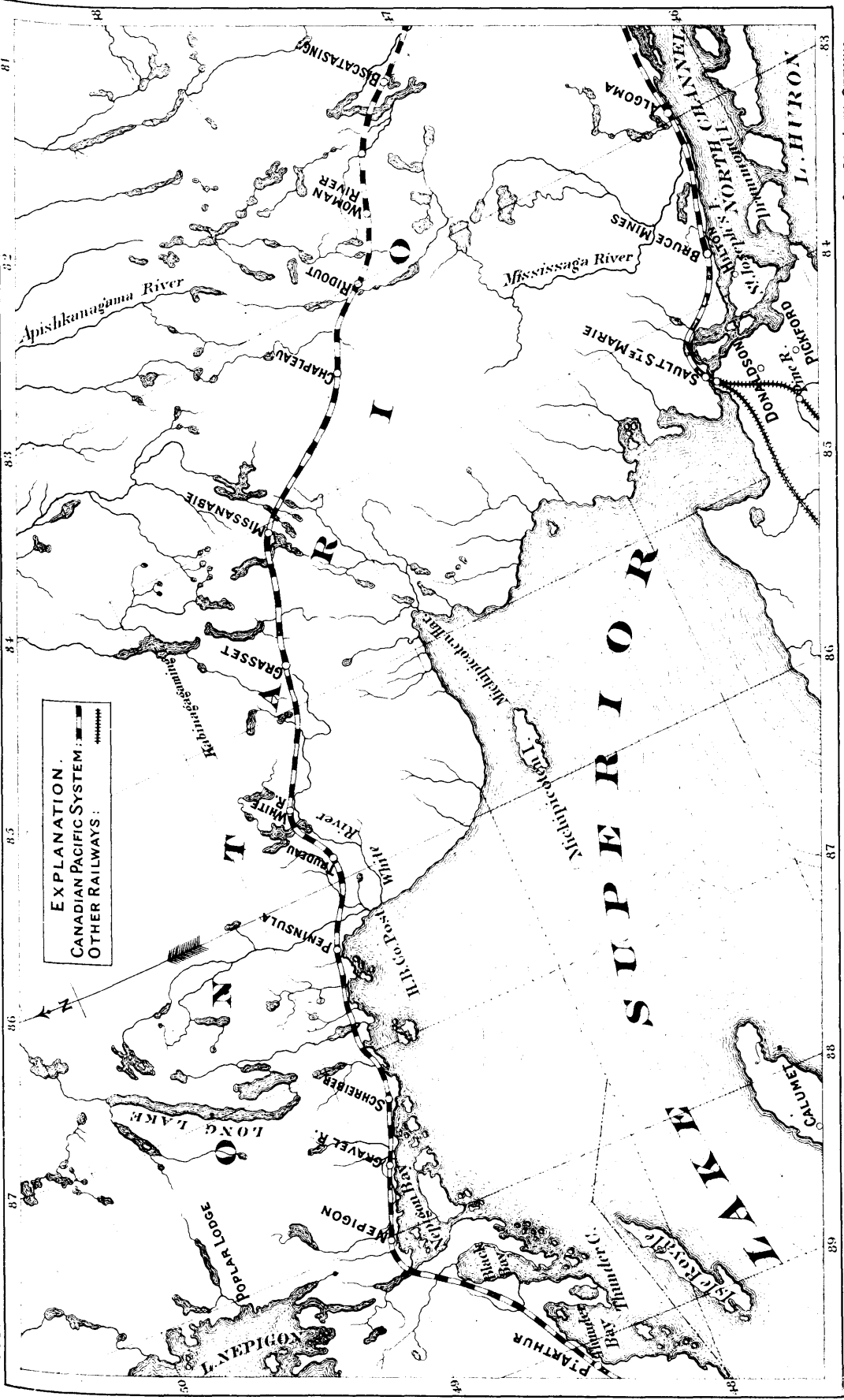
EXPLANATION.
 CANADIAN PACIFIC SYSTEM ———
 GRAND TRUNK SYSTEM ———
 OTHER RAILWAYS - - - - -



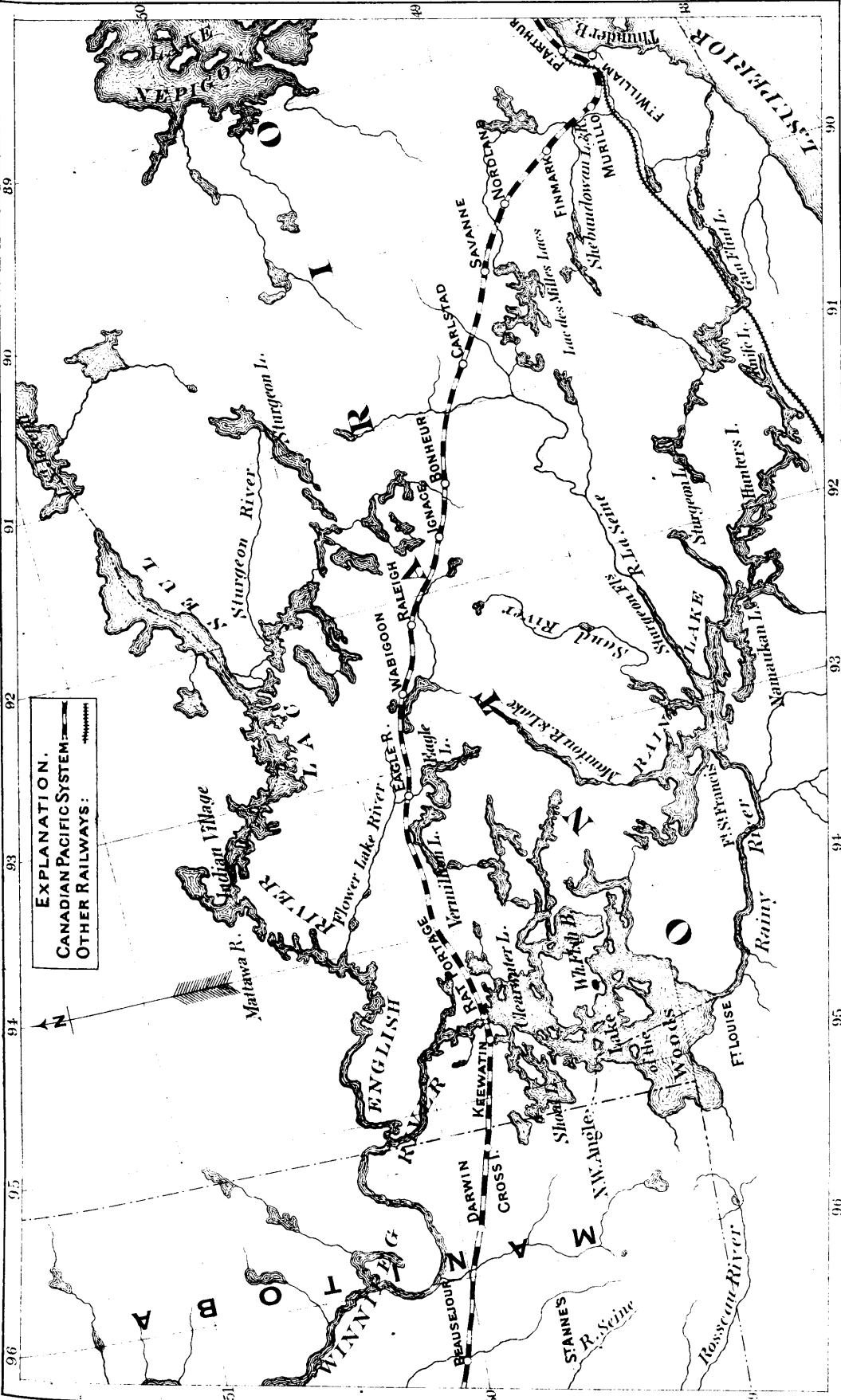


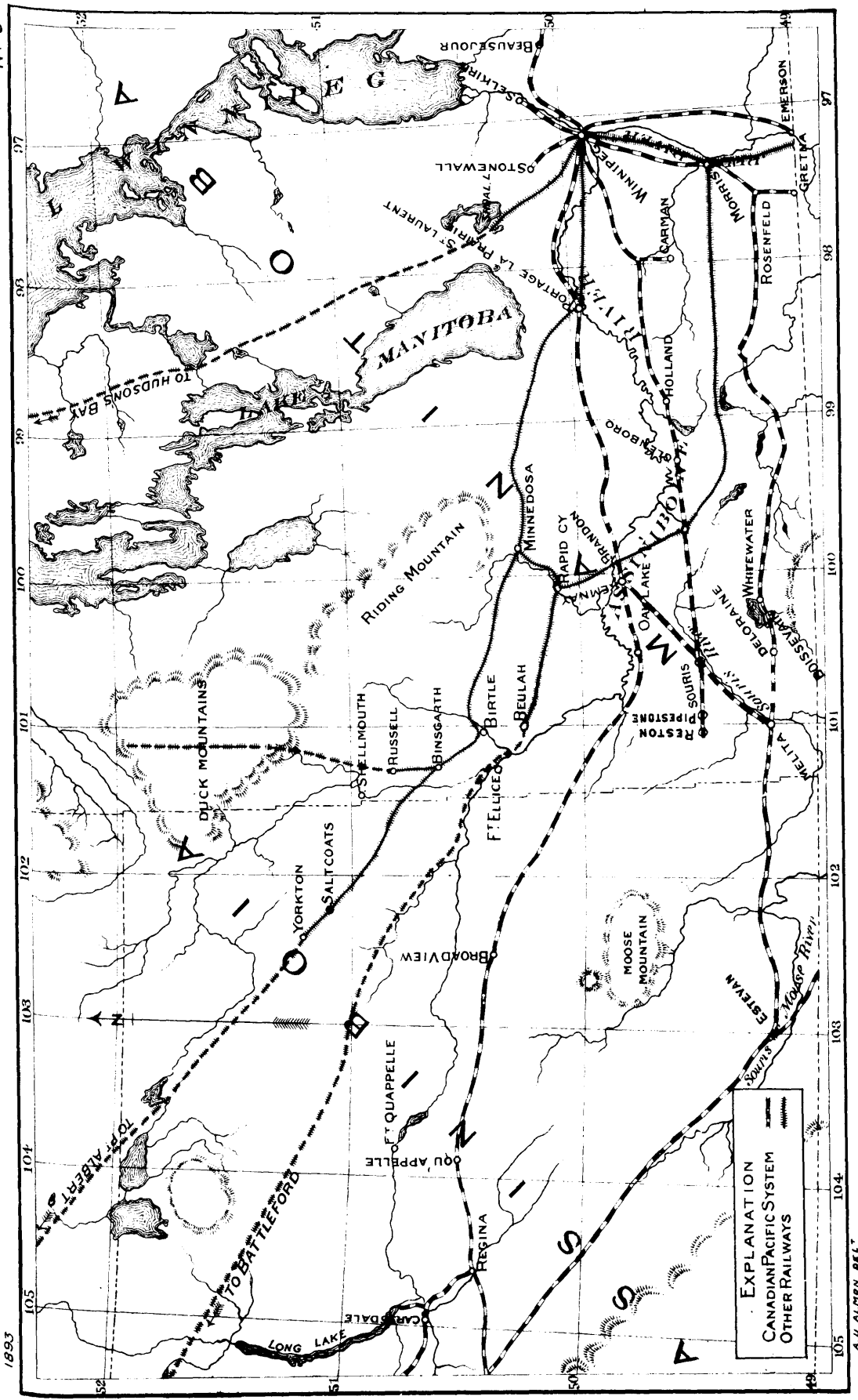
EXPLANATION

- CANADIAN PACIFIC SYSTEM
- GRAND TRUNK "
- OTHER RAILWAYS "

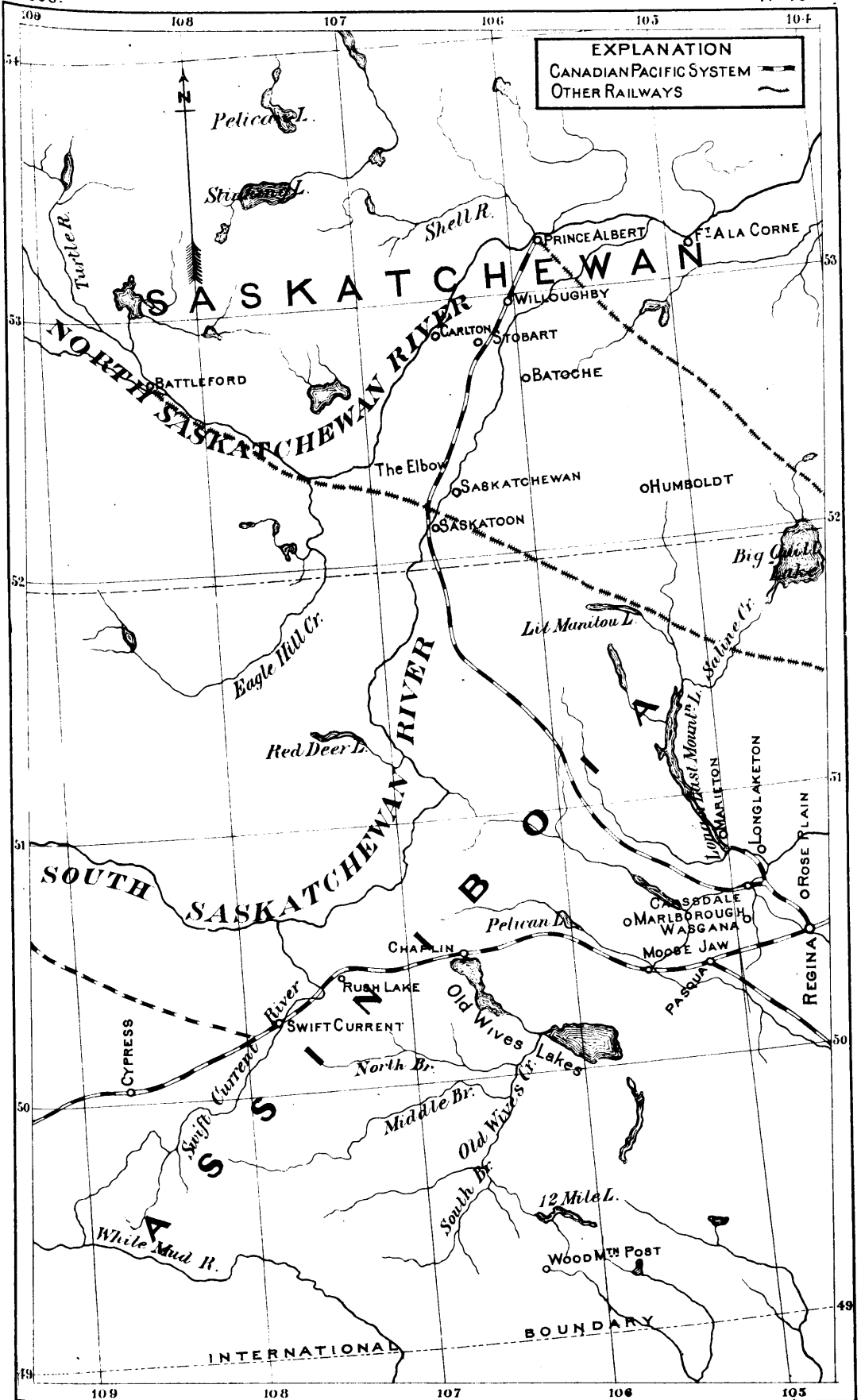


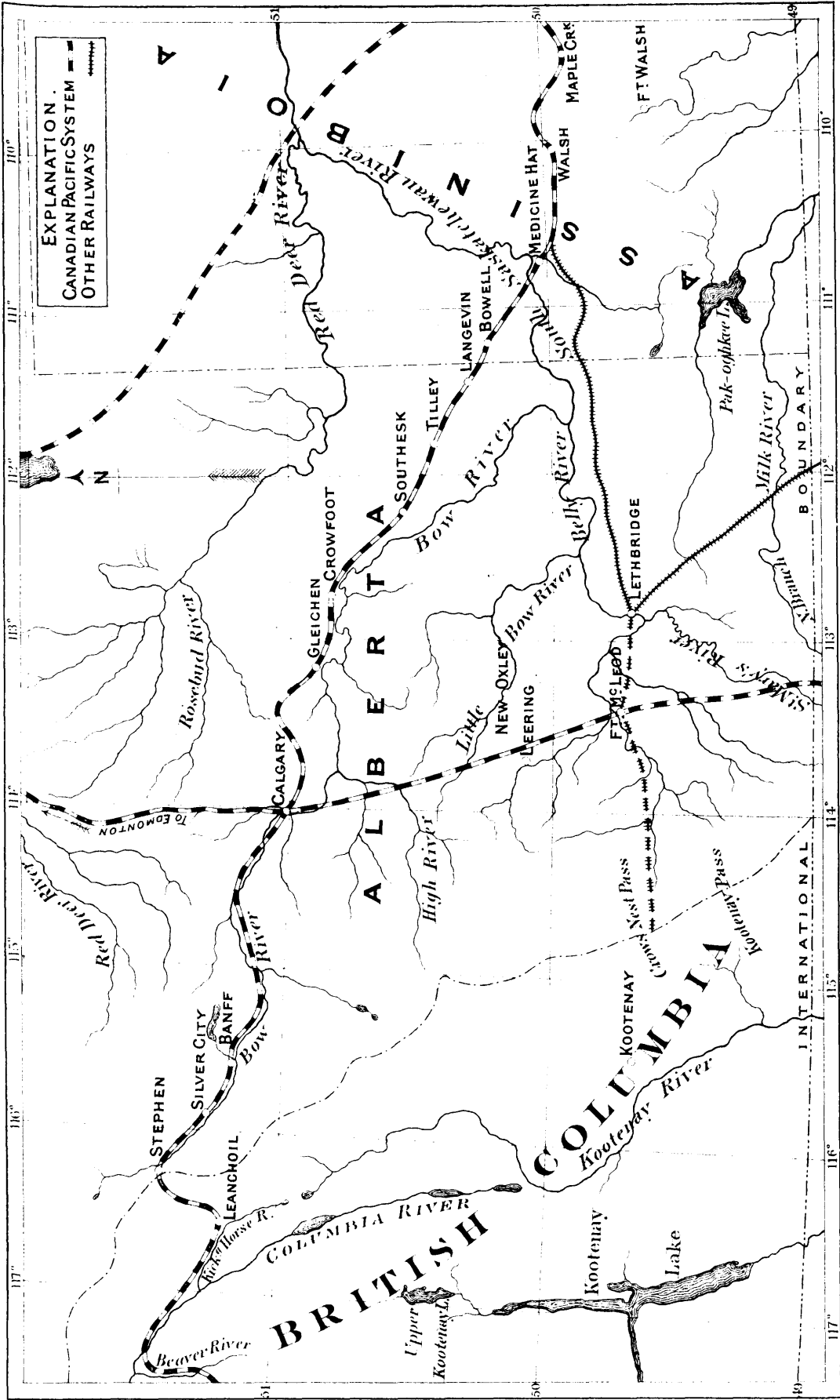
EXPLANATION.
 CANADIAN PACIFIC SYSTEM:
 OTHER RAILWAYS:



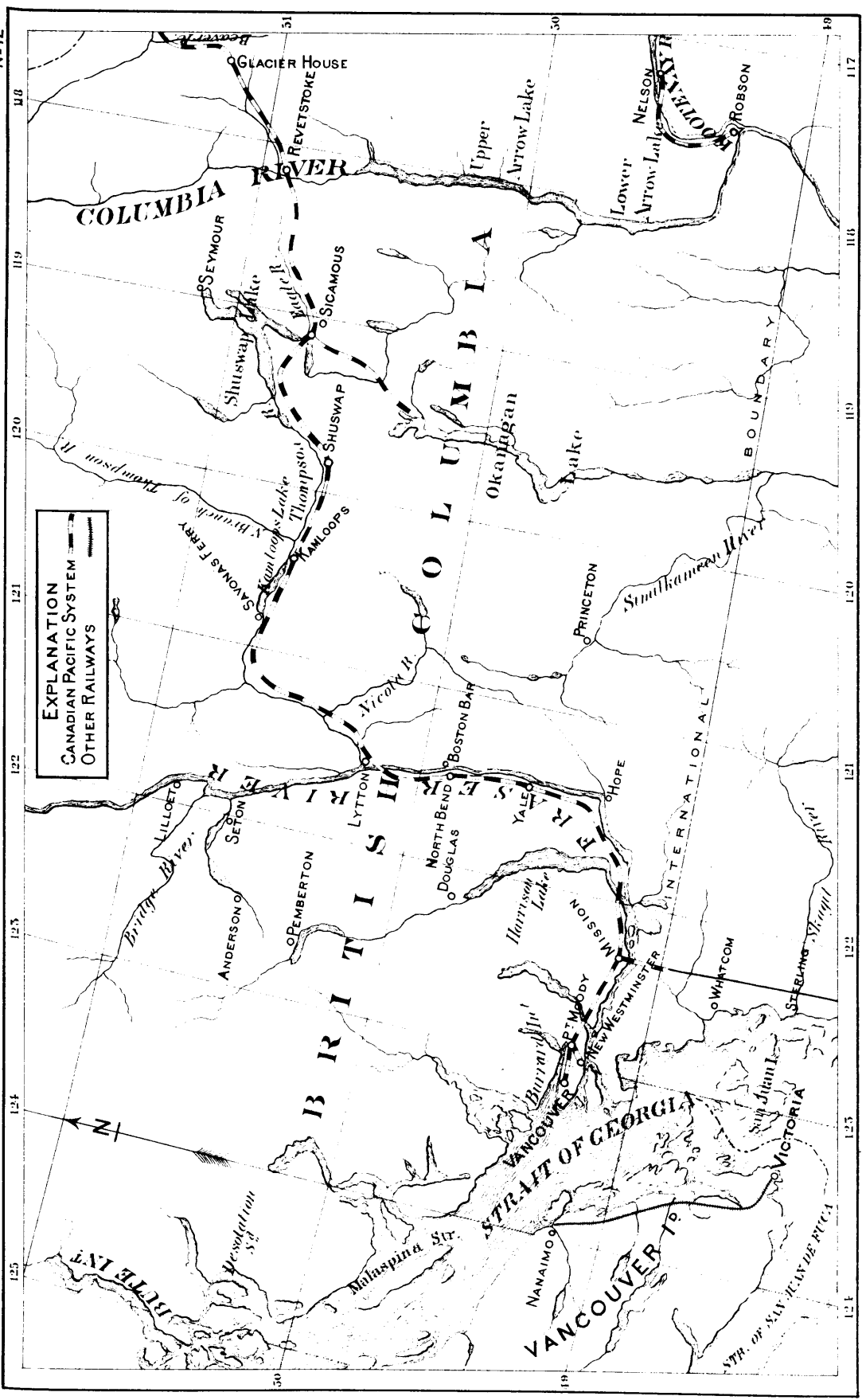


EXPLANATION
 CANADIAN PACIFIC SYSTEM
 OTHER RAILWAYS





EXPLANATION.
 CANADIAN PACIFIC SYSTEM - - -
 OTHER RAILWAYS + + + + +

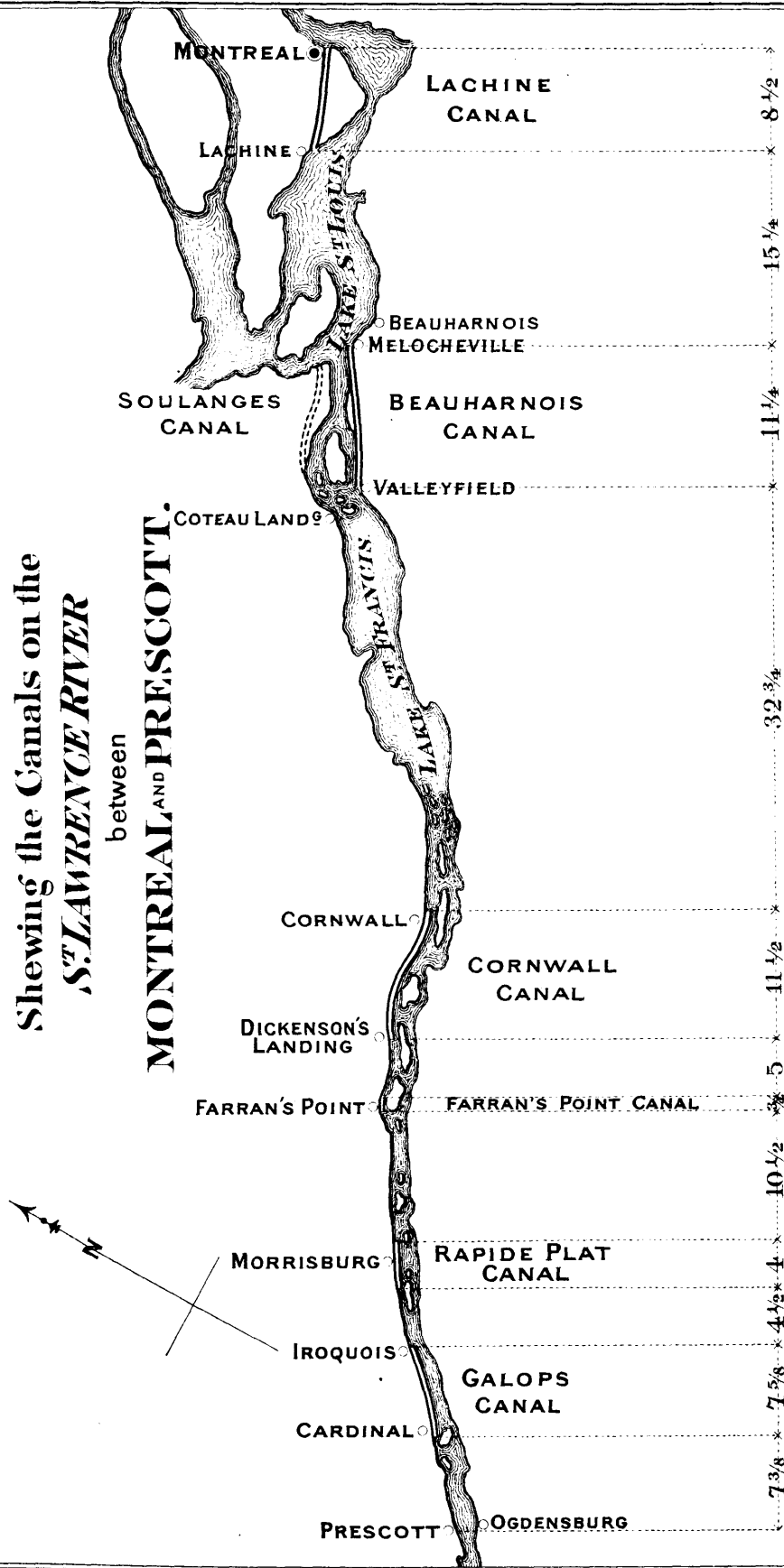


DIAGRAM

Shewing the Canals on the
S^TLAWRENCE RIVER

between

MONTREAL AND PRESCOTT.



Total Canal Navigation . 43 5/8 Miles.
 " River . 75 3/8 " "
 " Prescott to Montreal, 119 " "

Department of Railways and Canals.

APPENDIX No. I.

STATEMENT showing the amount expended by the Department of Railways and Canals, Dominion of Canada, during the Fiscal Year ending 30th June, 1893.

Name of Work.	Capital.	Income.	Staff.	Repairs.
CANALS.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Lachine	445,983 21	50,937 40	53,185 00	51,616 79
Soulanges	210,336 24			
Cornwall	352,536 13		15,173 01	9,688 14
Rapide Plat } Williamsburg Canals.	217,669 28	3,675 00	8,676 03	8,347 97
Galops }	154,524 01			
Welland	8,259 94	25,103 13	104,926 73	65,016 84
Murray	30,838 79		5,449 62	5,341 34
Trent	5,962 47	10,838 90	3,739 86	2,087 17
Grenville and Carillon	207 00	42,298 74	16,762 71	10,669 28
St. Peter's	811 59	9,987 78	2,938 15	1,856 30
Sault Ste. Marie	589,801 25			
St. Lawrence River and Canals	52,643 39			
Chambly		21,127 65	19,310 29	12,451 03
Rideau		24,274 71	35,022 49	18,789 50
Culbute		1,420 65	749 00	13 55
Beauharnois			20,348 34	14,107 11
Ste. Anne's		6,521 88	2,581 08	2,800 03
St. Ours			2,136 66	1,994 34
Miscellaneous works not provided for		1,106 97		
Miscellaneous staff			1,914 86	
Dredge vessels				1,950 61
do Rideau				5,993 13
Salaries and contingencies, canal officers			39,662 83	
Sunday labour			13,747 45	
Miscellaneous—Gratuities		5,533 00	416 66	
Salaries of engineers, draughtsmen and extra clerks		28,640 93		
Surveys and inspections, canals		910 23		
Lachine Canal Commission		948 21		
Total on Canals	2,069,573 30	233,325 18	346,790 77	212,703 13
RAILWAYS.				
Intercolonial	228,984 79		3,045,317 50	
Windsor Branch			16,889 95	
Prince Edward Island			226,422 17	
Annapolis and Digby	2,190 62			
Canadian Pacific	413,836 49			
Cape Breton	59,982 74			
Oxford and New Glasgow	7,922 80			
Surveys and inspections		4,313 73		
Miscellaneous—Gratuity			280 00	
Railway subsidies	624,794 07			
Total on Railways	1,337,711 51	4,313 73	3,288,909 62	
Total on Railways and Canals	3,407,284 81	237,638 91	3,635,700 39	212,703 13

Total amount expended \$7,493,327.24

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

APPENDIX 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, 1893.

ST. PETER'S CANAL.

			Year ending 30th June.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
				\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation			1868	156,523 32			
do	since	do	1869	21,519 72			
do	do	do	1870	70,719 80			
do	do	do	1871		46,193 57		
do	do	do	1872			225 36	555 78
do	do	do	1873			280 00	6,122 07
do	do	do	1874			343 32	6,539 58
do	do	do	1875			725 93	1,558 57
do	do	do	1876	20 97		560 00	889 35
do	do	do	1877	11,125 00		641 55	
do	do	do	1878	63,330 18		600 00	17 45
do	do	do	1879	26,511 51		600 00	
do	do	do	1880	107,337 75		631 50	
do	do	do	1881	80,120 54		400 00	
do	do	do	1882	69,434 76		959 58	
do	do	do	1883	484 00		1,920 54	200 63
do	do	do	1884			2,089 19	232 42
do	do	do	1885	2,471 40		2,601 47	367 85
do	do	do	1886	16,820 15		1,929 11	183 11
do	do	do	1887	2,316 85		2,360 67	297 81
do	do	do	1888	1,087 75	750 00	2,777 13	343 23
do	do	do	1889			3,217 77	1,588 40
do	do	do	1890		500 00	3,085 29	353 38
do	do	do	1891			3,110 15	255 34
do	do	do	1892	972 65	510 53	3,255 30	312 02
do	do	do	1893	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
Total				645,994 94	88,878 70	38,259 71	23,134 53

LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

Department of Railways and Canals.

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		
Total			44,387 53

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

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	8,238 46	53,114 34	22,999 38
do do do	1891	217 53	16,555 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
Total		9,686,684 51	178,843 74	906,189 33	593,853 58

BEAUHARNOIS CANAL.

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 1
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		26 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	14,999 80
do do do	1893			20,348 34	14,107 11
Total		1,611,690 26	142,806 23	418,204 58	328,838 47

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.....	1868	18,442 85	98,378 46
do since 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	
Total		943,178 36	98,378 46

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

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	1868	1,933,152	69	2,786	00	11,244	47	3,774	18
do since do	1869	10,692	04	10,368	16	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	163,993	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	599,401	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
Total.....		4,649,574	35	60,650	66	378,211	91	271,626	49

WILLIAMSBURG CANALS.

Government expenditure prior to Confederation	1868	1,320,655	54			5,745	97	6,442	41
do since 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			8,673	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
Total.....		2,940,551	13	7,163	50	190,432	52	180,925	88

Department of Railways and Canals.

STATEMENTS showing the amounts expended on Constructions, 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			50,773 03
do do do	1870		22,173 72	40,340 45	65,099 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
Total		23,762,294 61	322,989 03	1,984,442 69	1,861,727 18

STE. ANNE'S LOCK AND CANAL.

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	1,730 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
Total		1,170,215 63	50,073 44	55,972 08	64,523 80

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

LEONARD SHANNON,
Accountant.

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			1868	63,053 64	19,817 22	6,301 88	8,911 28
do	since	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
Total				4,025,553 00	116,488 01	361,913 94	254,416 14

CULBUTE LOCK AND DAM.

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		835 53		
do	do	do	1874		38,888 99		
do	do	do	1875	63,659 29			
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
Total				379,494 46	51,313 47	10,341 43	6,007 44

LEONARD SHANNON,

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

Accountant.

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 43	14,005 32
do do do.....	1873		18,070 97	22,841 51	26,074 49
do do do.....	1874		5,793 13	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
Total		4,084,156 87	199,434 25	707,738 93	469,276 83

ST. OURS LOCK.

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.....	18 0		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
Total		121,537 65	95,028 62	49,345 75	50,299 61

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

LEONARD SHANNON,
Accountant.

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	18 6				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 17
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
Total					637,206 76	399,614 50	373,414 90	374,826 17

MURRAY CANAL.

Government expenditure prior to Confederation								
do	since	do	1868			400 00		
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	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 34
do	do	do	1893	30,838 79			5,499 62	5,341 02
Total					1,247,470 26	400 00	16,934 44	9,020 51

LEONARD SHANNON,

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

Accountant.

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
Total.....		1,088,483 87	83,049 99	36,719 31	62,325 83

TAY CANAL.

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		(See Rideau)	
do do do	1891	17,114 78			
do do do	1892	29,771 65			
do do do	1893				
Total.....		476,128 73	748 65		

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

LEONARD SHANNON,
Accountant.

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						
Total					1,475,344	45		949	35			

SOULANGES CANAL.

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		54,235	76						
do	do	do	1893		210,336	24						
Total					264,572	00						

Department of Railways and Canals.

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	414,687 02
do	1871	.....	116,429 54	135,940 81	140,467 52	488,538 76
do	1872	.....	33,289 27	124,137 09	132,086 23	466,847 52
do	1873	.....	127,369 55	148,581 18	186,573 13	486,433 26
do	1874	.....	51,437 05	167,194 40	203,226 85	510,755 99
do	1875	.....	479 00	168,401 21	213,613 86	414,979 59
do	1876	.....	810 75	178,411 80	190,578 45	390,337 04
do	1877	.....	22 30	179,661 40	188,448 51	390,857 37
do	1878	.....	.....	187,521 31	122,251 60	373,814 17
do	1879	.....	.....	191,892 44	115,349 99	337,675 13
do	1880	.....	.....	195,039 33	147,167 52	341,598 14
do	1881	.....	7,246 69	197,573 62	154,653 63	361,538 17
do	1882	.....	55,025 03	224,572 61	187,399 02	325,231 54
do	1883	.....	62,503 14	269,415 01	178,617 86	361,604 01
do	1884	.....	60,993 99	280,657 29	192,219 38	372,561 69
do	1885	.....	58,297 59	280,226 20	201,708 47	321,289 47
do	1886	.....	31,984 02	282,323 63	198,251 97	328,977 43
do	1887	.....	65,983 06	285,172 62	198,888 84	321,784 88
do	1888	.....	120,561 59	292,498 76	201,928 93	317,902 04
do	1889	.....	162,015 49	301,040 23	240,261 36	333,188 90
do	1890	.....	146,853 54	290,516 63	176,089 00	354,816 92
do	1891	.....	165,843 87	294,562 12	204,768 45	349,431 90
do	1892	.....	194,129 61	293,115 58	231,089 54	324,475 24
do	1893	.....	196,185 84	291,388 97	204,759 30	357,089 87
Total.	.....	59,210,131 84	1,941,198 13	5,608,661 52	4,550,801 97	9,890,578 56

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

CANALS,

Dr.

No. 1.—COLLECTORS of Canal Tolls

Balances due by Collectors, 1st July, 1892.	CANAL REVENUE.				Total Canal Revenue accrued.	Hydraulic Rents and Revenue.	Total.
	Tolls.	Wharfage and Storage.	Fines.	Other Receipts.			
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
591 90	135,710 76				135,710 76	132 12	136,434 78
164 24	64,675 57		142 09	5 00	64,822 66	285 22	65,272 12
56 04	439 97				439 97	1,600 00	2,096 01
1 76	6 80				6 80		8 56
73 45	477 05			158 52	635 57	646 00	1,55 02
27 69	766 39		40 00		806 39	3,027 76	3,861 84
6 06	29 91				29 91		35 97
921 14	202,106 45		182 09	163 52	202,452 06	5,691 10	209,064 30
75 17	1,132 46		15 00	18 75	1,166 21	1,707 50	2,948 88
1,621 90	19,348 36		10 00		19,358 36	800 00	21,780 26
94 60	788 50		70 00		858 50	2,661 50	3,614 60
32 34	2,066 41	18 39		1,631 43	3,716 23		3,748 57
	28,515 28	2,686 95	29 00	13,327 55	44,558 78	24,204 14	68,762 92
41 47	15,349 83				15,349 83		15,391 30
1,865 48	67,200 84	2,705 34	124 00	14,977 73	85,007 91	29,373 14	116,246 53
212 41	9,651 02		15 00	1 00	9,667 02	80 00	9,959 43
0 20	11,461 90				11,461 90	50 00	11,512 10
42 39	723 30		5 00		728 30		770 69
255 00	21,836 22		20 00	1 00	21,857 22	130 00	22,242 22
	22,786 40				22,786 40		22,786 40
248 12	16,704 65			16 00	16,720 65	18 00	19,986 77
22 58	84 01		5 00	12 00	101 01	3 00	126 59
172 92	1,586 03		5 00		1,591 03		1,763 95
443 62	41,161 09		10 00	28 00	41,199 09	21 00	41,663 71
	3,486 68	186 32		172 00	3,845 00	1,324 25	5,169 25
	990 03				990 03	1,123 60	2,113 63
	668 72		13 00	4 00	685 72	190 70	876 42
	5,145 48	186 32	13 00	176 00	5,520 75	2,638 55	8,159 30
77 18	2,948 18				2,948 18		3,025 36
69 37	619 94				619 94		689 31

Department of Railways and Canals.

1892-93.

in Account with Revenue.

Cr.

COLLECTION DIVISIONS.	DEPOSITED TO THE CREDIT OF THE RECEIVER GENERAL.		Balances due by Collectors on 30th June, 1893.	Total.
	On account of Canal Revenue.	On account of Hydraulic Rents, &c.		
<i>Welland Canal.</i>				
	\$	cts.	\$	cts.
Port Colborne	136,165	67	136	99
Port Dalhousie	64,986	90		
Dunnville	496	01	1,600	00
Port Maitland	8	56		
Port Robinson	579	51	129	51
St. Catharines	834	08	3,027	76
Chippawa	30	17	5	80
Totals	203,100	90	272	30
<i>St. Lawrence Canals.</i>				
Beauharnois	1,241	38	1,707	50
Cornwall	20,619	50	800	00
Cardinal	953	10	2,661	50
Lachine	3,732	57		16
Montreal	44,558	78	24,204	14
Kingston	15,144	64		246
Totals	86,249	97	29,373	14
<i>Chambly Canal.</i>				
Chambly	9,879	43	80	00
St. Johns	11,462	10	50	00
St. Ours	717	82		52
Totals	22,059	35	130	00
<i>Ottawa Canals.</i>				
Ottawa	22,786	40		
Grenville	16,680	72	18	00
Carillon	93	66	23	00
Ste. Anne's Lock	1,633	31		9
Totals	41,194	09	428	62
<i>Rideau Canal.</i>				
Ottawa	3,845	00	1,324	25
Kingston Mills	960	91	1,071	10
Smith's Falls	685	72	190	70
Totals	5,491	63	2,586	05
St. Peter's Canal	2,951	61		73
Murray Canal—Brighton	583	55		105

CANALS,

Dr.

No. 1.—COLLECTORS of Canal Tolls

Balances due by Collectors, 1st July, 1892.	CANAL REVENUE.				Total Canal Revenue accrued.	Hydraulic Rents and Revenue.	Total.
	Tolls.	Wharfage and Storage.	Fines.	Other Receipts.			
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
21 02	61 07	.....	.....	.....	61 07	.....	82 09
41 33	336 09	.....	.....	44 00	380 09	.....	421 42
7 50	26 36	.....	.....	.....	26 36	54 00	87 86
1 93	23 30	.....	.....	0 25	23 55	.....	25 48
33 11	147 57	.....	.....	.....	147 57	9 00	189 68
8 90	73 52	.....	.....	.....	73 52	.....	82 42
113 79	667 91	.....	.....	44 25	712 16	63 00	888 95
3,745 58	341,686 06	2,891 66	349 09	15,390 50	360,317 31	37,916 79	401,979 68
					41,144 23	.....	.....
					319,173 08	.....	.....

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

Department of Railways and Canals.

1892-93—Continued.

in Account with Revenue.

Cr.

COLLECTION DIVISIONS.	DEPOSITED TO THE CREDIT OF THE RECEIVER GENERAL.		Balances due by Collectors on 30th June, 1893.	Total.
	On account of Canal Revenue.	On account of Hydraulic Rents, &c.		
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Trent Valley Canal.</i>				
..... Burleigh.....	67 91		14 18	82 09
..... Bobcaygeon.....	370 13		51 29	421 42
..... Fenelon Falls.....	28 90	54 00	4 96	87 86
..... Hastings.....	21 68		3 80	25 48
..... Peterboro'.....	162 16	9 00	18 52	189 68
..... Buckhorn.....	74 62		7 80	82 42
..... Totals.....	725 40	63 00	100 55	888 95
..... Grand Total.....	362,356 50	37,884 29	1,738 89	401,979 68
..... Less—Refunds per Statement 3.....				
..... Net Revenue.....				

LEONARD SHANNON,
Accountant.

HYDRAULIC AND OTHER RENTS.
No. 2.—Summary Statement of Lessees' Accounts.

Cr.

Dr.

Balance due 1st July, 1892.	Accrued during the year ended 30th June, 1893.	- Total.	Name of Work.	Abatement or Overcharge.	Paid into hands of Collectors.	Balance due 30th June, 1893.	Total.
\$ cts.	\$ cts.	\$ cts.		\$ cts.	\$ cts.	\$ cts.	\$ cts.
27,266 83	7,941 42	35,208 25	Welland Canal.....		5,608 76	29,599 49	35,208 25
7,495 62	859 00	8,354 62	Williamsburg Canal.....	3,086 50	2,661 50	2,606 62	8,354 62
777 50	795 00	1,572 50	Cornwall do.....		800 00	772 50	1,572 50
5,714 50	3,257 00	8,971 50	Beauharnois do.....	40 00	1,707 50	7,224 00	8,971 50
26,692 63	24,688 79	51,381 42	Lachine do.....		24,196 14	27,185 28	51,381 42
236 84	145 00	381 84	Chambly do.....		130 00	251 84	381 84
7,998 25	1,349 80	9,348 05	Rideau do.....	1,352 21	2,638 55	4,757 29	9,348 05
94 00	76 00	170 00	Sundry canals.....		92 00	78 00	170 00
354 18	.....	354 18	Land Sales.		.....	354 18	354 18
76,630 35	39,112 01	115,742 36		5,078 71	37,834 45	72,829 20	115,742 36

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

Department of Railways and Canals.

No. 1.—STATEMENT SHOWING REFUNDS OF CANALS TOLLS PAID DURING YEAR 1892-93.

Date.	To whom paid.	Refunds of Tolls on.	Canal.	Amount.	Total.
				\$ cts.	\$ cts.
1892.					
Aug. 9	The Ottawa Transportation Co...	Overpayment by barge	Grenville...	30 07	
do 9	do do	"Victor"			
Oct. 31	James Williamson.....	Overpayment by boat	do	4 20	
		"Geo. Tice"			
		Overpayment by barge	do	16 38	
		"Thurso"			
1893.					
Jan. 2	Poupore & Fraser	Timber for canal purposes	do	159 67	
1892.		Total refunds, Gren-			
		ville Canal			
Aug. 9	The Ottawa Transportation Co...	Overpayment of tolls...	St. Lawrence	64 81	210 32
do 31	Kingston and Montreal Forward-				
	ing Co.....	Wheat.....	do ..	67 99	
Oct. 12	Montreal Transportation Co.....	Grain.....	do ..	1,609 01	
do 17	G. E. Jaques & Co.....	do	do ..	654 74	
Nov. 16	W. A. Geddes.....	do	do ..	194 48	
do 19	Montreal Transportation Co.....	do	do ..	751 66	
do 23	W. A. Geddes.....	do	do ..	64 35	
Dec. 10	Æ. Mackay's Sons	do	do ..	72 15	
do 10	G. E. Jaques & Co	do	do ..	58 24	
do 22	do	do	do ..	27 82	
do 22	Montreal Transportation Co.....	Cement for canal purposes	do ..	17 78	
do 22	Æ. Mackay's Sons	Grain.....	do ..	31 20	
do 28	Montreal Transportation Co.....	do	do ..	651 43	
do 28	Kingston and Montreal Forward-				
	ing Co.....	Wheat.....	do ..	10 79	
1893.					
Jan. 3	Montreal Transportation Co.....	Grain	do ..	111 77	
May 8	Kingston and Montreal Forward-				
	Co.....	Coal for canal purposes ..	do ..	334 54	
June 28	Æ. Mackay's Sons	Iron and cement for canal			
		purposes.....	do ..	57 00	
do 30	do	Cement for canal purposes	do ..	42 00	
do 30	Montreal Transportation Co.....	do	do ..	114 15	
1892.		Total refunds, St.			
		Lawrence Canal			
Aug. 9	W. G. Craig	Chemical ore.....	Rideau	48 65	4,935 91
1893.					
June 30	C. B. Allen	Overpayment on coal....	do	4 16	
1892.		Total refunds, Rideau			
		Canal			
Oct. 22	James Carruthers & Co.....	Grain	Lachine	155 70	52 81
Nov. 7	E. F. Craig.....	do	do	42 68	
Dec. 10	do	do	do	17 42	
do 22	James Carruthers.....	do	do	203 06	
1893.					
Jan. 12	Montreal Transportation Co.....	do	do	119 88	
do 23	Montreal Warehousing Co.....	do	do	525 21	
Feb. 1	Prosper La Plante.....	Stone for canal purposes.	do	137 67	
		Total refunds, La-			
		chine Canal			1,201 62

No. 1.—REFUNDS OF CANALS TOLLS, 1892-93—*Concluded.*

Date.	To whom paid.	Refunds of Tolls on.	Canal.	Amount.	Total.
1892.				\$ cts.	\$ cts.
.....	Kingston and Montreal Trans. Co.	Wheat.	Welland....	2,106 72	
Aug. 31	Montreal Transportation Co.	do	do	4,095 36	
Sept. 6	do do	Grain	do	3,945 96	
do 23	do do	Wheat	do	5,425 02	
do 23	Kingston and Montreal Forward- ing Co.	do	do	983 88	
Oct. 8	Montreal Transportation Co.	Grain	do	2,144 34	
do 13	do do	do	do	2,654 82	
do 13	J. D. St. Pierre.....	do	do	6 27	
do 26	Kingston and Montreal Forward- ing Co.	do	do	1,813 86	
do 31	H. O. Jackson	Wheat.	do	10 00	
Nov. 3	Montreal Transportation Co.	Grain	do	3,030 48	
do 3	do do	Wheat.	do	75 60	
do 5	Kingston and Montreal Forward- ing Co.	Grain	do	839 70	
Dec. 10	do do	do	do	1 847 88	
do 13	Fred. Elliott.....	Corn.	do	38 20	
do 13	Jas. Carruthers & Co.	Grain	do	6 15	
do 13	A. Mackay's Sons	do	do	1,137 60	
do 17	G. E. James & Co.	do	do	543 78	
do 17	Montreal Transportation Co.	do	do	2,582 28	
1893.					
Jan. 24	Ogdensburg Transit Co	Over payment by str. "Haskell"	do	13 80	
do 24	Richelieu and Ontario Navigation Co.	Over payment by str. "Corinthian"	do	2 31	
do 24	Wm. White.....	Over payment by str. "Hoboken"	do	11 20	
Mar. 27	A. Mackay's Sons	Cement for canal purposes	do	50 64	
May 8	W. W. Ogilvie	Wheat	do	1,279 62	
do 8	Kingston and Montreal Forward- ing Co.	Corn.	do	95 30	
do 19	Eben Ward.	Over payment by str. "Eben Ward"	do	2 80	
		Total refunds, Wel- land Canal			34,743 57
		Total refunds.			41,144 23

LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

Department of Railways and Canals.

INTERCOLONIAL RAILWAY.

(Including amounts paid to Nova Scotia Railway and European and North American Railway, N.B.).

		Year.	Construction.	Working Ex- penses includ- ing Windsor Branch Railway.	Revenue received, in- cluding Wind- sor Branch Railway.
			\$ cts.	\$ cts.	\$ cts.
Expenditure prior to Construction.....			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	2,405,858 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 74	3,062,207 45	3,099,815 20
Total.....			*47,681,990 32	51,612,830 46	45,166,168 95

* Including \$296,872.90 charged to "Consolidated Fund."

Total cost of construction as above \$ 47,681,990 32

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

Agreeing with balance sheet, Public Accounts, 1892-93, page xiv..... \$47,385,117 42

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

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		*	†
Total					1,324,042 81	538,094 06	462,465 68

*Included in Intercolonial Railway working expenses. †Included in Intercolonial Railway revenue.

CARLETON BRANCH RAILWAY.

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	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			
Total					88,410 48		

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

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	*
Total		3,701,113 93	

* Included in Intercolonial Railway working expenses.

OXFORD AND NEW GLASGOW RAILWAY.

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	280,932 35	
do do do	1889	840,553 57	
do do do	1890	434,074 60	
do do do	1891	220,386 39	
do do do	1892	48,745 23	*
do do do	1893	7,922 80	*
Total		1,833,114 94	

* Included in Intercolonial Railway working expenses.

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

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			
Total.....		333,924 73		

PRINCE EDWARD ISLAND RAILWAY.

Government expenditure prior to Confederation.....		3,114,735 11		
do since do.....	1874		750 00	
do do 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	252,908 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	174,253 05
do do do.....	1892	8,300 49	289,706 38	157,442 69
do do do.....	1893		226,422 17	162,690 42
Total.....		3,750,565 38	4,178,785 52	2,662,471 91

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

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		
Total.....		62,457,995 57	318,216 30	396,473 75

* Agrees with Public Accounts balance sheet, 1892-93, page xiv.

(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

LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

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		
Total			616,979 89		

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

LEONARD SHANNON,
Accountant.

Department of Railways and Canals.

RECAPITULATION—RAILWAYS.

	Year.	Construction.		Working Expenses.		Revenue Received.	
		\$	cts.	\$	cts.	\$	cts.
Government expenditure prior to Confederation	1868	13,881,460	65	359,961	08	420,752	58
do since do	1869	483,353	65	387,548	47	455,022	76
do do do	1870	282,615	18	445,208	75	471,245	09
do do do	1871	1,729,381	49	2,946,930	45	442,993	31
do do do	1872	5,620,569	67	595,076	22	565,713	52
do do do	1873	5,763,268	81	1,011,892	60	622,900	56
do do do	1874	5,763,268	81	1,847,925	24	703,458	26
do do do	1875	3,925,123	69	1,581,934	24	893,430	17
do do do	1876	5,018,427	85	1,497,128	22	886,087	42
do do do	1877	4,497,434	75	1,890,268	80	966,922	42
do do do	1878	3,209,502	16	2,032,873	05	1,285,110	27
do do do	1879	2,643,741	73	2,233,496	34	1,514,846	38
do do do	1880	2,507,053	71	1,851,489	26	1,419,955	60
do do do	1881	6,109,077	14	2,220,421	39	1,739,137	25
do do do	1882	5,577,236	73	2,310,638	54	2,200,486	25
do do do	1883	5,175,046	61	2,636,551	70	2,237,583	39
do do do	1884	11,707,619	02	2,613,508	87	2,541,205	41
do do do	1884	14,013,074	89	2,749,710	53	2,551,937	97
do do do	1885	11,224,244	54	2,819,973	50	2,624,243	07
do do do	1886	4,443,220	17	3,152,650	40	2,628,336	35
do do do	1887	1,846,887	18	3,021,076	62	2,840,747	88
do do do	1888	1,765,582	11	3,513,063	67	3,166,253	22
do do do	1889	2,709,857	37	3,846,044	42	3,167,542	67
do do do	1890	2,392,767	99	3,949,263	73	3,203,874	11
do do do	1891	1,184,317	34	3,748,597	77	3,181,888	56
do do do	1892	417,425	73	3,288,629	62	3,136,393	51
do do do	1893	711,917	44			3,262,505	62
Total.....		121,787,138	05	56,647,926	34	48,687,580	29

LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

APPENDIX

STATEMENT showing Subsidies voted for Railways as to which contracts

Subsidies voted.		Railways.			
Authority.	Amount.		1883-84	1884-85	1885-86
	\$ cts.		\$	\$	\$
46 Vic., cap. 25	156,800 00	International Railway, Quebec.....	144,000		
53 do 2					
45 do 14	384,000 00				
46 do 25	80,000 00				
48-9 do 59	96,000 00				
49 do 10	186,295 00				
50-1 do 24	28,800 00	Quebec and Lake St. John Railway, Quebec	32,000	37,027	186,745
51 do 3	96,000 00				
52 do 3	64,000 00				
53 do 2	30,000 00				
54-5 do 8	5,250 00				
46 do 25	89,600 00				
49 do 10	70,000 00	Napanee, Tamworth and Quebec Railway, Ontario.....	32,000	57,600	
50-1 do 24	12,800 00				
52 do 3	32,000 00				
47 do 8	272,000 00	Pontiac Pacific Junction Railway, Quebec.....		49,090	41,000
46 do 25	115,200 00				
47 do 8	76,800 00	Caraquet Railway, N.B.....		32,000	76,800
50-1 do 24	32,000 00				
47 do 8	32,000 00				
49 do 10	57,600 00				
52 do 3	22,400 00	Great Northern Railway, Quebec.....		25,088	
53 do 2	48,000 00				
54-5 do 8	28,100 00				
56 do 2	25,600 00				
47 do 8	48,000 00	Kingston and Pembroke Railway, Ontario.....		48,000	
45 do 14					
46 do 26	660,000 00	Northern and Pacific Junction Ry., Ontario.....		154,440	1,051,590
53 do 2	660,000 00				
47 do 8	128,000 00				
48-9 do 59	19,200 00	Northern and Western Railway, N.B....			128,000
49 do 10	32,000 00				
48-9 do 59	140,800 00				
47 do 8					
51 do 3	60,342 00	Quebec Central Railway, Que.....			60,342
53 do 2	288,000 00				
48-9 do 59	72,000 00	Montreal and Sorel Railway, Quebec.....			64,972
53 do 2	40,000 00				
48-9 do 59	30,000 00				
50-1 do 24	64,000 00	Montreal and Champlain Junction Ry., Que.			30,000
51 do 3	9,600 00				
46 do 25	38,400 00	Elgin, Petitecodiac & Havelock Railway, N.B.....			38,400
51 do 3	44,252 82				
47 do 8	22,400 00	St. Louis and Richibucto Railway, N.B.....			22,400
48-9 do 59	96,000 00				
49 do 10	38,400 00	Canada Atlantic Railway, Ont.....			48,480
50-1 do 24	180,000 00				
47 do 6	750,000 00	Esquimalt and Nanaimo Railway, B.C.....			422,520
47 do 8	96,000 00	Erie and Huron Railway, Ont.....			
46 do 25					
47 do 8	320,000 00	Baie des Chaleurs Railway, Que.....			
52 do 3	300,000 00				
48-9 do 59	118,400 00	New Brunswick and Prince Edward Ry., N.B.....			

Department of Railways and Canals.

No. 3.

have been entered into and payments made, up to 30th June, 1893.

Payments.							Total to 30th June, 1893.
1886-87.	1897-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	
\$	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
	8,960 00		3,840 00				156,800 00
202,219	232,013 00	19,911 00	38,440 00	70,350 00	26,222 73	76,471 77	921,399 50
			95,744 00	7,600 00		1,856 00	194,800 00
60,580	24,158 00						174,828 00
61,200	40,050 00	13,950 00					224,000 00
			20,000 00	9,500 00	24,100 00		78,688 00
							48,000 00
78,370			35,000 00	600 00			1,320,000 00
18,200	159,400 00	6,300 00	100 00				312,000 00
							60,342 00
4,950			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
44,384		9,491 20	149,812 00	30,188 00			282,355 20
327,480							750,000 00
96,000							96,000 00
250,000	50,300 00	75,200 00	148,675 00				524,175 00
97,440	16,000 00						113,440 00

APPENDIX No. 3.—Statement showing Subsidies voted for Railways

Subsidies voted.		Railways.	1883-84	1884-85	1885-86.
Authority.	Amount.				
	\$ cts.		\$	\$	\$
50-1 Vic., c. 24	217,600 00	St. Lawrence, Lower Laurentian and Saguenay Railway, Que			
49 do 10	11,200 00	L'Assomption Railway, Quebec			
49 do 10	32,000 00	} Great Eastern Railway, Que.			
50-1 do 24	96,000 00				
56 do 2	64,000 00	} Irondale, Bancroft and Ottawa Ry., Ont.			
47 do 8	160,000 00				
52 do 3					
49 do 10	96,000 00	} Buctouche and Moncton Railway, N.B.			
50-1 do 24	6,400 00				
47 do 8	51,200 00	} Albert Southern Railway, N.B.			
52 do 3					
48-9 do 59	65,200 00	} Lake Témiscamingue Colonization Ry., Que.			
50-1 do 24					
49 do 10	38,400 00	} Joggins Railway, N.S.			
50-1 do 24	3,000 00				
45 do 14	240,000 00	} Témiscouata Railway, N.B. and Quebec			
48-9 do 58	258,000 00				
51 do 3	100,000 00				
53 do 2	51,200 00	} Leamington and St. Clair Railway, Ont.			
48-9 do 59	44,800 00				
50-1 do 24	6,400 00	} Toronto, Grey and Bruce Railway, Ont.			
49 do 10	16,000 00				
50-1 do 24	22,400 00	} Dominion Lime Co., Quebec			
49 do 10	256,000 00				
53 do 2		} West Ontario Pacific Railway, and Ontario and Quebec Railway			
50-1 do 24	96,000 00				
52 do 3	14,400 00	} Drummond County Railway, Quebec			
53 do 2	76,800 00				
48-9 do 59	128,000 00	} Brockville, Westport and Sault Ste. Marie Railway, Ontario			
53 do 2					
49 do 10	32,000 00	} Montreal and Lake Maskinongé Railway, Quebec			
53 do 2	10,200 00				
50-1 do 24	54,400 00	South Norfolk Railway, Ontario			
50-1 do 24	51,200 00	Guelph Junction Railway, Ontario			
48-9 do 59	22,400 00	} Belleville and North Hastings Railway, Ontario			
49 do 10					
49 do 10	108,800 00	} Hereford Railway, Quebec			
52 do 3	48,000 00				
50-1 do 24	118,400 00	Lake Erie, Essex and Detroit River Railway, Ontario			
50-1 do 24	96,000 00	Beaubarnois Junction Railway, Quebec			
50-1 do 24	38,400 00	} St. Catharines and Niagara Central Railway, Ontario			
52 do 3	64,000 00				
52 do 3	30,000 00	Fredericton and St. Mary's Railway Bridge Co., N.B.			
50-1 do 24	9,600 00	Harvey Branch Railway Co., N.B.			
50-1 do 24	108,800 00	} Nova Scotia Central Railway Co., N.S.			
51 do 3	147,200 00				
50-1 do 24	44,800 00	Cumberland Railway and Coal Co., N.S.			
52 do 3	19,200 00	Pontiac and Renfrew Railway Co., Ont.			
52 do 3	54,400 00	Thousand Islands Railway Co., Ontario			
52 do 3	96,000 00	Quebec, Montmorency and Charlevoix Railway, Quebec			
52 do 3	375,000 00	St. Clair Frontier Tunnel Co., Ontario			
50-1 do 24	57,600 00	Brantford, Waterloo and Lake Erie Railway, Ontario			
51 do 3	287,200 00	} Port Arthur, Duluth and Western Ry., Ont.			
53 do 2					
50-1 do 24	192,000 00	} Montreal and Ottawa Ry., Ont.			
53 do 2					
50-1 do 24	44,800 00	} Cornwallis Valley Ry., N.S.			
52 do 3					
52 do 3	320,000 00	Ottawa and Gatineau Valley Ry., Que.			

Department of Railways and Canals.

as to which contracts have been entered into, &c.—Continued.

Payments.							Total to 30th June, 1893.
1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	
\$	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
64,430	28,383 00			32,003 00	92,784 00		217,600 00
11,200							11,200 00
19,200				16,300 00	4,845 00		40,345 00
15,000						17,000 00	32,000 00
40,480	20,573 57		4,366 00	1,600 43			67,020 00
1,000	18,428 57	1,387 06		10,684 37	18,960 00		50,460 00
14,000	3,000 00	9,000 00	26,360 00				52,760 00
	26,138 78		9,761 22	1,600 00			37,500 00
	249,684 00	163,216 00	74,300 00	82,770 00	54,830 00	21,150 00	645,950 00
	32,000 00	19,200 00					51,200 00
	14,656 00						14,656 00
	11,840 00	3,520 00					15,360 00
	60,000 00	800 00	189,200 00	6,000 00			256,000 00
	15,057 00	13,815 00	12,428 00	136,000 00	5,105 00	13,435 00	195,840 00
		45,000 00		47,400 00	12,800 00		105,200 00
		19,700 00	20,080 00	1,500 00			41,280 00
		54,400 00					54,400 00
		46,000 00					46,000 00
		21,888 00					21,888 00
		63,900 00	91,300 00				155,200 00
		106,500 00	11,900 00				118,400 00
		54,650 00	4,250 00				58,900 00
		26,640 00		11,760 00			38,400 00
		30,000 00					30,000 00
		5,553 57					5,553 57
			219,100 00	3,300 00	8,300 00		230,700 00
			29,400 00	10,450 00			39,850 00
			9,800 00	3,800 00			13,600 00
			10,400 00				10,400 00
			65,600 00				65,600 00
			173,000 00	143,400 00	58,600 00		375,000 00
			36,620 00	16,190 00			52,810 00
				87,000 00	70,075 00	114,125 00	271,200 00
				49,960 00			49,960 00
				42,670 00	2,130 00		44,800 00
				87,582 00	38,790 00	104,380 00	230,752 00

APPENDIX No. 3.—Statement showing Subsidies voted for Railways

Subsidies voted.		Railways.			
Authority.	Amount.		1883-84	1884-85	1885-86.
	\$ cts.		\$	\$	\$
51 Vic., cap. 3	83,612 54	} Central Railway, N.B.....			
52 do 3	142,400 00				
53 do 2	361,270 00	Montreal and Western Railway, Que.....			
52 do 3	128,000 00	Parry Sound Colonization Ry. Co., Ont.....			
52 do 3	163,200 00	Shuswap and Okanagan Ry. Co., B.C.....			
54-5 do 8	89,600 00	} Tobique Valley Railway Co., N.B.....			
53 do 2	35,200 00				
53 do 2	112,000 00	Columbia and Kootenay Ry. Co., B.C.....			
53 do 2	35,200 00	Waterloo Junction Ry. Co., Que.....			
53 do 2	99,200 00	Orford Mountain Railway Co., Que.....			
53 do 2	57,600 00	St. Lawrence and Adirondack Ry. Co., Que..			
51 do 3	24,439 84	Chatham Branch Railway Co., N.B.....			
55-6 do 5	40,000 00	New Glasgow Iron, Coal and Ry. Co., N.S....			
			208,000	403,245	2,171,249

This return does not include the following:— 1. The Canada Central Railway.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 30th September, 1893.

Department of Railways and Canals.

as to which contracts have been entered into, &c.—*Concluded.*

Payments.							Total to 30th June, 1893.
1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	
\$	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
				75,639 00	83,612 54		159,251 54
				76,143 00	32,253 00	133,388 00	241,784 00
					30,400 00	28,820 00	59,220 00
					162,260 00		162,260 00
					73,000 00	41,674 46	114,674 46
					88,800 00		88,800 00
					32,800 00		32,800 00
					32,000 00		32,000 00
					40,256 00	24,448 00	64,704 00
					24,439 84		24,439 84
						32,945 84	32,945 84
1,406,533	1,027,041 92	846,721 83	1,491,595 72	1,079,105 87	1,061,615 93	624,794 07	10,319,902 84

2. The Canadian Pacific Railway—main line.

3. The Atlantic and North-western Railway.

LEONARD SHANNON,
Accountant.

APPENDIX No. 4.

DEPARTMENT OF RAILWAYS AND CANALS,
OFFICE OF THE CHIEF ENGINEER,
OTTAWA, 5th October, 1893.

SIR,—I have the honour to submit:—

First.—The annual report of the General Manager of the Government railways, which has attached thereto the report of the Chief Engineer and Mechanical Superintendent of the Intercolonial Railway division, and the report of the Superintendent and Mechanical Superintendent of the Prince Edward Island Railway division, with statements of accounts prepared by the accountants of these roads.

Second.—The annual reports of the superintending engineers and superintendents of the canals, also the report of the Inspector of Canals Revenue.

Third.—A statement of the condition of the subsidies granted in aid of the construction of railways, prepared by Captain Costin.

Fourth.—Statement of contracts entered into during the year, prepared by Mr. Fissiault.

Fifth.—Statement of water power and other public property leased by the Department during the year, prepared by Mr. Fissiault.

Sixth.—Statement of property purchased or damaged during the year, prepared by Mr. Fissiault.

Seventh.—Agreements respecting subsidies in aid of construction of railways entered into during the year, prepared by Mr. Fissiault.

Eighth.—The canal statistics for the season of navigation of 1892, compiled by Mr. Teakles.

Ninth.—The railway statistics which have been carefully compiled by Mr. Thomas Ridout.

In submitting these documents I shall offer a few remarks only, dealing with the operations of the Government railways and canals up to 30th June last, and of the works of construction up to date.

TABLE showing the length of the Government railways on the 30th June, 1893.

INTERCOLONIAL RAILWAY.

	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 <i>via</i> Harlaka.....	14	
Dalhousie Junction to Dalhousie.....	7	
Derby Junction to Indiantown.....	14	
Painsec Junction to Point du Chêne.....	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	
Richmond to Dartmouth.....	5	

Total miles showing a regular train service..... 1,142

Department of Railways and Canals.

FREIGHT BRANCHES.

Rivière du Loup Wharf Branch.....	4	
Rimouski do	2	
Newcastle do	2	
Dorchester do	1	
Courtney Bay do	1	
Sackville do	1	½
Stewiacke do	1	
Halifax Cotton Factory do	1	
	12½	
Total length of the Intercolonial Railway.....		1,154½

WINDSOR BRANCH.

Windsor Junction to Windsor.....	32
----------------------------------	----

PRINCE EDWARD ISLAND RAILWAY.

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	
Total length of Government railways.....		1,397½

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 Railway.....	1,142	Earnings.....	3,065,499 09		
		Working expenses.....	3,045,317 50	20,181 59	
Windsor Branch Railway.....	32	½ earnings.....	34,316 11		
		Maintenance.....	16,889 95	17,426 16	
Prince Edward Island Railway.	211	Earnings..	162,690 42		
		Working expenses.....	226,422 17		63,731 75
		Deduct profit from loss....		37,607 75	63,731 75
		Net loss.....			37,607 75
Total miles... ..	1,375				26,124 00

The net results of the operations of the Government railways for the year may, I suggest, be considered satisfactory,—the road and rolling stock having been efficiently maintained and the traffic having been well conducted.

The gross earnings of the Government railways for the last two years compared as follows:—

	1891-92.	1892-93.
	\$ cts.	\$ cts.
Intercolonial Railway.....	2,945,441 97	3,065,499 09
Windsor Branch Railway.....	33,508 85	34,316 11
Prince Edward Island Railway.....	157,442 69	162,690 42
Total.....	3,136,393 51	3,262,505 62

Showing a slight improvement in the traffic, the gross earnings showing an increase of \$126,112.11 over those of the previous year.

The gross working expenses of the Government railways for the last two years compared as follows:—

	1891-92.	1892-93.
	\$ cts.	\$ cts.
Intercolonial Railway.....	3,439,377 00	3,045,317 50
Windsor Branch Railway.....	19,514 37	16,889 95
Prince Edward Island Railway.....	289,706 38	226,422 17
Total.....	3,748,597 75	3,288,629 62

Showing a reduction in working expenses for the year, compared with the previous year, of \$459,968.14. This is made up of the following:—

	1891-92.	1892-93.	Difference.
	\$ cts.	\$ cts.	\$ cts.
Locomotive power.....	1,214,971 99	1,113,683 53	101,288 46
Car expenses.....	735,613 93	691,605 47	44,008 46
Maintenance of way and works.....	1,174,911 30	877,123 19	297,788 11
Station expenses.....	421,940 01	400,207 50	21,732 51
General charges.....	201,160 52	206,009 93	464,817 54
	3,748,597 75	3,288,629 62	459,968 13

Department of Railways and Canals.

INTERCOLONIAL RAILWAY.

It will no doubt, be interesting for the public to know the ocean-borne passengers' business done at the port of Halifax, during the winter season of 1892-93, and the names of the steamers which conveyed them. I therefore here give a statement:—

Name of Steamer.	No. of Passengers.		Total.
	1st Class.	2nd Class.	
Mongolian.....	41	1,369	1,410
Labrador.....	65	1,057	1,122
Sardinian.....	55	1,056	1,111
Vancouver.....	51	1,712	1,763
Assyrian.....	4	118	122
Numedian.....	66	1,936	2,002
Carthaginian.....	14	273	287
Oregon.....	19	616	635
Parisian.....	68	1,029	1,097
Sarnia.....	25	569	594
Prussian.....	1	201	202
Baunwall.....		378	378
Lake Superior.....	9	408	417
Lake Ontario.....	1	346	347
Hungarian.....		372	372
Peruvian.....	1	424	425
Slavonia.....		442	442
State of Nebraska.....		247	247
Buenos Ayres.....	2	579	581
Total.....	422	13,430	13,652

Of these 13,652 passengers, 8,887 travelled inland *via* St. John and 4,765 went west *via* Chaudière.

The ocean-borne freight traffic received at Halifax during the winter of 1892-93 for shipment over the Intercolonial Railway, is another matter in which the public are interested. I therefore give a statement of the number of tons and the line of steamers which carried this freight:—

Name of Line of Steamer.	Measure- ment, Tons.	Weight, Tons.	Total Tons.
Allan Line from Liverpool.....	1,478	1,038	2,516
Dominion Line from Liverpool.....	821	424	1,245
Beaver Line from Liverpool.....	194	99	293
Halifax, Liverpool and London Line from Liverpool.....	150	370	520
Furness Line from London.....	1,756	2,226	3,982
Furness Line from Hamburg.....	45	1,262	1,307
Hanse Line from Hamburg.....	24	28	52
Donaldson Line from Glasgow.....	477	4,347	4,824
Allan Line from Glasgow.....	2,871	2,104	4,975
Total tons.....	7,816	11,898	19,714

Of this 12,319 tons were delivered at local points on the Intercolonial Railway, 100 tons went west *via* St. John and 7,295 tons passed west *via* Chaudière.

The system of heating the passenger trains by steam direct from the engine continues to give general satisfaction. On the 30th of June last there were 62 locomotives and 200 cars to which this heating apparatus has been applied.

The Westinghouse air-brake has been applied to 70 locomotives and 747 freight cars.

The following is a statement of the quantity and classes of the rolling stock purchased on capital account up to 30th June, 1893:—

	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.								
	206	15	92	6	95	24	99	2,171	2,142	999	44	10	21	2
		5	.....	.....	.....	39	.....	103	.....	471				
		20				63		2,174		782				
										2,252				

NOTE.—Twelve coal cars have been converted into platform cars during the year ended 30th June, 1893.

The following is a statement of the quantity and classes of rolling stock which have been rebuilt during the year ended 30th June, 1893, at 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.								
			2	.....	.....	.....	.....	.....	60	3	3	.....	1	.....

Department of Railways and Canals.

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	2,069,657	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	878,600
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

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	252,014	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

It thus appears that the largest tonnage of coal carried over the road from the west was in the year 1886, when it reached 192,022 tons, since which the through coal traffic for points west of the Intercolonial Railway has been on the decline.

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.	
1876-77.....				Brought forward	405,301	.....	405,301
1877-78.....				1885-86.....	389,122	.....	389,122
1878-79.....				1886-87.....	575,880	.....	575,880
1879-80.....				1887-88.....	69,021	.....	69,021
1880-81.....				1888-89.....	129,725	.....	129,725
1881-82.....				1889-90.....	502,012	.....	502,012
1882-83.....	31,011		31,011	1890-91.....	148,803	69,534	218,337
1883-84.....	73,389		73,389	1891-92.....	745,997	519,500	1,265,497
1884-85.....	300,901		300,901	1892-93.....	155,306	197,669	352,975
Carried forward	405,301	.....	405,301	Total.....	3,121,167	786,703	3,907,870

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	1885-86.....	761,127
1877-78.....	657,778	1886-87.....	763,894
1878-79.....	630,329	1887-88.....	871,838
1879-80.....	533,248	1888-89.....	948,514
1880-81.....	672,310	1889-90.....	1,116,050
1881-82.....	692,095	1890-91.....	1,013,129
1882-83.....	983,916	1891-92.....	954,015
1883-84.....	817,134	1892-93.....	856,913
1884-85.....	935,977		

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.....	292,852	1885-86.....	849,800
1877-78.....	331,170	1886-87.....	1,018,395
1878-79.....	302,921	1887-88.....	1,219,035
1879-80.....	534,021	1888-89.....	1,526,158
1880-81.....	565,678	1889-90.....	2,610,202
1881-82.....	560,253	1890-91.....	2,890,921
1882-83.....	1,195,601	1891-92.....	3,776,677
1883-84.....	654,673	1892-93.....	1,514,619
1884-85.....	734,902		

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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	1885-86.....	117,186,512
1877-78.....	56,626,547	1886-87.....	161,801,763
1878-79.....	55,626,696	1887-88.....	197,755,272
1879-80.....	55,462,654	1888-89.....	199,507,777
1880-81.....	72,841,388	1889-90.....	210,886,071
1881-82.....	78,356,418	1890-91.....	184,188,324
1882-83.....	104,633,417	1891-92.....	175,474,340
1883-84.....	131,120,948	1892-93.....	181,211,013
1884-85.....	138,493,675		

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	1885-86.....	74,498
1877-78.....	46,498	1886-87.....	82,896
1878-79.....	47,584	1887-88.....	98,302
1879-80.....	70,990	1888-89.....	85,960
1880-81.....	61,574	1889-90.....	86,771
1881-82.....	73,479	1890-91.....	95,529
1882-83.....	68,338	1891-92.....	87,889
1883-84.....	60,090	1892-93.....	93,369
1884-85.....	70,785		

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.	To Chau- dière for the West.	To St. John for the West.	To 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	23,835	33,571
1892-93.....	7,295	100	12,319	19,714

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		8,305	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

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	1,099	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

Thirty and a half miles of the 56-lb. steel rails have been lifted and replaced at the cost of revenue by 3,211 tons of 67-lb. steel rails, and 398,546 ties have been renewed.

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CAPITAL ACCOUNT.

Total cost of road and equipment up to 30th June, 1893 :—

Road, &c.....	\$46,492,722 26
Rolling stock.....	7,754,127 97
Total	\$54,246,850 23

Before another fiscal year passes round, a ferry will be established across the Strait of Canso between Mulgrave and Point Tupper stations to carry the trains to and fro. This will be a very great improvement to the service. Both the steam ferry boat and the train barge are nearly ready for service, and should be in operation by the 1st November proximo.

Both the road and rolling stock are in a high state of efficiency.

WINDSOR BRANCH RAILWAY.

This road has been operated under the new agreement with the Windsor and Annapolis Railway Company, it being practically a renewal of the lease dated 21st September, 1891. The company continue to receive 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.

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	.....

Three and a half miles of old iron rails were lifted and replaced by steel rails of 56 lbs. to the yard.

PRINCE EDWARD ISLAND RAILWAY.

CAPITAL ACCOUNT.

Total cost of road and rolling stock up to 30th June, 1893 :—

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 Cars.	Platform Cars.	Conductors' Vans.	Pay Cars.	Snow Ploughs	Flangers.
	1st Class Cars.	2nd Class Cars.	Baggage and Smoking Cars.	Official Cars.						
21	17	15	3	1	175	125	3	1	8	7

Statement of rolling stock rebuilt during the year—2 platform cars.

The following table shows the working expenses, the gross and net earnings, the tons of freight and number of passengers 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.	\$ 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	153,303 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	289,706 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

Seven 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)	Miles. 92
Iron rails (40 lbs. to yard).....	119
Total length of road.	211

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Eight hundred tons of 50-lb. steel rails have been delivered for renewals of track in 1893-94, and a contract has recently been entered into for the supplying of 1,000 tons to be delivered in July, 1894, for renewals in 1894-95.
 The road and rolling stock are in good running condition.

CAPITAL ACCOUNT.

CANADIAN PACIFIC RAILWAY.

In my report of last year, I stated the award of the arbitrators upon the claim made upon the Government by the Canadian Pacific Railway Company in connection with the construction of the section of railway built by the Government between Savona's Ferry (Kamloops) and Port Moody to be as follows, viz. :—

For works executed during the progress of the arbitration ...	\$ 202,675 20
For work remaining to be done to complete the road as required by the award	376,580 00
Total amount of award.	\$ 579,255 20

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 79
In February, 1892	188 15
March "	9,160 77
April "	16,674 16
May "	16,010 86
June "	21,696 89
July "	21,907 15
August "	19,477 77
September "	21,182 75
October "	22,278 71
November "	12,349 29
December "	4,722 04
January, 1893	5,183 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
	234,435 56

Total expenditure under award up to 31st August, 1893.....\$ 437,110 76

Leaving work to the value of \$142,144.44 yet to be done. The engineer in charge (Mr. Desbarats) informs me that the work of improvements under the award are being well and substantially carried out, making a good permanent road. The work, however, progresses very slowly, caused no doubt, in a large measure, by other heavy works of improvements in the road being carried on by the company, concurrently with those under the award.

The two claims before the arbitrators in connection with some steel rails have not yet been finally disposed of, and there yet remain a number of land claims unsettled. It may not be out of place here to mention that the Canadian Pacific Railway Company have continued during the year, and up to this date, to prosecute the work of making large and heavy improvements in their road.

The following are the traffic operations of the Canadian Pacific Railway for each year ended 30th June, since the road first opened for traffic in June, 1886:—

	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
	Miles, 4,274.	Miles, 4,662.	Miles, 4,974.	Miles, 5,086.	Miles, 5,537.	Miles, 5,537.	Miles, 5,782.
	\$ cts.	\$ cts.	\$ 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	20,789,104 17	20,795,304 66
Working expenses . . .	7,299,045 16	9,034,360 27	8,997,312 05	9,424,166 45	11,538,133 53	12,441,126 28	12,665,587 12
Net revenue.	3,351,208 82	3,676,649 74	4,019,299 76	6,148,819 17	7,134,040 51	8,347,977 89	8,129,717 54

The above statement shows a wonderful development of traffic, which is indicative of great advancement in the trade of the country, and goes to show the benefit the undertaking has been to the Dominion.

CAPITAL ACCOUNT—CANALS.

SAULT STE. MARIE CANAL.

Construction.

The works of construction of the Sault Ste. Marie Canal and approaches thereto are under contract with Messrs. Hugh Ryan & Co. and Messrs. Allan & Fleming. The former firm have the contract for the canal proper, including the lock, and also for the east or St. Mary's River approach. The latter firm have the contract for the west or Lake Superior approach. The works have been prosecuted with great vigour and ability, and everything indicates that the canal will be ready for traffic at the close of the present current fiscal year. Mr. W. G. Thompson's (superintending engineer) report hereto attached gives the position of the work up to the 30th June last, but inasmuch as over three months have since passed in which a great body of work has been done, I will offer a few remarks on the progress of the work up to the date of this writing.

1. The east approach to the canal has been taken out to the full depth of 18½ feet and to the full width with the exception of one or two rocky points, containing in the aggregate about 8,000 cubic yards, and the clay and rock dam 165 feet in width, which has been left to shut out water from the lock pit; this contains about 23,000 cubic yards. It is, however, considered that this dam can with safety be reduced this season by at least 5,000 cubic yards, leaving a balance of about 18,000 cubic yards to be executed in the spring of 1894. On either side of this approach there are to be two wooden crib piers, that on the north side 1,300 feet long, of which 800 feet has been built, leaving 500 feet to be constructed. The pier on the south side is to be 420 feet long; nothing has yet been done to this, but of the 140,000 feet of timber required, 98,000 feet are delivered.

2. The lock is far advanced towards completion; the lock walls, breast walls and lift walls of masonry, containing about 68,000 cubic yards of masonry, are completed with the exception of a few pieces of coping. The masonry foundation of the power house is built up about 20 feet and a large portion of the stone for the upper part of the building is already prepared and stonecutters are at work preparing the balance; the walls of this building will be completed this season and the building will be roofed in. The bottom of the north half of the culverts is built for a distance of 570 feet, the flooring is laid and concreted and all the bolts are in place, and the anchor sills are laid in place for a further similar distance; 550 lineal feet of the north culvert wall has been built and the concreting behind it has been started. The walls to receive the supply pipe are in course of construction. The filling to be

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done behind the lock walls is estimated at 70,000 cubic yards, of which 24,000 cubic yards have been done, leaving about 46,000 cubic yards to be done. This material is being washed into place by hydraulic power, thus the material finds its way into every crevice and becomes very solid, compact and water-tight, making a very satisfactory piece of work.

A contract has been entered into with Messrs. Hugh Ryan & Co., for the feed pipes and the lock gates.

3. The prism of the canal at the upper or west end is taken out the full width and depth for 680 feet, and a further 600 feet is taken out 37 feet wide to full depth and the clay stripping is being taken off the rock and deposited behind the lock walls. The quantity of excavation to be taken out of the prism of the canal was 311,000 cubic yards; of this 170,000 cubic yards has already been taken out, leaving 141,000 cubic yards yet to be executed. The timber for the revetment walls is for the most part delivered and the work of building this cribwork will be carried on during the winter season.

4. The construction of the piers and abutments for the bridge to carry the Canadian Pacific Railway over the canal is far advanced. The north abutment is built up to within 7 feet 8 inches of the bridge seat, the south abutment is carried up to within 3 feet 4 inches, and the pivot pier to within 4 feet 8 inches of the bridge seat. The foundation for the remaining pier is being taken out, and the masonry will be commenced thereon in a few days. All these piers and abutments will be founded on solid rock. The steel superstructure is under contract with the Hamilton Bridge Company.

5. The upper or western entrance to the canal is nearly completed, there remaining only about 36,000 yards of material to be taken out—the most of this is at the dam of clay left to shut the water out from the lock; this dam may, however, I consider, be reduced this season with safety by taking out a further quantity of, say, 18,000 cubic yards, leaving about 18,000 cubic yards to be executed next season. The whole work on this canal, so far as it has advanced is well and substantially done, and I consider the rapid manner in which it has been prosecuted, coupled with the excellent character of work, reflects great credit on the contractors and upon the staff of engineers and other officers upon the ground, who have interested and exerted themselves to aid the contractors in having the work well and expeditiously executed, they having been informed that it was the desire of the Minister to have the work substantially and fully completed by the 30th June, 1894; although there remains a good deal of work yet to be done, the indications are that the canal will be ready for navigation by about the end of the current fiscal year.

SOULANGES CANAL.

Construction.

This canal will be about fourteen miles in length; it is for construction purposes divided up into thirteen sections which are covered by nine contracts, as follows, viz. :—

Sections Nos. 1 and 2.

ARCHIBALD STEWART, Contractor.

These sections together are about 5,400 feet in length. The principal works to be executed are the formation of an entrance channel in rock, the construction of guide and mooring piers, of cribworks with superstructure of masonry, the formation of a basin, the construction of three lift locks of massive masonry and one lift lock faced with heavy masonry and backed up with concrete, the masonry abutments of a highway bridge, four regulating weirs, retaining walls, about 450,000 cubic yards of earth excavation and 72,000 cubic yards of solid rock excavation. The masonry on this section amounts to about 60,000 cubic yards and the concrete to 50,000 cubic yards. The value of work done up to the end of September ultimo was \$57,597.

Section No. 3.

J. & M. O'LEARY, Contractors.

This section is about 11,600 feet in length. The principal work to be executed is the excavation of the prism of the canal, the forming of embankments, roads, building of fences, stone lining, masonry abutments of a highway bridge across the canal, and the construction of a pipe culvert, the bulk of the work being earth excavation of which there is about 535,000 cubic yards. The value of work done up to the end of September ultimo is \$21,865.

Sections 4, 5, 6 and 7.

GEORGE GOODWIN, Contractor.

These sections have an aggregate length of about 29,000 feet. The principal work to be done is the building of a lift lock and regulation weir, masonry for guard gate and supply weir, retaining walls connected with the same; the masonry for the abutments of two highway bridges and some culverts, the excavating of the prism of the canal and forming embankments. The excavation will amount to about 1,974,000 cubic yards, the masonry to about 6,000 cubic yards, and the concrete to about 37,000 cubic yards. The value of work done up to the end of September ultimo is \$40,425.

Section No. 8.

CHARLES H. RAYNOR, Contractor.

This section is about 7,500 feet in length. The principal work consists of the construction of a ten (10) foot syphon culvert to pass the River à la Graisse under the canal, the masonry of abutments of a highway bridge, fencing and lining canal bank with stone, and the excavation of the prism of the canal, also forming embankments. The quantity of excavation being about 630,000 cubic yards. The value of work executed up to the end of September ultimo is \$32,857.

Section No. 9.

RANDOLPH MACDONALD, Contractor.

This section is about 4,500 feet in length. The principal work on this section is the excavation of the prism of the canal and forming embankments, roads, ditches and building fences. The excavation consists of about 510,000 cubic yards. The value of work done up to the end of September ultimo is \$16,187.

Section No. 10.

ROGERS & TAYLOR, Contractors.

The length of this section is about 5,000 feet. The principal work is the excavation of the prism of the canal, the forming of embankments, the construction of a ten (10) foot syphon pipe culvert to pass the River Rouge under the canal, the masonry abutments of a road bridge across the canal together with the protection lining, fencing and forming of roads. The excavation amounts to about 510,000 cubic yards. The value of work done up to 30th September ultimo is \$56,718.

Section No. 11.

GEORGE GOODWIN, Contractor.

The length of this section is about 4,000 feet. The principal work is excavation in rock and earth, in forming prism of canal, rock excavation in diversion of the River Delisle, the building of a 10-foot iron syphon culvert to pass the Delisle River under the canal, stone protection, lining, fencing, &c. The quantity of earth excavation is estimated at 540,000 cubic yards, and of rock excavation about 20,000 cubic

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yards. The value of work done up to the end of September ultimo amounts to \$46,689.

Section No. 12.

GEORGE GOODWIN, Contractor.

Length of section, about 5,000 feet. The work was originally under contract with Messrs. Denis O'Brien & Son, but inasmuch as they failed to carry it on after having done work to the value of \$26,811, the contract was cancelled and new tenders were invited. Mr. George Goodwin being the lowest tenderer the contract was awarded to him. The principal work consists of earth and rock excavation in the prism of the canal. There are about 380,000 cubic yards of earth excavation and about 95,000 cubic yards of rock excavation on the contract. The value of work done by Mr. Goodwin is \$5,325.

Section No. 13.

RANDOLPH MACDONALD, Contractor.

The length of this section is about 10,600 feet. The principal work is the construction of masonry abutments for a masonry guard or stop gate, the masonry abutments for a highway bridge, piers of cribwork with superstructure of masonry and concrete, about 1,100 feet in length to form entrance to canal, a raceway, masonry abutments for a fixed bridge, forming of roads and ditches, erecting fences and excavating entrance to, and prism of canal. The amount of excavation is about 750,000 cubic yards and of masonry about 20,000 cubic yards. Value of work done up to the end of September ultimo is \$43,068.

The aggregate value of work done on the whole of these contracts covering this canal is \$347,542.59, being about 10 per cent of the amount of the contracts.

The Honourable Minister last winter expressed a desire that this canal should be completed and ready to open for traffic upon the opening of navigation in the spring of 1896; the work, however, has been dragging along so sluggishly this season that very little advancement has been made with it, and unless there is a radical change for the better in the organization and greater energy displayed henceforward, there is no likelihood of the canal being completed for several years after the date named, and even now should the work be vigorously prosecuted there is scarcely a possibility of having it finished in the spring of 1896. I point this out in order that there may be no misunderstanding about it. Attached hereto will be found the report of the Superintending Engineer, Mr. Thomas Monro, from which may be gathered some useful and interesting information as regards the works.

LACHINE CANAL.

CONSTRUCTION AND ENLARGEMENT.

Owing to the heavy volume of traffic upon Wellington Street, Montreal, which crosses the Lachine Canal, it became necessary to replace the old bridge by one of greater capacity, and in doing so it was considered in the interest of the traffic upon the canal to make the new swing span cover the full width of the canal; this necessitated the replacement of the iron bridge alongside of the Wellington Street bridge, passing the Grand Trunk Railway, by one of greater span. The preparations for carrying on the work on the Wellington Street bridge were commenced in September, 1892, but it was not until January that any final arrangement was made for the carrying on of the work on the Grand Trunk bridge. As the time was very limited in which to do the work, it did not admit of the preparation of plans and other information necessary for inviting tenders, and therefore it was decided that the work should be prosecuted on by days' labour as had been arranged for the Wellington Street bridge. The reason, I understand, why it was concluded best to carry on the work by days' labour on the Wellington Street bridge was in order that the departmental officers might have full control so as to ensure the work being so far advanced towards completion by the 1st of May, the date at which it was calculated navigation would

open, in order that the traffic on the canal might not be interfered with. This was accomplished, but unfortunately at an unexpectedly large cost.

The water was let out of the canal on the 8th of March and on the 10th of the same month the vigorous prosecution of the work commenced and was pushed forward towards completion with such energy that the water was enabled to be let into the canal on the 1st of May; just six weeks in which to do the work of demolishing the old structures and rebuilding the new ones. It was not only the bridges that were rebuilt, but heavy rest and guide cribs were constructed above and below the bridges.

During the progress of the work, the weather was very severe, and the time being so short, the work had to be carried on night and day, and very heavy ice had to be removed, all of which largely enhanced the cost of the work.

The work is well and substantially done and the bridges are two fine strong structures, which serve well the purpose for which they were designed. The matter of this large outlay is the subject of inquiry by a commission appointed to look into the expenditure on the Lachine Canal. They have not yet reported.

The Lachine drain is under contract with Messrs. Heney & Borthwick. Very slow progress is being made with the work, and I have given up all expectation of the sewer being completed this season; the indications are that there will remain to be done at the close of this season about 1,000 lineal feet of this sewer.

The work of deepening the section of the Lachine Canal from its lower entrance to the St. Gabriel locks to give a depth of 20 feet of water is in progress. Dredge No. 2 has been employed at this work for about seven weeks, and she is reported to be doing good service. Dredge No. 1 is also detailed for this work, but some delay has occurred in getting her started; however, it is expected that she will be operating very shortly. The nearest available point at which the material can be deposited is in a marsh at Messrs. Fotheringham & Workman's factory near Côte St. Paul, rather a long haul for the limited number of scows belonging to the dredging fleet of the Lachine Canal, but under the circumstances, the best possible is being done.

LAKE ST. LOUIS.

DEEPENING AND STRAIGHTENING CHANNEL.

A survey has been continued during the year of the channel; a complete series of soundings have been taken from St. Nicholas Island to the foot of the Beauharnois Island, a distance of about 4 miles, and plans of the whole have now been prepared with a view to inviting tenders at some future time, with a view to testing the character of the rock and the best and most economical way of removing it. One of the Montreal Harbour Commissioners' dredges was employed during the season of 1892, and though the work was severe for her, and she in consequence frequently broke down, nevertheless she did good service, indicating that the work could be mastered by a powerful machine of the kind. She removed 7,573 cubic yards, scow measure, at a cost of \$4,416, as reported by Mr. Parent.

CONSTRUCTION.

TRENT VALLEY CANAL.

There was an appropriation on Capital Account, for this work, of \$74,000, but the work has not yet been proceeded with; during the year there was paid out of the appropriation for land damages, \$5,962.47.

MURRAY CANAL.

The work under contract was a cutting through the Isthmus of Murray, and the dredging out of the entrances at either end, of which Messrs. J. D. Silcox & Co. were the contractors. There was an appropriation for this work of \$60,000, of which there has been expended, in settlement with the contractors, the sum of \$30,838.79.

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CONSTRUCTION AND ENLARGEMENT.

CORNWALL CANAL.

This work was divided up and set out in nine sections. The following are the names of the contractors:—

- Section No. 1, Gordon, Woodward & Chamberlain.
- “ 2, 3 and 4, Wm. Davis & Sons.
- “ 5, 6, 7 and 8, Gilbert Blasting and Dredging Co.
- “ 10, Jocks, De Lorimier & Brodeur.

The works on section No. 1 were completed in the year 1882.

The works on sections Nos. 2, 3 and 4 are progressing steadily, and it is calculated that they will be completed next season.

Sections 6 and 7 and a part of sections 5 and 8 have been abandoned, a scheme of dams having been adopted in substitution for the enlargement of this section of the canal. The work on the balance of sections 5 and 8 is progressing slowly, but it is hoped it will be completed in 1895. The plan of enlargement of the section of the canal entrance between Mille Roches and the head of Sheik's Island, being parts of sections 5 and 8, and the whole of sections 6 and 7, was only abandoned and the new scheme of dams at Mille Roches and the head of Sheik's Island adopted, after long deliberation and careful consideration on behalf of the Minister and his officers, and it is believed that this new scheme of making as it were an artificial lake will greatly expedite traffic and avoid delays from leakages and consequent breaking away of the banks in this dangerous part of the canal. The work of constructing these dams is under contract with Messrs. Wm. Davis & Sons, able and experienced contractors, who are now organizing for a vigorous prosecution of the work; they have already shut off the river, preparatory to providing for the foundation of the dams.

The works on section 10 are drawing near a close and it is estimated that they shall be completed early next season.

The appropriation for this canal on capital account for the year was \$500,000, of which was expended in carrying on the works, &c., the sum of \$352,536.13.

WILLIAMSBURG CANALS.

On the Farran's Point division no work of enlargement has been undertaken, but a survey has been made and plans prepared.

On the Rapide Plat division, the contractors' names are:—

- Section 1, Poupore & Fraser.
- “ 2, The Weddell Dredging Co.
- “ 3, Poupore & Fraser.
- “ 4, Wm. Broder.

The work is progressing slowly and will, it is believed, occupy two seasons yet to complete.

The appropriation for this work on capital account was \$250,000, of which was expended during the year \$217,669.28.

On the Galops Division, Point Iroquois to Galops, work is under contract only between Cardinal and Galops, the work at the upper entrance of the canal being executed under contract with Messrs. Murray & Cleveland, who are making good progress with the work and hope to be completed next season.

GALOPS RAPID IMPROVEMENT.

The deepening, widening and straightening of the Galops channel is under contract with Messrs. E. Gilbert & Sons, the width of channel was to be 200 feet, the depth of water 17 feet; this work proceeded to a certain point at which the contractors claimed they had completed their contract, but the Government, from information placed on record, contend that it is not completed and have called upon the contractors to proceed with it to completion, but up to this date they have

given no indication of an intention to do so. Owing to the obstructions remaining in the channel it has been necessary to buoy the dangerous points, nevertheless, vessels have used the channel very little, in many places the depth of water is only from 13 to 14 feet, and in one particular case, it is found to be only 10 feet 6 inches.

NORTH AND SOUTH CHANNELS.

These channels extend from head of Galops Canal to Prescott, it has not yet been finally decided which channel will be taken, but Mr. Rubidge has made a survey of both, and the plans and other information are now ready for action.

Full particulars may be had by reference to the report of Mr. Rubidge, the Superintending Engineer of the Murray, Cornwall and Williamsburg Canals, hereto attached.

ST. PETER'S CANAL.

There was an appropriation on capital account for this work of \$8,000, of which only \$811.50 was expended, being the amount due on the final estimate of contractor McKinnon for building wharf.

CANALS.

OPERATIONS 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.

Canals.	Closed.	Opened.	
Lachine.....	30th November, 1892....	4th May, 1893.	
Beauharnois.....	1st December, 1892 ..	1st May, 1893.	
Cornwall.....	4th do 1892....	1st May, 1893.	
Williamsburg.....	13th do 1892....	27th April, 1893.	
Welland.....	12th do 1892....	24th April, 1893.	
Chambly.....	1st do 1892....	8th May, 1893.	
St. Ours.....	1st do 1892....	8th May, 1893.	
Ste. Anne's.....	28th November, 1892....	29th April, 1893.	
Carillon and Grenville.....	30th do 1892 ..	1st May, 1893.	
Rideau.....	{ At Kingston.....	30th do 1892....	1st May, 1893.
	{ At Ottawa.....	30th do 1892....	24th April, 1893.
Trent Valley.....	30th do 1892 ..	1st May, 1893.	
Murray.....	30th do 1892....	13th April, 1893.	
St. Peter's.....	9th January, 1893....	2nd April, 1893.	

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STATEMENT showing the dimensions of the Locks on the Canals.

Name of Canal.	EXISTING SYSTEM.				UNDER CONSTRUCTION.			
	No. of Locks.	Length.	Width.	Depth of water on metre sill.	No. of Locks.	Length.	Width.	Depth of water on metre sills.
Lachine.....	5	270	45	14				
Beauharnois.....	9	200	45	9				
Chambly.....	9	118 to 125	22 6 to 24	7				
St. Ours.....	1	200	45	7				
St. Anne's (new).....	1	200	45	9				
Carillon and Grenville.....	7	200	45	9				
Culbute.....	2	200	45	5				
Trent Valley.....	13	134	33	5				
Rideau.....	49	134	33	5				
do Perth branch.....	2	134	32	5 6				
Murray.....		No Locks.		11				
Cornwall.....	3	200	55	9	6	270	45	14
	3	270	45	14				
Williamsburg.....	6	200	45	9	6	270	45	14
Welland (new).....	26	270	45	14				
do (old).....	24	150	45	10 3				
	2	200	45	10 3				
	1	230	45	10 3				
Welland Feeder.....	1	150	26 6	9				
	1	200	45	9				
Welland Port, Robinson branch..	2	150	26 6	9 10				
do Maitland branch..	1	185	45	11				
Sault Ste. Marie.....					1	900	60	20
Soulanges.....					4	270	45	14
St. Peter's.....	1	200	48	18				

MEMO.

The question of organization and staff requirements on the several canals is a subject which has been under consideration for some time, but no decision has yet been communicated to me.

LACHINE CANAL.

Two accidents occurred during the year. The first accident was of rather a serious character, a leak in the canal bank on the north side of the regulating weir at St. Gabriel's locks having developed on the 19th of December, 1892, which it is reported by the superintending engineer was caused by the imperfect construction and maintenance of the flume leading to the Montreal Woollen Mills. No delay occurred in commencing to repair the bank, &c., and on the 25th of December, 1892, the work was completed as was supposed and the water let into the canal; the weather, however, was so severe during the time the work was being carried on that the frost so operated on the clay puddle, that the leak broke again on the 28th December, 1892, the repairing of which was done during the time the water was let out of the canal to enable the work of reconstructing the Wellington Street and Grand Trunk Railway bridges to proceed. The repairing of this break in the bank of the canal cost \$14,075.64.

The second accident, which was only a slight one, occurred on the 10th of May, 1893, the tug "William Paul" striking the St. Gabriel bridge, damaging it to the extent of \$262.75. Action is being taken to collect both these amounts. Many

necessary repairs were done during the year which are enumerated in the superintendent's report hereto attached.

The cost of repairs on this canal for the year 1892-93 amounted to as follows, viz.:—

Ordinary repairs.....	\$ 51,616 79
Special repairs—	
Building 4 pair gates.....	18,992 94
Rebuilding walls, old lock No. 1.....	8,825 81
Covering drain with plank.....	4,223 15
Removing two stationary bridges at St. Gabriel and repairing two bridges at Lachine.....	4,819 86
Repairing leak in bank at St. Gabriel's.....	14,075 64
Total.....	\$102,554 19

BEAUHARNOIS CANAL.

One accident occurred on this canal during the year which was by a slight break on the 3rd of May in the bank below the waste weir at lock 12; the damage was promptly repaired, navigation having only been interfered with for 15 hours. The canal works having been maintained in good condition at a cost of \$14,107.11, being for ordinary repairs. The superintendent's report, hereto attached, enumerates the works upon which the expenditure was made.

CHAMBLY CANAL.

No accidents have occurred on this canal during the year which in the slightest degree interfered with navigation. Three slight breaks occurred in the side walls of the tail race of the waste weir, near lock 6, which were quickly repaired.

The cost of ordinary repairs amounts to.....	\$12,451 03
Special repairs—	
Rebuilding wall of lock 5.....	7,499 87
Rebuilding fences.....	2,499 95
Building wall along public road.....	3,990 54
Providing electric motor at Chambly.....	2,082 65
Examining and repairing sill at lock 9.....	991 98
Rebuilding locks.....	2,433 66
Total.....	\$31,958 68

ST. OURS LOCK.

No accident of any kind has occurred at the lock during the year, and no obstruction to navigation. All necessary ordinary repairs have been executed at a cost of \$1,994.34.

STE. ANNE'S LOCK.

There was no interruption of any kind to traffic during the year. The lock received the necessary repairs, amounting to:—

Ordinary repairs.....	\$2,800 03
Special repairs—puddle wall to stop leaks.....	2,406 42
Repairs to upper gates.....	3,000 24
Settle with contractor old pier below lock.....	1,115 22
Total.....	\$9,321 91

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CARILLON AND GRENVILLE CANAL.

No interruption to traffic occurred on this canal during the season. The necessary repairs were made, the heaviest work undertaken being the repairs to the Carillon dam which were extensive and difficult of accomplishment. Much credit is due to Mr. Gaherty, the officer in charge of these works, for the able manner in which he has conducted them. The amount expended on repairs is as follows:—

Ordinary repairs.....	\$10,669 28
Special repairs—repairs to Carillon dam.....	24,631 06
Rebuilding retaining walls, lock No. 6... ..	4,912 22
Rebuilding upper wing wall, lock No. 7.....	12,755 46
Total.....	<u>\$52,968 02</u>

Much interesting detail may be found in the report of the superintending engineer and other officers hereto attached.

CULBUTE CANAL.

This canal has fallen into disuse and no expenditure on repairs is made, but large claims for damages are made in connection with flooding of lands, so that the canal whilst being a source of expense to the country is, it appears, of no benefit to the commerce of the country, and it becomes a question as to whether or not it would not be good policy to cut away the dams at Rocher Fendu Rapids and at Grand Calumet Falls, the former being on the south and the latter on the north side of Calumet Island. I suggest that it would.

Expended in settlement of land damages during the year, \$1,420.60.

TRENT VALLEY CANAL.

No accident has taken place on this canal during the year and no interruption to traffic has occurred. There were 2,884 lockages during the year. Owing to the heavy rainfall in this district during the year, the water has been unusually high, flooding some of the low lands, for which claims have been presented from time to time.

The following is the expenditure on repairs for the year, viz.:—

Ordinary repairs.....	\$2,087 17
Special repairs—towards construction of dredge.....	3,057 85
Swing bridge at Bobcaygeon.....	119 50
Complete dam at Fenelon Falls.....	1,407 05
Build crib at Young's Point.....	1,182 29
Build crib at Lakefield.....	846 39
Rebuilding Heely's Fall dam.....	4,189 32
Towards maintaining swing bridge, Fenelon Falls.	36 50
Total.....	<u>12,926 07</u>

The Grand Trunk Railway swing bridge at Fenelon Falls not having been completed on 30th June last, the appropriation made in aid of its construction lapsed, amounting to \$13,000.

The work is, however, far advanced and will probably be completed in November, 1893.

RIDEAU CANAL.

No accident occurred on this canal during the year to interrupt the traffic. The canal has been successfully operated and the works maintained in an efficient state of repair. The dredging fleet is in good working condition and was employed

during the year at Black Rapids, Long Island and at "Catch All." At the two former places she cut out shoals and at the latter point she cut a channel through a neck of land.

The expenditure in maintenance during the year has been as follows, viz. :—

Ordinary repairs	\$18,789 50
Special repairs—bridge at Oliver's Ferry.....	8,715 55
Cutting round dry dock at Ottawa and making slope...	983 86
Repairs to dam at Hogsback.....	5,039 25
Bridge at Merrickville.....	8,000 79
Rebuilding tow-path between Hartwell and Hogsback.	1,432 40
Land damages, &c.....	103 86
Total	<u>\$43,064 21</u>

For full details of works executed during the year, refer to the superintending engineer's report hereto attached.

MURRAY CANAL.

The traffic on this canal was uninterrupted during the year, 830 vessels were passed through. The canal has been maintained in good order. The expenditure on repairs during the year were as follows, viz. :—

Ordinary repairs.....	\$5,341 34
Special repairs	Nil.
Total	<u>\$5,341 34</u>

For fuller details refer to the superintendent's report attached hereto.

CORNWALL CANAL.

There were only two serious accidents on the canal during the year. The first occurred on the 3rd of August, 1892, caused by barge "Toronto" smashing gates at lock No. 19, which stopped navigation 28 hours. The cost of repairing damage amounted to \$1,103.21. The second accident occurred on the 2nd of June, 1893, caused by steamer "Hall" knocking out two gates of lock No. 19, which stopped navigation for 26 hours. Cost of making repairs \$1,060.70. Both these amounts are being collected from the owners of the craft which did the damage. The necessary repairs have been done to the canal to maintain it in efficient condition.

The expenditure on maintenance during the year has been as follows, viz. :—

Ordinary repairs.....	\$9,668 14
Special repairs.....	Nil.
Total.....	<u>\$9,668 14</u>

For more specific information see superintendent's report attached hereto.

WILLIAMSBURG CANALS.

The only accident which has occurred on these canals is the sinking of the propeller "Acadia" in the Rapid Plat Division.

The canals have been maintained in good repair and no detentions to traffic have occurred by reason of any accident upon these canals.

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The expenditure on maintenance for the year amounted to as follows, viz.:—

Ordinary repairs.....	\$ 8,347 97
Special repairs—building one pair of lock gates.....	3,675 00
Total.....	<u>\$12,022 97</u>

Superintendent Hickey gives a description of the nature of the numerous items of repairs which were executed upon these canals during the year.

WELLAND CANAL.

There were fourteen accidents on this canal during the year, but only one was of a serious nature, the damage in this one case amounting to \$3,828.23, whereas the damage arising from the whole fourteen amounted to \$4,532.25. The serious accident referred to occurred on the 22nd October, 1892, occasioned by the steamer "Arabian" colliding with lock gates knocking them out and smashing them (owing to the engineer not obeying the signal of the officer on the bridge and continuing to run wheel full speed). Repairs were at once commenced and put through with energy, delaying the traffic for 30 hours only. The season's operations have been successful and the canal works have been efficiently maintained. The amounts of expenditure on repairs during the year amounted to as follows, viz.:—

Ordinary repairs	\$65,016 84
Special repairs—rebuild bridge over lock No. 12, &c.	5,700 00
Construction of piers for Thorold bridge.....	629 07
Repairing slide which occurred in August, 1891.....	372 70
Repairing piers at Port Colborne, Port Maitland and Canal Bank Summit Level.....	791 94
Repairing bridges damaged in February, 1889.....	3,000 00
Constructing bridge across feeder at Petit Road.....	1,217 63
Construction of culvert at Stromness.....	6,725 26
Construction of new swing bridge for railway.	2,294 71
Cleaning and deepening back ditch.....	387 74
Restoring drainage at Port Colborne.....	814 58
Removing shoal at mouth of Chippewa River.....	3,199 50
Total.....	<u>\$90,149 97</u>

Full detail particulars of the repairs which have been done during the year may be found in the reports hereto attached of the superintending engineer and the superintendent.

ST. PETER'S CANAL.

There were no mishaps on this canal nor was navigation in any way impeded during the year.

The expenditure on repairs during the year amount to:—

Ordinary repairs.....	\$ 1,856 30
Special repairs—Reconstruction part of west wall.	9,626 11
Excavating lock at tow-path.....	361 67
Total.....	<u>\$11,844 08</u>

The superintending engineer's report hereto attached gives a description of the work done during the year.

RAILWAY SUBSIDIES.

I submit herewith a statement prepared by Captain Costin showing the amount of cash subsidies granted in aid of railway construction and equipment, the total amount paid up to the end of June, 1893, and also up to 1st October, 1893; also a statement showing the railways which have been granted aid in land.

6,113 miles have been granted cash subsidies per mile, 676 miles have been granted cash subsidies per annum, and 4,050 miles have been granted land per mile. Of these 4,331 miles under cash subsidy per mile have been constructed; 252 miles under cash subsidy per annum have been built, and 1,546 miles with land grant aid have been built as follows:—

Total mileage cash subsidies granted.....	\$18,527,251
do do paid.....	12,167,597
Total annual subsidy granted including interest.....	508,144
do do paid including interest.....	1,763,850*
Total land grant, acres.....	31,892,400

The foregoing statement of cash subsidies does not include the Canadian Pacific Railway nor the Canada Central Railway. These roads received:—

Canadian Pacific Railway	\$25,000,000
Canada Central Railway.....	1,525,250

Total..... \$26,525,250

The foregoing statement of land grant aid does not include the Canadian Pacific Railway or the Esquimalt and Nanaimo Railway. These roads received:—

Canadian Pacific Railway.....	25,000,000 acres.
Esquimalt and Nanaimo... ..	1,900,000 “

Total..... 26,900,000 “

CANAL STATISTICS FOR SEASON OF 1892.

These statistics were compiled by Mr. Teakles, the clerk in charge, they are for the season of navigation of 1892, and contain a quantity of interesting information.

TABLE showing the tons of freight passing through each canal; the tons collected; the number of trips of vessels passing through each canal, for year ended 31st December, 1893.

Name of Canal.	Tons of Traffic passing through.	Tolls collected.	Number of Trips of Vessels passing through.
Lachine.....	966,755	\$ 66,067 46	10,412
Beauharnois.....			
Cornwall.....			
Williamsburg.....			
Welland.....	955,554	195,803 25	2,615
Chambly.....	270,766	20,959 25	2,696
St. Anne's.....	647,011	43,066 68	2,667
Carillon.....			
Grenville.....			
Rideau.....			
Murray.....	93,366	4,987 52	2,690
Trent.....	13,729	585 29	843
Trent.....	22,513	725 76	1,291
St. Peter's.....	59,042	3,155 86	1,891

* \$1,017,450 of this amount was paid to Quebec Government as interest on subsidy of \$2,394,000. No portion of this principal has been paid.

Department of Railways and Canals.

RAILWAY STATISTICS FOR YEAR ENDED 30TH JUNE, 1893.

The statistics were prepared by Mr. Thomas Ridout, from returns made to the Honourable Minister of Railways by the railway companies.

TABLE showing the growth of the Railways from year to year, since the opening of the first line in 1837.

Year.	Miles in Operation.	Year.	Miles in Operation.
1836	0	1865	2,145
1837	16	1866	2,150
1838	16	1867	2,258
1839	16	1868	2,269
1840	16	1869	2,497
1841	16	1870	2,497
1842	16	1871	2,497
1843	16	1872	2,508
1844	16	1873	2,638
1845		1874	2,642
1846		1875	4,826
1847	59	1876	5,157
1848	59	1877	5,574
1849	59	1878	6,143
1850	71	1879	6,484
1851	93	1880	6,891
1852	212	1881	7,260
1853	423	1882	7,530
1854	657	1883	8,086
1855	855	1884	9,576
1856	1,296	1885	10,149
1857	1,428	1886	10,667
1858	1,654	1887	11,691
1859	1,997	1888	12,162
1860	2,087	1889	12,628
1861	2,087	1890	13,256
1862	2,110	1891	14,009
1863	2,110	1892	14,588
1864	2,145	1893	15,020

FATAL ACCIDENTS for Year ended 30th June, 1893.

	Passengers Killed.	Employees Killed.	Others Killed.	Total Killed.
Falling from cars or engines	2	21	5	28
Getting on or off trains in motion	5	6	15	26
At work making up trains		3		3
Coupling cars		9		9
Collisions and derailments	3	8	3	14
Striking bridges		12		12
Walking or being on track			87	87
Explosions				
Other causes	1	13	23	37
Total	11	72	133	216

The tables appended may be summarized as follows:—

Miles of railway completed (track laid).....	15,320
do sidings.....	2,012
do iron rails in main line.....	437
do steel do.....	14,883
Capital paid (including the four following items)....	\$872,156,475
Government bonuses paid.....	\$153,523,816
do loans paid.....	\$21,619,149
do subscriptions to shares paid.....	\$300,000
Municipal aid paid.....	\$14,017,957
Miles in operation.....	15,020
Earnings.....	\$52,042,397
Working expenses.....	\$36,616,033
Net earnings.....	\$15,426,364
Passengers carried.....	13,618,027
Freight carried (tons).....	22,003,599
Train mileage.....	44,385,953
Passengers killed.....	11
Number of elevators.....	53
do guarded level crossings.....	139
do unguarded do.....	9,552
do overhead bridges.....	401
do level crossings of other railways.....	208
do junctions with other railways.....	304
do do branch lines.....	216
do engines owned.....	1,937
do do hired.....	17
do sleepers and parlour cars owned.....	155
do do do hired.....	6
do first class cars owned.....	949
do do hired.....	28
do second class and immigrant cars owned..	662
do do do hired...	2
do baggage, mail and express cars owned...	601
do do do hired....	9
do cattle and box freight cars owned.....	33,795
do do do hired.....	1,946
do platform cars owned.....	15,545
do do hired.....	174
do coal and dump cars owned.....	3,330
do do hired.....	125

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

COLLINGWOOD SCHREIBER,
Chief Engineer of Railways and Canals.

J. H. BALDERSON, Esq.,
Secretary, Dept. Railways and Canals,
Ottawa.

Department of Railways and Canals.

APPENDIX No. 5.

INTERCOLONIAL RAILWAY,
OFFICE OF THE GENERAL MANAGER.
MONCTON, N.B., 28th September, 1893.

SIR,—I have the honour to submit the following report on the working of the Intercolonial Railway during the fiscal year which ended 30th June, 1893.

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 cost of road equipment on 30th June, 1892, by last report was.....\$ 53,949,933 65

The additions during the year were as follows:—

Increased accommodation at Halifax.....	\$ 56,934 62
Additional sidings at Halifax	4,500 00
Increased accommodation at New Glasgow.....	5,999 47
do do Moncton.....	8,590 00
do do St. John.....	9,512 58
Additional property accommodation at St. John.....	120,526 49
Extension along the front of City of St. John	2,816 63
To pay interest and costs, Gallivan vs. The Queen.....	476 30
Stations and sidings at Eureka Junction.....	9,000 00
Branch line at Campbellton to Mowatt's wharf.....	1,914 00
Rolling stock.....	16,813 06
Construction.....	125 65
St. Charles Branch.....	1,061 59
Total	\$238,260 39
Deduct St. Charles Branch refund.....	9,275 60
Total	\$228,984 79
Cape Breton Railway.....	13,730 47
Train ferry between Mulgrave and Point Tupper.....	46,252 27
Oxford and New Glasgow Railway.	7,949 05
	<u>\$ 296,916 58</u>

Making the total cost on the 30th June, 1893.....\$ 54,246,850 23

Increased accommodation at Halifax.—This is for the purchase of land to increase the freight accommodation.

Additional sidings at Halifax.—These were required chiefly for the steamship business.

Increased accommodation at New Glasgow.—This completes the work commenced last year, of building offices and station, and extending the freight shed and yard.

Increased accommodation at Moncton.—This is for additional machinery for the workshops.

Increased accommodation at St. John.—This is the cost of a freight shed erected at the Deep water terminus, also the cost of building cribwork, grading, laying tracks, and making roads to utilize the recently acquired property.

Additional property accommodation at St. John.—This is the balance of the cost of the Harris property.

Extension along the front of the City of St. John.—This is an extension of the railway track to several city wharfs, made at the request and with the co-operation of the city authorities. A contract was made and work commenced in the latter part of the year.

To pay interest and costs, Gallivan vs. The Queen.—This is for the settlement of an old land claim at St. John.

Station and sidings at Eureka Junction.—Large iron smelting works were recently erected at this place, a town called Ferrona was built, and a branch railway was constructed; these made passenger and freight stations and sidings necessary. They were completed during the year. The amount named is the cost.

Branch line at Campbellton to Mowatt's wharf.—This is to connect the railway with navigable water at that point.

Rolling stock.—This is the cost of applying the Westinghouse automatic air brake to 86 freight cars, and of fitting 10 passenger-train cars with steam-heating apparatus; also the cost of apparatus to be fitted to other cars.

The total number of passenger train cars fitted with apparatus to heat them by means of steam from the locomotive is 200, and the total number of locomotives fitted to give steam to heat the cars is 62.

The total number of freight cars fitted with the Westinghouse automatic air-brake is 747.

Construction.—This was a payment on account of the original construction of the railway.

St. Charles Branch.—The expenditure is for legal expenses in connection with land claims; the credit is the refund of money used to tender claimants in payment for land, but which tender was refused.

Cape Breton Railway.—This consists of payments made at Ottawa in connection with the construction of the road.

Train ferry between Mulgrave and Point Tupper.—This is for dredging, and building docks and transfer bridges for the train ferry.

Oxford and New Glasgow Railway.—This consists of payments made at Ottawa for the construction of the road.

REVENUE ACCOUNT.

The expenditure and earnings for the year compare as follows:—

Gross earnings.....	\$3,065,499 09
Expenditure	3,045,317 50
	<u>\$ 20,181 59</u>

The gross earnings compare as follows with those of the previous year:—

In 1892-93.....	\$3,065,499 09
In 1891-92.....	2,945,441 97
	<u>\$ 120,057 12</u>

Department of Railways and Canals.

The earnings from passenger traffic compare as follows :—

In 1892-93.....	\$1,002,912 74
In 1891-92.....	961,427 94
	\$ 41,484 80

The earnings from freight traffic compare as follows :—

In 1892-93.....	\$1,868,823 84
In 1891-92.....	1,803,529 03
	\$ 65,294 81

The earnings from mails and sundries compare as follows :—

In 1892-93.....	\$193,762 51
In 1891-92.....	180,485 00
	\$ 13,277 51

The number of passengers carried compares as follows :—

In 1891-92.....	1,297,732
In 1892-93.....	1,292,878
	4,854

There was a decrease of 9,822 in the number of local passengers, and an increase of 4,968 in through passengers.

The weight of freight carried compares as follows :—

	Tons.
In 1892-93.....	1,388,080
In 1891-92.....	1,264,575
	123,505

There was an increase of 279,845 tons of local freight, and a decrease of 156,340 tons of through 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.	1891-92.	1892-93.	Increase.	Decrease.
Barrels of flour.....	954,015	956,913		97,102
Bushels of grain.....	3,776,677	1,514,619		2,262,058
Lumber in feet.....	175,474,340	181,211,013	5,736,673	
Head of live stock.....	87,889	93,369	5,480	
Other goods in tons.....	858,635	1,031,184	172,549	

The quantity of coal carried from the mines in Nova Scotia to the upper provinces, compares as follows with the previous year :—

	<i>Via</i> Chaudière Junction and St. Henri Junction.	<i>Via</i> St. John.
	Tons.	Tons.
In year ended 31st December, 1891.....	116,005	7,663
do do 1892.....	118,164	655

WORKING EXPENSES.

The working expenses compare as follows with the previous year:—

In 1891-92.....	\$ 3,439,377 00
In 1892-93.....	3,045,317 50
	<hr/>
	\$ 394,059 50

The averages compare with last year as follows:—

	Cents.
Per mile run by engines—	
In 1891-92.....	60·96
In 1892-93.....	57·21
Per mile run by trains—	
In 1891-92.....	73·13
In 1892-93.....	69·20
Per mile of railway—	
In 1891-92	\$3,011 71
In 1892-93	2,666 65

The necessary repairs were made to the permanent way and structures, and all the works of the railway were maintained in a state of efficiency.

The number of ties renewed was 390,000, 150 miles of track were rebalasted, 30 miles of track were relaid with heavier steel rails, 67 lbs. to the yard, and two miles of new sidings were constructed at various places.

One new steel bridge of 80 feet span was put in to replace a wooden one. Fifteen pairs of new steel plate girders each from 40 to 50 feet span, were put into bridges to strengthen them.

The floors of a large number of bridges were renewed and improved.

The fences received necessary repairs, and 75 miles of new fences were built.

In addition to the repairs of snow fences, 11,000 lineal feet of snow fences were built.

The snow sheds received necessary repairs, and 2,000 lineal feet of snow sheds were rebuilt.

The buildings on all parts of the line were repaired, one station building, and one agent's dwelling were built, and one freight shed was rebuilt.

The wharfs at various places received necessary repairs.

The rolling stock received necessary repairs and is in good order.

Two first-class passenger cars, one combined postal and smoking car, eighty freight cars, three snow-ploughs and one flanger car were built.

The water service was maintained in a state of efficiency.

STORES.

The value of stores purchased was.....	\$ 962,351 18
The value of stores used was	1,302,343 62
The value of old material sold was.....	103,653 21
The value of stores on hand at the end of the year was:—	
Ordinary stores, including fuel.....	\$ 267,269 00
Iron and steel rails and fastenings	161,133 93
Old material for sale.....	73,724 73
	<hr/>
Total.....	\$ 502,127 66

GENERAL.

The snow fall along the line during the winter of 1892-93 was not as heavy as usual and the cost of clearing snow and ice was less than it had been for many years

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,
Ottawa.

Department of Railways and Canals.

No. 1.—INTERCOLONIAL RAILWAY. CAPITAL ACCOUNT, Year ended 30th June, 1893.

DR.

CR.

		\$	cts.		\$	cts.	
1892.				1892.			
June 30.	To Cost of Intercolonial Railway to date,	47,159,567	51	June 30.	By Dominion of Canada.	53,949,933	65
	Eastern Extension Railway to date.	1,324,042	81				
1893.	Oxford and New Glasgow Railway to date.	1,825,192	14				
	Cape Breton Railway to date	3,641,131	19				
June 30.	Expenditure for current year—					53,949,933	65
	Intercolonial Railway—						
	Increased accommodation, Halifax.	56,934	62				
	Additional sidings at Halifax.	4,500	00				
	Increased accommodation, Moncton.	8,590	00				
	do do New Glasgow.	3,999	47				
	do do St. John.	9,512	58				
	Additional property accom'n. St. John.	120,526	49				
	Extension along city front do	2,816	63				
	Rolling stock.	16,813	06				
	Construction.	1,125	65				
	St. Charles Branch.	1,691	59				
	Stations and sidings, Eureka Junction.	9,000	00				
	Branch line at Campbellton to Mowat's Wharf	1,914	00				
	To pay interest and costs in suit of Gallivan vs. Queen.	476	30				
	Balance forward.	238,260	39				
	Less—St. Charles Branch—	9,275	60				
	Cash advanced to pay for land returned.	228,984	79				
	Eastern Extension, Cape Breton Railway—						
	Train Ferry, Strait of Canso.	46,252	27	1893.			
	Oxford and New Glasgow Railway	7,949	05	June 30.	By the Dominion of Canada	296,916	58
	Cape Breton Railway.	13,730	47				
						54,246,850	23

T. WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1893.

No. 2.—INTERCOLONIAL RAILWAY.

DR.

REVENUE ACCOUNT, Year ended 30th June, 1893.

CR.

Previous Year.	Expenditure.	Year ended 30th June, 1893.	Previous Year.	Earnings.	Year ended 30th June, 1893.
\$ cts.		\$ cts.	\$ cts.		\$ cts.
1,148,199 20	Locomotive power, Abstract No. 1	1,054,488 19	961,427 94	Passenger traffic..	1,002,912 74
703,557 89	Car expenses, Abstract No. 2....	675,174 52	1,803,529 03	Freight traffic....	1,868,823 84
1,007,935 40	Maintenance of way and works, Abstract No. 3.....	763,147 96	180,485 00	Mails and sundries	193,762 51
3 3,569 74	Station expenses, Abstract No. 4	374,641 07	2,945,441 97		
189,263 60	General charges, Abstract No. 5.	196,256 77			
3,442,525 83		3,063,708 51			
3,148 83	Car mileage.....	18,391 01			
		3,045,317 50			
	Balance	20,181 59	493,935 03		
3,439,377 00		3,065,499 09	3,439,377 00		3,065,499 09

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1893.

No. 3.—INTERCOLONIAL RAILWAY.

LOCOMOTIVE POWER—(Abstract No 1).

Previous Year.		Year ended 30th June, 1893.
\$ cts.		\$ cts.
11,985 68	Mechanical superintendent's salary, clerks, office and travelling expenses ..	12,314 20
273,946 11	Wages, drivers, firemen and cleaners.	255,555 73
485,123 87	Fuel.....	459,021 87
47,324 88	Oil, tallow, waste and small stores....	38,270 58
273,548 23	Repairs to engines, tenders and engine tools.....	233,911 98
33,979 92	Water, including pump and tank repairs.....	32,193 60
22,290 51	Miscellaneous	23,220 23
1,148,199 20		1,054,488 19

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1893.

Department of Railways and Canals.

No. 4.—INTERCOLONIAL RAILWAY.

CAR EXPENSES—(Abstract No. 2).

Previous Year.	—	Year ending 30th June, 1893.
\$ cts.		\$ cts.
89,811 00	Repairs to passenger cars	82,683 36
24,656 74	do postal, express and baggage cars.....	21,635 70
210,149 12	do freight cars and vans	208,728 98
8,297 98	do snow-ploughs and flangers	6,249 56
247,725 93	Wages of conductors, train baggage-masters and brakemen.....	233,097 91
25,643 02	Oil and waste for packing	22,192 87
63,524 71	Small stores and fuel	66,898 37
33,749 30	Miscellaneous	33,687 77
703,557 89		675,174 52

T. WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1893.

No. 5.—INTERCOLONIAL RAILWAY.

MAINTENANCE OF WAY AND WORKS—(Abstract No. 3).

Previous Year.	—	Year ending 30th June, 1893.
\$ cts.		\$ cts.
7,753 96	Chief and assistant engineers, salaries, clerks, office and travelling expenses.	6,986 66
425,053 54	Wages, repairing roadway, fences and semaphores, including new sidings laid in	352,490 37
150,649 59	Rails and fastenings, including new sidings laid in	75,507 29
112,912 04	Sleepers	84,435 73
169,378 31	Timber, lumber, &c., for repairs to bridges, cattle-guards, snow sheds, fences, &c.	123,412 60
9,588 00	Repairs to wharfs	8,019 73
87,836 88	Repairs to buildings and platforms, including extensions of and additions to same.....	67,190 18
11,410 52	Repairs to tools	12,961 59
30,340 46	Cleaning snow and ice	29,881 31
3,012 10	Miscellaneous	2,262 50
1,007,935 40		763,147 96

T. WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1893.

No. 6.—INTERCOLONIAL RAILWAY.

STATION EXPENSES—(Abstract No. 4).

Previous Year.		Year ended 30th June, 1893.
§ cts.		§ cts.
306,068 66	Salaries and wages of station masters, agents, clerks, telegraph operators, station baggage-masters, yardmasters, switchmen, watchmen and labourers.....	287,068 18
87,501 08	Fuel, oil, light, stationery, tickets and other incidental expenses.....	87,572 89
	Miscellaneous.....	
393,569 74		374,641 07

T. WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1893.

No. 7.—INTERCOLONIAL RAILWAY.

GENERAL CHARGES—(Abstract No. 5).

Previous Year.		Year ended 30th June, 1893.
§ cts.		§ cts.
76,366 77	General manager and district superintendents, train despatchers, general freight agent, general passenger agents' salaries, clerks, office and travelling expenses.....	76,767 33
25,578 91	Chief accountant and treasurer, traffic auditor, paymaster and cashiers' salaries, clerks, office and travelling expenses.....	27,414 24
6,758 26	Damages to men, animals and goods.....	12,415 82
29,922 20	Ferry service.....	31,211 40
2,766 13	Telegraph expenses (not including pay to operators).....	1,613 85
32,699 79	Miscellaneous—printing, advertising, &c.....	30,233 72
15,171 54	Agency expenses.....	16,600 41
189,263 60		196,256 77

T. WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1893.

No. 9.—INTERCOLONIAL RAILWAY.

GENERAL BALANCE, Year ended 30th June, 1893.

DR.

CR.

	\$	cts.
Cash.....	655	94
General stores—		
Ordinary stores, including fuel.....	\$ 267,269	00
Iron and steel rails and fastenings.....	161,133	93
Old material for sale.....	73,724	73
Stations.....		
Rents.....		
Departmental accounts—		
Railways and Canals.....	\$ 81	65
Agriculture.....	1,452	07
Post Office.....	18,539	19
Marine.....	36	85
Militia and Defence.....	3,616	86
Grand Trunk Railway—traffic.....	\$ 750	71
do Windsor and Annapolis Railway—traffic.....	705	95
do general account.....		
C. P. R. rolling stock.....		
Oxford and New Glasgow Railway.....		
Atchison, Topeka and Santa Fe Railway.....		
Western Counties Railway—general account.....	\$ 15,893	35
do traffic.....	1,657	42
Canadian Pacific Railway.....	\$ 2,334	50
do New Brunswick division.....	6,343	24
Canada Eastern Railway—general.....	\$ 1,891	62
do traffic.....	5,891	09
New Brunswick and Prince Edward Island Railway		
Caraqueet Railway.....		
Quebec Central Railway.....		
Boston and Albany Railway.....		
Kent Northern Railway.....		
Témiscouata Railway.....		
Buctouche and Moncton Railway.....		
Cape Breton Railway.....		
Bay Chaleur Railway.....		
By Dominion of Canada.....		
Suspense.....	683,115	06
Canadian Pacific Ry.—traffic account.....	4,137	59
do New Brunswick division.....	\$ 15,167	35
do.....	0	06
Central Railway of New Brunswick.....	15,167	41
Elgin, Petitoctiac and Havelock Railway.....	47	26
Nova Scotia Central Railway.....	1	62
Salisbury and Harvey Railway.....	7	39
Grand Trunk Railway—general.....	8	68
Chatham Railway.....	2,734	54
Prince Edward Island Steam Navigation Co.....	0	07
do.....	1	50
23,726 62		
7,980 23		
1,456 66		
22,446 90		
5,540 17		
8 91		
17,550 77		
8,677 74		
7,782 71		
13 65		
314 09		
3,760 74		
8 00		
1 32		
0 53		
128 19		
19 20		
12 00		

Department of Railways and Canals.

Boston and Maine Railway.....	22 03
Maine Central Railway.....	6 13
South Eastern Railway.....	12 50
New York and New England Railway.....	9 89
Spring Hill and Parsboro'.....	3,161 99
Halifax and Cape Breton Railway.....	1,151 42
Elgin Branch Railway.....	726 10
Pennsylvania Railway.....	17 00
New York, Chicago and St. Louis Railway.....	14 40
Cumberland Railway and Coal Co.....	66 69
New Glasgow Coal, Iron and Railway Co.....	0 84
Pullman Palace Car Co.....	50 30
Canadian Express Co.....	3,461 63
Allan Steamship Line.....	1,892 13
Acadia Coal Co.....	736 02
Intercolonial Coal Co.....	1,497 50
International Coal Co.....	24 73
Union Bearing Co.....	928 18
Halifax Cotton Co.—siding.....	8,936 91
Folsom Iron Works.....	273 25
Town of Dartmouth.....	28,000 00
Western Union Telegraph Co.....	350 74
C. P. R. Telegraph.....	186 00
St. John Street Railway Co.....	20 00
Nova Scotia Steel and Forge Co.....	11 25
Ontario Car and Foundry Co.....	1,276 00
Goldbrook Rolling Mills.....	1,967 41
Steamer "Contest".....	277 50
do "Admiral".....	2,314 34
do "Admiral".....	0 50
Mallory Steamship Line.....	33 50
Steamship "Vancouver".....	7 00
L. C. R. Employees' Relief and Insurance Association.....	788 81
Remittances destroyed.....	0 95
Sherbrooke Tank Line.....	71 30
Schr. "Mary Jane".....	3 00
Nauwigewauk Station.....	5 00
Glengarry Station.....	25 21
Bloomfield Station.....	65 84
Coal Branch Station.....	55 00
Weldford Station.....	80 00
St. Luce Station.....	22 00
Bic Station.....	107 12
St. Arsène Station.....	6 65
Valley Station.....	72 71
Iona Station.....	40 00
Nappan Station.....	28 38
Kent Junction.....	231 04
Derby Junction Station.....	78 87
Gloucester Junction Station.....	19 69
Dalhousie Junction Station.....	

CR.

GENERAL BALANCE, Year ended 30th June, 1893—Concluded.

DR.

	\$	cts.	\$	cts.
Campbellton Freight Station		25 00		
Isle Verte Station.....		25 00		
Individual accounts.....		15,112 74		
Total		705,221 12	Total	705,221 12

T. WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1893.

Department of Railways and Canals.

No. 10.—INTERCOLONIAL RAILWAY.

COMPARATIVE STATEMENT of Averages, Year ended 30th June, 1893.

	1893.	1892.
Mileage of railway.....	1,142	1,142
Engine mileage.....	5,323,279	5,641,888
Train do.....	4,400,792	4,703,151
Car do.....	49,537,490	51,940,141
Receipts per engine mile..... Cents.	57·58	52·21
do mile of railway..... Dollars.	2,684·32	2,579·19
Percentage of passenger earnings to gross earnings.....	32·72	32·64
do freight do do.....	60·96	61·23
do other do do.....	6·32	6·13
Expenses per engine mile:—		
Drivers, firemen and cleaners' wages..... Cents.	4·80	4·85
Fuel.....	8·62	8·60
Oil, tallow, waste and small stoves.....	72	84
Repairs to engines.....	4·39	4·85
Water and tank repairs.....	62	60
Miscellaneous.....	43	40
Total.....	19·58	20·14
Mechanical superintendent's salary, office and travelling expenses.....	23	21
Total.....	19·81	20·35
Locomotive power per engine mile..... Cents.	19·81	20·35
Car expenses do.....	12·68	12·47
Maintenance of way and works per engine mile.....	14·34	17·87
Station expenses do.....	7·04	6·98
General charges do.....	3·68	3·35
Car mileage..... Cr.	57·55	61·02
	34	06
Total per engine mile.....	57·21	60·96
Locomotive power per train mile..... Cents.	23·96	24·41
Car expenses do.....	15·34	14·96
Maintenance of way and works per train mile.....	17·34	21·43
Station expenses do.....	8·51	8·37
General charges do.....	4·46	4·02
Car mileage..... Cr.	69·61	73·19
	41	06
Total per train mile.....	69·20	73·13
Working expenses per mile of railway.....	2,666·65	3,011·71

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1893.

INTERCOLONIAL RAILWAY,
CHIEF ENGINEER'S OFFICE,
MONCTON, N.B., 1st September, 1893.

SIR,—I have the honour to submit my report of the Engineering Department for the year ended 30th June, 1893.

TRACK.

During the year 30 $\frac{1}{2}$ miles of old steel rails (4-inch) have been taken up and replaced with new 4 $\frac{1}{2}$ -inch steel rails, weighing 67 pounds to the yard.

TIES.

During the year, 398,546 ordinary ties, and 143 sets of switch ties, were renewed.

BALLASTING.

About 76,863 cubic yards of ballast were used during the year throughout the whole line. The cost of this service amounted to \$37,511.20.

SEMAPHORE SIGNALS.

New semaphore signals have been erected at the following places: Milford, Shubenacadie, Alton, Thomson, Nappan and Dalhousie Junction. Necessary repairs have been made to all other signals throughout the line.

SIDINGS.

During the year, five miles of additional siding accommodation was provided.

FENCING.

Seventy-five miles of new barbed wire and woven wire fence was erected during the year in place of pole fence and post and board fences, and at points where no fences had previously been erected. The expenditure for this service was \$41,768.03.

SNOW SHEDS AND FENCES.

On northern division No. 3, 2,000 lineal feet of snow shedding were renewed, and throughout the line, 11,877 feet of snow fencing were renewed. Large repairs were also made to snow sheds and snow fences.

WHARFS AND TRESTLES.

Heavy repairs were made to the Deep Water Terminus wharf built in 1882, the capping and stringers on the north side were entirely renewed in pitch pine, hemlock being previously used. Heavy repairs were also made to the caps and stringers under the freight shed. Four hundred and twenty-nine feet of the coal trestle approach at the Deep Water Terminus (built of hemlock originally), were renewed in pitch pine. Heavy repairs were also made to the coal shed and trestle approach on the north wharf.

One of the turntables on the coal trestle approach on the north wharf was renewed.

A heavy storm stripped a portion of the elevator gallery roof, this was renewed, and large repairs were made to the trestle supporting the elevator gallery.

A cribwork retaining wall about 400 feet long, and 7 feet high, was erected at the north side of the Marine and Fisheries wharf. The south wharf occupied by the Marine and Fisheries Department, was almost entirely renewed, and large repairs made to the north wharf occupied by the same department.

At Richmond, 350 feet of the coal trestle approach was renewed with pitch pine timber. Necessary repairs were made to the north and south wharfs at Richmond.

At Pictou Landing large repairs were made to the east wharf, about one-half of it from low water mark was renewed. Five mooring posts were put in.

Department of Railways and Canals.

Large repairs were made to the wharfs at both Mulgrave and Point Tupper. Additional blocks, wharfs and barges were provided at these points for the transfer service to be established, connecting the Eastern Extension Division with the Cape Breton Division.

At Newcastle, 100 feet of the west side of the Deep Water Wharf was renewed. Large repairs were made to the coal trestle approach at Newcastle yard.

At Pictou necessary repairs were made to the old railway wharf and also the new wharf.

At Truro the coal trestle was overhauled and repaired.

At Springhill and Amherst the coal trestles were overhauled and repaired.

At Sackville and Dorchester slight repairs were made to wharfs where necessary.

At Point du Chêne a new wharf 434 feet long and 15 feet wide was built; the steamboat wharf was extended 225 feet by 17 feet, and 240 feet of new wharf was built on the west side of the dock. Necessary repairs were made to the east wharf.

At St. John, 312 feet of cribwork was built on the flats on the north and west boundaries of the railway property at York Point, and a comparatively large area will shortly be available by the deposit of rubbish from the city.

At the Deep Water Terminus some piles were driven and foundation timbers put in. Necessary repairs were made to the ballast wharf, and a runway for horses placed on top of the wharf.

The coal trestle at St. John also received necessary repairs.

At Dalhousie necessary repairs were made to the deep water wharf.

At Hadlow, Pointe Lévis and Lévis, a gang of carpenters were engaged throughout the season making necessary repairs to cribwork.

BUILDINGS AND PLATFORMS.

At Halifax one side of the Deep Water Terminus freight shed roof was renewed. A new hardwood floor was laid in the city ticket agent's office, and the walls of the same office were also sheathed.

At Richmond large repairs were made to the house occupied by the mechanical foreman, which was badly damaged by fire. The sills of the station were renewed and the roof reshingled. A new floor was put in the agent's office. Necessary repairs were made to the roof of Richmond round-house, and a number of windows put in the dome of the same building.

The sills of the sugar shed (640 feet long) on the south wharf were renewed. The roof of the coal shed was reshingled and the building generally overhauled and repaired.

At Bedford the roof of the agent's house was reshingled and the sills and joists of building repaired where necessary.

At Rocky Lake the platform was renewed.

At Elmsdale necessary repairs were made to the freight-house.

At Milford the passenger platform, 250 feet long, was renewed and the loading platform at the same place overhauled and repaired.

At Stewiacke the loading platform, 140 feet long, was renewed and extended 100 feet.

At Brookfield the cattle yard was repaired.

At Truro the station platform was renewed, and new sills were placed under the station, where required. New hardwood floors were laid in the waiting-room, conductor's room and the mechanical foreman's office; a new floor was also laid in the baggage-room.

The mechanical blacksmith shop was moved from the east to the west side of the round-house, and the track blacksmith shop moved from near the tannery to the same place. These buildings were attached and made into one shop.

General repairs were made to the outside of round-house, and eight new smokestacks were put up. The old hemlock floor between nine pits was replaced with a brick floor laid on a solid foundation of sand and ashes.

At West River the loading platform was repaired.

At Lansdowne the loading platform was renewed.

At Ferrona Junction a new passenger station, freight-house and platform was provided to accommodate the business arising from the construction of the new iron furnaces at this place.

At Stellarton the roof of addition to engine shed was overhauled and repaired, and necessary repairs were made to the roof of the old portion of engine shed.

At New Glasgow the new brick passenger station, &c., referred to in my report of last year, was completed and opened for traffic in October, 1892. The roof of the old part of freight-house was covered with iron shingles. The baggage-room was moved to its proper position, and underpinned with heavy flatted cedar. A hardwood floor was laid in the station agent's office in the freight shed.

At Pictou Landing, the north side of roof of station was recovered with metallic shingles.

At Tracadie a small kitchen 12 by 16, was put up for the agent, and necessary repairs were made to the station.

The small flag station at Gerrior's was moved to a point half a mile east, and the name changed to Monastery.

Necessary repairs were made to the following stations: Antigonish, Pomquet, Afton, West Merigomish, James River and Avondale.

At Mulgrave the station house was moved some 20 feet, and the station freight-house and icehouse painted. The platform at this place was also lengthened and widened.

At Denmark and Oxford stations new cattle-pens were provided.

At Wallace a well was provided for the use of the station agent.

At Tatamagouche and Pugwash Junction, water was put into the stations for the agent's use.

At East Mines necessary repairs were made to the clapboards of station building, and the roofs of station and coal shed covered with iron shingles. These buildings were also painted.

At Londonderry necessary repairs were made to the sides and roof of station, and the building painted. New sills and a new floor were also laid in the car inspector's office, and a new floor laid in the tank house. These buildings were painted.

At Atkinson's Siding a new flag station and platform were provided in place of the one destroyed by fire.

At Thomson new sills were placed under the station, a new floor laid in the waiting-room, and the walls sheathed and painted. Necessary repairs were also made to the platform. The station was painted.

At Spring Hill the station was overhauled and repaired, and a new hardwood floor was laid in the kitchen, a new floor was also laid in the coal shed, and the building painted.

At Amherst a new hardwood floor was laid in the kitchen of restaurant and the building painted. A small office was put up in the freight-house and the building painted. The roof of blacksmith's shop was re-covered with iron shingles. The loading platform, 200 feet long, was renewed.

At Maccan new sills were put under the office and the walls sheathed and painted. A new hardwood floor was also laid in the office. The station was painted.

At Fort Lawrence the top of loading platform was renewed.

At Aulac the station building was overhauled, repaired and painted. The office, waiting-room and kitchen were sheathed and the walls painted.

At Sackville new sills were placed under the station, new floors were laid in the office and ladies' waiting-room, and the walls of office sheathed and painted. The station was painted.

At Evan's Flag Station a new floor was put down, and the roof repaired and painted.

At Rockland and College Bridge the stations were overhauled, repaired, and painted. The platforms were also repaired.

Department of Railways and Canals.

At Calhoun's a new roof was put on the station and painted. A tool-house was also erected for the section men.

At Shediac necessary repairs were made to the station building and freight-shed. The station platform was extended at the east end, and the freight-shed platform, 140 by 15 feet, renewed.

At Pointe du Chêne a new cattle yard was provided, and the old ones were renewed. Double deck gangways were also provided to facilitate the loading of sheep.

At Moncton nine sections of the floor of the old round-house were renewed. A new foundation was put under the drop table in the erecting shop, and a trestle erected for the hydraulic lift. The south side of the freight-house was recovered with iron shingles and painted. The station building and restaurant were overhauled, repaired and painted. Large repairs were made to the workmen's cottages on Bridge Street. Necessary repairs were made to the mechanical shops and other railway buildings in Moncton yard.

At Salisbury the station platform was extended 25 feet.

At Petitcodic necessary repairs were made to the station building, freight-house and platform.

At Anagance the building was overhauled and repaired.

At Sussex the roofs of coal shed and oil shed were recovered, and the station platform extended 90 by 15 feet. A new loading platform 120 by 20 feet, was erected to provide accommodation for the large lumber business now done at this station.

At Hampton modern water-closets were provided in the general waiting-room, and the old-fashioned closets at this station done away with.

At Model Farm the station platform, 100 by 11 feet was renewed.

At Quispamsis a new loading platform was erected.

At St. John two of the long car shops recently acquired from James Harris & Company, were refitted and converted into freight warehouses, the floor of the south shop was taken up, and a track 600 feet long laid throughout the whole length of this shop. The chimney in connection with boiler-house was taken down, and the engine-room was converted into an office.

The interior walls of the train shed were kalsomined and painted; necessary repairs were also made to the windows in the roof of train shed.

At Harcourt the foundation of coal shed was repaired.

At Kent Junction the roof of coal shed was recovered with iron shingles.

At Acadieville a new combined passenger and freight station was erected at a cost of \$675.

At Indiantown a cellar was made under the station for the agent's use, and the roof of engine-house was overhauled and repaired.

At Newcastle a new freight-house and loading platform was erected to replace the one destroyed by fire in August, 1892, at a cost of \$1,500, 120 feet of the station platform was renewed, the roof of blacksmith's shop was recovered, and other necessary repairs made to the engine-house and station.

Necessary repairs were made to all passenger and loading platforms between Moncton and Newcastle.

At Beaver Brook the station was overhauled, repaired and painted.

At Bartibogue the foundation of tank was repaired.

At Red Pine the station was overhauled and repaired, and one side of the roof shingled and painted.

At Bathurst necessary repairs were made to the roofs of the station building, baggage-room and freight-house. A box drain was put in to carry away the waste water from the station.

At Petit Rocher the station was overhauled, repaired and painted.

At Belledune the loading platform was repaired.

At Jacquet River the station building and freight-house were overhauled, repaired and painted; the loading platform was rebuilt.

At New Mills the station was overhauled, repaired and painted, a new hardwood floor was laid in the agent's office, and a pump provided for the station.

At Charlo the doors and windows of station were repaired, and a box drain put in to carry away the water from the cellar. The sills of coal shed were renewed, and the iron roof of station painted.

At Dalhousie Junction the roof of station was recovered, and necessary repairs made to the freight shed and station platform.

At Dalhousie the coal shed was repaired, and a new iron smokestack was provided for the engine-house. The station platform were partially recovered.

At Campbellton the car shop was thoroughly overhauled; the sills were renewed, the clapboarding partially renewed and the roof recovered with tar and gravel. Large repairs were also made to the enginehouse, five sections of the floor were renewed. The roofs of coal and wood sheds and iron store were recovered with cedar shingles. The freight-house and ice-house were painted two coats.

At Metapedia the inside of waiting-room was sheathed.

At Millstream the roof of section foreman's house was reshingled.

At Assametquaghan the inside of waiting-room was sheathed, and the floor of kitchen renewed.

At Causapscaal hardwood floors were laid in the waiting-room and office, the walls of waiting-room were sheathed with matched pine.

At Anqui the waiting-room was sheathed with matched pine.

At Cedar Hall the old station was thoroughly overhauled and repaired. A stone foundation was put under it, and an addition made to it of living apartments for the station master at a cost of \$1,000. The passenger platform was renewed and extended. The roofs of tank-house and coal shed were recovered with iron shingles. The station and freight-house were painted.

At Metis the station and freight-house were overhauled, repaired and painted.

At St. Octave the station platform was renewed.

At Ste. Flavie the roof of coal shed was recovered with iron shingles.

At St. Anaclet the station was overhauled, repaired and painted, and the platform was renewed.

At Rimouski necessary repairs were made to the station and freight shed.

At Trois Pistoles repairs were made to the station and restaurant.

At Cacouna the station was overhauled, repaired and painted; the station platform was partially renewed.

At Rivière du Loup necessary repairs were made to the station and freight shed. The floor of engine-house was partially renewed. A patent automatic six-seat flush closet was provided for the mechanical shops.

The woodwork of the engine-house and the building occupied by the stores department was painted.

At Elgin Road the station platform was renewed.

At L'Islet a new hardwood floor was laid in the waiting-room.

At St. Pierre the station platform was renewed.

At St. Charles necessary repairs were made to the station and the woodwork painted.

At St. Henri a new hardwood floor was laid in the waiting-rooms.

At Hadlow large repairs were made to the floor of engine-house. A number of tenement houses on the Chapman property were thoroughly overhauled, repaired and painted.

At Lévis the station was repaired and painted.

BRIDGES AND CULVERTS.

At Richmond the centre pier of swing span of the Narrows bridge was overhauled and pointed with Portland cement.

One abutment of an open culvert one and a half miles east of Milford was taken down and rebuilt, and the superstructure of wood was replaced with iron girders.

Near Stewiacke, an arch culvert was extended 30 feet to retain the embankment which was gradually slipping into the river.

At Stewiacke River, one of the abutments was partially rebuilt.

Department of Railways and Canals.

At Alton the abutments of large open culvert were taken down and replaced with substantial masonry laid in cement. The original was cheap rubble masonry laid in lime.

At Truro the cast iron turntable, 45 feet in diameter, was replaced with a rivetted steel plate girder 55 feet in diameter. This involved the rebuilding of the "race circle," and the resetting of the centre foundation.

Near Lorne on the Pictou Branch, two stone cattle guards were rebuilt.

Large repairs were made to a tunnel carrying a stream under the track near West River. It caved in from the surface, and had to be cleaned out and shored up to carry the track above it. It is now being lined with masonry.

At Sutherland's River a pair of iron bents were put under ends of main stringers of the 160 feet span erected last year.

At Pine Tree Gut two bents of trestle were renewed, and other necessary repairs made to the structure.

At Dewar's Mills an old Howe truss was replaced with a steel plate girder of 80 feet span. The abutments were built up 8 feet in concrete for the new girders, which were not so deep as the old wooden ones.

Large repairs were made to the old Howe trusses at James River, Murphy's and West River.

At Yankee Grant permanent stone bridge seats were built under ends of steel girders put in last year.

Thirty-seven new braces were put in the 100 feet Howe truss at Pomquet, and eight new wall plates.

Four bents of Pomquet pile trestle broken by the run of ice were renewed.

A standard top and guard rails were put on Stewart's Brook bridge.

Five beam culverts near New Glasgow were converted into box culverts. This makes the track safer, and reduces the cost of maintenance.

A cedar box culvert was put in under an embankment at mile post 60 (near Piedmont), the original culvert having choked up.

Large repairs were made to Brown's Point pile bridge at the Pictou Town Branch, 100 cross-ties were renewed. The cribwork on embankment approaches of this structure was carried up about 2 feet higher to prevent the heavy seas washing over it.

Standard pitch pine floors and guard rails were put on five spans of lattice girders at Truro and Belmont.

A pair of iron girders were put in on bridge at Quispamsis in place of wooden stringers, struts and straining beams.

The floors of overhead iron bridges at Lakeside and Hampton were renewed.

A new pitch pine standard floor and guard rails were put on Jardine's bridge, near St. John.

Stanley Street overhead bridge was overhauled, repaired, and the floor partially renewed.

Two open culverts on section 51 were rebuilt; the frost had disturbed and partially thrown down the walls.

A gang of rivetters were engaged about three months between St. John and Halifax overhauling, repairing, tightening loose nuts and making other necessary repairs to iron bridges.

A gang of men were engaged about three months pointing the piers and abutments of the Miramichi River bridges.

A cedar culvert 28 feet long was built near Barnaby River to take surplus water in high freshets, which has heretofore been carried off in the side ditches of cuttings, thus causing serious damage to the ballast.

At Barnaby River a rip rap wall of stone 175 feet long, 5 feet high and 2 feet thick was built on the north side of the bridge to prevent the north abutment of bridge from being undermined; 60 feet of cribwork at the same point damaged by a high freshet, was repaired.

A cedar box culvert 6 by 3½ feet, in area, and 62 feet long, was built on the Indiantown Branch, near Derby Junction, in place of a smaller one washed out by freshet.

Small repairs were made to a number of box and beam culverts between Moncton and Newcastle.

The following bridges were overhauled, repaired, scraped and painted:—

Humphrey's Millstream bridge.....	3 spans	60 feet.
North River.....	1 do	50 do
Cocaigne, south branch.....	1 do	24 do
Cocaigne, north branch.....	1 do	24 do
Buctouche.....	1 do	30 do
South Branch, Coal Branch River.....	3 do	40 do
North do do.....	3 do	40 do
Richibucto.....	3 do	50 do
Kouchibouguacis.....	1 do	80 do
Third Crossing, Barnaby River.....	1 do	80 do
Second do do.....	1 do	80 do
Bartibogue.....	1 do	80 do
Mill Creek.....	3 do	60 do
Nepisiguit.....	6 do	100 do
Tetagouche (overhead).....	1 do	90 do
River Ouelle.....	9 do	44 do
Boyer River	2 do	79 do
do	1 do	56 do
do	1 do	55 do
Government Street.....	1 do	55 do
do	2 do	20 do
St. Joseph Street.....	1 do	47 do
do	2 do	20 do

A cedar crib was built at undercrossing at Elm Tree, at a cost of \$160, to protect the diversion of public road which was liable to be washed out at high water. Nineteen box and beam culverts between Newcastle and Campbellton were repaired and pointed.

At McKinnon's Brook a wooden span of 18 feet was replaced with iron girders. Nine culverts between Campbellton and Ste. Flavie were repaired and pointed. New cross-ties were put on the lattice girder at the second crossing at McKinnon's Brook.

The stringers and cross-ties on 20 open culverts between Ste. Flavie and Rivière du Loup were renewed. The masonry of 46 structures on this division was overhauled and pointed.

Two pairs of new steel deck plate girders, 44 feet span, were put in one mile west of St. Roch, in place of iron girders that were insufficient for the present traffic.

One pair of new steel plate girders of 54 feet span was put in one and a half miles east of L'Islet, in place of lighter iron girders.

At Mill Creek a new span of 29 feet was put in place of a lighter girder.

Eleven pairs of new plate girders were put in as follows, of 40 feet span:—

One	3 miles west of St. Paschal.
One	1 do east do do
Two	1 do west do do
One	2 do do do Ste. Hélène.
One	near Ste. Anne's.
One	$\frac{1}{2}$ mile east of St. Jean Port Joli.
Two	1 do Trois-Saumons.
Also	1 49-foot span near Etchemin.

A trestle bent on a stone foundation was put in to strengthen one of the 50-foot spans at Boyer Bridge.

The above named spans were all painted, and provided with standard pitch pine floors and iron guard rails.

Department of Railways and Canals.

The work of strengthening the old plate girders on the Rivière du Loup Division has now been completed. The masonry on this division is of a very inferior class (chiefly rubble laid in lime mortar), and very heavy repairs are required annually. A large gang of masons was employed throughout the working season.

The wing walls of abutments of an iron bridge west of Rivière du Loup, were rebuilt from the foundations. They had been thrown down by the action of the frost.

An arch culvert near Chaudière was almost entirely rebuilt. The abutments of two bridges between Chaudière and Hadlow were rebuilt from the foundations.

These heavy renewals have been going on since the line was taken over from the Grand Trunk Railway in 1879, and are now approaching completion, so that a reduction in maintenance under this head may be expected.

GENERAL.

At Ferrona Junction (near New Glasgow) where the New Glasgow Coal Company's branch line connects with the Intercolonial Railway, a new yard was graded and siding accommodation provided for about 150 cars. The business at this place is increasing very fast, and a further extension of sidings will likely be necessary in the near future.

At Grand Lake, 800 feet of cedar cribwork was built to protect the embankment from the wash of the lake.

At New Glasgow, the approaches to the passenger station were graded and macadamized. A stone curb and asphalt sidewalks were provided on three sides of the station. Safety gates were provided at Bridge Street crossing in the town of New Glasgow.

Sixteen pairs of cattle-guards at public crossings were renewed between New Glasgow and Mulgrave; heavy flatted cedar was used instead of hemlock.

About 5,000 cubic yards of dredging was done at Mulgrave and Point Tupper to give depth for the new iron steamer to be used for the transfer service between these two points.

A stone foundation was put in for a track scale at Sydney, and a new scale ordered.

A large amount has been expended in widening and cleaning cuttings and widening embankments on the Oxford and New Glasgow, and Cape Breton Divisions. Seventy-five men and two working trains were engaged in this service about two months.

At Pictou the hemlock cribwork, 745 feet long, was filled solid with stone picked up along the line. The main line and sidings of Pictou yard were lifted 8 inches and packed in cinders from the engine-house.

At Oxford Junction the small 4-inch rails and bar plates on the Y were replaced with 4½-inch steel rails and angle plates and a guard rail laid inside. Frequent derailments occurred on this Y previous to this.

About three miles of side ditching at the foot of embankments on the marshes between Calhoun's Mills and Amherst has been done during the year.

The standing water which kept the road-bed soft has now almost disappeared. About five miles of similar ditching has been done on the Rivière du Loup Division.

Two aboisdeaux between Memramcook and Dorchester were thoroughly overhauled and put in good order.

Six ton depot scales were put in the new freight shed at Newcastle. The old scales were destroyed when shed was burned. Two scales of the same capacity were put in new warehouse on the Deep Water Terminus wharf at St. John.

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.

INTERCOLONIAL RAILWAY,
OFFICE OF THE MECHANICAL SUPERINTENDENT,
MONCTON, N.B., 28th September, 1893.

SIR,—I beg to submit for your information the following statements of the operations of the Mechanical Department for the year ended 30th June, 1893:—

A.—Statement showing the number of locomotives and various classes of cars.
B.—Statement showing the locomotive and car mileage, and the average 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.

The following is a summary of the principal work done:—

DRAWING OFFICE.

Complete set of drawings made for new class of heavy 10-wheel express engines. Standard drawings revised and redrawn.

LOCOMOTIVE REPAIRS.

Rivière du Loup Shops.

Fifteen engines received heavy repairs and 23 medium repairs, the following new parts being supplied: 2 tube sheets, 16 fire-box half-side sheets, 2 cylinders, 5 driving wheels, 28 driving tires, 2 side rods, 8 crank pins, 6 truck axles, 1 extension smoke-box. Twenty-two boilers were tested.

Richmond Shops.

Eight engines had heavy repairs and 20 medium repairs; the following new parts being supplied: 20 driving tires, 8 crank pins, 3 smokestacks, 3 pilots, 1 tender truck, 1 tender frame, 1 engine was equipped with the Westinghouse air-brake and 3 engines with "Sewall" heaters. Eleven boilers were tested.

Moncton Shops.

Sixty-nine engines received heavy repairs and 57 medium repairs; 92 boilers were tested; 39 fire-boxes were patched; 6,884 tubes were pieced.

The following new parts were supplied: 2 inside fire-boxes, 14 tube sheets, 2 fire-box side sheets, 11 fire-box half sides, 2 domes, 19 smoke-stacks, 17 cylinders, 24 pistons, 38 driving wheels, 173 driving tires, 22 driving axles, 124 crank pins, 3 main rods, 44 side rods, 3 cabs, 21 pilots, 3 engine trucks, 3 tender trucks, 2 tender frames.

Six engines were equipped with the Westinghouse air-brake; 4 with extension smoke-boxes and 18 with "Sewall" heaters.

Ninety-three tenders and 89 engines were painted and varnished, and 10 engines and tenders were renovated and varnished.

CAR REPAIRS.

Moncton Shops.

Rebuilt.—Two first-class, 1 postal, 80 freight cars, 3 snow-ploughs and 1 flanger car.

Heavy repairs.—Ten sleepers, 4 parlours, 1 official car, 29 first-class, 38 second-class, 5 emigrant sleepers, 12 postal, 14 baggage cars, 4 vans, 480 freight cars, 5 snow ploughs, 2 flanger cars.

Light repairs.—Four sleepers, 131 first-class, 167 second-class, 129 postal, 126 baggage, 62 vans, 4,266 freight cars, 10 snow ploughs, 4 flanger cars.

Painted and varnished.—Two sleepers, 17 first-class, 17 second-class, 3 immigrant sleepers, 7 postal, 6 baggage cars.

Painted.—Six snow ploughs, 3 flangers, 5 vans, 538 freight cars.

Department of Railways and Canals.

Renovated and varnished.—Eight sleepers, 4 parlours, 1 official, 15 first-class, 16 second-class, 2 immigrant sleepers, 6 postal, 8 baggage cars.

Eighty-six box cars were equipped with the Westinghouse air-brake, and steam heating was applied to 1 sleeper, 2 first class, 6 second-class and 1 baggage car.

A large amount of work was done to freight and baggage trucks, chairs, safes, ticket cases, footboards and other articles.

BRASS FOUNDRY.

Output.—61,619 lbs. brass castings, 95,986 lbs. brass bearings.

NEW PLANT AND MACHINERY.

Locomotive Shops.—New driving-wheel lathe, new crank planer, new heavy slotting machine, new cylinder borer.

In the erecting shop a hydraulic engine hoist was built. The drop table and gearing were repaired.

“Ehrhardt” weighing scales were fixed up and put in operation for weighing locomotives and cars.

Car Shops.—New circular sawing machine, new rip and cross-cut saw, new four-side moulder.

Dixie Exhaust Fan.—Arrangement of fans and piping erected in wood machine shops for collecting shavings and sawdust for fuel, and transmitting same to boiler house.

WATER SERVICE.

Calhouns.—New 50,000 gallon standard tank built. 500 feet 6-inch cast iron pipe and 1,000 feet 4-inch cast iron pipe laid. Old tank removed.

Elmsdale.—New stone foundation for 50,000 gallon tank.

West River.—New stone foundation put in for new tank. 500 feet 4-inch cast iron pipe put in.

Londonderry.—New 16,000 gallon tank and trestle built.

Tatamagouche.—1,100 feet 4-inch cast iron pipe laid. Reservoir built. Stone foundation put in for tank.

Crowsons.—Old tank removed and material shipped to Moncton.

Wallace.—Tank removed to Tatamagouche.

Halifax.—Water crane rebuilt.

Ile Verte.—New trestle and new floor for tank.

Pointe du Chêne.—Boiler repaired. Tank raised 15 inches.

Springhill.—Boiler retubed and tested.

Ste. Anne.—Steam pump and boiler repaired.

Piedmont.—Reservoir repaired.

Mulgrave.—Relaid 500 feet 6-inch pipe.

Bathurst.—Repaired and painted tank and rebuilt reservoir.

Charlo.—Repaired and cleaned reservoir.

Rivière du Loup.—Two repaired steam pumps put in.

I hereby certify the rolling stock to be in good order.

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 the various classes of Cars on the 1st July, 1892, and on the 30th June, 1893.

	THE VARIOUS CLASSES OF CARS.																Total.
	Locomotives.	First-Class Sleepers.	Second-Class Sleepers.	Parlour.	First-Class Passenger.	Second-Class Passenger.	Postal and Smoking.	Baggage and Express.	Box.	Platform 10, 15 & 20 tons.	Hoppers, 6 tons.	Gondolas, 20 tons.	Coal Cars, 20 tons.	Cattle.	Vans.	Total.	
On hand, serviceable.....	206	15	5	5	91	95	23	39	2027	2084	999	471	782	95	99	6830	
do condemned.....			1		1		1		44	46			12	8		113	
Changed from gondolas to platform.....	206	15	6	5	92	95	24	39	2071	2130	999	471	794	103	99	6943	
										12			*12				
Total.....	206	15	6	5	92	95	24	39	2071	2142	999	471	782	103	99	6943	
Condemned, July, 1892.....			1		1		1		44	46			12	8		113	
do during the year.....					2				7	47			12	8		76	
Less—Rebuilt.....			1		3		1		51	93		12	20	8		189	
To be rebuilt.....			1		2		1			60			*15	8		86	
			1		1				51	33		12	5			103	

J. SUTTON,
Mechanical Accountant.

MONCTON, N.B., 30th June, 1893.

Department of Railways and Canals.

B.—INTERCOLONIAL RAILWAY.

STATEMENT of Locomotive and Car Mileage for the Year ended 30th June, 1893.

MONTHS.	LOCOMOTIVE MILEAGE.		CAR MILEAGE.						
	Passenger.	Freight.	Passenger.	Express, Postal and Baggage.	Freight.	Total.	Snow Plough.	Average Passenger.	Average Freight.
	1892—July.....	109,077	217,210	519,327	252,488	2,925,786	3,697,601	7.07	13.47
August.....	110,162	210,367	545,298	251,744	2,802,072	3,599,114	.....	7.23	13.31
September.....	110,616	218,577	490,235	237,768	3,064,258	3,792,61	46	6.58	14.02
October.....	102,363	249,217	440,035	225,843	3,384,032	4,049,910	.....	6.49	13.58
November.....	102,898	287,338	436,114	226,206	3,941,479	4,603,799	3,837	6.45	13.71
December.....	105,263	287,463	461,840	238,312	4,005,390	4,705,542	3,164	6.64	13.93
1893—January.....	104,341	279,424	415,610	223,143	3,317,120	3,955,873	13,916	6.12	11.87
February.....	95,432	267,538	385,882	204,002	3,237,575	3,827,459	15,867	6.18	12.10
March.....	110,431	336,726	486,276	240,618	4,190,154	4,917,048	6,037	6.58	12.44
April.....	104,190	281,654	487,382	233,085	3,632,520	4,352,987	2,091	6.90	12.90
May.....	103,033	265,844	433,974	230,772	3,544,034	4,208,780	1,163	6.44	13.33
June.....	101,144	239,854	454,986	242,267	3,129,863	3,827,116	2,973	6.89	13.05
Totals.....	1,258,980	3,141,812	5,556,959	2,806,248	41,174,283	49,537,490	49,094	6.64	13.10

J. SUTTON,
Mechanical Accountant.

MONCTON, N.B., 30th June, 1893.

C.—INTERCOLONIAL RAILWAY.

ABSTRACT of Locomotive Returns for the Year ending 30th June, 1893.

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.	Pints of Valve Oil and Tallow.	Pounds of Waste.	
1892—July.....	36,574	395,487	11,533	23,396	21,578	8,933	10.78	6,533	5.91	5.45	2.25	
August.....	35,800	389,481	11,286	22,315	19,861	8,936	10.88	6,491	5.73	5.09	2.29	
September....	36,913	398,769	11,960	22,574	19,430	9,013	10.80	6,693	5.66	4.87	2.26	
October.....	39,468	425,927	13,298	23,937	19,945	9,491	10.79	6,993	5.62	4.68	2.22	
November.....	42,909	467,908	15,348	26,731	21,304	9,784	10.88	7,357	5.73	4.56	2.09	
December.....	44,839	473,781	16,558	26,302	21,176	9,642	10.57	7,832	5.55	4.46	2.03	
1893—January.....	44,202	462,388	15,708	25,861	20,341	8,367	10.46	7,606	5.59	4.39	1.85	
February.....	42,591	433,376	15,453	24,746	20,347	8,354	10.29	7,914	5.64	4.64	1.91	
March.....	50,470	536,419	17,909	28,317	24,828	10,233	10.63	7,478	5.28	4.63	1.91	
April.....	43,914	466,295	15,114	25,642	20,451	8,850	10.62	7,260	5.49	4.38	1.89	
May.....	42,409	450,004	13,102	26,049	22,244	9,215	10.61	6,522	5.79	4.94	2.05	
June.....	39,606	419,344	11,566	23,223	21,237	8,366	10.59	6,178	5.54	5.06	1.99	
Totals.....	499,795	5,323,279	168,837	299,093	252,742	109,384	10.66	7,104	5.62	4.73	2.06	

J. SUTTON,
Mechanical Accountant.

MONCTON, N.B., 30th June, 1893.

D.—INTERCOLONIAL RAILWAY.

STATEMENT of the cost of Locomotive Power for each month, from 1st July, 1892, to 30th June, 1893.

Months.	Miles run by Engines.	Average per 100 miles.														
		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.	Mechanical Supt.'s Wages.	Fuel.	Oil, Tallow and Waste.	Repairs.	Water.	Eng. houses & Turntab.	Total.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1892—July..	395,487	1,022 98	18,809 32	30,635 14	3,273 01	23,441 06	1,558 30	985 84	79,725 65	26 4	75 7	83 5	92 40	25 20	15	
Aug..	389,481	939 33	18,998 78	30,531 87	3,130 94	21,988 49	1,901 52	1,301 99	78,792 92	24 4	87 7	81 5	64 49	34 20	23	
Sept..	398,769	940 92	19,034 62	31,933 33	2,993 51	23,521 70	2,298 24	1,180 24	81,812 56	23 4	77 8	75 5	89 56	29 20	50	
Oct...	425,927	968 65	20,724 90	36,130 71	3,254 33	24,767 19	3,301 32	2,019 74	91,166 84	23 4	87 8	77 5	81 76	48 21	49	
Nov..	467,008	968 47	21,641 89	41,884 15	3,491 45	20,899 62	3,271 58	2,777 37	94,934 53	21 4	61 8	75 4	48 71	59 20	82	
Dec..	473,781	1,221 62	21,178 83	44,283 13	3,378 05	15,818 22	2,795 20	2,205 13	90,880 18	28 4	47 9	71 3	33 59	46 19	18	
1893—Jan..	462,388	1,008 49	22,075 49	43,189 61	3,362 42	13,251 42	2,630 17	3,702 56	89,220 16	22 4	77 9	73 2	86 57	80 19	29	
Feb..	438,376	1,044 26	21,031 79	43,143 91	2,834 58	11,906 56	2,081 80	2,008 69	84,051 68	24 4	80 9	64 2	72 47	45 10	15	
Mar..	536,419	1,010 72	24,161 04	48,950 94	3,692 35	18,513 83	4,346 93	2,043 69	102,719 50	19 4	56 9	69 3	45 81	38 19	14	
April.	466,205	1,090 89	22,291 61	41,546 26	3,224 94	20,558 78	1,992 94	2,634 94	93,250 36	23 4	77 8	69 4	41 43	57 19	99	
May..	450,004	966 39	21,122 79	35,032 72	2,953 76	20,828 18	2,912 93	1,298 92	85,115 69	22 4	69 7	65 4	63 04	29 18	90	
June .	419,344	1,131 48	24,574 67	31,760 10	2,681 24	18,416 93	3,192 58	1,061 12	82,818 12	26 5	86 7	63 4	38 76	25 19	71	
Totals ...	5,323,279	12,314 20	255,555 73	459,021 87	38,270 58	233,911 98	32,193 60	23,220 23	1,054,448 19	23 4	80 8	72 4	39 60	44 19	80	

J. SUTTON,
Mechanical Accountant.

MONCTON, N.B., 30th June, 1893.

E.—INTERCOLONIAL RAILWAY.

GENERAL STATEMENT of the Expenses of the Mechanical Department, for the Year ended 30th June, 1893.

The miles run by trains	4,400,792
do engines	5,323,279
do cars	49,537,490
do snow-ploughs	49,094
	\$ cts.
The cost of locomotive power	1,054,488 19
The cost of car repairs :	
Repairs to passenger cars	82,683 76
do postal, express and baggage	21,635 70
do freight cars and vans	208,728 98
do ploughs and flangers	6,249 56
Oil and waste for packing	22,192 87
	341,490 47
The cost of locomotive power per 100 miles run by trains	
do do do engines	23 96
do do do cars	19 80
do do do cars	2 12
The cost of repairs to cars and ploughs per 100 miles run by trains	
do do do engines	7 25
do do do cars and ploughs	5 96
do do do cars and ploughs	0 64
The cost of oil and waste for packing per 100 miles run by trains	
do do do engines	0 50
do do do engines	0 41
do do do cars and ploughs	0 04
The cost of repairs to cars per 100 miles run by them :	
Passenger	1 48
Postal, express and baggage	0 77
Freight cars and vans	0 50
Ploughs and flangers	12 73

J. SUTTON,
Mechanical Accountant.

MONCTON, N.B., 30th June, 1893.

Department of Railways and Canals.

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.
1893.						
Mar. 4.	22.50	Special.	Freight	W. Crockett	W. C. Hunter	192
do 4.	15.10	.....	Shunting.. . . . .	.....	E. Tobin	11
do 8.	3.10	Special.	Freight	G. W. Hopper	L. Harrat	175
do 9.	21.15	do ..	do	T. W. Johnston	N. Copeland	115
do 11.	20.30	35	Accommodation.. . . .	P. E. Heine	O' McGinity	60
do 15.	1.50	Special.	Freight..	J. B. Dube	D. C. Gallon	40
					T. W. Henry	2
April 4.	2.30	Special.	Freight..	J. R. Fisher	B. Probert	175
do 6.	5.45	do ..	do	H. Barreau	F. Probert	182
do 6.	12.00	do ..	Working	Sam. Bernier	J. S. Smith	183
do 6.	12.00	do ..	Freight	Joseph Royer	D. C. Gallon	2
do 9.	10.30	do ..	do	A. Desjardines	Wm. Fraser	201
do 13.	19.30	.....	Shunting.. . . . .	.....	M. O'Brien	191
do 19.	9.20	Special.	Freight	A. Desjardines	A. Connell	77
May 1.	12.40	33	Express	C. J. Rhodes	W. Wall	158
do 9.	7.35	2	do	A. Rainnie	John Stewart	131
do 25.	12.20	1	do	D. Rutherford	E. Rushton	59
June 2.	8.00	Special.	Working	J. B. Crockett	G. Manning	119
do 17.	1.00	do ..	Freight	G. A. Chesley	J. J. Irving	50
do 24.	16.00	do ..	do	Geo. Sears	T. H. Moore	90
do 25.	7.30	34	Express	John Berry	R. Lightbody	198
do 27.	16.30	.....	Shunting.. . . . .	.....	T. Wilkins	100
do 30.	3.00	10.	Express	W. J. Dickson	R. Wilson	62
July 4.	17.00	.....	Shunting . . . . .	.....	O. Jobin	93
do 13.	16.20	.....	do . . . . .	.....	H. Smith	44
do 17.	24.15	Special.	Freight..	P. Y. Christie	J. McLellan	114
do 20.	10.55	do ..	do	R. W. Orchard	J. S. Smith	183
do 22.	16.30	.....	Shunting . . . . .	.....	Alex. McDonald	14
do 23.	9.00	Special.	Passenger	J. L. Hebert	W. H. Rogeau	201
do 25.	15.00	.....	Shunting . . . . .	.....	R. James	100
Aug. 15.	16.00	24	Freight..	John Casey	Jas. McAuley	192
do 18.	18.00	Special.	Working	R. W. Orchard	A. Connell	179
do 22.	23.30	do ..	Freight..	W. W. Irving	W. C. Hunter	43

Department of Railways and Canals.

RAILWAY.

Line of the Intercolonial Railway during the Year ended 30th June, 1893.

Place of Accident.	Name of Person injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Nash's Creek	W. C. Hunter	Employee	Jumped from engine on account of side-rods breaking.	Slightly injured.	
Richmond	Ed. Rumbolt	Neither	Run over while gathering coal under cars.	Fatal	Accidental.
Londonderry.	S. Thomas	Employee	While coupling	Hand crushed.	
Grenville	T. W. Johnston	do	Knocked down by train breaking apart and colliding.	Face slightly injured.	
Campbellton	H. Cameron	do	Uncoupling engine from train.	Finger amputated.	
Assametquaghan	Thos. Moreau	do	Fell between cars while applying brakes or running over cars.	Fatal	Accidental.
Bedford	Jos. Kenney	do	While coupling	Finger crushed	
Chatham Junction	J. J. Hachey	do	do	Hand do	
Sayabec	F. LeBlanc	do	do	do do	
St. Luce	J. Deschamplain	do	do	do do	
3 miles W. of Assametquaghan.	Elzear Dube	do	While walking section struck by train.	Seriously injured	
Moncton.	E. Harvey	do	While coupling.	Two fingers crushed.	
Little Metis	E. Gagnon	do	Fell while attempting to get on train in motion.	Shoulder dislocated.	
Bedford	C. J. Rhodes	do	Knocked down by trains colliding.	Hip and leg injuries.	
1 mile E. of Quispamsis.	Gallagher (age 2)	Neither.	Sitting on track	Fatal	No inquest.
Maccan	Sarah C. Ross	Passenger	Jumped off train while in motion.	Collar-bone dislocated.	
Portage Ballast Pit.	N. Stableford	Employee	Fell off train while in motion	Hand injured	
Shediac	Eph. Herbert	Neither	Lying on track (intoxicated)	Foot amputated.	
McManus Mills.	Geo. Sears	Employee	While loading timber	Toe broken	
College Bridge	Dom. O'Brien	do	Jumped off train while in motion.	Arm and collar-bone broken.	
Deep Water Terminal, St. John	Jas. Linkletter	do	While coupling	Finger amputated.	
Amherst	Maggie Reynolds	Neither	Lying on track (intoxicated)	Fatal	Accidental.
Deep Water Terminal, Halifax.	James Brittain	Employee	Struck by engine while crossing track.	Slightly injured.	
Dartmouth.	Jas. McEachren	do	Cars thrown off track	Leg slightly injured.	
Near Shubencadie.	P. Y. Christie	do	Train broke apart and collided, throwing Christie under cars.	Fatal	Accidental.
Sayabec	August Lamontagne.	do	Jumped off train while in motion.	Leg broken	
Pictou.	W. Brownrigg	do	While coupling	Two fingers amputated.	
Isle Verte	Henri Gagnon	Passenger	Jumped off train while in motion.	Hand amputated	
St. John.	Alex. Ward	Employee	While coupling	Two fingers amputated.	
Londonderry	John Carroll	do	Iron pipes rolling off car on his head.	Slightly injured.	
4 miles west of St. Moise.	Theo. Belanger	do	Loading timber	do	
Moncton	W. W. Irving	do	While coupling	do	

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1892.						
Aug. 25..	8.30				J. Stockall.....	11
do 31..	8.50	Special.	Working	R. W. Orchard	D. C. Gallon.....	183
do 2..	7.45		Shunting		J. Stockall.....	11
do 5..	16.00	Special.	Freight.....	T. W. Johnston.....	J. G. McDonald.....	103
do 7..	11.30		Shunting		W. Mackie.....	97
do 10..	6.28	33	Express	T. Corbett.....	A. J. Sharpe.....	159
do 10..	18.45				G. W. Anderson.....	52
do 17..	13.00					
Sept. 17..	14.30	Special.	Freight.....	D. McIntosh	A. Prowse.....	24
do 24..	20.00		Shunting		J. McDowell.....	22
do 27..	15.30	104	Freight.....	A. C. McLean.....	M. A. McLeod	167
Oct. 7..	2.30	Special.	do	Jas. Buchanan.....	J. McLellan.....	210
do 12..	13.00	do ..	do	M. C. Daley.....	B. C. Gesner.....	133
do 17..	20.30	do ..	do	W. L. Broad.....	G. Manning	208
do 22..	12.35	do ..	Working	R. W. Orchard	D. C. Gallon.....	183
do 30..						
Nov. 4..	14.30	Special.	Freight.....	Jas. McDormand.....	J. McLennan.....	114
do 11..	13.00		Shunting		J. W. Boyd	95
do 19..	17.50	23	Freight.....	A. E. Brown	Geo. Kentley.....	86
do 21..	17.30	Special.	Working	R. W. Orchard.....	E. Thomas.....	177
do 19..	15.00	34	Express	G. Walker.....	E. Parsons.....	157
do 24..	13.00	Special.	Working	D. McIntosh.....	J. H. Campbell.....	55
Dec. 5..	1.20	do ..	Freight	A. Gamache.....	A. Connell.....	176
do 8..	7.10	do ..	do	T. C. Ayer	W. C. Hunter	79
do 10..	16.25	101	Accommodation...	R. A. McDonald.....	J. H. Campbell.....	52
do 10..	23.00	Special.	Freight	Jas. McIntosh.....	Jno. Dean.....	15
do 12..	12.55	2	Express	D. Rutherford.....	W. Wall.....	158
do 22..	14.30	Special.	Freight	A. Rioux	E. Thomas	40
do 31..	19.30	do ..	do	F. W. Johnston.....	P. O'Toole	5

Department of Railways and Canals.

RAILWAY.

on the Line of the Intercolonial Railway, &c.—Continued.

Place of Accident.	Name of Person injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Young St., Halifax.	Mills (age 9)	Neither...	Fell off cow-catcher of engine while in motion.	Seriously injured	
Sayabec	Frank Charest	Employee	While shoving shanty car out of siding, caught between car and coal shed platform.	Slightly injured.	
Halifax	Chas. E. Rolston (age 14)	Neither...	Attempting to get on cars while in motion.	Fatal	Accidental.
Londonderry	S. Thomas	Employee	Attempting to jump on pilot of engine while in motion.	Knee injured...	
Rivière du Loup	David Earl	do	Attempting to get on cars in motion.	Leg broken	
Near Campbellton.	Jas. LeBlanc	Neither...	Walking on track	Fatal	Accidental.
Near Tatamagouche.	Henry Salisbury	Employee	Fell off tender of engine...	Toe crushed	
Halifax	Jos. Richardson	do	While unloading heavy casting.	Foot crushed.	
Grand Narrows.	Chas. Hamilton	Passenger	Jumped off train while in motion.	Fatal	Accidental.
Truro	A. McLeod	Neither...	Attempting to pass between cars.	Legs injured	
North Sydney	D. McLean	Employee	Attempting to jump on pilot of engine while in motion.	Leg injured	
Glengarry	Amos. Langille	do	While engine was taking water, tank pipe fell.	Slightly injured.	
Humphrey Mills	John Doughy	Neither...	Attempting to jump on a car in motion.	Foot crushed.	
Bible Hill	W. L. Broad	Employee	While coupling	Slightly squeezed	
Campbellton	Jos. Damour	do	While loading rails	Finger crushed.	
Near Brookfield.	Unknown man	Neither...	Found injured alongside of track.	Fatal	Cause of d'th unknown.
Hopewell	C. Lutes	Employee	While coupling	Hand crushed.	
Truro	J. Stewart	do	Fell while jumping off hopper in motion.	Seriously injured	
Moncton	Seymour Gould	Neither...	Fell or jumped off train while in motion. (Stealing a ride.)	Fatal	Accidental.
Near Sayabec	G. Boulay	Employee	Hand car struck by train	Leg broken	
Near Lévis	Joseph Poire	Neither...	Struck while crossing track in team.	Slightly injured	
Trenton	Geo. Crawford	Employee	While coupling	Hand crushed.	
Ste. Flavie	Jas. Poirier	do	While applying brakes, slipped and fell between the cars.	Leg amputated	
Newcastle	T. C. Ayer	do	Attempting to get on van, slipped between van and box car.	Knee and thigh injured.	
Pictou Landing	M. C. Gelart	Neither...	Crossing track	Fatal	Accidental.
Enfield	Geo. Kearns	Employee	While coupling	Hand crushed.	
Bedford	A. Lucas (col'd)	Passenger	Jumped off train while in motion.	Foot crushed.	
Belisle Siding	Paul Desrosiers	Employee	While coupling	Hand injured	
Stellarton	John Clark	do	do	Finger amputated.	

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1893.						
Jan. 11..	10.15	105	Freight.	A. C. McLean.	J. Callison.	167
do 11..	17.30	Special	do	J. R. Fisher.	D. Yould.	9
do 17..	10.00	do	do	J. Casey.	J. I. Smith.	51
do 17..	11.25	3	Accommodation.	D. McQuarrie.	J. D. McKay.	62
Feb. 4..	7.50	Special	Freight.	F. Brown.	L. King.	130
do 4..	22.30	46	Accommodation.	M. Audet.	O. Gilker.	77
do 10..	23.00	Special	Freight.	J. Paradis.	O. LeBel.	78
do 11..	10.25	35	Accommodation.	P. E. Heine.	O. McGinity.	60
do 14..	15.40	56	Freight.	A. B. Vance.	J. Wall.	115
do 17..	15.00	Special	do	Thos. Coffey.	W. Gross.	103
do 21..	4.45	do	do	T. Bellemare.	L. Dutil.	85
do 23..	15.32	do	Mail	Y. C. Campbell.	R. Lightbody.	199
do 23..						
do 27..	1.00	Special	Freight.	W. L. Broad.	{ B. C. Gesner	128
do 28..	8.50	do	do	C. McDougall.	{ F. H. Moore	58
					{ D. Taylor	33
Mar. 1..	7.35		Shunting		{ M. Tobin	98
do 2	24.40	Special	Freight.	F. Brown.	{ E. Tobin	11
					{ T. Hennessey.	115

Department of Railways and Canals.

RAILWAY.

on the Line of the Intercolonial Railway, &c.—*Concluded.*

Place of Accident.	Name of Person injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Iona.....	W. Power.....	Employee..	While shunting.....	Foot bruised....	
Spring Hill Junction.....	J. Kinney.....	do.....	While coupling.....	Hand injured....	
Aulac.....	A. Lockhart.....	do.....	do.....	do.....	
St. John.....	Wm. Duncan.....	do.....	Attempting to cross track.	Head and leg injured.	
Shubenacadie.....	Wm. McLean.....	do.....	While coupling.....	Hand crushed....	
Mill Stream.....	Ed. McDonald (deaf & dumb).	Neither.....	Walking on track.....	Fatal.....	Accidental.
Ste. Flavie.....	Alcide Michaud.....	Employee..	While coupling.....	Hand crushed....	
Moncton.....	S. Lutz.....	do.....	do.....	do.....	
	T. McCallum.....	do.....	Struck by train while rescuing his child, which was on track.	Fatal.....	Accidental.
Murray's Crossing, near Truro	— McCallum (child).	Neither.....	On track.....	Head injured....	
Wharf Branch, Dorchester.	A. W. Thomson.....	Employee..	Attempting to get on pilot of engine.	Foot injured....	
Near St. Alexandre.	Victor Delisle.....	do.....	Fell off van while in motion	Fatal.....	Accidental.
Near Moncton.	George Edgett.....	Neither.....	Walking on track.....	do.....	do
Deep Water Terminal, Halifax	Jos. McDonald.....	Employee..	While checking baggage, slipped and fell.	Shoulder dislocated.	
Cold Brook.....	H. P. Brand.....	do.....	While coupling.....	Hand crushed....	
Berry's Mills.....	E. Thompson.....	do.....	do.....	do.....	
Richmond.....	Henry Roach.....	do.....	Thrown off car by engines colliding.	Considerably injured.	
Shubenacadie.....	John Downs.....	do.....	While shunting cars collided, causing the deals on car to shift.	Leg crushed....	

WINDSOR BRANCH RAILWAY.

OFFICE OF THE GENERAL MANAGER OF GOVERNMENT RAILWAYS,
MONCTON, N.B., 28th September, 1893.

SIR,—I have the honour to submit the following statements showing the results of the working of the Windsor Branch Railway, for the year which ended the 30th June, 1893:

- 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, 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 an increase in the earnings accruing to the Government, when compared with last year, as follows:—

In 1892-93	\$34,316 11
In 1891-92.....	33,508 85
	\$ 807 27

The expenses of maintenance were less than last year:—

In 1891-92.....	\$19,514 37
In 1892-93.....	16,889 95
	\$ 2,624 42

The earnings and expenses compare as follows:—

Earnings	\$34,316 11
Expenses.....	16,889 95
	\$17,426 16

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,
Ottawa, Ont.

Department of Railways and Canals.

No. 1.—WINDSOR BRANCH RAILWAY.

Dr.

REVENUE ACCOUNT, Year ended 30th June, 1893.

Cr.

Previous Year.	Expenditure.	Year ended 30th June, 1893.	Previous Year.	Receipts and Earnings.	Year ended 30th June, 1893.
\$ cts.		\$ cts.	\$ cts.		\$ cts.
19,514 37	Maintenance of way and works, Abstract No. 1	16,889 95	12,187 76	Passenger traffic	11,519 00
13,994 48	Balance	17,426 16	20,165 57	Freight traffic	21,645 27
			1,155 52	Mails	1,151 84
33,508 85		34,316 11	33,508 85		34,316 11

Certified correct,
 T. WILLIAMS,
 Chief Acct. and Treas., I.C.R.

MONCTON, N.B., 30th June, 1893.

R. B. BOGGS,
 Acct., W. B. Ry.

No. 2.—WINDSOR BRANCH RAILWAY.

ABSTRACT No. 1.

MAINTENANCE of Way and Works.

Previous Year.	Particulars.	Amount.
§ cts.		§ cts.
11,284 50	Repairs of track	9,945 42
1,395 38	Rails and fastenings	2,978 00
3,709 10	Sleepers	4,050 85
456 13	Bridges	2,335 21
	Signals	19 19
12 60	Switch locks	3 60
124 53	Culverts and cattle-guards	211 35
5 10	Wharf at Windsor	203 31
241 90	Buildings and platforms	745 09
2 10	Hand cars and trollies	77 12
203 52	Snow-ploughs and flangers	282 60
200 45	Tools and repairs of same	165 70
690 23	Fencing	715 65
1,111 49	Accountant's office and expenses	1,112 86
77 34	Miscellaneous	
19,514 37		16,889 95

Certified correct,
T. WILLIAMS,
Chief Acct. and Treas., I.C.R.

R. B. BOGGS,
Acct., W. B. Ry.

MONCTON, N.B., 30th June, 1893.

Department of Railways and Canals.

No. 3.—WINDSOR BRANCH RAILWAY.

DR. GENERAL BALANCE. CR.

		\$ cts.			\$ cts.
1892.			1893.		
June 30...	Old rails account.....	4,200 00	June 30...	Dominion account....	7,917 65
	Stores Department.....	606 27			
	Windsor and Annapolis Railway...	3,111 38			
		7,917 65			7,917 65

Certified correct,
T. WILLIAMS,
Chief Acct. and Treas., I.C.R.

R. B. BOGGS,
Acct., W. B. Ry.

MONCTON, N.B., 30th June, 1893.

No. 4.—WINDSOR BRANCH RAILWAY.

MONTHLY STATEMENT of Receipts—One-third Earnings.

Year.	Month.	Passenger Traffic.	Mails.	Freight Traffic.	Totals.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
1892	July.....	1,242 78	96 91	1,603 25	2,942 94
"	August.....	1,675 94	96 91	1,424 43	3,197 28
"	September.....	1,644 73	96 90	2,785 11	4,526 74
"	October.....	976 83	96 91	2,202 90	3,276 64
"	November.....	834 75	96 90	2,364 48	3,296 13
"	December.....	918 43	96 91	1,834 00	2,849 34
1893.	January.....	537 50	94 45	1,511 97	2,143 92
"	February.....	495 22	94 45	1,296 64	1,886 31
"	March.....	715 50	94 46	1,988 29	2,798 25
"	April.....	693 21	95 68	1,658 23	2,447 12
"	May.....	788 41	95 68	1,574 61	2,458 70
"	June.....	995 70	95 68	1,401 36	2,492 74
		11,519 00	1,151 84	21,645 27	34,316 11

Certified correct,
T. WILLIAMS,
Chief Acct. and Treas., I.C.R.

R. B. BOGGS,
Acct., W. B. Ry.

MONCTON, N.B., 30th June, 1893.

INTERCOLONIAL RAILWAY,
OFFICE OF THE CHIEF ENGINEER,
MONCTON, N.B., 18th September, 1893.

SIR,—I have the honour to submit my report of the maintenance of the Windsor Branch for the year ending 30th June, 1893.

TRACK.

The mileage remains the same as last year (32 miles). Three and one-half miles of old iron rails have been taken up and replaced with $4\frac{1}{2}$ steel, weighing 56 pounds to the yard. The best of the old rails taken out were selected, cut and bored where necessary, and used for renewals.

TIES.

During the year 12,533 ordinary ties were renewed, and three sets of switch ties.

BALLAST.

About 10 miles of the branch was lifted and 6,290 yards of ballast put under the ties.

SIDINGS.

Groves's Siding was extended 300 feet to enable the Windsor and Annapolis trains to cross at this point.

FENCING.

One thousand one hundred rods of woven and barbed wire fencing were put up in place of old pole fence, and where none existed before. Six new wire gates were provided.

BUILDINGS AND PLATFORMS.

At Windsor Junction, the walls of general waiting-room were sheathed and part of the office. A portion of the platform was renewed, and necessary repairs were made to the station and freight shed.

The passenger and freight platform was renewed. The station was overhauled and repaired. The roofs of station and freight shed were renewed with cedar shingles.

The roofs of station and freight shed at Mt. Uniacke were renewed with cedar shingles.

Windsor station and freight shed were overhauled and repaired. A new station signal was provided.

GENERAL.

Six stone piers of the Jordan River bridge were overhauled and pointed with cement.

A portion of the embankment at east approach of Ste. Croix bridge slipped down into the stream, and a cedar crib 150 feet long by 8 feet wide was built and filled with ballast to protect the toe of embankment, and prevent a repetition of this.

The hemlock stringers of five open culverts were renewed with southern pitch pine.

Five pairs of spruce cattle guards at public crossings were renewed with cedar.

A public crossing near Newport, and another one at Hibbert's siding, were renewed.

Four hundred lineal feet of the track (between, and on either side of the rails) on Water Street, Windsor, were renewed.

All tool-houses, approaches to cattle-guards and cattle-pens, were whitewashed. The top of Windsor wharf was renewed with 4-inch planking.

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.

Department of Railways and Canals.

PRINCE EDWARD ISLAND RAILWAY.

OFFICE OF THE GENERAL MANAGER OF GOVERNMENT RAILWAYS,
MONCTON, N.B., 28th September, 1893.

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, 1893.

I inclose the reports of the superintendent and mechanical superintendent including statements of the accounts prepared by the accountant and auditor.

The capital account was increased by the addition of \$484 expended on the Cape Traverse Branch, making the total cost of the road and equipment on the 30th June, 1893, \$3,750,565.38.

There was an increase of gross earnings and a decrease of working expenses.

The increase of earnings was in freight traffic and in mails and sundries. There was a slight decrease of passenger traffic.

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.
Ottawa.

PRINCE EDWARD ISLAND RAILWAY.

SUPERINTENDENT'S OFFICE,
CHARLOTTETOWN, P.E.I., 14th September, 1893.

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, 1893.

I also inclose the report of the mechanical superintendent, and the following statements prepared by the accountant and auditor:—

- | | |
|---|-------------------|
| No. 1. Capital account. | |
| 2. Revenue account. | |
| 3. Locomotive power. | (Abstract No. 1.) |
| 4. Car expenses. | (do 2.) |
| 5. Maintenance of way and works. | (do 3.) |
| 6. Station expenses. | (do 4.) |
| 7. General charges. | (do 5.) |
| 8. Statement of 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, 210 miles.

CAPITAL ACCOUNT.

The total expenditure on capital account to 30th June, 1892, was.....	\$3,750,081 38
The addition during the year was as follows:—	
Cape Traverse Branch.....	484 00
<hr/>	
Total expenditure on capital account to 30th June, 1893.....	<u>\$3,750,565 38</u>

REVENUE ACCOUNT.

The expenditure and earnings for the year compare as follows:—

Expenditure.....	\$226,422 17
Earnings.....	162,690 42
	<u>\$63,731 75</u>

The gross earnings compare as follows with the previous year:—

In 1891-92.....	\$157,442 69
In 1892-93.....	162,690 42
Increase.....	<u>\$5,257 73</u>

The earnings per mile of railway compare as follows:—

In 1891-92.....	\$749 72
In 1892-93.....	774 72
Increase.....	<u>\$25 00</u>

The earnings from passenger traffic compare as follows:—

In 1891-92.....	\$70,959 21
In 1892-93.....	67,445 41
Decrease.....	<u>\$ 3,513 80</u>

The earnings from freight traffic compare as follows:—

In 1891-92.....	\$69,983 23
In 1892-93.....	76,347 51
Increase.....	<u>\$ 6,346 28</u>

The earnings from mails and sundries compare as follows:—

In 1891-92.....	\$16,500 25
In 1892-93.....	18,897 50
Increase.....	<u>\$ 2,397 25</u>

The number of passengers carried compare as follows:—

In 1891-92.....	139,389
In 1892-93.....	132,111
Decrease.....	<u>7,278</u>

The weight of freight carried compares as follows:—

	Tons.
In 1891-92.....	51,065
In 1892-93.....	56,718
Increase.....	<u>5,653</u>

Department of Railways and Canals.

EXPENDITURE.

The working expenses compare as follows with the previous year:—

In 1891-92.....	\$289,706 38
In 1892-93.....	226,422 17
Decrease.....	\$ 63,284 21

They compare with last year as follows:—

Per mile run by engines—

	Cents.
In 1891-92.....	94.24
In 1892-93.....	78.07

Per mile run by trains—

In 1891-92.....	118.19
In 1892-93.....	98.35

Per mile of railway—

In 1891-92.....	\$1,379 55
In 1892-93.....	1,078 20

The engine mileage compares as follows:—

In 1891-92.....	307,421
In 1892-93.....	290,011
Decrease.....	17,410

The train mileage compares as follows:—

In 1891-92.....	245,102
In 1892-93.....	230,207
Decrease.....	14,895

The car mileage compares as follows:—

In 1891-92.....	1,304,659
In 1892-93.....	1,236,769
Decrease.....	67,890

TRACK.

The mileage remains the same as last year—118 miles laid with iron rails, and 92 miles laid with steel rails.

During the year 7 miles iron rails, weighing 40 lbs. to the yard, were replaced with steel rails weighing 50 lbs. to the yard.

TIES.

During the year 71,000 ordinary ties, 36 sets switch ties and 35 head-blocks and frames were renewed.

BALLASTING.

During the year 3,960 cubic yards ballast were distributed. A new pit containing one acre, was purchased near Alberton at a cost of \$200.

FENCING.

During the year 18½ miles new barbed and woven wire fence were erected, to replace old fence burnt and worn out.

SNOW FENCE.

During the year 3,500 feet snow fencing was renewed.

WHARFS.

At Charlottetown the wharf was raised 4 feet at the outer end, planked, fenders put on and a slip made to accommodate the winter steamer "Stanley."

At Summerside the planking on wharf was partly renewed, and 200 tons stone ballast put in wharf.

At Charlottetown, 1,060 feet of the breastwork was rebuilt with hemlock timber and cedar ties.

At St. Peter's, 150 feet of the breastwork was rebuilt.

BRIDGES AND CULVERTS.

At Huntley River bridge the old stone abutments were taken down, foundation made 8 feet deeper and new stone abutments built; two wall plates and three stringers renewed.

At Northam bridge two new cedar abutments were built and top renewed.

At Mount Stewart bridge a pile bent was put under the centre and received other necessary repairs.

At Midgell bridge floor beams, stringers and sleepers were renewed.

At Pine Brook bridge the wall plates were renewed.

All other bridges received necessary repairs.

Two stone culverts were rebuilt.

Twelve timber culverts were rebuilt.

Ten timber culverts had stringers renewed.

Twenty-eight cattle guards were rebuilt.

Fourteen cattle-guards had stringers renewed.

BUILDINGS.

At Charlottetown the warehouse on wharf was raised 3 feet, new floor put down, roof reshingled and exterior painted. One side of roof of machine shop was reshingled. Roof of round-house partly reshingled.

At Summerside, one side of roof of warehouse on wharf was reshingled. Foundation of coal shed rebuilt at eastern end.

At O'Leary's, roof of coal shed was reshingled.

At Tignish, small addition and slip built to coal shed for coaling engines.

At Selkirk the flag station and platform were rebuilt (old station and platform were burnt last year.)

At Emerald the platform was extended 150 feet.

At Morell the platform was rebuilt.

At Souris the roof of round-house was reshingled.

At Bedford the station was raised, sills renewed and platform rebuilt.

All other buildings received necessary repairs.

SEMAPHORES.

A new semaphore was erected at Alberton extending 1,650 feet out from the western end of the Y switch.

Department of Railways and Canals.

STORES.

The purchase of stores during the year amounted to \$84,331.

The value of stores on hand 30th June, 1893, was:—

General stores.....	\$52,845 14
Fuel.....	4,560 44
Rails and fastenings.....	30,609 03
Old material serviceable.....	4,385 90
	<hr/>
	\$92,400 51

The stores for the most part have been purchased by tender and contract, which follows out the practice of previous years.

I inclose a return of accidents which have occurred on the railway during the year.

I am pleased to say that the road-bed, buildings and rolling stock are in good condition.

I have the honour to be, sir,

Your obedient servant,

J. UNSWORTH,

Superintendent.

D. POTTINGER, Esq.,
General Manager, Canadian Government Railways,
Moncton, N.B.

No. 1.—PRINCE EDWARD ISLAND RAILWAY.

DR.		CAPITAL ACCOUNT.		CR.			
1892. June 30.	To cost of road and equip- ment to date	\$	cts.	1893. June 30.	By Dominion of Canada	\$	cts.
			3,750,081 38				3,750,081 38
1893. June 30.	To expenditure, year ended 30th June, 1893, Cape Traverse Branch		484 00	1893. June 30.	do do		484 00
			3,750,565 38				3,750,565 38

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1893.

No. 2.—PRINCE EDWARD ISLAND RAILWAY.

DR. REVENUE ACCOUNT for year ended 30th June, 1893. CR.

Previous Year.	Expenditure.	Year ended 30th June, 1893.	Previous Year.	Receipts.	Year ended 30th June, 1893.
\$	cts.	\$	cts.	\$	cts.
66,772 79	Locomotive power, per Abstract No. 1	59,195 34	70,959 21	Passenger traffic	67,445 41
35,204 87	Car expenses, per Abstract No. 2	34,821 96	69,983 23	Freight traffic	76,347 51
147,461 53	Maintenance of way and works, per Abstract No. 3	97,085 28	16,500 25	Mails and sundries	18,897 50
28,370 27	Station expenses, per Abstract No. 4	25,566 43	157,442 69	Total Receipts	162,690 42
11,896 92	General charges, per Abstract No. 5	9,753 16	132,263 69	Balance	63,731 75
289,706 38	Totals	226,422 17	289,706 38	Totals	226,422 17

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1893.

Department of Railways and Canals.

No. 3.—PRINCE EDWARD ISLAND RAILWAY.

LOCOMOTIVE POWER—(Abstract No. 1).

Previous Year.	Details.	Year ended 30th June, 1893.
\$ cts.		\$ cts.
1,414 05	Mechanical superintendent's salary, clerks, office and travelling expenses.	1,124 50
16,383 50	Wages of drivers, firemen and cleaners.	14,813 48
15,303 77	Fuel.	14,403 31
2,735 05	Oil, tallow, waste and small stores.	2,665 68
28,237 17	Repairs to engines, tenders and engine tools	24,089 79
718 35	Water, including pump and tank repairs.	675 52
1,980 90	Miscellaneous	1,423 06
66,772 79	Totals	59,195 34

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1893.

No. 4.—PRINCE EDWARD ISLAND RAILWAY.

CAR EXPENSES—(Abstract No. 2).

Previous Year.	Details.	Year ended 30th June, 1893.
\$ cts.		\$ cts.
9,129 84	Repairs to passenger cars	8,941 16
1,507 95	do postal and baggage cars.	1,544 77
6,089 83	do freight cars and vans.	7,196 81
14,140 82	Wages of conductors, train baggage-masters and brakemen	12,876 29
558 27	Oil and waste for packing.	877 32
2,979 37	Small stores and fuel	2,603 33
798 79	Miscellaneous.	782 28
35,204 87	Totals.	34,821 96

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1893.

No. 5.—PRINCE EDWARD ISLAND RAILWAY.

MAINTENANCE of Way and Works—(Abstract No. 3).

Previous Year.	Details.	Year ended 30th June, 1893.
\$ cts.		\$ cts.
369 96	Engineer's salary, clerks, office and travelling expenses.....	369 96
42,844 87	Wages in repairing roadway, fences and semaphores.....	35,145 28
39,570 55	Rails, chairs and spikes.....	14,868 76
26,383 12	Sleepers.....	2,679 85
22,880 32	Timber and lumber for repairs to bridges, cattle-guards, fences, &c.....	11,059 82
2,635 81	Repairs to wharfs.....	2,949 16
7,758 87	do buildings and platforms.....	6,696 91
4,067 36	do snow-ploughs, flangers and tools.....	2,033 89
950 67	Clearing ice and snow.....	1,281 65
147,461 53	Totals.....	97,085 28

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1893.

No. 6.—PRINCE EDWARD ISLAND RAILWAY.

STATION EXPENSES—(Abstract No. 4).

Previous Year.	Details.	Year ended 30th June, 1893.
\$ cts.		\$ cts.
20,075 83	Salaries and wages of station masters, agents, clerks, telegraph operators, station baggage-masters, yardmasters, switchmen, watchmen and labourers..	18,658 96
8,294 44	Fuel, oil, light, stationery and other incidental expenses.....	6,907 47
.....	Miscellaneous.....	.....
28,370 27	Totals.....	25,566 43

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1893.

Department of Railways and Canals.

No. 7.—PRINCE EDWARD ISLAND RAILWAY.

GENERAL CHARGES—(Abstract No. 5).

Previous Year.	Details.	Year ended 30th June, 1893.
\$ cts.		\$ cts.
4,115 04	Superintendent's and train despatcher's salaries, clerks, office and travelling expenses	3,943 44
5,441 17	Accountant and auditor's, paymaster's and cashier's salaries, clerks, office and travelling expenses	4,454 60
817 32	Advertising.....	685 67
171 97	Damages to men, animals and goods.....	128 66
390 23	Telegraph expenses (not including pay to operators).....	378 13
961 19	Miscellaneous	162 66
11,896 92	Totals.....	9,753 16

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1893.

No. 8.—PRINCE EDWARD ISLAND RAILWAY.

STATEMENT of General Stores Account, Year ended 30th June, 1893.

	DR.	\$ cts.	\$ cts.								
1892.											
June 30...	To Balance brought forward.....		98,358 49								
1893.											
June 30...	To Purchases during the year, including rails.....	84,331 00									
	Charges from other departments	7,074 55									
	Pay-rolls	2,452 33									
			93,857 88								
1893.			192,216 37								
June 30...	By Issues during the year.....		99,815 86								
	Balance	<table style="border: none;"> <tr> <td style="font-size: small;">(Ordinary stores.....</td> <td style="text-align: right; font-size: small;">\$52,845 14</td> </tr> <tr> <td style="font-size: small;">Fuel</td> <td style="text-align: right; font-size: small;">4,560 44</td> </tr> <tr> <td style="font-size: small;">Rails and fastenings on hand.....</td> <td style="text-align: right; font-size: small;">30,609 03</td> </tr> <tr> <td style="font-size: small;">Old material, serviceable.....</td> <td style="text-align: right; font-size: small;">4,385 90</td> </tr> </table>	(Ordinary stores.....	\$52,845 14	Fuel	4,560 44	Rails and fastenings on hand.....	30,609 03	Old material, serviceable.....	4,385 90	92,400 51
(Ordinary stores.....	\$52,845 14										
Fuel	4,560 44										
Rails and fastenings on hand.....	30,609 03										
Old material, serviceable.....	4,385 90										

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1893.

No. 9.—PRINCE EDWARD ISLAND RAILWAY.

DR.	GENERAL BALANCE.		CR.		
	\$	cts.			
General stores	92,400	51	Dominion Account	103,635	69
Cash	14,666	70	Accident Insurance		5,112
Stations		718			34
Militia Department		48			40
Anglo-American Telegraph Co.		46			43
Judge Weatherbee		30			00
Sidney Grey		25			00
Railway Extension, Charlottetown ...		812			83
Total	108,748	21	Total	108,748	21

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1893.

Department of Railways and Canals.

No. 10.—PRINCE EDWARD ISLAND RAILWAY.

COMPARATIVE STATEMENT of Averages for Year ended 30th June, 1893.

Details.	1893.	1892.
Mileage of railway open	210	210
Engine mileage	290,011	307,421
Train do	230,207	245,102
Car do	1,236,769	1,304,659
Receipts per engine mile	56·09	51·21
do mile of railway	774·72	749·72
Percentage of passenger earnings to gross receipts	41·45	45·07
do freight do do	46·93	44·45
do other do do	11·62	10·48
Expenses per engine mile—		
Drivers, firemen and cleaners' wages	5·11	5·33
Fuel	4·96	4·98
Oil, tallow, waste, and small stores	0·92	0·89
Repairs to engines	8·31	9·19
Water and tank repairs	0·27	0·23
Miscellaneous	0·45	0·64
Mechanical superintendent's salary, office and travelling expenses	20·02	21·26
do	0·39	0·46
Total	20·41	21·72
Locomotive power per engine mile	20·41	21·72
Car expenses do	12·01	11·45
Maintenance of way and works do	33·48	47·97
Station expenses do	8·81	9·23
General charges do	3·36	3·87
Total per engine mile	78·07	94·24
Locomotive power per train mile	25·71	27·24
Car expenses do	15·12	14·36
Maintenance of way and works do	42·17	60·16
Station expenses do	11·11	11·58
General charges do	4·24	4·85
Total per train mile	98·35	118·19
Working expenses per mile of railway	1,078·20	1,379·55

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1893.

PRINCE EDWARD ISLAND RAILWAY.

RETURN of Accidents and Casualties which have occurred on the Prince Edward Island Railway, during the Year ended 30th June, 1893.

Date.	Time of Day or Night.	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 of Coroner's Jury.
1893.												
June 17.	11:50 a.m.	Sp ¹	Special working.	T. K. Stanley.	R. Dongan...	4	North Wiltshire.	H. Manley.	Employee.	Hand crushed while coupling cars.	Thumb had to be amputated at first joint.	

Department of Railways and Canals.

MECHANICAL SUPERINTENDENT'S OFFICE,
CHARLOTTETOWN, P.E.I., 30th August, 1893.

SIR,—I beg to submit herewith for your information the following statements showing the operations of the Mechanical Department of the Prince Edward Island Railway, for the year ending 30th June, 1893 :—

A.—Monthly statement of the cost of locomotive power.

B.—Statement of the performance and consumption of locomotives.

C.—Monthly statement of car mileage.

D.—Statement showing the number of locomotives, cars, snow-ploughs and flangers.

E.—Comparative statement of the expense of the Mechanical Department for the years 1891-92 and 1892-93.

During the year there have been supplied 6 sets new tubes, 1 throat sheet, 2 fire-boxes, 2 smoke-boxes, 8 tires, 2 tender frames and trucks, 1 cross-head and slide bars.

I am pleased to be able to report that the efficiency of the rolling stock has been well maintained during the year.

I have the honour to be,

Your obedient servant,

J. UNSWORTH,

Superintendent and Mechanical Superintendent.

D. POTTINGER, Esq.,
General Manager, Government Railways,
Moncton.

PRINCE EDWARD

MECHANICAL

A.—STATEMENT of Cost of Locomotive

Months.	Miles run by Engines, less Ballasting.	Cost of				
		Enginemen's Wages.	Fuel.	Oil, Tallow, Waste, &c.	Repairs.	Water including Tank and Pump Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1892—July	30,212	1,397 75	1,401 48	243 08	2,315 95	55 29
August.....	31,045	1,424 55	1,417 66	260 69	2,248 83	15 46
September.....	28,560	1,318 43	1,434 96	250 29	2,468 46	13 74
October	30,313	1,348 10	1,579 10	313 89	2,305 60	90 64
November	25,908	1,230 42	1,310 43	256 12	1,614 26	3 40
December.....	20,651	1,172 85	1,156 00	213 59	1,659 06	181 69
1893—January.....	18,443	1,151 82	1,015 11	178 27	1,723 67	36 57
February.....	18,532	1,062 00	1,121 94	177 38	1,855 63	4 90
March	20,717	1,166 51	1,105 01	176 47	1,938 65	7 35
April	16,400	1,084 66	834 47	126 33	1,760 73	2 20
May	21,968	1,204 52	1,052 82	205 08	2,293 45	63 86
June.....	27,262	1,251 87	974 33	264 49	1,905 50	200 42
Totals.....	290,011	14,813 48	14,403 31	2,665 68	24,089 79	675 52

Department of Railways and Canals.

ISLAND RAILWAY.

DEPARTMENT.

Power, for the Year ended 30th June, 1893.

		Average per Mile run.							
Miscellaneous, including Expenses of Office and Engine House.	Total.	Engi- men.	Fuel.	Oil, Tallow, &c.	Repairs.	Water.	Miscella- neous.	Total.	
\$ cts.	\$ cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
218 22	5,631 77	4 63	4 64	0 80	7 66	0 19	0 72	18 64	
191 27	5,558 46	4 59	4 57	0 84	7 24	0 05	0 61	17 90	
162 23	5,648 11	4 61	5 03	0 88	8 64	0 04	0 57	19 77	
284 58	5,921 91	4 45	5 21	1 03	7 60	0 30	0 94	19 53	
182 54	4,597 17	4 75	5 05	0 99	6 23	0 02	0 70	17 74	
244 46	4,627 65	5 68	5 59	1 03	8 03	0 38	1 19	22 40	
317 55	4,422 99	6 24	5 50	0 97	9 34	0 20	1 73	23 98	
182 19	4,404 04	5 73	6 05	0 96	10 01	0 03	0 98	23 76	
273 16	4,667 15	5 63	5 33	0 85	9 36	0 04	1 32	22 53	
167 50	3,975 89	6 62	5 08	0 77	10 73	0 02	1 02	24 24	
144 25	4,963 98	5 47	4 79	0 94	10 44	0 30	0 65	22 59	
179 61	4,776 22	4 59	3 57	0 97	6 99	0 73	0 66	17 51	
2,547 56	59,195 34	5 11	4 96	0 92	8 31	0 27	0 84	20 41	

J. UNSWORTH,
Superintendent and Mechanical Superintendent.

PRINCE EDWARD

MECHANICAL

B.—STATEMENT of the Performance and Consumption

Months.	Hours in Steam.	Train Mileage.				Mileage by Engines.			
		Passenger.	Freight and Mixed.	Ballasting.	Piloting.	With Train.	Light.	Shunting.	Total.
1892—July..	3,442	12,449	12,565			25,023	41	5,148	30,212
August.....	3,632	13,136	12,235			25,371	170	5,504	31,045
September.....	3,502	11,535	11,531	1,176	367	24,609	151	5,181	29,941
October.....	3,606	10,554	13,870	1,043	128	25,595	38	5,863	31,496
November.....	3,256	5,922	14,422			20,344	40	5,524	25,908
December.....	2,975	3,828	11,939	106	44	15,917	63	4,792	20,772
1893—January..	2,590	2,264	11,184		462	13,910	214	4,319	18,443
February.....	2,603	2,703	10,074		1,631	14,408	89	4,035	18,532
March.....	2,953	2,468	12,841	1,429	545	17,283	108	4,895	22,286
April.....	2,343	1,356	10,838	98	64	12,356	74	4,088	16,518
May.....	2,838	4,841	12,355	249	108	17,553	84	4,610	22,247
June.....	3,227	10,774	11,165	1,714		23,653	150	5,440	29,243
Totals.....	36,967	81,830	145,019	5,815	3,358	236,022	1,222	59,399	296,643

Department of Railways and Canals.

ISLAND RAILWAY.

DEPARTMENT.

of Locomotives, for the Year ended 30th June, 1893.

Total Mileage.		Average of Cars per Mile run with Train.	Average Mileage.		Consumption.				Consumption per 100 Miles run by Engines.			
Cars.	Show Ploughs.		Miles to one hour in Steam.	Of Cars to one of Engine.	Bushels of Coal	Pints of Oil.	Pounds of Tal-low.	Pounds of Waste.	Bushels of Coal	Pints of Oil.	Pounds of Tal-low.	Pounds of Waste.
129,235	.....	5·16	8·77	4·28	11,961	2,573	11	583	39·59	8·51	·03	1·93
120,085	.....	4·73	8·55	3·87	12,486	2,603	.....	626	40·22	8·38	.....	2·01
121,039	.....	4·99	8·55	4·04	12,979	2,662	8	689	43·34	8·89	·02	2·30
143,504	.....	5·63	8·73	4·55	14,230	2,820	119	590	45·18	8·95	·38	1·24
124,317	.....	6·11	7·96	4·79	13,089	2,173	102	504	50·52	8·39	·39	1·94
86,971	.....	5·47	6·98	4·18	10,046	1,956	97	419	48·36	9·41	·46	2·01
74,591	3,160	5·54	7·12	4·04	8,641	1,752	92	409	46·85	9·49	·49	2·22
68,354	5,478	5·34	7·12	3·69	10,244	1,726	121	373	55·28	9·32	·65	2·01
105,818	902	6·32	7·54	4·74	11,051	1,812	123	410	49·58	8·13	·55	1·84
74,877	.....	6·09	7·05	4·53	7,577	1,096	71	359	45·87	6·63	·43	2·17
105,909	.....	6·07	7·84	4·76	9,794	1,901	157	459	44·02	8·54	·70	2·06
123,314	.....	5·21	9·06	4·22	10,143	2,736	223	566	34·68	9·36	·76	1·93
1,278,014	9,540	5·50	8·02	4·30	132,241	25,810	1,124	5,987	44·58	8·70	·38	2·01

J. UNSWORTH,
Superintendent and Mechanical Superintendent.

PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

C.—MONTHLY STATEMENT of Car Mileage for year ended 30th June, 1893.

Months.	First Class.	Second Class and Baggage.	Postal and Smoking.	Box and Stock.	Platform.	Total.
1892—July	31,944	26,705	20,127	37,417	13,042	129,235
August	29,714	26,305	19,876	33,280	10,880	120,085
September	30,408	22,905	20,177	36,424	11,125	121,039
October	22,100	24,769	21,868	54,332	20,435	143,504
November	16,604	18,964	17,914	57,648	13,187	124,317
December	15,672	15,975	14,401	34,741	6,182	86,971
1893—January	13,082	13,579	11,319	25,564	11,047	74,591
February	12,132	12,591	10,552	18,260	14,819	68,354
March	13,890	14,587	12,585	38,094	26,662	105,818
April	12,501	12,204	10,482	32,871	6,819	74,877
May	16,521	16,132	16,614	47,121	9,521	105,909
June	21,619	19,134	23,912	35,607	23,042	123,314
Totals	236,217	223,850	199,827	451,359	166,761	1,278,014
Less—Ballasting			6,581	7,858	26,806	41,245
Balance	236,217	223,850	193,246	443,501	139,955	1,236,769

J. UNSWORTH,
Superintendent and Mechanical Superintendent.

Department of Railways and Canals.

PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

D.—STATEMENT showing the number of Locomotives and the various classes of Cars and Snow-ploughs on hand, 30th June, 1893.

Particulars.	Locomotives.		Classification of Cars.								Snow-ploughs.		Total.
			1st Class.	2nd Class.	Postal and Smoking.	Box and Stock.	Platform.	Vans.	Pay Car.	Total.			
On hand, 30th June, 1892, serviceable...	21	17	16	3	175	123	3	1	338	8	7	15	
do do condemned...						2			2				
Total stock, 30th June, 1892.....	21	17	16	3	175	125	3	1	340	8	7	15	
Condemned on hand, 1st July, 1892....						2			2				
do during the year.....			1			3			4				
LESS—Rebuilt				1		5			6				
						2			2				
ADD—Serviceable and repairing..	21	17	15	3	175	122	3	1	336	8	7	15	
Total on record, 30th June, 1893....	21	17	16	3	175	125	3	1	340	8	7	15	

J. UNSWORTH,
Superintendent and Mechanical Superintendent.

PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

E.—COMPARATIVE STATEMENT of the Expenses of the Mechanical Department for the Year ended 30th June, 1893.

	1893.	1892.
The miles run by trains were	230,207	245,102
do engines were	290,011	307,421
do cars were	1,236,769	1,304,659
do snow-ploughs were	9,540	7,355
	\$ cts.	\$ cts.
The cost of locomotive power was	59,195 34	66,772 79
do repairs to cars	17,682 74	16,727 62
do labour, oil, and waste for packing	877 32	558 27
do repairs to passenger cars	8,941 16	9,129 84
do do postal and smoking cars was	1,544 77	1,507 95
do do freight cars and vans was	7,196 81	6,089 83
The cost of locomotive power per 100 miles run by trains was	25 71	27 24
do do do engines was	20 41	21 72
do do do cars was	4 78	5 11
The cost of repairs to cars per 100 miles run by trains was	7 68	6 82
do do do engines was	6 09	5 44
do do do cars was	1 43	1 28
The cost of labour, oil and waste for packing, per 100 miles run by trains was ..	0 38	0 22
do do do engines was ..	0 30	0 18
do do do cars was ..	0 07	0 04
Repairs to passenger cars per 100 miles run by trains were	3 88	3 72
do postal and smoking cars were	0 67	0 61
do freight cars and vans were	3 12	2 48

J. UNSWORTH,
Superintendent and Mechanical Superintendent.

Department of Railways and Canals.

APPENDIX No. 6.

SAULT STE. MARIE CANAL.

ST. CATHARINES, 3rd October, 1893.

SIR,—I have the honour to report upon the progress of construction of the Sault Ste. Marie Canal, during the fiscal year ending 30th June, 1893.

SECTION No. 1.

On this section which extends from the navigable channel of the St. Mary's River to the foot of the Island of St. Mary's, a distance of 5,300 feet with a bottom width of 250 feet, and 18½ feet depth of water, the dredging and submarine blasting has been carried as far west as the portion of land reserved as a dam, at the lower end of the lock pit on the adjoining section, will admit.

Inside or west of the dam, the excavation has been progressing in the dry, from time to time, to admit of a portion of the entrance piers being built this season.

The portion of the north entrance pier, outside the dam, has been completed.

The object is to reduce the quantity of material in the dam, as far as can be done with safety, so that after the completion of the work below water level on the adjoining section, a channel through the dam can speedily be cut, to be completed after the opening of navigation.

The following quantities represent the amount of work done to 30th June, 1893:—

Excavation, dredging and deepening channel...	cub. yds.	149,167
Timber in sides and ends of cribs.....	lin. ft.	50,197
Timber in ties, stringers and bottoms.....	do	49,600
Binding pieces.....	do	3,834
Blocks under heads of ties.....	each.	2,274
Wrought iron in bolts.....	lbs.	33,919
Pine in superstructure.....	cub. ft.	10,319
Ties.....	lin. ft.	14,654
Blocks under heads of ties.....	each.	1,135
Stringers for top covering.....	lin. ft.	3,900
3-inch pine planking.....	ft. B. M.	54,222
Cap pieces.....	lin. ft.	2,319
Mooring posts.....	each.	16
Stone filling, cub. yds.....	cub. yds.	13,077
Pressed spike.....	lbs.	2,361

Section No. 1 is under contract to Messrs. Hugh Ryan & Co.

SECTION No. 2.

This section extends westward from the foot of St. Mary's Island, 3,500 feet to the head of the island.

It is also under contract to Messrs. Hugh Ryan & Co., and embraces the excavation for the lock, and prism of the canal, the construction of the lock walls, and guard gate walls, also the construction of side walls, towing-paths, &c.

The lock as now being constructed, is 900 feet in length of chamber from hollow quoin to hollow quoin, 60 feet in width of entrances and chamber throughout, and with 20 feet 3 inches of water upon the mitre sills at extreme low water below the rapids, which will be the same depth as upon the mitre sills of the new American lock in course of construction.

In consideration of additional work involved in changes made in the dimensions of the lock, the time for the completion of Messrs. Hugh Ryan & Co.'s contract has been extended to 30th June, 1894.

The first stone in the construction of the lock was laid 15th September, 1892, and building was continued until 12th November, when the severity of the weather stopped operations, 7,707 cubic yards of masonry having been laid.

The contractors proceeded at once to provide additional plant for prosecuting the work with all despatch when building could be resumed.

Preparations were also made for obtaining and delivering on the work the large quantities of stone, timber, iron, cement, &c., required for the lock for the timber revetment, for the sides of the prism of the canal, and for the filling and emptying culverts in the bottom of the lock, for the construction of which arrangements had been made with Messrs. Hugh Ryan & Co.

On the 20th April, 1893, the contractors resumed building operations, and pushed the work vigorously, as will be seen from the quantities following, which are up to 30th June, 1893.—

Chopping, clearing and grubbing.....	acres.	30
Earth excavation in side trenches.....	cub. yds.	2,507
Rock do do	do	74
Earth excavation in prism of canal.....	do	68,082
Rock do do	do	59,200
Additional rock excavation lowering prism.....	do	9,139
do do do	do	1,472
Earth excavation in lock pit.....	do	37,081
Additional excavation for lock chamber, 100 ft. wide.	do	2,946
do do do	do	425
Rock excavation in lock pit.....	do	80,586
Additional excavation from side of lock pit.	do	8,705
do do bottom of lock pit.....	do	14,622
do do culvert pits.....	do	13,343
do do lengthening lock pit... do	do	24,270
do do culvert pits.....	do	8,924
Concrete of Portland cement in lock bottom.....	do	3,923
Additional concrete.....	do	6,123
Drilling holes in rock for anchor bolts.....	lin. ft.	779
Masonry of lock walls, 600 feet.....	cub. yds.	17,164
do 650 feet.....	do	4,308
do 900 feet.....	do	7,320

Materials delivered.

Stone from Anderdon quarry (dressed).....	cub. yds.	628
do do (rough).	do	1,164
Rough Anderdon stone dressed at Sault Ste. Marie.	do	5,962
Stone from Manitoulin quarry (rough).....	do	5,129
Sand.....	do	712
Portland cement.....	brls.	9,896
Canadian natural cement.....	do	2,359
Iron for anchor bolts for culverts.....	lbs.	591,206
Iron for gate anchors.....	do	49,330
Pine for mitre sill platforms and culverts.....	cub. ft.	13,546
Plank do do do	ft. B. M.	109,619
Oak do do do	cub. ft.	2,739
Timber for prism revetment.....	lin. ft.	52,567

SECTION No. 3.

This section extends westward from the head of St. Mary's Island, 9,300 feet, through shoals, to the navigable channel of the St. Mary's River, above the rapids, at an elevation of 18 feet above the river surface on section No. 1.

The section is under contract to Messrs. Allan & Fleming and embraces the excavation of the channel, which is 250 feet wide, at the level of 18 feet below

Department of Railways and Canals.

the lowest recorded surface of the river above the rapids; the construction of a beacon and the construction of entrance piers.

The beacon has been completed, also the entrance piers as far as they can be constructed until after the water has been let into the canal.

The dredging has been completed with the exception of some clearing up, as far as it can progress, until the lock gates are in position, when a channel will be dredged through the portion of the bank now forming the dam at the upper end of section No. 2, and the dredging completed and the piers finished in due course.

The following quantities represent the work done to 30th June, 1893:—

Dredging and deepening channel	cub. yds.	228,744
Timber in sides and ends of cribs.....	lin. ft.	38,313
do ties, bottoms.....	do	36,862
Binding pieces.....	do	3,574
Blocks under heads of ties.....	No.	1,968
Wrought iron in bolts.....	lbs.	26,254
Pine in superstructure, 12" x 12".....	cub. ft.	9,755
do ties, 10" x 11".....	lin. ft.	12,448
Blocks under heads of ties.....	No.	1,012
Stringers for top covering 7" x 10".....	lin. ft.	2,575
3" pine plank for covering.....	ft. B.M.	29,950
Cap pieces, 10" x 6".....	lin. ft.	609
Mooring posts.....	No.	5
Stone filling	cub. yds.	10,025
Pressed spike.....	lbs.	758
Rock elm in sides of beacon.....	cub. ft.	6,959
Cross ties in beacon	lin. ft.	10,835
Blocks under heads of ties.....	No.	426
Pine plank in binders.....	lin. ft.	448
Elm do do	do	192
Stone filling.....	cub. yds.	2,055
Sheeting, 5" thick.....	ft. B.M.	16,972
Top covering 3" thick on beacon.....	ft. B. M.	3,885
Hip joists and girts on beacon.....	ft. B. M.	2,914
Iron in bolts on beacon.....	lbs.	15,170
Iron in screw bolts in bottom, &c., on beacon	lbs.	885
Iron in straps on beacon.....	lbs.	5,984
Pressed spike on beacon.....	lbs.	269

Since the end of the fiscal year, a small quantity of excavation has been removed on sections Nos. 1 and 3, the nature of the work, as already stated, not admitting of any material progress on those sections.

On section No. 2 the lock walls have been built rapidly, and at date are up to the full height, the culverts in the bottom of the lock are in course of construction, and contracts for the lock gates have been let, also for the supply pipe for taking water to the power house on the north side of the lock.

A contract for the swing bridge to carry the line of the Canadian Pacific Railway over the Sault Ste. Marie Canal has also been let, and will no doubt be completed as soon as needed.

In the excavation of the prism of the canal, in the side walls, and revetment, there is still much to be done, but the energy displayed by the contractors, gives good grounds for believing that they will be equal to the task of completing their work by 30th June, 1894.

I have the honour to be, sir, your obedient servant,

W. G. THOMPSON, M. Inst. C.E.,
Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq.,
Chief Engineer Railways and Canals, Ottawa.

APPENDIX No. 7.

SOULANGES CANAL.

ENGINEER'S OFFICE,
COTEAU LANDING, P.Q., 4th October, 1893.

SIR,—I have the honour to report as follows:—

The whole of the work connected with this canal, embraced in the contracts, sections Nos. 1 to 13, has been let, and includes all the excavation, masonry of locks, weirs, bridges and culverts, entrance works, &c.

The subjoined list gives the names of the contractors and the dates of the various contracts:

Section Nos. 1 and 2—	Archibald Stewart.....	24th Sept., 1892.
do	3—J. & M. O'Leary.....	27th March, 1893.
do	4, 5, 6, & 7—George Goodwin.....	9th May, 1893.
do	8—Charles H. Raynor.....	29th Dec., 1892.
do	9—Randolph Macdonald.....	30th Jan., 1893.
do	10—Rogers & Taylor.....	24th Dec., 1892.
do	11—George Goodwin.....	11th May, 1892.
do	12—Denis O'Brien & Son.....	8th April, 1892.
Reletting Sec. No. 12—	George Goodwin.....	9th May, 1893.
Section No.	13—Randolph Macdonald.....	24th Sept., 1892.

The total value of the work let, at contract rates, is about \$3,500,000. This does not include the cost of superstructure of bridges, lock gates and machinery, sluices, cement, or the power house and electrical apparatus for operating the canal.

The cost of land and damages will amount to a very large sum. The estimate under this head given in my report dated 15th June, 1889 (printed), will probably be exceeded.

As stated in previous reports, the line of this canal between Lake St. Francis and Cascades Point, a distance of 14 miles, traverses for almost its entire length a flat country presenting no engineering difficulties. Three streams are crossed, viz., the Delisle, Rouge and à la Graisse. The first of these is about 45 miles long and has a drainage area of over 180 square miles. The second, although of no great length, is liable to heavy spring freshets; whilst the last only runs about a couple of miles inland where it is merely a ditch, but the discharge is nevertheless at certain seasons quite considerable. All of these will be passed under the canal by culverts formed of one or more lines of cast-iron tubes, 10 feet in diameter, embedded in concrete, this being the most economical and effective means which could be adopted for the purpose.

The tubes for the culvert at River Rouge are all on the ground. Those for à la Graisse are being delivered—but, owing to several causes the culvert for the Delisle River has not yet been begun, although the specification calls for the delivery of the pipes during the season of 1892.

The character of the materials met with so far in the excavations generally corresponds to that indicated on the profiles, and consists of a surface layer of brown earth of varying thickness, under which is found a stratum of soft blue clay in some places of great depth. West of Delisle River this drift is thickly interspersed with boulders—some of very large size—but to the east of it these almost wholly disappear.

Rock occurs above the grade line of the canal at the Cascades Point, where the Potsdam sandstone is found; but none is encountered towards the west until the Delisle River is reached, where the diversion channel for the stream and part of the adjacent canal prism will be in rock said to be the "calciferous." This will proba-

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bly yield some good building stone. Between the Delisle and the head of the canal about 170,000 cubic yards of rock must be excavated; but the greater part of this large mass will be utilized in forming a protection lining to the side of the canal at and near the water surface—for concrete in the various structures, macadam for roads, &c. In this connection it may be said that if the water of Lake St. Francis is permitted to enter freely into the summit level of the canal without the interposition of a guard lock, the height of this protection lining must be increased. The fluctuation of the normal plane of the lake is about 4 feet, extending over long periods—but the sudden rises which occur during westerly storms will produce currents in the canal, and probably result in a piling up of water to such an extent as cannot at present be accurately determined.

It will be seen that the materials to be taken from the prism are such as to ensure the formation of water-tight banks with but few precautionary measures—and the large excess of excavation will enable these banks to be widened out to such dimensions as will almost prevent the possibility of breaks in the future. The additional width on the north side affords the means of forming a continuous line of road between the terminal points of the canal as proposed, by which public travel will be benefited. The safety of the navigation is still further secured by throwing the canal line inland, thus avoiding the river margin where extensive slides frequently occur all along between Coteau du Lac and Cascades Point. The adoption of this principle has resulted in the location being, for navigation purposes, practically a straight line, there being only two curves in the entire length of 14 miles, each of very large radius.

An ample width of land has been taken throughout, and the value placed on the quantity expropriated seems to bear but a small proportion to the damages paid for cutting through the various farms.

The chief points of interest connected with the canal are its entrance works, especially at the eastern end, where a rise of 70 feet is effected in about three-quarters of a mile, by four locks each $17\frac{1}{2}$ feet lift. (The total rise in the canal is $82\frac{1}{2}$ feet.) Here there is a mass of rock and earth to be removed of over half a million of cubic yards, chiefly in order to overcome the abrupt ascent forming the right bank of the Ottawa near its junction with the St. Lawrence, the cutting being at one point over 40 feet deep. The approach from Lake St. Louis is through a wide and easily navigable channel carrying a least depth of 15 feet at extreme low water to within 600 feet of the shore line at the entrance. The south pier will be about 1,200 feet long, and the north pier 400 feet in length. The masonry of all kinds on sections 1 and 2 will amount to nearly 100,000 cubic yards.

At the west end of the canal, the entrance from Lake St. Francis, at Macdonald's Point, is formed by two lines of piers reaching out to deep water. A part of the material arising from the excavation of the upper end of section No. 13, is being placed behind the site of these piers, and will form on the south side an earthen mole of over four acres area. But the greater portion is carried across the lake to Hungry Bay, some $2\frac{1}{2}$ miles, and dumped there out of the line of navigation. The approach from the west will be made safe and easy for vessels drawing 14 feet by removing an outlying shoal, the material of which will be used to fill the cribs. This entrance will form a still water basin of considerable extent lying in the general direction of the north shore channel of the lake where the deepest water is found. Some distance inside the shore line the main road between Coteau Landing and Cascades will cross the canal. The Canada Atlantic Railway will also have to be carried over it, for which purpose a suitable draw bridge must be erected. The masonry of these structures will be combined with that of the guard gates and supply weir to be placed to the west of the railway.

There are eight road and railway bridges on the canal.

All the locks and weirs will be supplied with sluices constructed of steel on the Stoney patent plan.

Arrangements are also made in the masonry for the reception of electrical apparatus.

As stated in my last annual report (printed), it is intended to apply electrical power to the operation of the lock gates, sluices, bridges, &c., of the canal. This mat-

ter was discussed as far back as April, 1891, when a plan was prepared by me for opening and shutting the gates by means of a rigid steel beam attached to the top and connected with an apparatus placed on the side of the lock. I also suggested that this arrangement should be tested at Lock No. 4, of the Beauharnois Canal, where there was a water wheel available for the purpose. The motor used in the experiments was quite too large, and the results, although conclusive as to the feasibility and economy of working the gates, as proposed, were not satisfactory as to determining the amount of power required in practice. Further trials will, however, be made, the object in view being that of operating all the gates and sluices of a lock from one point on whichever side of it may be deemed advisable. Sketches are in course of preparation for a power station to be erected on the south bank of the canal at the crossing of River à la Graisse, midway of the summit level, which is about $10\frac{1}{2}$ miles long. This site has many advantages. It is only a few hundred feet from the St. Lawrence, and the surface of the canal there is 20 feet over that of the river, so that ample power and free exit at the tailraces can be secured. The building may also be arranged as a repair shop, and to cover in a discharging weir of large dimensions through which the long level can be rapidly lowered without running such a heavy volume through the weirs at the Cascades end.

I beg to refer to the last departmental report, pp. 131-3, for a statement of the general principles upon which this canal has been designed, and wherein its structures will differ from those of the present enlarged Welland, Cornwall and Lachine canals.

The present condition of the works may be briefly described as follows:—

Sections Nos. 1 and 2.—Work on these sections was begun last year, and has been chiefly confined to the removal of a portion of the earth in the bluff referred to as forming the right bank of the Ottawa River. This material has been used in forming the north bank of the canal, outside the shore line, and which it is intended by the contractor shall also serve the purposes of a coffer-dam to inclose the area covered by the entrance lock, &c. About 2,000 cubic yards of cut stone and 6,000 cubic yards of backing in the rough are at a quarry near Rockland, Ont. Some timber has been delivered for the entrance piers; but it will be evident on inspection of the subjoined statement, showing the value of work done and materials delivered to date, that a radical change must be made in the rate of progress on this contract to enable the very large amount of work embraced on it to be completed within a reasonable period. It will be evident to any person acquainted with such matters that the date of opening the canal for through navigation will mainly depend upon the finishing of the Cascades end, which is the key to the whole position.

Section No. 3.—About one-fifth of the excavation has been taken out this season with wheel and slush scrapers.

Sections Nos. 4, 5, 6 and 7.—These sections were grouped into one contract, mainly for the purpose of securing the hauling forward of the surplus material from the western end to sections 5 and 4 to widen the banks throughout. There are nearly two millions of cubic yards of excavation, all in clay. At the lower end of Section No. 4, there is a lift lock (No. 5) and guard gates regulating weir, &c. None of this masonry has been begun and no stone has been delivered. The work has been wholly the formation of the canal on Section No. 4, which is the best paying part of the contract. Sections Nos. 5, 6 and 7, where the haul is increasingly longer, remain untouched to date.

Section No. 8.—About one-fifth of the excavation on this section has been taken out chiefly by wheel scrapers. There is also a good steam shovel at work with a small locomotive, cars, &c., and making fair progress. Another engine will soon be on the ground and will help to increase the rate of output. It is intended to build the culvert at à la Graisse next spring. The pipes for this structure, are, as previously indicated, being delivered; and the stone, sand, &c., for concrete will be brought on during the coming winter.

Section No. 9.—The progress made on this section has been slow. There is a large proportion of soft blue clay, difficult to handle. This work is being done by

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a good steam shovel, two small locomotives and a suitable number of dump cars. The material is spoiled to the north of the canal on land purchased for that purpose. A considerable amount of the top earth was removed by scrapers.

Section No. 10.—This, so far, is almost wholly scraper work. Over 140,000 cubic yards have been taken out to date. The channel of diversion for the River Rouge and the pit for the culvert are being excavated by a steam shovel, with a locomotive and cars. The material is here quite soft, and the progress necessarily slow in such a cramped position. But the 10-foot tubes are all on the ground, and strenuous efforts are being made to get the foundations of the culvert in this fall.

Section No. 11.—This work was contracted for in May, 1892. According to the specification, the cast-iron tubes for the Delisle culvert, which is one of the most important structures on the canal, were to have been delivered in that year. But nothing was done towards providing them. Only about one-fifth of the earth excavation has been taken out, and about 16,500 cubic yards of rock. As stated in my last annual report, the progress made with this work is exceptionally slow and unsatisfactory.

Section No. 12.—Messrs. O'Brien & Son stopped work on this section in November last. This consisted chiefly in removing the top part of the prism excavation. The rock was left untouched, and operations were not resumed when the contractors were duly notified to do so. The section was consequently advertised for reletting and awarded to Mr. George Goodwin, whose contract is dated 9th May of this year. Scarcely anything has been done by him so far except a small amount of earth excavation, which is chiefly in hard material. There is a lot of old plant on the ground—two steam shovels, three locomotives and a number of dump cars. But the work is difficult and the arrangements unsatisfactory, so that some decisive steps appear advisable to ensure a reasonable rate of progress on this contract. Its importance consists in the large amount of rock which has to be removed, and which remains untouched to date.

Section No. 13.—A considerable portion of the dredging has been done in the formation of the entrance channel. One of the cribs for the piers is now more than half built. There are two dredges at work, both digging at present inside the shore line. A part of the material is deposited outside the line of the piers in the position shown on the contract plans, and a large amount is taken across the lake to Hungry Bay and dumped there out of the way of the navigation, as previously stated.

Nothing has, so far, been done towards providing or hauling stone for the structures on this section. To the east of the crossing of the Canada Atlantic Railway the material in the heavy cutting is thickly interspersed with large boulders. An excellent steam shovel and two small locomotives with a suitable number of cars are engaged in taking out this material and depositing it in the marsh along the margin of the river in front of A. M. Giroux's farm. The earthwork of this section is progressing steadily. The plant is suitable and in good condition, and there is satisfactory evidence that much will be accomplished during the working season of next year.

As to the progress made with the excavation throughout the line of the canal, it may be said that the season now nearly over has, in this part of the country, been quite unfavourable for canal work, especially on clay soils. There has been a great deal of wet weather, and this, taken in conjunction with the inevitable delays experienced in starting a large work, has retarded operations to a greater extent than will probably occur next year. Out of a total of $6\frac{1}{2}$ millions yards of earth about 1,100,000 have been removed to date. Of the rock only 16,500 cubic yards have been excavated, the total amount being about 250,000 cubic yards.

Following is a statement of the value of work and materials on the various sections up to 30th September, 1893 :—

Number of Estimates.	Sections.	Work done.		Material delivered.		Total.	
		\$	cts.	\$	cts.	\$	cts.
8	1 & 2.....	20,626	00	36,971	00	57,597	00
5	3.....	21,865	00			21,865	00
5	4, 5, 6 and 7.....	40,425	00			40,425	00
4	8.....	30,607	11	2,250	00	32,857	11
5	9.....	16,187	00			16,187	00
6	10.....	32,330	00	24,388	00	56,718	00
11	11.....	46,632	00	57	33	46,689	33
6	12 (O'Brien).....	26,572	65	238	50	26,811	15
3	12 (reletting).....	5,325	00			5,325	00
5	13.....	34,869	00	8,199	00	43,068	00
		275,438	76	72,103	83	347,542	59*

*Equal to about ten per cent of the total value of work under contract, at contract rates.

It will be seen from the preceding report that the work done so far has been almost exclusively earth excavation.

That taken out is generally the brown clay forming the top layer, which is obviously the easiest handled. The blue clay lying underneath and the hard material towards the western end must be moved by steam shovels, of which there are nine of all kinds on the whole length of the canal. About one-fifth of the earth and only seven per cent of the rock have been done. The masonry and concrete, of which there are about 200,000 cubic yards, remain practically untouched to date. It is therefore evident that the works as a whole must progress much faster than heretofore to ensure the completion of this canal within a reasonable period. The date named in the various contracts is generally the 31st October, 1894.

I am, sir, your obedient servant,

THOMAS MONRO, M. Inst. C.E.

Engineer Soulanges Canal.

COLLINGWOOD SCHREIBER, Esq.,
Chief Engineer, Railways and Canals,
Ottawa.

Department of Railways and Canals.

APPENDIX No. 8.

WELLAND CANAL.

OTTAWA, 24th October, 1893.

SIR,—I beg to submit my annual report upon the expenditure on the Welland Canal on account of capital for the fiscal year ended 30th June, 1893.

In the Supply Bill for 1892-93, three items of expenditure were provided for to meet unsettled claims, and possible contingencies as under:—

\$60,000 generally.

\$20,000 deepening to 14 feet.

\$9,000 land damages, Grand River.

Of the first item, \$1,221.05 was expended in payment of lands obtained for canal construction, and surveyor, and valuator's services in connection with the same; the unexpended balance has lapsed.

Of the second item of \$20,000, no expenditure was incurred and the amount has lapsed.

Of the third item of \$9,000, there was an expenditure of \$7,038.89 in payment of claims for damages on the Grand River by flooding caused by raising the Dunnville dam in 1872, and prior to that time, and in payment of legal and valuating expenses in connection with the same.

The unexpended balance has lapsed.

I have the honour to be, sir,

Your obedient servant,

W. G. THOMPSON, M. Inst. C.E.,

Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq.,
Chief Engineer, Railways and Canals,
Ottawa.

APPENDIX No. 9.

DEPARTMENT OF RAILWAYS AND CANALS,
SUPERINTENDING ENGINEER'S OFFICE,
MONTREAL, 11th October, 1893.

SIR,—As requested by your letter of the 28th August last, I have the honour herewith to submit my report on the various works under my charge, for the fiscal year ended 30th June, 1893. These works are:—

1. The Lachine and Beauharnois Canals on the St. Lawrence line.
2. The St. Ours Lock and Chambly Canal, on the Richelieu River.
3. The Ottawa River Canals, comprising the Ste. Anne Lock, the Carillon Canal and Dam, the Grenville and Culbute Canals.

In commencing this report, I desire to state that my connection with the canals of the Montreal Division dated only from the 13th May last. I had no opportunity of acquainting myself with the operations on these works, during the last fiscal year, sufficiently to enable me to speak of them in a proper manner. I will, therefore, only submit here the reports furnished by the various superintendents, together with the usual statistical statements.

OTTAWA RIVER CANALS.

STE. ANNE LOCK.

Navigation was closed here on the 28th November, 1892, and re-opened on the 29th April, 1893. The traffic was not interrupted in any way during the season.

Ordinary Repairs.

The lock and entrances here, as well as the buildings, fences, bridges, range lights, &c., in connection therewith, have been kept in a good state of repair during the year. New buoys have been put in the channel, below the locks, and the mooring pier at the head of the upper channel raised four feet. The long pier forming the south side of the upper entrance was partially rebuilt; four courses of timber being renewed for a length of 240 feet. During last spring's floods the water overflowed the unrepaired portion of this pier and damaged it to a considerable extent, as well as the breakwater at the upper end. These will be attended to in the course of the present season.

Appropriation for repairs.....	\$2,800 00
Expenditure.....	2,800 00
Balance	Nil.

Repairs Chargeable to Income.

Since the construction of the new lock here, the old one has been used almost entirely for the passage of timber rafts. This lock which was built in 1843, had been leaking so badly, for the last two or three years as to be practically useless.

Pointing the walls would have effected little good, as the mortar was almost entirely gone from the joints. It was, therefore, deemed preferable, in order to staunch them, to build puddle walls behind them on their whole length. To effect this, trenches were excavated down to a bed of compact clay mixed with gravel and the puddle started on this with a width of five feet. This width was kept for four feet in height and then checked in eighteen inches, and brought up to within two feet of the foot of the frost batter where it was still reduced to about two feet. The clay used was of the best quality and well rammed down.

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These puddle walls have very effectually stopped the leakage.

In order to complete the staunching of the lock, it was found necessary to overhaul both gates. The upper pair was therefore towed up to Carillon where it was repaired during the fall. It was the intention to put them back in position early in May last, and to take the lower pair in hand so as to have the lock in working order by the 1st July, but owing to the persistency of high water in the spring, this could not be done, the upper gates being only put in place by the end of June. As it is, this old lock can now be used in case of emergency, but the lower gates shall have to be overhauled before the next season of navigation. The necessary timber and some of the iron for them are on hand.

CARILLON AND GRENVILLE CANALS.

These canals although separated by a navigable stretch $5\frac{1}{2}$ miles in length, are under the management of one superintendent. Both were closed on the 30th November, 1892, and reopened on the 1st May, 1893. The booms forming the south side of the upper entrance to the Carillon Canal were put in position on the 5th May, but on the 21st of the same month the strong current created by the unusually high water, coupled with a violent west wind, caused them to break away from their moorings, 793 feet in length being carried over the dam at this point and broken into ten short pieces, which had to be towed back through the canal and anchored as well as possible for service until such time as they could be repaired.

Navigation was not interrupted during the season although the amount of traffic was considerable.

Ordinary Repairs.

The ordinary repairs necessary to keep these canals in good working condition have been done during the year. Of these, the most important were as follows:—

Lock Gates.—Replacing a pair of gates at lock No. 7 by a pair of spare ones kept on hand for the purpose. Renewing top part of the two pairs of gates of lock No. 1 and altering position of suspension straps at locks Nos. 1, 2 and 4. Renewing one valve at lock No. 6. Painting gates of locks Nos. 1, 2, 3 and 4. The gates removed from lock No. 7 were taken in hand about the end of June.

Walls.—Pointing walls of locks Nos. 1 and 2, as well as the retaining wall forming the south side of Carillon Canal; this last one is about half a mile in length. Repairing slope walls at various places along the Grenville Canal.

Booms.—Building a near boom, 84 feet long, 8 feet wide and $2\frac{1}{2}$ feet thick, for the upper entrance of Carillon Canal.

Piers.—Building extension to mooring pier at Brantford's Bay, about 2 miles above the head of Carillon Canal. This extension is 24 feet long, 21 feet wide and 23 feet high, and in addition to it the old portion of the pier was raised 5 feet. Increasing sluice way in guide pier forming the south side of the upper entrance to Carillon Canal.

Scows.—Sundry repairs to gate lifter.

Buildings.—Erecting a shed 54 feet long, 18 feet wide and some 20 feet high for stop-logs at the head of Carillon Canal. Painting lockmaster's house at lock No. 2.

General.—Cleaning prism of canals, repairing road ditches, banks, tow-paths, fences, &c.

Appropriation for repairs.....	\$11,500 00
Amount expended.....	10,669 18

Unexpended balance.....	\$830 82
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REPAIRS CHARGEABLE TO INCOME.

Carillon Dam.

The repairing of this important structure was continued during the year with only an interruption of a few weeks between December, 1892, and March, 1893. On the 1st of July last there remained to be completed about 100 feet in length of the

main portion of the dam and the whole section of 300 feet or so between the slide and the south shore of the river. The total length repaired, during the fiscal year ended 30th June, 1893, was about 750 feet. Heavy cribwork, in some places as high as 18 feet, was put in to give the apron its proper length, for a distance of 380 feet, besides raising the said apron along and covering it with elm timber, as explained in my last report.

The appropriation running short, work had to be suspended in December, 1892, but a supplementary amount of \$10,000 having been voted by Parliament at its last session, operations were resumed early in March and pushed steadily on until the ice broke away in April. There had then been expended out of the supplementary \$10,000, an amount of \$5,396.13, leaving a balance of \$4,603.87, which was almost entirely used in necessary repairs to scows, &c., and in purchasing timber, iron and stone required to continue operations during the coming season.

The total amount appropriated towards this work from 1891 to 30th June, 1893, is as follows:—

1891-92.....	\$15,000 00
1892-93.....	15,000 00
1892-93, supplementary.....	10,000 00
Total.....	\$40,000 00

Expenditure.

October, 1891, to 30th June, 1893, labour.....	\$19,525 21	
Steam tug "Ada".....	4,088 00	
Material, tools and sundry accounts.....	14,967 24	
		38 580 85
Unexpended balance.....		\$1,419 55
	\$38,580 85	
Material on hand—Timber, lumber, iron and stone, say.....	4,500 00	
Total cost of work done.....	\$34,080 85	

Total cubic contents of permanent work about 15,100 cubic yards, $\frac{34980}{13100}$, say \$2.26 per cubic yard.

This result could of course never have been attained had I not been able to use a large quantity of timber taken out of old booms or lying along the canal and which was all that could be desired for the temporary works; some of it was also found good enough to go into the submarine cribwork.

The quantity of timber thus procured amounted to about 38,000 lineal feet, or nearly half of that used.

GRENVILLE CANAL INCOME.

Lock No. 6, Retaining Walls.—The walls, on the south side of both approaches, to this lock, having to be rebuilt, an amount of \$5,000 was voted by Parliament for the purpose. The necessary stone was procured by a contract with Mr. Toms, and the building was done by day's work. Owing to unexpected delay in commencing operations, and to the severe cold that prevailed last winter, the removal of the old walls proved very expensive. However, the greatest part of the work was done within the limits of the appropriation, the expenditure being \$4,853.01, with enough stone left to complete the wall in the fall of 1893. The ordinary repairs appropriations for 1893-94 will be sufficient to do this without asking for a special grant.

Lock No. 7, Upper Wing Walls.—As stated in my last report, the upper wing walls at lock No. 7 had to be rebuilt. Consequently, in the course of last fall, a contract was entered into with Mr. F. Toms, of Ottawa, for this work. Operations were commenced early in December, 1892, and the work brought to completion by the end of the fiscal year. The old dry walls, resting on a cribwork foundation,

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were removed and masonry walls, laid in "Portland" cement, built in their place. Both are about 29 feet high, 10½ feet wide at the base and 90 feet long.

Some trouble was experienced by the contractors, in staunching the coffer-dam, at the entrance of the canal; but the leakage having been finally got under control, masonry was commenced on 3rd March and completed by the end of that month.

Appropriation.....	\$14,000 00
Expenditure as per final estimate.....	12,516 11
Unexpended balance.....	<u>\$ 1,483 89</u>

Mr. H. G. Stanton, who was in charge of the two last named works, received instructions on the 5th June to proceed to Bryson and commence a survey of the lands alleged to have been flooded, owing to the construction of the dams at Grand Calumet and Rocher Fendu Rapids on the Upper Ottawa. This survey is in progress at the time of writing.

CULBUTE CANAL.

The structures here consist of two combined wooden locks, a submerged dam and a draw-bridge, located a couple of miles below the canal. In connection with these, are also two submerged dams, one at Rocher Fendu Rapids, on the south, and the other at Grand Calumet Falls, on the north side of Calumet Island.

These two last dams are of no use, to the scant navigation on this section of the river, and they being, at the same time, a source of continuous claims on the part of land owners, for alleged flooding, it had been decided to remove them and preparations to that effect had been commenced in the spring of 1892. However, orders not to proceed with the work were given soon after and it has since been kept in abeyance.

No repairs of any kind were done here during the year.

As requested, I inclose herewith a copy of the annual reports received from the superintendents in charge of the various works.

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

ERNEST MARCEAU,
Acting Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Chief Engineer of Canals, Dept. of Railways and Canals,
Ottawa.

CARILLON, 12th August, 1893.

SIR,—I have the honour to submit to you my annual report for the fiscal year ended the 30th June, 1893.

The canals were closed on the 30th November, 1892, and reopened on the 1st May, 1893.

The booms were placed at the head of the Carillon Canal on the 5th May, 1893, and on the 21st of the same month, 793 feet of the said booms were carried away by the high water and a strong west wind, and broken in ten pieces.

The number of vessels and lockages of rafts passed through the canals during the year is as follows:—

DOWNWARDS.

Months.	Steamers.	Canadian Barges.	American Barges.	Lockages of Rafts.
1892—July	57	154	28	91
August.....	71	179	34	161
September.....	52	153	33	62
October.....	57	149	46	66
November.....	36	79	23	20
1893—May	52	152	24	15
June.....	52	151	26	36
Totals.....	377	1,617	214	451

UPWARDS.

1892—July	73	138	15	85
August.....	81	169	68	141
September	62	153	37	69
October.....	65	157	39	41
November.. ..	45	83	36	23
1893—May	55	135	32	53
June.....	57	127	23	182
Totals.....	438	962	250	594

The total expenditure of the year chargeable to staff amounts to \$13,301.67.

REPAIRS.

Replacing one pair of lock gates, lock No. 7, by a pair of spare gates we had on hand.

Building a shed over the stop-logs at lock No. 2, size 54 feet long by 18 feet wide, with stone foundation and a shingle roof.

Building one boom for the upper entrance Carillon Canal, size 84 feet long by 8 feet wide and 2 feet 6 inches in thickness.

Lowering the by-wash of the guide pier, lock No. 2.

Repairing the gate-lifter scow, renewing the ends, knees, flooring timbers and supports under the three derricks.

Repairing the top part of the two pairs of gates, lock No. 1, top bar mullions and foot boards, changing the suspension straps.

Changing the suspension straps on the two pairs of gates, lock No. 2, and also one pair, lock No. 4.

Building a mooring pier at Brantford's Bay, size 54 feet long, 21 feet wide, 23 feet high.

Department of Railways and Canals.

Placing the booms at the head of Carillon Canal.

Pointing locks Nos. 1 and 2, and also the canal wall which is half a mile long.

Replacing one valve at lock No. 6.

Painting lock gates at locks Nos. 1, 2, 3, 4.

Painting the lockmaster's house, lock No. 2.

Cleaning the bottom of the canals, removing boulders and rubbish which had fallen in during the year.

Repairing the roads, ditches, fences and towing-paths, canal banks, lifting lock gates, renewing lock gate chains and valve pins, &c.

I have also commenced the repair of the Grenville lock gates on the 24th June.

We have also done during the year many repairs, of which it is impossible to give you all particulars in my report, such as repairs of wheelbarrows, pike poles, ladders, and small repairs to Government houses, &c.

The total expenditure of the year chargeable to repairs amounts to \$10,669.18.

I am, sir,

Your obedient servant,

PIERRE GIRARD,

Acting Superintendent, Carillon and Grenville Canals.

ERNEST MARCEAU, Esq.,

Acting Superintending Engineer,
Montreal.

CARILLON, 5th September, 1893.

Annual report on the operations at the Carillon dam repairs, from 1st July, 1892, to 1st July, 1893.

July 1 to 20, 1892.—Was spent in repairing scows, cofferdam, cribs, &c.

July 20.—Resumed work on the dam, commenced putting in cofferdam on north side centre of main dam; 6 cofferdam cribs were put on with stop-logs between, covering 237 feet.

The original aprons behind dam at said place were 8 ft., 14 ft. and 39 ft. long, with a fall of 8 feet from crest of dam. We took old aprons out which were all more or less damaged, filled up original sluices with timber and stone. Twelve cribs were built behind dam at said place to the surface, and then a superstructure built up within 1 foot of top of original dam, the whole filled with stone and then covered lengthwise with timber.

Completed by September 15.—Completing in all 230 feet in width by apron 56 feet long on north side, sloping to 39 feet on south side. Removed two of the above cofferdam cribs to south side, joining north pier of slide.

The two cribs were placed on dam with stop-logs between and an extension covering 130 feet. Three cribs were built behind dam to the surface and then a superstructure built up within 1 foot of original dam, the whole filled with stone, covered lengthwise with timber.

The original apron was 8 feet long, with a fall of 8 feet from crest of dam, said apron was taken out and treated same as first mentioned.

Completed by October 5.—The repairs completing in all 125½ ft. wide by apron 26½ feet north side to 25½ feet south side.

Cofferdam cribs removed from south side and centre to north side, joining long guide pier.

Three cofferdam cribs placed on dam with stop-logs between, covering 172 feet.

Four cribs were built behind dam to the surface and then a superstructure built up within one foot of original dam, the whole filled with stone and covered with timber lengthwise.

The original apron was 8 ft., 23 ft. and 56 ft. long, with a fall of 8 feet from crest of dam; said apron was taken out and treated same as first mentioned.

Completed in Nov. and Dec.—The repairs completing in all 149 feet wide by apron 49 feet north side to 56 feet south side.

December 5, 1892.—Suspended work on the Carillon dam repairs.

February 28, 1893.—Resumed work on the dam.

Cofferdam cribs were placed in November so as to form ice for winter. Two cofferdam cribs were built and put in in March. It is hard to state distance covered by cofferdam as the whole dam was frozen over with the exception of places where the surplus water ran over.

We did not put any cribs in behind the dam as the work was over that, that was repaired in 1884 and all the cribs were put in then. The original aprons were 42 ft., 48 ft. and 39 ft. long, which were all greatly damaged; we took them out and built a superstructure to a height of 6 feet and filled all sluices, &c., with stone and covered with timber.

Repairs completing in all 206 feet wide by 42 ft., 48 ft. and 39 ft. apron.

Also took out old apron 45 x 56 feet joining north side long guide pier repairs. Built superstructure to height of 6 feet, filled same with stone and covered with timber.

Repairs completing in all 45 feet wide by 56 feet apron.

March 31.—Suspended work on the dam.

April 13.—Resumed work with a few men catching cofferdam cribs, timber, &c., &c.

May.—Had 18 men average two days each catching timber and cofferdam cribs on different dates during the month.

June 2.—Resumed work repairing scows, cofferdam cribs, &c.

June 21.—Suspended work with the exception of one blacksmith and assistant, who worked making bolts, timber dogs, pike pole irons, &c., up to 30th June, 1893.

The above is respectfully submitted.

D. GAHERTY,
Supt. Carillon Dam Repairs.

ERNEST MARCEAU, Esq.,
Acting Superintending Engineer,
Lachine Canal Office,
Montreal.

STE. ANNE, 12th August, 1893.

SIR,—I have the honour to submit herewith my report for fiscal year ending 30th June, 1893.

Navigation closed here on the 25th November and was reopened on the 29th April, 1893.

Mail boat and general traffic have not been interrupted during the opened period.

Ordinary repairs have been made to the locks, lock gates, guide light at upper entrance, Government building, fences and bridges, and four buoys have been replaced.

The anchor pier above Ste. Anne has been raised 4 feet.

Two hundred and forty feet long of the long pier above the old lock has been repaired, and two snubbing posts have been replaced.

I have the honour to be, sir,

Your obedient servant,

J. L. DAOUST,
Superintendent.

ERNEST MARCEAU, Esq.,
Acting Superintending Engineer,
Montreal.

Department of Railways and Canals.

COULONGE, 2nd August, 1893.

DEAR SIR,—Your letter of 17th July, asking for annual report of work under my charge on the Ottawa River Canals received. I have the honour to report as follows:—

Work was commenced on the puddle trenches of the old lock wall at Ste. Anne, on the 8th August last and finished on the 18th October the same year.

The trenches were excavated to a depth of 17 feet, with a width of 5 feet at the bottom. The excavation was through made ground which was principally made up of quarry refuse.

The clay for the work had to be brought across the canal in a barge and unloaded on the lock wall and from there thrown into the trenches where it was thoroughly tamped. The width of the puddle at the bottom was as near 5 feet as possible, and was carried up at that width for 4 feet when it was checked in 18 inches and from there carried up at that width to within 2 feet of the frost batter of the lock walls, where it sloped back to meet the foot of the frost batter of the wall.

The puddle was put in the trench about 2 feet thick at a time all along the trench and well tamped throughout. The filling in behind the puddle wall was carried up at the same time.

Mr. P. Girard came down and removed the upper gates, which he had towed to Carillon, where they underwent a thorough repair during the winter and were replaced in the spring as soon as the water would permit.

I received instructions from you to proceed to Grenville in December to take charge of the work there, which consisted of rebuilding the wing walls at the guard lock on the Grenville Canal. This work was done by contract, the contractor being Mr. F. Toms, of Ottawa. I arrived in Grenville 14th December, with you and found that the contractor had started some days before in excavating behind the existing wing walls.

The contractor began hauling clay for his dam, which he had to put in to unwater his work on the 6th January.

The water was let out of the reach on the 13th January, but when there was a head of about 8 feet, the dam moved and the reach filled up again. When the diver went down, he found that there had been a bad scour on the south side of the dam. Three-inch sheet piles were driven with a pile-driver half-way across the dam from the south side and the leak stopped, when the water was again let out on 31st January, but the dam was found to leak. There was a bad scour on the 8th February. The contractor then decided to pile all the way across the dam, the scour this time being on the north end of the dam, where it joined the wharf. After the piling, the dam was practically water-tight.

Masonry on the wing-walls was begun on 3rd March and continued till completed with one short delay, which was caused by the contractors' heating plant breaking down; however, the walls were finished by the end of March. The filling behind the walls was completed early in May.

The contractor removed a portion of the dam to allow navigation for the 1st May, when he had to stop on account of the high water; however, he succeeded in having it all removed later on and in time to get his final estimate.

Work on the rebuilding of retaining walls at lock No. 6 was done by day labour, Mr. F. Toms supplying the stone by contract.

There was 500 feet of wall built, with an average height of 9.5. The work was most expensive on account of the severe winter. We had to remove 500 feet of old wall, which was more difficult to remove than solid rock. The stone for the new wall, though of a good quality, was too large for the wall wished to be built and therefore cost more dressing. This work was also completed in time for the opening of navigation. I was some time in Carillon, preparing my final estimate of work at Grenville, when I received instructions from you to proceed to Bryson to survey lands drowned by the dams placed in the Ottawa River by the Government, where I am now at work.

I have the honour to be, sir, your obedient servant,
ERNEST MARCEAU, Esq. H. J. STANTON, *Resident Engineer.*
Acting Superintending Engineer, Montreal.

STE. 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, 1893.

Months.	Lock No. 1, Lower Sill.		Lock No. 1, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1892.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July.....	13 0	10 1	14 5	11 0
August.....	12 0	10 9	11 9	11 5
September.....	11 0	10 4	11 5	10 9
October.....	11 3	10 7	10 5	9 10
November.....	11 3	10 0	12 8	10 10
December.....	11 2	10 3	12 10	12 2
1893.				
January.....	11 8	9 9	12 10	10 8
February.....	10 2	9 9	11 5	10 1
March.....	10 8	9 3	11 0	10 1
April.....	12 9	10 8	14 11	11 0
May.....	16 2	12 3	19 3	13 11
June.....	15 1	13 0	18 0	14 8

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, 1893.

Months.	Lock No. 1, Lower Sill.		Lock No. 2, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1892.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
July.....	16 0	12 10	16 0	13 2
August.....	13 1	12 6	13 10	12 10
September.....	12 9	11 11	13 4	12 0
October.....	12 8	12 0	12 4	11 10
November.....	13 11	11 8	14 9	12 1
December.....	13 11	12 10	16 6	12 9
1893.				
January.....	13 3	12 2	13 3	11 5
February.....	12 10	12 2	11 4	11 0
March.....	12 6	11 7	12 6	11 2
April.....	15 11	12 4	16 6	13 0
May.....	21 9	16 0	23 3	15 10
June.....	20 0	16 2	20 9	16 9

Department of Railways and Canals.

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, 1893.

Months.	Lock No. 3, Lower Sill.		Lock No. 7, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1892.	ft. in.	ft. in.	ft. in.	ft. in.
July	19 3	15 8	17 0	12 8
August	16 3	15 4	13 0	12 2
September	15 2	14 2	12 4	10 9
October	15 0	14 3	11 9	11 4
November	17 10	14 4	15 0	11 3
December	19 6	15 9	14 6	12 0
1893.				
January	23 6	17 0	12 10	10 4
February	26 6	23 0	10 3	10 0
March	27 0	20 0	10 9	9 6
April	20 3	10 0	17 2	11 0
May	28 0	19 3	24 9	16 0
June	25 9	20 2	21 8	17 0

CARILLON CANAL.

STATEMENT of Damages collected during the Fiscal Year ended 30th June, 1893.

Date.	Name of Vessel.	Name of Owner.	Fines.	Damages.	Totals.
1892.			\$ cts.	\$ cts.	\$ cts.
1st Oct.		Capt. Robert.		5 00	5 00

D. MURPHY,
Collector.

GRENVILLE CANAL.

No fines or damages.

ALEXANDER PRIDHAM,
Collector.

LACHINE CANAL.

SUPERINTENDENT'S OFFICE,
MONTREAL, 1st September, 1893.

ERNEST MARCEAU, Esq.,
Acting Superintending Engineer, Canals,
Montreal.

SIR,—I have the honour to submit to you the annual report of the works executed on the Lachine Canal, during the fiscal year ended 30th June, 1893.

I am unable to enter minutely into the details of the works executed prior to the 13th of May, 1893, the date at which I was placed in charge by the chief engineer; and such information as is now submitted, regarding the execution of the

works, according to appropriations voted, is gathered from canal workmen who were employed on said works.

The Lachine Canal was closed to traffic on the 30th of November, 1892, and reopened to navigation on the 4th of May, 1893.

Although two accidents occurred during the year the trade was not affected thereby, navigation was efficiently maintained during the whole season, and the water has been kept at a good height in all the levels both for navigation and manufacturing purposes.

The first accident referred to, occurred on the 19th of December last, when a most serious leak declared itself in the canal bank, opposite the Montreal Woollen Mills, on the north side of the regulating weir, at the St. Gabriel Locks.

The clay backing behind the wall had been washed away and the water found its way under the flume and wall of the mill. Steps were immediately taken to stop the leak which threatened not only the mill but the whole canal interest. The water was lowered in the reach, the bank repaired, and, on Friday afternoon of the 23rd, the water was let in again. The repairs effected consisted in rebuilding the slope walls in front of the mill with heavy cement masonry, filled in behind with concrete and clay.

Five days after the wall had been rebuilt, the water was again discovered coming through the foundations of the mill; after careful examination it was decided to stop the mill and block the flume and to wait until the water was taken out of the canal, to ascertain the full extent of the repairs to be made for securing the bank and otherwise protect navigation and milling interests. The work was resumed in March and April, the whole wall in front of the mill was taken down and rebuilt, a puddle wall with concrete and sheet piling was made in rear. The owners of the mill took advantage of the water being out of the canal to reconstruct their flume and effect the necessary repairs to the foundations and walls of their building.

The total cost of repairing this break amounted to \$13,209.78.

The other accident occurred on the 10th of May, 1893, when the tug "Wm. Paul," struck the St. Gabriel bridge, knocked it off its pivot, breaking (at the same time) a portion of the turntable machinery.

As stated before, navigation was not affected thereby; four days after the accident, the bridge was again in working order. The repairs to the bridge, in this case, amounted to \$262.25.

Considerable works were executed, during the fiscal year, and are described under three heads, viz., repairs, income and capital.

REPAIRS.

The water was drawn off on the 8th of March for the purpose of building the masonry required in connection with the new Wellington and G. T. R. bridges.

While the water was out of the canal, the works under water were overhauled and repaired. All the mechanical structures, such as locks, weirs and headgates, bridges, shops and lighting station machinery, were kept in the best condition possible and all the works in connection with the canal maintained in first-class order.

There are a great many mechanical structures and other works on this canal to be kept in repair, viz. :—

Ten locks, seven swing bridges and their approaches on both sides, twenty-one stationary road bridges, six weirs, containing in all fifty water gates or sluices 4 x 5 in size. There are fifty wooden piers in connection with the different bridges and the timber basins at Lachine, varying in size from 12 x 18 feet to 12 x 24 feet and 12 x 36 feet.

There are 4,000 feet in length of guide booms at the different weirs, bridges and timber basins from 3 to 4½ feet in width. The planked wharfs measure 15,500 feet in length on an average width of 24 feet; there are seven flour or freight sheds, measuring, two 750 x 40 feet; five 400 x 36 feet; also nineteen buildings such as workshops, electric station, storehouses, dwelling-houses for bridge and lockmen, wharfingers and superintendent's office and watch or guard houses at the different locks and bridges and timber basins.

Department of Railways and Canals.

There are 14 miles of tow-path, on both sides of the canal, and over 9,000 feet in length of planked foot-path in connection with the Government property, in the city of Montreal, the latter having not only been maintained in good order but also kept free of snow and ice during the winter months.

The cleaning of the River St. Pierre and off take drains through the lands adjoining the canal, covers 10 miles in length and was duly attended to at the proper time.

Mooring posts have been placed at different points on the canal banks and in the piers where required.

The maintenance of Mill Street, which runs from Black's bridge to St. Etienne Street on the south side of the canal, and over which the traffic is very heavy, has been expensive; the same remark applies also to the other roads adjoining the different basins, wharfs and flour sheds.

The electric plant for lighting the canal between the lower entrance and St. Gabriel lock has been maintained in good order and has given full satisfaction.

The canal telephone line has also been kept in an efficient state of repair.

The amount appropriated for repairs, on this canal, for	
the fiscal year 1892-93, was.....	\$48,500 00
Supplementary vote.....	3,700 00
	\$52,200 00
The expenditure has been.....	51,515 15
	\$684 85

WORKS CHARGEABLE TO INCOME.

The work done on this canal, during the lapsed fiscal year, under the head of Income, was subdivided as follows:—

Building 8 pairs of spare gates for old and new locks.

Taking down and rebuilding lock walls of old lock No. 1, both sides, including chamber, upper and lower wing walls.

Rebuilding old regulating weir at Lachine and improving present drainage system on south side of canal above Côte St. Paul bridge.

Building six stationary bridges.

Spare Gates.

Six pairs of spare gates were built, during 1891-92, for the old and new locks, distributed as follows:

Two pairs for lower and upper sills, old lock No. 1.	
One do do sill, old lock No. 2.	
One do upper do 3 or 4.	
One do lower do 5.	
One do upper sill, new lock No. 3 or 4.	
The cost was.....	\$21,463 47

A further sum of \$29,000 was asked to provide the balance of spare gates required for the undermentioned locks, viz.:—

One pair upper gates, old lock No. 2.	
One do do 5.	
Two pairs upper gates, new locks Nos. 1 and 2.	
One pair lower do 1.	
Two do do 3 and 4.	
One pair upper do 5.	

A sum of \$19,500 was granted for the construction of said gates. Two pairs of lower and upper gates for either of old locks Nos. 1 and 2 were built during the lapsed fiscal year. The expenditure amounted to \$15,992.94, but I understand the

repairs to all the other old spare gates were included in the above amount. There remains on hand a large quantity of oak timber: 66 pieces in the rough and 160 pieces dressed, averaging from 28 to 29 feet in length by 18 to 24 inches, which will be available for the construction of spare gates which may be required in the future.

Rebuilding lock walls of old lock No. 1.

An appropriation of \$37,800 was voted towards rebuilding the masonry of old lock No. 1. The contract for the delivery of the stone required and the cutting of same was awarded to Mr. Em. St. Louis; mostly all the stone had been delivered and cut, when, by order of the chief engineer, the work was stopped.

The expenditure in connection with this work was, at close of fiscal year, \$24,577.18.

Old regulating weir, Lachine, and box drain, Côte St. Paul.

In the fiscal year's estimates for 1892-93, \$15,000 were asked towards rebuilding the old regulating weir at Lachine, and \$4,200 for improving the present drainage system on the south side of the canal above Côte St. Paul lock, that is, the renewal and cleaning of the old drains on the front of the farms belonging to Messrs. Evans, Aubertin, Henrichon, Jarvy and Jackson, but only \$15,000 were voted for both purposes.

Nothing was done in connection with the reconstruction of the old weir. As to the drain, only the planking covering was renewed. This covering represents an expenditure of \$4,225.15.

Stationary bridges.

Two of the stationary bridges at Lachine—one above the new regulating weir, connecting the island at Pigeons with the main road, and the other below said weir, were entirely rebuilt, and the timber required for replacing the bridge over the old supply weir, on the south side, prepared and stored away in the canal yard. The two stationary bridges on Mill Street, at the Montreal Warehouse (Ogilvie's Mill) were also renewed as well as the one across the weir immediately above bridge No. 1.

The amount voted for this purpose was.....	\$5,350 00
Amount expended	4,819 86
	<hr/>
Balance	\$ 520 14

CAPITAL.

The work under this head comprises the construction of the new Wellington and Grand Trunk Railway bridges, over the canal, at Wellington Street.

The work consisted in removing the old bridge structures, taking down the pier of the old traffic bridge and the two intervening abutments in the channel, on both sides, so as to give clear passage ways of 75 feet in width; also the construction of two iron bridge structures, four masonry abutments, two on each side, to receive the ends of the bridges; some cribwork extensions, to support the new swing bridges, and considerable piling, on both sides, in line of said bridges, as well as the renewal of a portion of the Grand Trunk Railway centre pier.

Preparations for doing this work were commenced early in November. The steam dredge was set to work excavating the required depth of the bridge site on both sides.

Contracts were given out by tender for the supply of the necessary plant, such as steam derricks, appliances, tools, hardware, lumber, timber, &c. The contracts for the superstructures of both bridges were awarded to the Dominion Bridge Company.

The general dimensions of the Wellington bridge being the following:—Total length, 232 feet 3 inches; clear breadth of roadway, 34 feet; two sidewalks, outside the trusses, clear breadth 5 feet each; breadth over all, 48 feet; clear head room, 18

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feet to the underside of the top struts; depth from the surface of the floor to the top of the pier, 7 feet. The swing to be operated by an electric motor placed in a cabin, over the centre of the bridge.

The contract price of this structure, in position and working order, being \$34,400.

The Grand Trunk Railway bridge has the following dimensions:—Length on skew, between abutments, 253 feet 6 inches; clear width, 14 feet; head room, 21 feet 6 inches from base of rail to under side of top struts; distance from base of rail to top of pier, 7 feet.

Contract price..... \$26,000

The contract for the delivery of the quarry stone required for the Wellington Bridge pier was awarded to Mr. J. B. de Lorimier, and that for the stone required for the four abutments of the two bridges to Mr. Emmanuel St. Louis. The latter also furnished, under schedule prices, the stonecutters to cut the stone, the masons, skilled labourers, &c, to build the whole of the masonry.

The water was drawn out of the canal on the 8th of March and work started at once.

I am not in a position to furnish you with the details of the execution of the work; this information has already been supplied, I believe, to the department by the then superintending engineer and has been the subject of an inquiry before a Commission appointed by the Government.

On the 4th of May the work was practically completed and navigation opened.

When I assumed charge of the canal, on the 13th of May, there remained to be built the parapet walls of the road bridge and the approaches of both the Wellington and Grand Trunk Railway bridges, all of which was done with the canal staff.

The work complete will cost above \$455,000.

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

JOHN CONWAY,
Acting Superintendent L. C.

EARNEST MARCEAU, Esq.,
Acting Superintending Engineer, Canals,
Montreal.

BEAUHARNOIS CANAL.

SUPERINTENDENT'S OFFICE,

MELOCHEVILLE, 12th August, 1893.

SIR.—I have the honour to submit to you my report on the works under my charge for the fiscal year 1892-93, ended 30th of June last.

The Beauharnois Canal was closed on the 1st of December, 1892, and reopened on the 1st of May, 1893.

Navigation was interrupted 15 hours on the 6th of May, 1893, caused by a break in the bank, immediately below the waste weir at lock No. 12 on the south side of the canal, when the embankment was carried away on a length of 50 feet by 8 feet in height.

Locks and Lock Gates.

Lock No. 6 has been repaired on its whole length, the joints filled in with small stones and the masonry pointed.

Half of the north-east wall of the waste weir at that lock was taken down and rebuilt, and a serious leak stopped. Sundry repairs were also made in connection with the masonry of the other locks.

Two pairs of lock gates were rebuilt and placed in position, one pair at lock No. 11, and one pair at lock No. 10.

One cap and a knee were placed on one of the gates of lock No. 8, and the upper portion of the heel post of one of the gates at lock No. 11 renewed.

The lower gates of locks Nos. 7, 8 and 9 were raised and adjusted.

A suspension strap on one of the gates at lock No. 9, which was broken, was taken off, welded and replaced.

Twelve new crab winches, for opening and closing the gates, were made and one placed at each of locks Nos. 6, 8 and 13; several chains were renewed at the different locks, as well as the chain rollers. The turntables and gear of the swing bridges at locks Nos. 11 and 13 were renewed.

Bridges.

A new swing bridge was built and placed at lock No. 12. The approaches to the swing bridges, at locks Nos. 10, 11 and 13, were renewed.

The swing bridge at lock No. 14, Valleyfield, underwent considerable repairs.

One of the bridges over the waste weir at the above lock was rebuilt. The swing bridges at locks Nos. 7, 8, 9, 10 and 13 were raised, adjusted and the chains tightened.

Posts.

Three fender posts were made and placed one at each of locks Nos. 8, 11 and 12, and the posts at the other locks repaired. Seventy-five snubbing or mooring posts were set on the canal banks, on both sides, and a large number of the old ones taken out and reset.

Dwelling-houses and Buildings.

A new kitchen was built for the lockmaster of lock No. 9, as well as a wood shed. The upper or mansard portion of the bridge-keeper's house, at St. Timothy, was taken down and rebuilt and a new bridge shanty built for the keepers.

The roof of the lockman's house at lock No. 6 was covered with painted Canada plate.

The dwelling-house occupied by lockman Lefebvre at lock No. 10 was repaired inside and outside, and a wood shed 12 ft. by 12 ft. built in connection with same.

The lockmaster's house at lock No. 7 was painted outside and a veranda built on the front of said house, another one for the dwelling-house occupied by the lockmen and bridge-keeper at this lock.

Another veranda was built for the lockmaster's house at lock No. 9, and one for the house of the lockmaster at lock No. 13. Two wood sheds 12 x 12 and 12 x 24 feet, respectively, were built for the lockmen and bridge tender at lock No. 7.

A shed of 12 x 18 feet, erected at lock No. 6, was demolished by a storm shortly after having been put up and was again rebuilt. Wood sheds, 12 x 12 feet, were also built for lockmen Bonnin, Dubois, Leduc, Boyer, Bertrand, Dandurand and ferryman Cardinal; all these sheds were painted.

An extension 12 x 13 feet was made to the canal storehouse. Repairs were made to the roof of the house occupied by ferryman Olivier Lafleur, and the floor of the kitchen painted.

The fence around the canal ground upon which are erected the workshops, received considerable repairs.

A large number of farm bridges were built, and all the others have been maintained in good order.

Banks, Dams and Dykes.

The bank of the waste weir on the south side of lock No. 12, which was carried away on a length of 50 feet by a depth of from 8 or 9 feet, was rebuilt. The canal embankment, which had also been damaged, was repaired, and three bridges which had been carried away by the water were rebuilt.

The dams and dykes underwent considerable repairs. The lower dam at Valleyfield has been macadamized on its whole length and breadth, last summer, and covered with a layer of gravel.

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The north embankment of the canal was covered with gravel for a considerable distance. The Hungry Bay dyke was also macadamized and covered with gravel for a good distance, and leaks through the same stopped. The canal banks on both sides have been well maintained. The ditches and discharges have been carefully cleaned and the weeds mowed in due time.

The public roads, which, on a length of 27 miles follow the canal bank and extend as far as Godmanchester, have been maintained in good order.

A cement masonry wall about 40 feet in length was built opposite McDonald's mill, and two waste weirs, which were of no use, filled in with earth.

Scows.

The ferryman's and labourer's scows have been kept in good repairs; the scow at Valleyfield also received considerable repairs.

The amount appropriated for repairs for the fiscal year was \$16,800. The expenditure has been \$14,089.86—balance, \$2,710.14.

I have the honour to be, sir,
Your most humble servant,

J. F. BÉRIQUE,
Superintendent.

ERNEST MARCEAU, Esq.,
Acting Superintendent Engineer of Canals,
Montreal.

CHAMBLY CANAL.

SUPERINTENDENT'S OFFICE.

CHAMBLY BASIN, 15th August, 1893.

SIR,—I have the honour to submit the annual report of the works executed under my control, on the Chambly Canal during the fiscal year 1892-93.

The canal was closed on the 1st of December, 1892, and reopened to navigation on the 8th of May, 1893.

Thrice during the month of May last leaks occurred in the side walls of the tail race of the waste weir below lock No. 6; they were immediately repaired, and navigation was not affected thereby. No other accident whatever occurred.

The old works have been kept in good order, and some new works have been executed to facilitate navigation and expedite the work in the canal workshops.

MAINTENANCE AND WORKS.

Expenditure Chargeable to Repairs.

Canal Banks.—The dry rubble wall on the inside of the tow-path from mile 1½ to mile 6, has been rebuilt during the fall of 1892, and at the end of April last all the inside wall on the same side has been overhauled from Chambly to St. Johns, as well as certain portions of the wall on the opposite side on a distance of four miles.

The dry rubble wall on the west side below bridge No. 7 has been rebuilt underneath the Central Vermont Railway bridge, and further on a total distance of 400 feet.

Some excavations in the tow-path between the 8½ and 10½ miles, have been filled in with small stones and covered with earth.

The macadamized road on Isle Ste. Thérèse, on a distance of 2¼ miles, has been carefully kept in order. The canal bottom has been cleaned where stones and earth had accumulated, specially at the foot of the locks, and watercourses draining the lands on the west side of the canal.

The weeds were mowed on both sides of the canal at the proper time.

Locks.—The nine locks have been pointed with Portland cement.

One side of the upper gates of lock No. 5 has been renewed, the other gate was built and kept in reserve until required.

One pair of spare gates has been commenced for the guard lock at St. Johns (10 miles above the workshops). These gates will be completed later and transported to the above place to be used in case of accident.

Three old balance beams have been replaced by new ones. Three sluice frames, 12 feet in height, for the sluices inside of lock walls, have been made and placed, two at lock No. 2, and the other at lock No. 7.

The sluices of fourteen pairs of gates, and eight sluices inside of lock walls have been renovated according to a new design; this has proved a very important improvement, facilitating the lockages, and has been the means of a reduction in the labour staff.

Before letting the water into the canal, last spring, the sills of the locks have been strengthened. The sill of lock No. 5, which had been cut, to drain said lock, during its reconstruction, has been adjusted and repaired. The timber for a spare sill has been prepared and stored away.

Bywashes.—During the severe winter of 1892-93, the bywashes required a considerable amount of labour to keep the openings free of ice, which was continuously forming. Ninety feet of the garde corps or railing of Fryer's bywash which was threatening ruin, was renewed, and the carriage-way over it widened by 3 inches. Some small leaks which did not, however, require the lowering of the water in the canal, were stopped, one at Fryer's bywash, and one at the Electric Station waste weir.

The wall of the tail-race of the above weir in rear of the Electric Station, which had been disturbed by the canal water with a head of 32 feet, has been rebuilt on the east side, for a length of 75 feet.

As already stated, at the commencement of this report, it was necessary to repuddle three times the bywash below Lock No. 6. An important improvement, which would put an end to the oft-repeated leakages at this point, would be to place in said bywash two sluices; the puddle would never be disturbed and thereby the general cause of leakages (spring puddling when there is yet frost in the ground) would disappear.

Bridges.—The low temperature of a winter without snow has been the cause that the frost has deeply penetrated the ground, therefore all the structures, embedded in the ground, have been disturbed more than usual. The bridge seats suffered more than the rest and it was necessary to raise almost all the bridges and to readjust the pivots and segments.

The stringers of bridge No. 5 were strengthened and new approaches made at bridges Nos. 1 and 8. The planking of bridges Nos. 1, 2, 3, 4, 5 and 6 has been partly renewed and the timber work painted.

The tow-path bridges on Isle Ste. Thérèse, and the bridges on the public road, required but slight repairs and have been kept in good order.

The timber for a spare swing bridge has been prepared and stored away until required.

Wharfs, Piers and Booms.—The guide pier in the Chambly Basin, at the lower entrance of the canal, has been planked with 3-inch hemlock plank, on a length of 300 feet, by a width of 26 feet; and the remaining 200 feet of said pier repaired. An extension of 70 x 20 feet has been made to the wharf above bridge No. 8, to facilitate the unloading of coal.

The cavities in the wharfs at St. Johns have been filled, and the heaps of earth resulting from the use of derricks unloading scows, &c., were spread and levelled, at the expense of the persons using said wharfs.

The 400 feet of wharfs, piers and booms have been kept in good order during the whole year.

Dry Rubble Wall.—The dry rubble wall of the discharge, between the Malo and Ostigny properties, has been raised 3 feet on a length of 75 feet and a new wall, 50 feet long, has been built as far as the river; the old wall on the east of said discharge has been overhauled.

Department of Railways and Canals.

Roads.—Four toises of broken stone were used to fill in the ruts of the Government macadamized road, between bridges Nos. 1 and 2. The roads alongside the canal, used by farmers, have been kept in order.

Culverts.—The three culverts draining the farm lands, on the west side of the canal, have been cleaned as well as their approaches. The outlet wall of culvert No. 1 has been rebuilt. The culvert discharges, which measure, between the canal and river, at least 2,000 feet in length, were cleared of ice twice during the winter, and eight miles in length of ditches cleaned.

Buildings.—The roofs of four lighthouses were covered with sheet iron and painted. The ceilings and partitions of the lockmaster's house at lock No. 2, which were plastered necessitating almost constant repairs, were renewed with tongued and grooved $\frac{1}{2}$ -inch plank and painted.

Some sundry repairs were made to lockmaster's house at locks Nos. 3, 4 and 8 and the keeper's dwellings at bridges Nos. 4, 6 and 8.

Three storm or winter doors were provided for the houses of bridge-keepers Nos. 4 and 6 and the roofs of said houses were covered with sheet iron and painted. The roofs of the bridgemaster's house and shed at bridge No. 2, the north side of the roof of the hardware storehouse and those of the watch houses of bridges Nos. 3 and 4 have also been covered with sheet iron and painted.

The bridge tenders' houses Nos. 2, 3, 4, 5 and 6, as well as the guard houses at bridges Nos. 2, 3 and 4, have been painted and the fences around the lots whitewashed by the keepers themselves. The different buildings in the Government yard, with the exception of the main workshops, have been whitewashed as well as the fence.

A shed 28 x 20 feet for the storage of coal and electrical plant, &c., has been built at the electrical station. The ground was levelled and a fence erected around the lot.

A shed 75 x 37 feet has been built in the yard for the storage of sawn lumber and timber, derricks, wagons, &c., and a ventilator has been placed on the roof of the engine room.

The building used jointly, for offices, by the superintendent and collector at Chambly, underwent considerable alterations and improvements. The old roof was demolished and a mansard one built instead; two new stairs were made and the hallway enlarged for the accommodation of the general public.

Fences.—The necessary repairs were made to the fences. The railing or "garde corp," along the public road, and measuring 6 miles in length has been completed opposite Ste. Thérèse Island; 4,000 feet in length of the rail and 140 cedar posts have been replaced. The posts on the whole distance have been covered with a galvanized iron cap to keep in place the $\frac{3}{8}$ -inch steel wire cable and to protect the head of the posts; 2,640 caps were thus placed.

The old "garde corps," in the town of St. Johns, has been repaired for the year or until such a time as a more suitable fence shall be built.

Scows.—The four scows have been repaired and caulked; one of the decks was replanked, and a new derrick mast made and put on the repairs scow.

Steam and Electrical Plant.—Several improvements were made to the plant in the canal workshops and at the electrical station.

The pipe feeding the turbine has been covered with pea-straw, as done the years previous, at the approach of winter, to protect it against the frost.

In April, when the water was drawn off from the canal, this pipe, which measures 330 feet in length by 40 inches in diameter, has been carefully scraped and painted, both inside and outside. One of the inside bearings of the turbine, which was out of place, was readjusted.

The main shaft, in the workshops, which is run either by steam or electricity, has been divided into three sections which can be united or thrown apart by means of levers or clutches.

A stronger mast has been provided for the derrick on wheels.

A travelling crane has been installed, in the long shed, for the storage of the large timber and materials such as derricks, balance beams, bridge stringers, &c.

Telephone.—As usual the telephone has rendered important services to navigation and has been also very useful to expedite the works. The damages to instruments by lightning are repaired at the workshops; and for that purpose, spare pieces are always kept in stock. It is very seldom necessary to send any parts of the instruments to Montreal for repair. The wire, when broken by the wind or otherwise, is connected by the canal workmen.

Tools.—Carpenter's tools were provided in sufficient quantities to expedite the work.

The crowbars, chisels, picks and stonecutters's tools are made and repaired at the canal blacksmith's shop.

Besides the large quantity of timber which has been employed in the reconstruction of locks, all the timber for repairs and construction is sawn and planed in the workshops.

Ten thousand pounds of iron have been worked and prepared at the blacksmith's shop, during the year, 42 wheelbarrows have been repaired, 7 stoneboats made, besides a large quantity of handles for axes, picks, hammers, &c.

The appropriation for repairs was	\$12,500 00
The expenditure was.....	12,450 43
Balance.....	<u>\$ 49 57</u>

Expenditure Chargeable to Income.

The works under this head are as follows :—

1. Rebuilding wall of lock No. 5, east side.
2. Fences.
3. Dry rubble wall along public road.
4. Electric motor, &c.
5. Sill at lock No. 9.

Rebuilding East Chamber wall of Lock No. 5.—The east wall of lock No. 5, from a point about 10 feet below the upper gate, comprising the recesses, abutments, chamber and wing walls below the lower gate, was taken down as far as the bottom of the lock, and rebuilt for a height of 17 feet. Eight tiers of dressed pine timber with a batter of 1 inch to the foot were laid one upon the other with ten tiers of hemlock timber in rear, the whole joined together by iron rag-bolts.

The stone masonry backing in the rear was built at the same time and bound to the timber wall in front for a height of 10 feet 4 inches, by means of numerous iron bars 1½-inch in thickness, by 8 and 12 feet in length, put across the whole wall and bolted to oak blocks embedded in rear of said wall.

In the spring, four courses of face stone masonry were laid over the timber-work and a coping course, 3 feet in width, was put on top of this wall. The work once completed, the two derricks, the electric lamps, the surplus of materials were removed, the ground levelled and some gravel spread over the approaches to the lock and in the vicinity.

The appropriation to rebuild 90 feet of wall was \$6,000; but when it was taken down it was perceived that the remainder of the wall, including the wing wall, was worthless; order was therefore given to demolish the same, which gave 60 feet more of wall to rebuild. An additional sum of \$1,500 was appropriated.

Appropriation.....	\$6,000 00
Supplementary appropriation.....	1,500 00
	<u>\$7,500 00</u>
Expenditure.....	7,499 87
Balance.....	<u>\$ 13</u>

Department of Railways and Canals.

Fences.—The total length of fences, on line of canal, is $10\frac{3}{4}$ miles. Two and half miles of fence built the year previous should be deducted, thus leaving $8\frac{1}{4}$ miles = 43,560 lineal feet of fence to be made. The fence was built with round cedar posts, 5-inch in diameter at the small end ; four wires were fastened on said posts and a $\frac{1}{2}$ -inch steel cable placed on top.

The posts were set 10 feet apart, in line of the canal boundary stones, and at a depth of $3\frac{1}{2}$ feet ; the under surface ground, mostly of tuff, was excavated by means of crowbars which explains why the fence was so expensive, but it is a first-class structure.

Thirty-one thousand three hundred and fifty feet of fencing have been made, leaving a balance of 12,210 feet to be built.

The amount of appropriation asked and considered necessary to prepare the work was \$3,670 but only \$2,500 were granted. The materials on hand will be taken into account when the estimates for next fiscal year will be prepared.

Appropriation.....	\$2,500 00
Expenditure	2,499 95
Balance	<u>\$ 0 05</u>

Dry Rubble Wall.—The canal embankment, on the public road or west side, between bridge No. 3 and St. Johns, on a distance of seven miles, is generally high ; not being protected by a retaining wall, it is constantly undermined by water, and land slides into the canal are of frequent occurrence, sometimes to such an extent as to stop or seriously impede navigation.

So long as the dredge was stationed in the canal, these slides were of not much consequence, but now that the dredge is away it is more dangerous and far more expensive to remove the slides and replace the material in its former place.

It is absolutely necessary to build a wall of a sectional area of 9 feet to maintain the embankment and road in their place.

A sum of \$4,000 was voted to build dry rubble walls at the most exposed points. A trench is cut at the foot of the embankment, as far as the natural surface of the ground and a course of large stones measuring as much as a cubic yard is placed into this trench ; the interstices being filled in with small stones to prevent the earth from being undermined. Seven thousand seven hundred and twenty feet of bank have thus been protected, in the most exposed parts, at miles Nos. 4, 7 and 9, and 1,300 feet at mile $10\frac{1}{2}$, making in all 8,520 lineal feet.

Appropriation.....	\$4,000 00
Expenditure.....	3,999 54
Balance	<u>\$ 0 46</u>

Electric Motor.—An electric motor of 25 h.p. capacity run by two Edison incandescent dynamos, located at the electric station, $1\frac{1}{2}$ miles above, has been placed in the workshops and is in operation since the month of June. It works splendidly and is always ready to operate the machines at any time.

There is considerable economy in fuel and labour.

Appropriation.....	\$2,090 00
Expenditure	2,082 65
Balance..	<u>\$ 7 35</u>

The electrical system is now complete on the Chambly Carral. The inside and outside lighting both at Chambly and St. Johns, give great satisfaction. The workshops are lit by electricity and the machines are run by the same power. The annual expenditure amounts only to \$1,765 for Chambly and \$300 for lighting the guard lock, and the harbour and canal offices at St. Johns, or in all \$2,065.

Lock No. 9.—Lock No. 9 at the foot of the canal in the Chambly Canal, has not been pumped dry since fifty years, date of its construction, and during lockages, the water escapes from it in a dangerous manner.

A sum of \$1,000 was appropriated for the purpose of pumping the lock dry, to put in a new sill and to examine the bottom, so as to ascertain the extent of work to be done to make the lock staunch.

It was impossible to commence the work before the 1st of May, the ice being 3 feet thick in the lock chamber, there was only one week to spare; the time being so short, the least obstacle would have caused a failure. First, the boiler of the steam pump, on being tested, was found unfit for service; the electric motor was then brought into requisition to pump the lock dry, but we could not yet succeed for reasons given in my report to Mr. Parent, dated 7th of May, No. 530, which I annex to this report so as give you a precise idea of the question.

With a view of economizing as much as possible, in a matter involving so much risk, the stop-logs of all the locks, from St. Johns down, were brought to lock No. 9, to save the purchase of timber. Since these stop-logs were returned to their respective places and timber purchased to make a set of stop-logs for said lock No. 9.

The labour in connection with this work, including the expenditure of the diver from St. Ours, amounted only to \$382.43; the balance of the expenditure is for the purchase of materials which will be utilized when the work is resumed at a more convenient time.

Appropriation.....	\$1,000 00
Expenditure	991 98
	<hr/>
Balance.....	\$ 8 02
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I have the honour to be, sir,
Your obedient servant,

P. B. BENOIT,
Superintendent, Chambly Canal.

E. MARCEAU, Esq.,
Acting Superintending Engineer,
Montreal.

CHAMBLY CANAL,

SUPERINTENDENT'S OFFICE,
CHAMBLY BASIN, 7th May, 1893.

SIR,—I regret to inform you that the works commenced to pump out lock No. 9, to renew the sill and to ascertain the general state of the lock bottom (which has not been done since fifty years) as authorized by the supplementary credit of \$1,000 voted during last session, have not been executed for the following reasons:—

Impossibility to commence the cofferdams before the 1st of May, the ice being yet 3 feet thick in the lock chamber, on the 28th of April last, date of its departure.

Construction of the cofferdams rendered difficult by downpouring rains which raised the level of the water in the river, over 2 feet in one single day, which compelled us to raise the dump 20 feet above the bottom of the lock.

Insufficiency of a pump 5-inch diameter only. Insufficiency of the appropriation which did not allow us to secure beforehand in Montreal, as a precautionary measure, a steam pump and engine of a suitable capacity.

After running five hours, the motor which as on its trial, but working very well, gave out; even if it had not failed, the pump which was raising 6 inches of water per hour at the start, could not have emptied the lock, once a depth of 10 feet would have been reached, owing to the difference in the water level, the outside pressure would have caused the water to penetrate into the lock through fissures which are unavoidable under these circumstances.

Department of Railways and Canals.

Impossibility (supposing that the grant was sufficient) owing to the advanced season, to transport from Montreal over winter roads, which were in bad order, a pump and a 20 h.p. engine, to complete the pumping of the lock. This would have taken a week more, supposing that the said plant could have been had ready to work. The opening of the canal would have been delayed at least until the 15th of May, which would have been certainly too late.

For the above reasons, which I had the honour to state to you by telephone, you gave me the order to stop the works and to prepare everything for opening the canal on the 8th instant, as promised to the public.

Before leaving, the diver has repaired the sill as much as possible; he thinks it will stand the whole season. If there is danger, the work can be resumed in June, at low water. The materials purchased for this purpose will then be utilized and the work executed, partly with the balance of the appropriation yet on hand, and partly out of the repairs vote.

Unfortunately navigation will be stopped for a few days, but the question of urgency will prevail. If the lower portion of lock No. 9 does not require imperative repairs, during the summer, it is preferable to wait until the end of November, at close of navigation, to perform the works required. At that date the exigencies of navigation are done away with, and should unforeseen complications arise, there will be time to obviate them.

Your obedient servant,

P. B. BENOIT,
Supt. C. C.

E. H. PARENT, Esq.,
Superintending Engineer,
Montreal.

ST. OURS LOCK.

SUPERINTENDENT'S OFFICE,
St. Ours, 7th August, 1893.

SIR,—I have the honour to submit my report for the fiscal year 1892-93. The following works were executed, viz.:—

The lock was closed on the 30th November, 1892, and reopened to navigation on the 18th April, 1893.

LOCK.

The ground on both sides of the lock has been kept in good order, and the winches and chains repaired. The lamp frames and posts were painted and the broken panes of glass replaced. The gates were repaired, painted, and the iron work in connection therewith kept in order. Some mooring-posts were renewed.

DAM.

Some pieces of timber were placed at the western end of the dam, and some large stones deposited there to prevent slides. This structure was inspected to ascertain whether everything was in good order, especially as regards the planks placed on the top, to keep the water level at the proper height.

ISLAND.

The Government ground on the island has been cleaned and kept in order; some stone has been scowed and deposited both at upper and lower ends to prevent damages from high waters, as well as on the ground between the lock and the mill.

Scows.

The scows have been repaired, caulked and painted.

BUILDINGS.

The outbuildings have been suitably repaired and whitewashed, as well as the fences.

WHARFS AND PIERS.

Sundry repairs were made to the wharfs, and a new platform, 3 feet in height, built, the same was loaded with stone to prevent the ice from raising it.

The piers were repaired and some ladders and mooring-posts renewed.

The ice was cut along the wharfs and around the piers to prevent their being lifted by high water.

BOOMS.

The top of the booms being too close to the level of the water, was raised by 4 inches for the safety of persons using them. They were removed in the fall, placed in winter quarters and replaced at opening of navigation.

DIFFERENT WORKS.

The keys of the cofferdams used to unwater the lock have been taken apart and the lumber piled. The wheelbarrows have been repaired; the saw and cross-cut saws filed, and the firewood, used in the lock shanty and workshop, cut in two. All the Government timber and lumber has been properly secured and piled.

The tools, cables, materials, &c., have been put in order and secured in the workshop and sheds.

Amount of appropriation.....	\$2,000 00
Expenditure.....	1,994 34
	\$ 5 66
Balance.....	

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

ALFRED CODERRE,
Superintendent.

E. MARCEAU, Esq.,
Acting Superintending Engineer,
Montreal.

MONTREAL, 29th August, 1893.

SIR,—I have the honour to submit my report on the "improved drainage system along northern boundary of Lachine Canal," which has been under my control during the fiscal year 1892-93.

The work had been begun in August, 1891, and was under progress at the beginning of the fiscal year.

It was simultaneously carried on at two points, viz., on the collecting drain along the canal from Côte St. Paul upwards, and on the covered brick drain from Rockfield towards Lachine.

When work was stopped owing to bad weather, on 8th November, 1892, there had been completed 4,500 feet in length of the collecting drain, and 515 lineal yards of the covered drain.

In the spring of 1893, work was resumed at the collecting drain on the 12th of April, and at the covered drain about the 20th of same month.

Up to the 30th of June, 9,750 feet of the collecting drain and 779 lineal yards of the covered brick drain had been completed since the beginning of the fiscal year.

At the end of fiscal year 1892-93, the total lengths of each work completed since the beginning in 1891 were the following:—

	Completed.	Total length.	To be completed.
Collecting drain.....	14,750 ft.	16,700 ft.	1,950 ft.
Connecting trench.....	950 ft.	1,150 ft.	200 ft.
Covered drain	1,229 yds.	2,140 yds.	911 lin. yds.

Department of Railways and Canals.

Rock has been met on about one-half the distance of collecting drain built during the year, and on the covered drain rock was found on the whole distance.

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

L. G. PAPINEAU,
Resident Engineer.

MONTREAL, 2nd October, 1893.

ERNEST MARCEAU, Esq.,
Acting Superintendent Engineer of Canals,
Montreal, Que.

SIR,—I have the honour to transmit my report on the hydrographic survey of Lake St. Louis which has been continued by me during the fiscal year ending 30th June, 1893.

During the summer of 1892, from the 15th of June to the 19th of November following, the survey of the lake has been extended from St. Nicholas Island to the foot of the Beauharnois islands, a length of somewhat over four miles.

On that distance, soundings have been taken, at short intervals, on parallel lines running more than half-way across the lake and being 200 feet apart, for the first three miles, and 400 feet for the remainder of the distance.

The Châteauguay River, from its outlet to the first rapids, has also been surveyed, during the summer, but no soundings have been taken in this river.

The statistics of the field work performed, during the year, is as follows:—

Number of triangles performed.....	21
do angles measured including angles for soundings	3,327
Shore line surveyed (including islands) miles.....	17½
Roads surveyed.	4¼
Number of miles run in sounding.....	197
do soundings.....	29,700
Area covered by soundings, square miles.....	8¾

The season has not been a favourable one for outside work. Frequent rains and high winds have been the cause of much delay.

During the winter, a base line, two and three-quarter miles long has been carefully measured on the frozen surface of the lake, and connected with the triangulation made during the previous summer.

Corrected tables of latitudes and departures were also calculated and a chart of the lake commenced, but the latter was not terminated, on account of my being called upon to make an estimate of cost of a contemplated enlargement of the Lachine Canal, and to prepare several statements for the Wellington street bridges investigation.

I have the honour to be, sir,
Your obedient servant,
L. S. PARISEAU,
Resident Engineer.

ERNEST MARCEAU, Esq.,
Acting Superintending Engineer,
Montreal.

MONTREAL, 21st September, 1893.

SIR,—I beg to submit my annual report on the operations of dredging fleet under my charge, for 1892–93:—

The dredge was working at Lachine above the old lock, cleaning bottom of channel to 10 feet of water; about 1,000 cubic yards of black rock were taken out and dumped in deep water on Lake St. Louis, 2 dump scows were borrowed from the Harbour Commissioners of Montreal for this work, and a tug chartered from Mr. Clement for serving the dredge.

On 15th August the dump scows were returned to the Harbour Commissioners of Montreal, and the steam derrick and flat scows were taken back to Lachine and placed at new Government dam. The dredge was working with flat scows and some 6,917 cubic yards of hard-pan were dredged and deposited by the steam derrick along the new Government dam.

On 1st November the tug towed the dredge to Dorval, where 250 cubic yards of clay were dredged for the new Wellington bridge.

On 5th November the tug towed dredge to Montreal, and on the 8th dredging was started at the Wellington bridge, where 3,640 cubic yards of hard-pan were excavated and deposited on the south side of canal by the steam derrick.

On 1st July, dredge No. 1 and fleet were towed from Chambly to Montreal and placed in flour-shed basin, cleaning bottom of basin to 12 feet of water. A tug was chartered from Mr. Garipey for serving the dredge; about 4,490 cubic yards of hard-pan and clay were dredged and deposited by horse-power derrick on south side of canal, above St. Gabriel lock, and this material was used for repairing tow-path.

On 4th October the above-named dredge was borrowed by the Dominion Pipe Foundry of Lachine and towed to Dorval for dredging clay for their foundry, and on the 8th was returned to Montreal and placed in flour-shed basin.

On 26th November, dredges Nos. 1 and 2, steam derrick, steam yacht and two arks were taken in Tate's dry dock and dismantled for alterations and improvements during winter, and the rest of the fleet wintered in Lachine Canal close to Tate's dock, and the two tugs returned to owners.

Dredge No. 1 had some radical changes made. Her swinging gear being of an old type, and almost worn out, a better improved steel gearing was put on, also a right and left steel clutch attached to it, and a better leverage to work same. The feed pipe and old regulator were worthless, a new Judson regulator was put on, and a larger steam pipe with stop valve attached, also a new set of joint levers and a shaft, as well as a new driving spur wheel with pinion being provided.

The anchor spud being of an old style and very inconvenient, a patent dragging anchor was put in its place. The stern deck was lengthened some 8 feet in a V shape and fastened to the hull with iron straps, and a frame was made on top of it to receive the anchor, and was well strapped and bolted, and a new spud was made for same, complete with gear. The anchor bow slides being old and worn out, new ones were put in place. Some repairs were made to the deck; she was recaulked, deck and hull all over, and repainted. A complete set of drawings for above changes were made, showing the different views.

The swinging table of dredge No. 2, being too weak for her work, a stronger one was rebuilt with improved changes on it. The anchor spuds being too small for working in deep water, this dredge having been built for 9 to 12 feet of water, her slides were made heavier to receive spuds 18" x 24" instead of 18" square, a patent arrangement being also put on the slides of spuds with sheaves and bearings on top of spuds as well as a chain running over sheaves on top of spuds to avoid boring holes in spuds for pinning, and heavier bolts were put in slides with new blocks for them. A complete set of drawings being made for above improvements, showing the different views.

The hull received the usual spring repairs, being recaulked and painted all over.

Steam derrick No. 2. Several improvements were made to this vessel, the boom was taken down and strengthened in some parts and a new A frame made for it with steel bearing for top of it. The anchor slides were also taken off and stronger ones put in place to receive new spuds 14" square instead of 12", and also two new spuds for same; the same pinning arrangement was put on as on dredge No. 2, with machinery for raising spuds by steam power instead of by hand.

New drawings were also made for these changes, showing the different views.

The deck and hull were recaulked and painted all over.

The steam yacht "Josephine" and the two arks were recaulked and painted.

The scows which wintered in the canal, had the usual spring repairs.

The dredging fleet came out of the dock on 1st of May and laid at Tate's putting on spuds, dipper handle and bucket, and on the 4th were ordered to Valleyfield

Department of Railways and Canals.

to work for the Montreal Cotton Company, and worked there till the last of July, 1893.

I have the honour to be, sir,
Your obedient servant,
GEO. YALF,
Superintendent of Dredges.

ERNEST MARCEAU, Esq.,
Acting Superintending Engineer.

LACHINE CANAL.

STATEMENT showing the depth of the River Water on Mitre Sills of old Lock No. 1 at Lower Entrance, and old Lock No. 5 at Upper Entrance, during the Fiscal Year ended 30th June, 1893.

Months.	Old Lock No. 1, Lower Sill.		Old Lock No. 5, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
	ft. in.	ft. in.	ft. in.	ft. in.
1892.—July.....	21 4	17 11	13 0	11 1
August.....	19 6	17 5	12 2	10 9
September.....	18 2	16 5	11 2	10 4
October.....	17 1	16 1	10 7	9 11
November.....	18 3	16 2	11 4	10 0
December.....	33 3	16 6	11 8	10 0
1893.—January.....	33 1	26 9	11 9	9 1
February.....	27 3	25 0	10 1	8 8
March.....	28 0	24 11	10 9	8 4
April.....	33 2	22 1	12 7	10 3
May.....	25 4	20 5	16 4	12 6
June.....	24 0	20 9	15 9	13 1

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, 1893.

Months.	New Lock No. 1, Lower Sill.		New Lock No. 5, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
	ft. in.	ft. in.	ft. in.	ft. in.
1892.—July.....	23 6	20 1	17 2	15 3
August.....	21 8	19 7	16 4	14 11
September.....	20 4	18 10	15 4	14 6
October.....	19 3	18 3	14 9	14 1
November.....	20 5	18 4	15 6	14 2
December.....	35 5	18 7	15 11	14 2
1893.—January.....	35 10	28 11	15 11	14 3
February.....	29 5	27 2	14 3	12 10
March.....	30 2	27 1	14 11	12 6
April.....	35 4	24 3	16 9	14 5
May.....	27 6	22 7	20 6	16 8
June.....	26 2	22 11	19 3	17 3

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, 1893.

Months.	Lock No. 6, Lower Sill.		Lock No. 14, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1892.				
July	ft. in.	ft. in.	ft. in.	ft. in.
August	13 0	11 1	12 11	12 0
September	11 10	11 2	12 10	12 2
October	11 5	10 1	12 5	11 2
November	10 0	9 7	12 0	11 7
December	11 0	9 6	12 5	11 3
.....	11 11	11 0	12 5	11 0
1893.				
January	15 10	12 0	12 0	10 6
February	17 4	15 0	10 9	10 4
March	15 6	15 0	12 1	10 6
April	15 9	15 4	12 7	12 0
May	17 0	15 3	13 10	12 0
June	15 3	12 10	13 0	12 7

CHAMBLY CANAL.

STATEMENT showing the depth of the 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, 1893.

Months.	Lock No. 9, Lower Sill.		Lock No. 1, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1892.				
July	ft. in.	ft. in.	ft. in.	ft. in.
August	16 6	13 9	11 7	10 2
September	14 10	12 7	10 6	9 8
October	13 10	11 6	10 2	8 8
November	11 5	9 11	9 1	8 1
December	12 4	9 10	9 10	8 1
.....	12 4	9 3	8 11	8 4
1893.				
January	11 5	9 10	8 5	7 10
February	11 0	10 2	8 2	7 10
March	15 3	10 11	9 10	8 0
April	15 2	14 0	10 8	9 0
May	16 0	13 10	11 3	10 3
June	14 11	11 2	10 5	8 11

Department of Railways and Canals.

ST. OUBS LOCK.

STATEMENT showing the depth of the River Water on Mitre Sills of St. Ours Lock, during the Fiscal Year ended 30th June, 1893. (From Superintendent's Report.)

Months.	Lock No. 1, Lower Sill.		Lock No. 1, Upper Sill.					
	Highest.		Lowest.					
	ft.	in.	ft.	in.				
1892.								
July	14	6	10	9	12	11	11	2
August	12	9	9	10	11	9	10	8
September	10	10	8	9	11	6	9	1
October	9	0	7	5	9	10	9	1
November	10	2	7	8	10	8	9	0
December	11	0	9	1	10	0	8	5
1893.								
January	11	7	9	10	9	2	8	6½
February	10	7	9	5	9	0	8	3
March	14	1	9	9	11	0	8	9
April	18	4	14	0	14	4	10	10
May	17	2	13	9	13	8	11	10
June	15	6	11	6	12	4	9	11

LACHINE CANAL.

STATEMENT of Fines and Damages collected during the Fiscal Year ended 30th June, 1893.

Date.	Names of Vessels.	Names of Owners.	Fines.	Damages.	Totals.
			\$ cts.	\$ cts.	\$ cts.
1892.					
Sept. 7.	Steamer "Prince of Wales" ..	Ottawa River Navigation Co. .	5 00	5 00	10 00
do 24.	Barge "N. Paul" ..	N. Paul	2 00	2 00	4 00
do 26.	do "St. Pierre"	P. Mongeau	5 00	...	5 00
Totals			12 00	7 00	19 00

JOHN O'NEILL,
Collector.

ST. OUBS LOCK.

STATEMENT of Fines collected during the Fiscal Year ended 30th June, 1893.

Date.	Name of Vessel.	Name of Owner.	Fines.	Damages.	Totals.
			\$ cts.	\$ cts.	\$ cts.
1892.					
July 30.	Steamer "Anglesea"	Capt. Ls. Nadeau	5 00	.....	5 00
Totals			5 00	.....	5 00

PHILIPPE MATHIEU,
Collector.

APPENDIX No. 10.

TRENT VALLEY CANAL.

SUPERINTENDING ENGINEER'S OFFICE,
PETERBORO', 2nd October, 1893.

SIR,—I have the honour to submit the annual report on the works under my charge in connection with the Department of Railways and Canals for the fiscal year ending 30th June, 1893.

Navigation closed 26th November, and opened again 10th April, 1893. The total number of lockages was 2,884. The number of lockages does not, however, fairly represent the traffic on these waters, as many of the regular routes which run from 15 to 25 miles in length do not pass through any lock and consequently no record is kept of them. The passenger and freight traffic keeps increasing every year.

As has been mentioned in former reports, the question of the storage of water in the upper reservoirs is becoming every year more important to those engaged in navigation and those using the water power along the route. At present the control is divided up between those representing the Ontario Government, the lumbermen and the Dominion Government. It is impossible under these circumstances to have the water supply properly managed.

The water during the whole of the fiscal year was much above the average. The heavy rains during the latter part of last season raised the water to almost spring height and it remained so during the greater part of the winter.

The water during the spring was much above the average and it remained at its height till a much later date than has ever been known before, and in consequence of which much damage was done to the low-lying farm lands adjoining the shores.

The works along this route are constructed for two purposes, namely, those erected to facilitate the descent of timber, and those erected for the benefit of navigation. The former are under the control of the Department of Public Works, the latter are under the control of the Department of Railways and Canals.

The following is a brief description of the work executed at the different stations along the route in connection with the Department of Railways and Canals.

FENELON FALLS.

New gallows frames and stop-logs winches were placed on the two new sluiceways at the north end of the dam, also on the sluiceway on the south side which forms the entrance to the Smith Estate raceway, new stop-logs were also provided for these sluices.

BOBCAYGEON.

An opening was made in the old dam, 100 feet wide, in order to provide another entrance to the dry dock. The mitre sills of the lock were repaired. A new quoin stone for one of the lower gates was put on. The walls of the lock chamber were partly repointed.

BUCKHORN.

About 500 yards of gravel were placed on the dam. The road, commencing at a point about 200 yards above the north end of the swing bridge, and which was flooded by the building of the Loresick dams, was raised about 2½ feet for a distance of 300 feet. Some minor repairs were also done to the lock gates.

Department of Railways and Canals.

YOUNG'S POINT.

A cribwork 300 feet long, 9 feet high and 12 feet wide, was built below the dam in order to prevent the wash from the sluiceways wearing away the bank. This it had done for a distance of 40 feet.

LAKEFIELD.

A cribwork 85 feet long, 9 feet high and 10 feet wide, was built along the shore between the two dams to prevent the further washing away of the street.

PETERBORO'.

A new floor was placed in one of the sluices, and the bulkhead was replanked. Some minor repairs were also done to the lock.

HASTINGS.

The back of the south wall was rebuilt with dry rubble. The platforms at the lower gates were also rebuilt. The gates also received some repairs. The lock gates and lock office were also painted.

HEELY'S FALLS.

The dam, which was built over 50 years ago, was in a very shaky condition. It was almost wholly rebuilt. It is a frame dam 550 feet long, about 9 feet high with a 40-foot base. The early cold weather prevented the gravelling being completed, but otherwise the dam is now as good as new.

CHISHOLM'S.

Some repairs were made to the sluices of the dam.

A number of buoys were also placed to mark the navigation channel.

DREDGE.

The dredge for which an appropriation was made, though not completed at the end of the fiscal year, is now finished. The contractors were Messrs. M. Beatty & Sons, Welland, and they have made a most satisfactory working dredge.

The benefit of having a dredge on these waters will be greatly appreciated by those interested in navigation. The swing in the Grand Trunk Railway bridge, at Fenelon Falls, was not completed by the 30th of June, and will not likely be so till late in the fall. When this is completed, it will open up a new route to Balsam Lake, the completion of which has been much desired for several years.

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

RICHARD B. ROGERS,
Superintending Engineer.

C. SCHREIBER, Esq., C.M.G.,
Chief Engineer, Dept. Railways and Canals,
Ottawa.

STATEMENT showing the highest and lowest Water Level at each Lock on the Trent Valley Canal for the Year 1892-93.

Station.	1892.											
	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 11	6 11	7 2	6 9	7 10	7 1	8 1	7 4	8 2	7 8	8 1	7 7
Peterborough	7 11	6 6	8 0	6 0	7 9	5 3	8 0	6 2	7 11	6 4	8 1	6 2
Lakefield	0 6½	0 0	0 10	0 3	1 2	0 3	1 0	0 2	0 9½	0 1	0 9	0 3
Young's Point	6 9½	5 11½	6 9½	5 8	8 0½	6 11½	8 0½	6 8½	8 2½	7 2½	8 1½	5 10
Burleigh Falls	5 10	5 3	5 9	5 2	6 0	5 10	6 4	5 6	5 7	5 0	5 6	4 10
Lovesick	6 10	5 8	5 11	5 6	6 1	5 10	6 10	5 6	6 8	6 3	6 6	5 5
Buckhorn	6 11	6 6	6 9½	6 4½	6 10	6 6½	6 11½	6 3	6 2	5 9	6 1½	5 6
Bobcaygeon	6 10	6 6	7 2½	6 7	7 4	6 9	7 5	6 7½	7 2	6 8	6 8	5 11
Fenelon Falls	5 3	4 5	5 10	4 7	6 6	5 1	6 4	5 5	6 5	5 5	5 3½	5 0

Station.	1893.											
	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 7	6 10	6 9	6 7	7 9	6 8	9 10	7 10	10 4	9 8	9 9	8 3
Peterborough	6 3	5 2	5 6	5 1	7 3	5 0	9 5	7 0	9 10	9 5	9 4	8 0
Lakefield	0 2½	0 9	0 1	0 2½	0 4	0 5	2 10	0 5	3 3½	2 9½	2 10	0 10
Young's Point	6 1	4 8½	5 3	4 9½	5 5½	4 8½	9 11	5 6	10 5½	9 9½	9 10½	7 5
Burleigh Falls	4 10	3 8	4 4	3 11½	4 6	3 11	6 4	6 0	6 4	5 11	6 5	5 11
Lovesick	6 1	4 10	5 4	5 3	5 10	5 8	9 0	7 10	9 4	8 10	8 11	7 4
Buckhorn	5 5½	5 0½	5 0½	4 11½	5 7½	5 0	8 5	5 8	8 10	8 3	8 4	6 4½
Bobcaygeon	5 10	5 5	6 3	5 11	6 8	5 8	7 3	6 10	7 6	6 9	7 2	6 9
Fenelon Falls	5 2	4 9	5 4	5 2	5 6	5 2	7 6	5 6	7 11	6 8	6 10	6 4

RICHARD B. ROGERS,
Superintending Engineer.

Department of Railways and Canals.

APPENDIX No. II.

RIDEAU CANAL.

SUPERINTENDING ENGINEER'S OFFICE,
OTTAWA, 11th October, 1893.

SIR,—I have the honour to submit the annual report of the works under my charge, for the fiscal year ending 30th June, 1893 :—

Navigation closed at Ottawa, 30th November, 1892.
do do Kingston Mills, 30th November, 1892.
do opened at Ottawa, 29th April, 1893.
do do Kingston Mills, 1st May, 1893.

On all the reaches ascending to, and descending from, the summit level (Lower Rideau Lake), the water was maintained so as to give the required depth on the lock sills, throughout the entire season of navigation.

The freshets this spring were high ; but were passed through the bulkheads and by-washes without doing any material damage.

Navigation was uninterrupted during the whole season.

The principal repairs along the line of the canal were as follows :—

Kingston Mills.

One pair of lock gates renewed ; 100 yards of gravel on embankment. Lockmaster's house repaired, and other small repairs to station.

Jones's Falls.

One pair of lock gates renewed ; lower gates of upper lock and the two middle gates strengthened. Plank delivered to make repairs to Long Bridge.

Chaffey's.

One pair of lock gates renewed, and small repairs to station.

Narrows.

One pair of lock gates renewed ; one new swing beam, and four new chain blocks.

Oliver's Ferry Bridge.

During the winter the piers were rebuilt from low water mark, the old Queen Post truss being replaced by a new steel superstructure of the Warren Girder type ; erected under contract by the Dominion Bridge Co., and consisted of :—

Two spans of 81' 0" each.
One span of 82' 0" do
do 76' 6" do
do 35' 6" do
do 32' 6" do

This bridge was opened for traffic on the breaking up of the ice this spring, and has given great satisfaction.

Poonamalie.

Lockmaster's house (struck by lightning) shingled and plastered inside. Lock labourer's house reshingled. One hundred yards of gravel on dam.

Smith's Falls combined.

New house built for lock labourer. Lockmaster's house repaired. Swing bridge replanked, and general repairs to station.

Old Sly's.

New concrete bottom to upper lock; four new swing beams, and sundry repairs to station.

Edmonds.

One pair of lock gates renewed; gravel on dam, and a new set of stop-logs.

Merrickville.

Sundry repairs to station. The new approach to swing bridge over the second lock was completed. A new steel swing bridge across the locks, and a new steel fixed bridge across the by-wash were erected under contract by the Canadian Bridge and Iron Co., during the winter, and opened to traffic this spring. The change in the location of the new swing bridge from the first to the second lock, has effectually prevented the delay to vehicle traffic so much complained of formerly.

Clowes.

General repairs to station.

Nicholson's.

Swing bridge renewed, and approaches to same widened and repaired. Four new swing beams and general repairs to station.

Burritt's Rapids.

One pair of lock gates renewed, and general repairs to station.

Beckett's Bridge.

Repairs to bridge.

Wellington Bridge.

Swing bridge renewed, and long bridge repaired and replanked.

Long Island.

Swing bridge renewed, new foundation and approaches to same. Lower gates strengthened. Sundry repairs to station.

Manotick.

New boom placed at the head of Long Island.

Black Rapids.

Long pier between locks and bulkhead rebuilt; general repairs to station.

Hogsback.

One pair of lock gates renewed. Connection built between the old and new bulkheads, enabling teams to cross from the Nepean to the Gloucester side, over the new and old bulkheads.

Wooden aprons on concrete bottom were put in between the bents of the new bulkhead.

The main dam was raised and graded with broken stone. The tow-path road from the locks towards Hartwell's for a distance of about 2,500 feet was widened, graded and ballasted, now making a good travelled road along the south side of the canal from Bank street, Ottawa, to Hogsback locks, at which place teams can cross, either the bulkheads, and join the macadamized road on the Nepean side, or the swing bridge over the locks, and join the macadamized road on the Gloucester side.

Department of Railways and Canals.

A large amount of travel has passed over this road since its completion. An ice breaker was built last winter in the bay above the bulkheads, to protect the latter from damage by the large fields of ice which at times threaten their destruction in the spring. Another ice breaker requires to be built to ensure the breaking up of ice before it reaches the bulkheads. Mr. F. Toms completed his contract to excavate a channel through the by-wash and build a new bulkhead on the site of the old flat dam; and also cleaned out the lower portion of the cut, of rock and other debris which was washed in by the freshets last spring. The benefit of this work in increasing the water discharge area was plainly shown last spring, by the water during the freshet not rising above ordinary high-water mark.

Bank Street Bridge.

Swing bridge replanked, and fencing on the approaches repaired.

Stewarton Swing Bridge.

The swing bridge and its approaches replanked.

Ottawa.

General repairs to station and wharfs. Five electric arc lights were placed round the basin and locks, which with two others put up this year have not only materially increased the safety of the working of the canal, but also lighted up a central portion of the city which was before in utter darkness. The dry dock was completed this spring, and has been in constant demand since the opening of navigation; some 56 dockages having been registered up to date.

Dredge Vessel "Rideau"

Was employed last year in dredging the shoals between Black Rapids and Long Island, and in cutting a channel through a neck of land called the "Catch All" which held the water back in spring. This year she has been employed in cutting a channel through a shoal at the exhibition grounds, Ottawa; repairing dam at Long Island; cleaning out refuse in the lower lock at Ottawa, and at the entrance to Mutchmor's Cut, &c., &c.

Tug "Shanly."

When not employed with the dredge, was engaged in distributing timber along the canal; or on inspection through the canal.

The dredging plant is all in good working order.

Your obedient servant,

FRED. A. WISE,
Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Chief Engineer of Canals.

RIDEAU CANAL.

TABLE showing monthly, the Highest and Lowest Water on the Lower Sills at Ottawa and Kingston Mills respectively, from July, 1892, to June, 1893, both months inclusive.

OTTAWA.				KINGSTON MILLS.			
Highest.		Lowest.		Highest.		Lowest.	
	ft. in.		ft. in.		ft. in.		ft. in.
July 1.....	14 10	July 31.....	9 9	July 20.....	8 10	July 1 to 5...	8 6
August 20.....	10 0	August 31.....	9 0	Aug. 9 to 12..	8 10	Aug. 29 to 31..	8 4
Sept. 1.....	8 10	Sept. 19.....	7 1	Sept. 10 to 15.	8 5	Sept. 20 to 3..	8 3
Oct. 3.....	8 7	Oct. 27 to 31..	8 0	Oct. 1.....	8 3	Oct. 17 to 25..	7 8
Nov. 22 to 26..	11 10	Nov. 1 to 6....	8 0	Nov. 24 to 30..	7 9	Nov. 10.....	7 6
Dec. 1.....	11 8	Dec. 29 to 31..	9 3	Dec. 1 to 8....	7 9	Dec. 9 to 31..	7 8
Jan. 1 to 7....	9 2	Jan. 26 to 28..	7 10	Jan. 1 to 12....	7 8	Jan. 17 to 31..	7 6
Feb. 1 to 2....	8 0	Feb. 28.....	7 2	Feb. 1 to 4....	7 6	Feb. 18 to 28..	7 4
March 31.....	9 6	Mar. 10 and 11	6 9	Mar. 19 and 20	7 6	March 1 to 12..	7 4
April 24.....	15 0	April 1.....	9 8	April 30.....	8 7	April 1.....	7 4
May 23 and 24	26 0	May 1.....	14 3	May 31.....	10 4	May 1.....	8 10
June 1.....	22 10	June 30.....	16 4	June 1.....	10 3	June 25 to 30..	9 6

F. A. WISE,
Superintending Engineer.

Department of Railways and Canals.

APPENDIX No. 12.

ST. LAWRENCE DISTRICT.

SUPERINTENDING ENGINEER'S OFFICE,
CORNWALL, 1st July, 1893.

SIR,— I have the honour to submit my annual report upon the maintenance, works of construction, surveys, &c., as connected with the enlargement of the St. Lawrence Canals for the year ending 30th June, 1893.

This district includes the Cornwall, Williamsburg and Murray Canals, and the improved channels in the intermediate reaches, and extends from the Province Line, Lake St. Francis, to the harbour of Presqu'Isle on Lake Ontario.

CORNWALL CANAL.

MAINTENANCE.

Navigation closed for the season of 1892 on the 4th December.

The canal which was unwatered on the 16th March, 1893, to facilitate the building operations of the contractors and for the usual repairs, was opened for traffic on the 1st May following.

Navigation has been maintained in a satisfactory manner, notwithstanding the inconveniences incident to the prosecution of the work of enlargement.

Two accidents occurred during the year, which rendered the lowering of the levels necessary. On the 3rd of August, 1892, the Montreal Transportation Company's barge "Toronto," in tow of the "Ranger," a small hired tug, collided with the lower gates of lock No. 19, whilst closed and in use, carried them away, and also displaced the hollow-quin masonry in five courses of the south wall. Navigation was interrupted for twenty-eight hours.

The damaged gates were replaced by others in good condition.

The amount of damage assessed against the owners of the barge "Toronto" was \$1,103.21. This account was forwarded by the superintendent to the office of the Montreal Transportation Company on the 15th August, but has not yet been paid.

On the afternoon of the 2nd of June, 1893, the steamer "Hall," while on her downward trip carried away the lower gates of lock No. 19, and badly twisted one of the upper, thereby stopping navigation about twenty-six hours, and causing damage to the amount of \$1,060.70; statement of which, with a demand for payment was duly rendered to her owners by the superintendent, as soon as the cost of repairs had been ascertained, but it has not yet been paid.

The supply of water for manufacturing purposes has not been interfered with.

The usual winter's work of the shops was performed, and whilst the canal remained unwatered, advantage was taken to repair and partly renew the mitre-sills of old locks and make other necessary repairs to the structures, tow-paths, &c.

The gate-lifter has been strengthened and otherwise repaired during the year and proved most useful at lock No. 19, placing the new gates in position within twelve hours from the time of their displacement by the "Hall."

In future it is proposed to ask for tenders for all materials and supplies required for "staff" or "repairs."

The locks of both old and new entrances were dismantled and prepared for the winter on the 6th December, 1892, and the gate-lifter, the canal scows, and the surveying steamer "Anderson," laid up in the Cornwall Basin.

The culvert at Wood's Creek continues to work satisfactorily, the back water from the river being entirely excluded from the Fly Creek thereby.

The question of the reconstruction of the Government sewer on Water street, in the town of Cornwall, and of the culvert or drain under the canal, connected therewith, and referred to in my last report, are still under consideration.

The superannuations of the past year are as under, viz. :—

Owen O'Keefe, lock-labourer, 1st October, 1892.

Timothy Sheal has replaced Cass as lockmaster (temporarily).

The passenger steamer "Island Queen" was fined \$10 for damage done to gate at lock No. 18, 2nd September, 1892.

No wood or winterage dues have been collected during the past year.

Your attention is directed to the necessity for a telephone service from the head to the foot of the canal, connecting all locks, &c., with the superintendent's office.

Also to the position of the collector's office—an old building and not worth repairing—which is situated on the north side of the old canal, and is therefore difficult of access. A new building is recommended to be built on a convenient site near the head of enlarged lock No. 17.

The question of the construction of lock-houses for the new locks, should also receive your early consideration.

Your attention is further directed to the necessity which exists for providing waste-weirs discharging into the river for the levels between locks Nos. 18 and 19 and 19 and 20.

Also as to the state of the pier or cribwork at the head of the canal, which should be renewed next year.

The highest water recorded at lock No. 15 (old entrance) during the year was 26 feet and the lowest 9 feet 5 inches, and at lock No. 21, the old guardlock, the highest was 10 feet 10 inches and the lowest 6 feet 5 inches.

CORNWALL CANAL ENLARGEMENT CONSTRUCTION.

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 $11\frac{1}{2}$ miles.

It was completed and first opened for traffic in the year 1843.

The works of enlargement now under construction consist in deepening, widening and straightening the original channel, and strengthening and protecting the embankments, and in the construction of new and enlarged locks, supply weirs, bridges, &c.

The enlargement at the lower or eastern entrance (sec. No. 1), was commenced in 1876, and completed in 1882. Section No. 10, the upper entrance, which is still in progress, was commenced in 1884, and will be finished in 1894.

In 1888 the remainder of the work required to complete the enlargement was placed under contract, and is still in progress.

STATEMENT of work under existing contracts, and in progress.

Locality.	Section.	Contractors.	Date of Contract.	Date of Completion.
Cornwall	2)	Wm. Davis & Son	Nov. 5, 1888	April 5, 1891.
Lock No. 19	3)			
Maple Grove	4)			
Mille Roches	5)			
Moulinette	6)	The Gilbert Blasting and Dredging Co.	Nov. 2, 1888	April 26, 1891
Land Bridge	7)			
Long Sault	8)			
Dickinson's Landing	10	Jocks, Delorimier & Broder	April 7, 1884	June 1, 1886.

NOTE.—Section No. 8 adjoins No. 10.

Department of Railways and Canals.

The water was drawn off the canal by the 16th March, 1893, and so continued until the 1st of May following. This enabled the contractors on sections 2, 3 and 4, 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 was continued through the season of 1892 until stopped by frost in November, and begun again on 3rd April, 1893, and has since been continued without interruption.

SUMMARY OF THE YEAR'S WORK.

Section No. 2.

The masonry for the swing bridge, the glance pier at the foot of lock No. 18, the wall connecting the heads of the old and the new lock, and the supply weir have been completed.

Good progress has been made with the excavation.

The old Grand Trunk swing bridge across the Lachine Canal, was after some slight alterations brought up here and placed in position at the foot of Augusta street, and now does duty as a road bridge across the canal in place of the old one which has been removed.

Section No. 3.

Considerable excavation in the canal prism has been done, and a good start made at the weir pit excavation.

The new high bank below lock No. 19 has been built up to almost full dimensions, and the water was let against it last spring. A short piece of cribwork was built at the foot of the old lock in continuation of that built in 1891.

The most important slides which occurred during the past year were those in the banks at the head and foot of lock No. 19; they were, however, discovered in time and means taken to prevent further damage.

Section No. 4.

The outside retaining wall above lock No. 20 has been completed, and the filling in rear of it will be finished this season. A cofferdam has been constructed in continuation of that made in 1891, in order to allow of the completing of the south-west extension wall of the new lock, which it is expected will be finished this fall. The new supply weir commenced this spring, will be completed before heavy frost sets in. Considerable trouble was caused last spring by the washing out of the foundation of the old supply weir, which has been in a precarious condition for some years.

Section No. 5.

One small dredge has been working, but makes little progress.

Sections Nos. 6 and 7.

All work has been suspended since July, 1891, pending a decision of the question of the "Sheik's Island dams," for which location surveys have been completed.

The material from the dredges was generally placed in spoil and, when seasoned, used in the work for enlarging the embankments.

At the western end of the canal, however, a large portion of the dredged material has been wasted in the river south of Wagner's Island.

Section No. 8.

Two dredges have made fair progress with the excavation.

Section No. 10.

One dredge has been engaged in finishing up this section, and very little more work remains to be done.

The supply weir at the guard lock was completed in September, 1892, and together with the new guard lock has since been brought into use.

Part of the rip-rap protection to the banks on the north side of the canal has been placed.

The work of the removal of the old guard lock and weir is being carried on. The work is being done by a dredge.

The deepening and widening of the channel is now nearing completion, the work remaining to be done is chiefly on sections 2, 4, 5 and 8.

The straightening of the channel way on Section No. 2, has only recently been commenced.

Work on the lock gates is well advanced. Five pairs have been built and one pair has been placed in position at each of the new locks, Nos. 18, 19 and 20.

Additional land on the north side of the canal, above lock No. 18, has been acquired for the purpose of straightening the channel.

Attention is directed to the necessity which exists for the widening and straightening of the upper entrance to this canal, also to the propriety of extending and improving the direction of the north pier at the lower entrance, and to the proposed raising of the level of the coping of the new guard lock, from 18 inches to 2 feet, to provide protection to the works during high stages of the river.

WILLIAMSBURG CANALS.

MAINTENANCE.

The several divisions of these canals, viz., Farran's Point, Rapide Plat, and the Point Iroquois Junction, and Galops, collectively styled the "Galops Canal," were closed for navigation on the 13th December, 1892, and reopened for the season of 1893, on the 27th of April last.

The buoy service between Prescott and Dickinson's Landing was performed soon after the opening of navigation and 11 new buoys substituted for those found to be unfit for use.

Navigation has been maintained in a fairly satisfactory manner during the year. In view of the extensive works of the enlargement, no unusual delays have occurred and the water has generally been maintained at its normal height, viz., 9 feet on the mitre-sill of lock No. 23.

The only serious accident was that which occurred to the steamer "Acadia" in June, 1893, when in crossing from the new cutting to the old canal she struck a stone embedded in the ridge formed by the dredges and sank.

An ice-jam occurred on 7th February at Baker's Point in deep water below Farran's Point and remained about 3 weeks—no extraordinary rise in the river took place and therefore no damage was done. An attempt to break the jam was made by the superintendent but abandoned.

An agreement made with Murray & Cleveland, contractors at the Galops, to construct and deliver one pair of gates for the lower recess of lock No. 23, Rapide Plat, has been performed. These gates were received at Morrisburg in December and placed in position in May last and have worked satisfactorily.

For the above service an appropriation of \$4,000 was made by Parliament.

The usual repairs were made to the various structures, to lock gates, bridges, &c., also to the buoy boat, the banks, booms, and entrance piers.

The following fines have been imposed on the under mentioned vessels, for want of care and disregard to canal regulations, viz. :—

Steamer "Corsican," 3rd July, 1892.....	\$10 00
do "Ocean," 10th Aug., 1892.....	20 00
do "Alexandria," 14th Oct., 1892.....	20 00
Barge "Black Diamond," 18th Nov., 1892.....	15 00

The chain vessel "Iroquois," which was removed in 1891 to her present berth below Frazer's Point, is now resting on the bottom with her hold full of water, the

Department of Railways and Canals.

engines and other machinery on the main deck are in good order, but the hull and upper works are rotten, and the boilers worn out. Under these circumstances, it is recommended that the structure should be sold as she now lies.

Owing to the progress of the works of enlargement at lock No. 23, the lock labourers' dwelling has been removed. The men have obtained other quarters near the work, for which, as they are in the village of Morrisburg an allowance of \$7 each per month is considered reasonable and has been allowed.

In addition to the ordinary work of the repair staff, the following necessary renewals and works have been accomplished during the present year or are in progress :—

At Farran's Point, Lock No. 22, the lock labourers' house has been plastered and repaired, and two kitchens built, and the foundation, which is partly on cribwork, renewed and protected.

A wooden addition to the lockmaster's house—12 feet by 16 feet—to serve as a kitchen, with sleeping rooms over, also a general overhauling and repair of the premises.

At Rapide Plat, Morrisburg, this canal has been unwatered twice, once on account of the steamer "Acadia," and again to enable the waterworks company to make repairs. During each period of unwatering, advantage was taken to remove large stones from the prism of canal and overcast the ridge formed by the dredges.

At lock No. 24, a boat was provided for use in connection with the gates and weir during low water stages.

The lowest water on the sill of lock No. 23, the governing point, as recorded for the year, was 5 feet 2 inches, in January.

GALOPS CANAL.

At Lock No. 25, Iroquois, the houses of the lockmaster and lock labourers were plastered, &c., fences built, embankments and approaches at lock raised and gravelled, and some necessary repairs and renewals made on the swing bridge and entrance pier, &c. Extensive renewals are also required to the booms, which are to be undertaken this season.

At Lock No. 26, Cardinal, the swing bridge has been rebuilt—the river wharf on the outside bank below the lock has been rebuilt for the convenience of passenger boats which occasionally stop.

The lowest water on the sill of lock No. 27 was 6 feet 9 inches, in January.

A shed in which to build or repair lock gates, together with store houses, should be provided for, to be erected on the service ground recently formed in Stata's Bay, Rapide Plat Canal.

The repair staff would then be under the immediate control of the superintendent ; at present their headquarters are at Cardinal, the home of the foreman, Armstrong, a most inconvenient and expensive arrangement, particularly during construction, when their service may be in constant requisition at Morrisburg.

WILLIAMSBURG CANAL ENLARGEMENT—CONSTRUCTION.

FARRAN'S POINT.

This canal is about three-quarters of a mile in length, and has a lockage of 3½ feet. It overcomes a short rapid above the village of Farran's Point, situated about 5 miles west of Dickinson's Landing, the head of the Cornwall Canal.

There are no works under the head of construction to report.

A location survey has, however, been made for the enlargement of this work, including a general survey and examination of the channel leading from the proposed new upper entrance at Empy's Point (Point Avoyon), following the north shore westward through the passage between Little Cat Island and the village of Aultsville, on the mainland; and from the present lower entrance, the survey was extended east to Baker's Point below the Big Eddy, and connecting with the deep straight channel leading to the Cornwall Canal.

Plans have been prepared showing the proposed manner of enlarging and extending both of the entrances to this canal.

RAPIDE PLAT.

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.	Contractors.	Date of Contract.	Date of Completion.
Morrisburg	1	Poupore & Fraser.	Jan. 26, 1891	April 1, 1894
Mariatown	2	The Weddell Dredging Co.	Jan. 12, 1891	Ap'l 20, 1893
New Road.	3	Poupore & Fraser.	Jan. 26, 1891	Ap'l 20, 1893
Flagg's Bay	4	William Broder	April 2, 1884	June 1, 1886

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 consists in the deepening and widening of the old channel, and in constructing new and enlarged locks and supply weirs.

Section No. 1.

Section No. 1 extends west along the river front of the village of Morrisburg.

A change in the alignment of the lower end of this section has been made by placing the centreline 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.

Dredging operations were stopped on 21st December, 1892, resumed again in April last, and will be continued to the end of the season. A steam excavator, taken from section No. 3, commenced in May last to remove the dry excavation in rear of cribwork forming the base of north retaining wall.

All material excavated has been deposited in the space between the tow-path and the new protection cribwork, and has also been utilized in widening and strengthening the tow-path and embankments.

The contractor's cofferdams for the new lock-pit have been completed, and the formation of a trench for a close pile dam or bulkhead to protect the south wall of the old lock is in progress, all being done in accordance with the modified plan of 21st March, 1892.

The excavation for a trench for the "north wall," designed to have been executed by manual labour, was inadvertently permitted to be commenced by dredging, resulting in the sliding and caving in of the high clay banks which the wall was intended to support. The plan of commencing the wall at the bottom of the canal had therefore to be abandoned, and a cribwork base substituted therefor, having its face built on the same line and batter as the proposed wall, and carried up to the level of 2 feet below normal water in the canal.

The bank where scarped by dredging operations, is now sufficiently protected by the cribwork base, and by a facing of borrowed earth, and it is therefore believed will suffer no further damage.

Upon and in rear of the cribwork, a berme will be formed of earth having its slope protected by dry masonry.

The above change in plan has involved the purchase of a strip of land about 15 feet wide, extending along the deeper portion of the cutting, and also of a "borrow-

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pit" to furnish earth wherewith to restore the banks destroyed by the contractor's dredging operations, and for which Mr. Wood, the Government valuator, has arranged with the owners.

The stone for the lock is being cut and prepared at Mille Roches quarry, Cornwall Canal, and that for retaining walls, &c., at the Wolf Island quarries.

In connection with the new works of enlargement at Morrisburg, I beg to direct attention to their dangerous character owing to the proximity of the new to the old lock, and the extraordinary, and therefore expensive measures necessary in the interests of navigation, to preserve the latter.

An experienced inspector (not simply a watchman), should, in my opinion, at once be appointed for duty at night.

The cribwork for the seat of the north retaining wall of the canal is being built.

Section No. 2.

Section No. 2 begins at the west end of the village of Morrisburg, and extends westward to near Mariatown.

The work on this section consists chiefly of excavation, *i.e.*, dredging and dry work.

The dredging operations were stopped on 26th December, 1892, and resumed in March last. Three dredges have been engaged in excavating this summer, a third one, newly built, having been placed on the work last month.

The material dredged has been utilized in widening and strengthening the towing-paths and embankments, particularly that across Heigle's Bay.

Section No. 3.

Section No. 3 commences a short distance above Mariatown, and extends west to the vicinity of the guard lock (No. 24), and includes the widening and deepening of the east end of section No. 4, and also the spoil grounds, and other works connected with Flagg's Bay.

Work was carried on by the steam excavator and a chartered dredge, till 20th December, 1892, when work was stopped. The former was engaged on "dry work" on the high bank above water, and the dredge in prism excavation.

The dredge resumed operations in April last and continued working until 24th June, when she was removed from the section. The steam excavator worked for about three weeks in May last, and was then removed to section No. 1.

The excavated material, or "dry work," is hauled by locomotives to the spoil ground at Flagg's Bay.

The dredged material is conveyed in scows to the dumping ground in Canadian waters on the south side of the channel near Ogden's Island.

The "new road" on the north side of the canal has been completed and in use since last September.

It is advisable to arrange with the municipal council of the township of Matilda, to assume the control and maintenance of the road.

Section No. 4.

The work on section No. 4 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. The final estimate of this contract was completed by the late Mr. Killaly the resident engineer, and all claims made by the contractor have been finally adjusted.

GALOPS CANAL.

Point Iroquois Division.

This canal as originally constructed was about 3 miles in length, with a lockage of 5 feet 7 inches at lock No. 25, in the village of Iroquois, from whence it extended

westward to Presqu'Île, overcoming the Point Iroquois Rapid, and other stretches of swift water, notably that at Sparrowhawk's Point.

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 connecting it with the Galops.

The Junction Division.

The Junction Division commences at Presqu'Île, and extends up stream to lock No. 26, at the village of Cardinal. It chiefly consists of an embankment about $2\frac{1}{2}$ miles in length, built in the river to connect the Galops and Point Iroquois divisions, and thereby, as stated above, raise and afford a means of controlling the level of the water in the Iroquois reach.

The fall in the river between the above mentioned canals is 1 foot $7\frac{1}{2}$ inches.

Work on the junction was completed in 1856.

There are no works of construction on either of the divisions whereon to report.

Surveys have been made during the season of 1892, to obtain data upon which the scheme of enlargement may be definitely decided.

Galops Division.

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 cribwork was extended up stream, and the lockage or fall increased $11\frac{1}{2}$ inches.

The guard lock No. 27 at the upper entrance, is the most westerly lock on the St. Lawrence navigation.

Upper Entrance.

The work now under contract and in progress, and for which Messrs. Murray & Cleveland are the contractors, was commenced in 1889. Their contract was entered into 14th November, 1888, to be completed 15th June, 1891. It embraces the construction of a lift lock, and of a guard lock and supply weir, also the deepening, widening and straightening of the channel from the upper entrance to Round Bay, a distance of about one mile, and the removal of the old guard lock, &c.

Masonry was stopped on the 25th of November last and resumed in May last.

Work as under has been done during the year, viz.:—

The walls of the lift lock, the paving in tail bay of guard lock, and the extension of the upper and lower wing walls of the latter have been completed.

The extension of lower wings of lift lock are well advanced and will be finished this season, as also the additional recess for the guard gates of lift lock.

Two pairs of gates for the guard lock have also been completed ready for launching, and the gates for lift lock well advanced.

The greater part of the protection cribwork to be used in straightening the tow-path above McLaughlin's Point has been completed in place and ballasted.

Dredging and drilling and blasting operations have been carried on uninterruptedly during the working seasons.

All dredged material, except rock required on the work, has been conveyed in dump scows to the dumping ground between Pier and Squaw Islands.

The cofferdams continue staunch and water-tight.

A large quantity of dressed stone from the Belleville quarries has been delivered, also backing from the Galops quarry, situated near the work, which produces stone of excellent quality.

With a view to prevent accidents which might be caused by failure from any cause of the gates of the lift-lock, it is proposed to extend the masonry far enough

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to form the recess for a pair of "guard gates," and as in the case of the guard-lock on the Cornwall Canal, it may become necessary to raise the level of the coping of both the lift and guard-locks.

A survey has been made of the lower portion of this canal, for the purpose of deciding upon the nature of the enlargement, and a location survey of the north channel leading westwards from the upper entrance has been completed.

Galops Rapid Improvement.

E. E. Gilbert & Sons, contractors. Contract entered into 5th August, 1879, to be completed 1st June, 1881.

The Galops Rapid improvements consisted in the formation, by subaqueous excavation, of a straight channel 200 feet wide and 17 feet deep through the shoals termed respectively, "Upper Bar," "North" and "Caledonia" shoals, "Island" shoal and "Lower Bar," the whole of which are included in a distance of 3,300 feet.

The work was completed in November, 1888, and tested as directed by the late chief engineer, who, in 1889, reported as follows:—

"The channel undertaken some years ago to be formed through these rapids has been completed. It is now 200 feet in width, straight and from 16½ to 17 feet in depth; but pilots, as usual, prefer putting up with all the disadvantages of the old, crooked, shallow line, rather than use a new one with which they are unfamiliar.

"It is no uncommon occurrence for even this important and useful class of men to be a little prejudiced in favour of a route they have been accustomed to follow. It is, however, quite likely that the new line will, ere long, be found the most advantageous; at all events, this is certain to be the case when a larger, deeper-laden class of vessels are brought into use."

The channel which was first brought into general use last year is navigated by many of the large propellers and other vessels drawing over 9 feet of water, but is systematically avoided by the forwarding companies' barges.

The channel was examined and surveyed by officers of the department in 1891, and reported upon by me. Obstructions were found to exist on either side of the centre range marks: these the contractors asserted consisted of loose rock shoved into the channel since its completion by ice or from other natural causes.

Another and a much more elaborate survey has been completed. It was made during the season of 1892, under the direction of Mr. Kennedy, chief engineer to the Montreal Harbour Commissioners. The survey probably represents with the greatest accuracy and minuteness, the depth and width of the channel, and generally its present condition, but it is doubtful if the nature of the obstructions, whether rock in situ or loose rock will be determined.

This, the most important question as stated in my last annual report, can only be satisfactorily decided by sending a properly equipped dredging plant, to make an actual test of the material in the channel.

The survey ordered by the department, of the bed of the river, including also the new channel and its approaches and banks, which was commenced in 1891, was discontinued in 1892, for the reason that the operations connected therewith might to some extent interfere with Mr. Kennedy's work.

The survey steamer "Anderson," which had been specially fitted for the work, was consequently transferred to the survey of the north channel.

An examination of the channel was made during the early part of this season, to ascertain that the channel was clear as represented by the surveys of 1892, and at the same time the south side of the channel was marked by buoys.

Owing to the water in the river being at its medium stage, the old or north channel has been used by all classes of vessels, and, as usual accidents have occurred; on the other hand the new or deep channel, having a bad reputation in the neighbourhood has been avoided.

The North Channel.

This channel from the Galops to the head of Spencer's Island from its sheltered position and moderate current, may be regarded as an extension of the Galops Canal.

From Prescott to the head of the Galops Canal, the distance by this channel is 7 miles, or two-thirds of a mile shorter than by the main channel through American waters.

The channel was thoroughly explored during my survey of the river in 1872, and early in October of that year, with the water on the sill of lock No. 27 at 8 feet 10 inches, the tug steamer "Glide," drawing 8 feet 3 inches with five barges light, passed up the channel guided by the survey buoys.

Subsequently, in October, 1876, with the water 9 feet 4 inches on the sill, a large three-masted vessel, the "Hemisphere," drawing 9 feet of water, was successfully piloted down this channel to the canal, by Capt. Moore, of Prescott, assisted by the tug "Arctic."

After leaving the canal, and clearing the shoals off Boulton's Point, the channel lies through deep still water in Munro's Bay, and following the general direction of the Canadian shore to Tuttle's Point, passing through the passage between it and Duck Island, thence leaving the mainland, a deep channel, with a moderate uniform current leads up between Drummond's and Spencer's Islands, and the banks below them to the open water above the islands; at this point the current becomes stronger, and the channel, assuming the direction of the Windmill light, runs in deep water, through a passage between the shoals off Wright's Point, and the spit here abreast of the black buoys which mark the north point of Chimney Point reef, all obstacles are passed, and the main navigable channel leading to Lake Ontario reached.

This work was thoroughly re-examined during the season of 1892, and a location survey completed. The line as now recommended differs slightly from that represented on the plans of preliminary survey made in 1872; in the matter of curves, &c., the route, however, is the same.

Accurate cross-sections have been made throughout, and drillings and borings made to test the material to be excavated.

The plans and specifications required for placing the work under contract have been prepared.

The purchase of Spencer's Island, near the head of the channel, was not completed as contemplated. It has since changed owners, and has been ploughed and cultivated this season, and all the important lines and references of last year's survey have consequently been lost.

MURRAY CANAL.

MAINTENANCE.

Navigation was closed for the season on the 5th of December and opened 13th April, and has since been maintained without interruption.

The number of vessels passed through the canal for the year was 830.

No accidents have occurred, and no fines were imposed during this period.

The bridge structures are in good repair; the railway bridge, however, requires frequent examination and adjustment.

The Trenton road within canal limits has been well graded and gravelled, and is now one of the best roads in the county.

Mooring-posts have been supplied where required.

The tow-paths formed of sand east of the Brighton road have been protected by gravel, also the north bank west of the railway bridge.

The semaphores at the railway bridges are working to the satisfaction of the railway officials.

A close fence has been built on the north side of the canal to prevent drift from the spoil banks covering the track of the Central Ontario Railway.

Department of Railways and Canals.

Generally the banks have been maintained in good condition, the ditches kept open, and the rip-rap protection well raised and repaired.

Attention is directed to the subject of houses for the bridge-tenders, the wharf range lights, &c., for which there remains an unexpended balance on capital account.

The highest water recorded during the present season was 14 feet 9 inches, and the lowest 12 feet.

MURRAY CANAL.

CONSTRUCTION.

This work is situated at the head of the Bay of Quinté and extends from the channel, across the Isthmus of Murray, to Presqu'île Bay, on Lake Ontario, a natural harbour, and the future western terminus of river navigation.

This the "Harbour of Refuge" of the north-east shore of the lake, lies near the village of Brighton, about 75 miles west of Kingston, and within 120 miles of Port Dalhousie, the entrance to the Welland Canal.

J. D. Silcox & Co., contractors. Contract entered into 24th of August, 1882, to be completed 1st July, 1885.

The works included in the contract are embraced in a distance of $9\frac{1}{2}$ miles, and consist in:—

1. The cutting or canal proper, through the isthmus, and the formation by dredging and piers of convenient entrances at either end, a distance of fully 6 miles located on a direct line from navigable water in the Bay of Quinté through Twelve o'Clock Point, Dead Creek Marsh, Wuse's Creek and the Brighton wharf.

The canal is practically an artificial "strait" or channel without locks, and is crossed by one railway, the Central Ontario, and three highway bridges.

2. The formation by dredging of the new entrance and channel to the harbour, through the "middle ground" and the other shoals which obstruct the present entrance, and also the channel near the Brighton shore, to connect the harbour with the upper entrance to the "strait," a distance of about 3 miles.

The width of the channel across the isthmus is 80 feet on bottom, and that of the entrance thereto 200 feet, with a depth at ordinary low water (or zero of the Toronto harbour gauge) of 12 feet 6 inches, fully 1 foot below the level of the "Telegraph Island" and other shoals in the Bay of Quinté.

The new entrance to the Presqu'île harbour is "bell-mouthed" in shape, and varies in width from over 1,000 feet in the lake outside the main light, to 200 feet in the channel-way off Salt Point light, with a maximum depth of 16 feet.

In connection with the harbour and new entrance, the attention of the department is again called to the necessity for immediate action, with a view to the preservation of the standing timber remaining on the Presqu'île peninsula.

The work was actually completed in August, 1889, by Mr. A. J. Mowry, of Syracuse, one of the original contractors, who is now the sole representative of the firm of J. D. Silcox & Co.

The final estimate has been completed, and is now with the Chief Engineer to be considered.

SURVEY OF ST. LAWRENCE RIVER AND CANALS.

The work done under this head during the past season, may be summarized as follows:—

A location survey of the proposed dams in the Sheik's Island Channel has been made, and the work has been prepared for letting.

A survey with a view to straighten and improve the upper entrance of the Cornwall Canal has been made.

A survey as suggested by the Hon. the Minister to ascertain the practicability of using the river from a point in the canal 4 or 5 miles above Cornwall, has been made with very favourable results.

The shoals in the navigable reaches east and west of Rapide Plat Canal have been further examined; also those in the reach above the head of the Point Iroquois Canal.

Preliminary surveys have been completed of the Point Iroquois junction and lower part of the "Old Galops" division of the Galops Canal, the plans of which have been prepared.

A final location of the north or Canadian channel has been completed and the plans and specifications have been prepared.

An examination of the new channel of the Galops was made early this season.

A remeasurement of the works at the upper entrance, Galops Canal, has been made; also a final measurement of section 6 and 7, Cornwall Canal, with a view to effect a settlement with the contractors.

A statement is appended showing the highest and lowest water during the past year, at each of the canals in the St. Lawrence district.

The variations of the water level on the different canals are not uniform. The governing point assumed by the forwarding companies is at lock No. 23, Rapide Plat Canal, where the least depth of water on the mitre-sill prevails at all stages of the river.

I have the honour to be, sir,

Your obedient servant,

TOM RUBIDGE,
Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq.,
Chief Engineer of Canals,
Ottawa.

Department of Railways and Canals.

STATEMENT of the Highest and Lowest Water on the Canals in the St. Lawrence District for the Year ending 30th June, 1893.

Month.	Cornwall Canal.						Williamsburg Canals.												Lake Ontario.														
	Lock No. 15.			Lock No. 21.			Lock No. 22.		Lock No. 23.		Lock No. 24.		Lock No. 25.		Lock No. 27.		Murray Canal.																
	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	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.															
July.....	11	5	10	8	10	9	10	0	10	3	9	4	9	9	9	4	10	0	8	9	12	8	12	0	10	3	9	9	9	13	6	13	1
August.....	12	1	10	7	10	10	9	9	9	11	9	3	9	9	8	8	9	8	8	4	12	6	10	11	10	3	9	2	13	6	13	5	
September...	10	10	10	4	10	9	9	11	10	0	9	3	9	8	8	9	10	0	8	7	12	8	11	4	10	3	9	4	13	5	12	9	
October.....	10	3	9	10	10	1	9	5	9	6	8	7	8	9	8	3	9	1	8	2	11	11	10	0	9	9	9	1	13	1	12	7	
November...	10	6	9	9	10	5	8	10	9	3	7	10	8	10	7	3	9	4	7	0	12	0	9	4	10	0	8	3	12	9	12	1	
December...	13	8	9	6½	9	8	8	8	9	0	8	5	8	6	7	7	8	6	7	5	11	4	9	10	9	9	8	6	12	6	12	2	
January.....	26	0	12	7	10	1	6	7	9	0	7	2	9	2	5	2	8	5	3	8	11	6	5	6	9	4	6	9	12	4	12	0	
February...	21	2	18	9	9	3	6	9	10	9	7	1	7	9	5	5	6	5	5	2	8	5	7	0	7	11	7	1	12	11	12	0	
March.....	22	6	16	5	10	0	8	1	9	8	7	6	9	0	6	5	9	5	5	7	12	0	7	1	10	2	7	4	12	9	12	1	
April.....	14	11	10	6	10	6	9	3	9	10	8	9	10	3	8	0	9	9	7	6	12	6	10	0	10	4	8	9	13	8	12	9	
May.....	12	10	10	10	11	9	10	0	11	2	9	5	10	10	9	3	11	2	8	8	13	10	11	4	11	6	9	6	14	7	13	8	
June.....	11	7	11	4	11	4	10	0	10	10	6	10	10	10	10	6	11	1	10	3	13	10	13	2	11	4	10	9	14	9	14	6	

WILLIAMSBURG CANALS.

STATEMENT of the Highest and Lowest Water for the Year ending 30th June, 1893.

Month.	Lock No. 22.		Lock No. 23.		Lock No. 24.		Lock No. 25.		Lock No. 27.		
	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.	
July.....	10 3	9 4	9 9	3 3	8 10	...	8 9	12 8	11 6	10 3	9 9
August.....	9 11	9 3'	9 9	8 8	8 9	8	8 4	12 6	10 11	10 3	9 2
September.....	10	9 3	9 11	8 9	10 .....	...	8 7	12 8	11 4	10 3	9 4
October.....	9 6	8 7	8 9	3 3	9 1	8 2	2 11	11 10	8 9	9 9	9 1
November.....	9 3	8 3	8 10	7 3	8 6	7 4	4 11	10 9	4 10	.....	8 3
December.....	9	8 5	8 6	7 7	8 8	7 5	5 11	4 9	10 9	9 9	8 6
January.....	9	7 2	9 2	5 2	8 5	3 8	8 11	6 5	6 9	4 6	9 9
February.....	10 9	7 1	9 9	5 5	6 5	5 2	2 8	8 5	7	7 11	7 1
March.....	9 8	7 6	9	6 5	9 5	7 7	6 7	12	7 1	10 2	7 4
April.....	9 10	8 9	10 3	8	9 9	9 9	7 6	12 6	10	10 4	8 9
May.....	11 2	9 5	10 10	9 3	11	2 8	8 8	13 10	11 4	11 6	9 6
June.....	10 10	6 10	10 10	6 6	11 1	1 10	3 13	10 13	2 11	11 4	10 9

Department of Railways and Canals.

APPENDIX No. 13.

BRIGHTON, 30th August, 1893.

TOM S. RUBIDGE, Esq.,
Superintending Engineer, St. Lawrence District,
Cornwall.

SIR,—I have the honour to submit the following annual report on the works under my charge for the fiscal year ended 30th June, 1893.

Navigation closed on 30th November, 1892, and opened on 13th April, 1893.

The number of vessels passed through canal from 30th June, 1892, to 30th June, 1893, was 830.

There were no accidents and no fines were imposed or collected during this period.

The bridges are in good repair, and have all been very satisfactory, with the exception of the railway bridge, which was readjusted by the Weddell Bridge Company.

Twenty-five new mooring posts were put in and packed around with broken stone.

The tow-path ditches were all cleared out the entire length of canal on both sides twice, and all thistles and other weeds carefully cut; 2,800 feet of the tow-path east of Brighton road bridge has been gravelled.

In consequence of the heavy rains this spring the water ran over the edge of the tow-path into the canal, and much time was occupied in mending the breaks caused thereby.

Stone facing was put on to the top of wall at the railway and Trenton road bridges.

A high board fence was built west of the Central Ontario railway crossing north side of canal to prevent the sand banking up the railway track, and it saves a great deal of labour.

Five hundred and fifty-six yards of gravel was put on the sand, north side of canal, west of the railway bridge.

Broken stone to the amount of 3,298 yards was put into the rip-rap.

The tow-path was graded up in many places where the sand had blown away.

Rip-rap was put on to the top of bank for 2,000 feet in length through the sand.

Gravelled road was built at Trenton road bridge within the canal limits and gave great satisfaction to the farmers and others in that section.

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

T. P. KEELER,
Superintendent Murray Canal.

APPENDIX No. 14.

CORNWALL, 2nd October, 1893.

SIR,—I beg leave to submit the following report of the works under my charge for fiscal year ending 30th June, 1893.

The Cornwall Canal was kept open satisfactorily during season of 1892; the only interruption being caused by barge "Toronto" breaking gates of lock 19 on 3rd August. Navigation was stopped twenty-eight hours. An account of expenses incurred, amounting to \$1,103.21, was filed with the department.

The steamer "Island Queen" was fined ten dollars for damage to foot board on lock 18 on 2nd September, 1892.

The new lock at head of canal was first used on 2nd December. Crabs were shifted from old to new lock. Old gates of lock 21 were then dismantled and removed.

Canal was closed for navigation on 4th December, except locks 18, 19, 20 and 21, which were kept open a few days longer for contractors.

Work in shops during winter consisted in making foot bridges, top bars, mullions, sheaves, knees, wheelbarrows and general repairs, preparing for spring.

Water was let out of canal on 16th March, 1893, and usual repairs to banks, cleaning out locks, and pointing walls, done. New mitre sills were put in lock 20 and other necessary work performed. Water was let in on 30th April and on 1st May canal was ready for navigation, boats being locked at head of canal.

Navigation was carried on without interruption until 2nd June, when steamer "Hall" knocked out two gates of lock 19, causing a delay of twenty-six hours. A statement of cost of repairs amounting to \$1,060.70 was forwarded to the department.

All repairs necessary were attended to. The old lock gates required a good deal of repairing. A pair of gates were repaired and put in canal. A watch house for lock 21 was built.

I append a statement of height of water for past year.

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

A. P. ROSS,
Superintendent.

TOM S. RUBIDGE, Esq., C.E.,
Superintending Engineer,
Cornwall, Ont.

Department of Railways and Canals.

CORNWALL CANAL.

STATEMENT showing depth of Water in River on the Mitre Sills of Lock 15 at Lower Entrance, and Lock 21 at Upper Entrance, for Fiscal Year ended 30th June, 1893.

Months.	Lock 15, Lower Sill.		Lock 21, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1892.				
	ft.	in.	ft.	in.
July.....	11	5	10	9
August.....	12	1	10	10
September.....	11	5	10	9
October.....	10	3½	9	9½
November.....	11	1	9	8½
December.....	13	8	9	6½
1893.				
January.....	26	0	12	7
February.....	21	2	18	9
March.....	22	6	16	5
April.....	14	11	10	6
May.....	12	10	10	10
June.....	11	7	11	4

A. P. ROSS,
Superintendent.

MORRISBURG, 1st September, 1893.

SIR,—In complying with your request of the 28th August, 1893, asking for annual report upon these canals for the year ending 30th June, 1893, I beg to submit the following :—

CLOSING OF CANALS.

Farran's Point Canal was closed on the 13th of December, 1892, as also were locks 26 and 27 on the Galops section, and lock 25 on the Point Iroquois section was closed on the 17th of the same month, and locks 23 and 24, on the Rapide Plat, were closed on the 23rd. These different closings were occasioned by the work of the contractors on the Rapide Plat canal.

These canals were opened 27th April, 1893.

We have had no accidents excepting the sinking of propellor "Acadia" in Rapide Plat Canal, and which was fully reported by me on the 14th of June last.

The canals were kept in good working order during the year. No unusual delays to navigation occurred, and the water in the canals was much higher than during the previous year; besides the work accomplished by the enlarging of the Rapide Plat Canal has greatly aided navigation.

There have been several fines imposed on vessels occasioned by want of care and neglect of duty. Three of these were returned in last annual report of 3rd November, 1892, viz. :—

Steamer "Corsican," 3rd July, 1892.. .. .	\$10 00
do "Ocean," 10th August, 1892.....	20 00
do "Alexandria," 14th October, 1892.....	20 00

The following since that date, viz. :—

Barge "Black Diamond," 18th November, 1892.....	\$15 00
---	---------

The number of vessels passing through the lock at Iroquois, as kept by the lock-master on his own account, for the year was 2,483.

The work done by the "repairs" staff has been general.

An ice bridge or dam formed at the foot of Farran's Point Canal at "Baker's" Point on the 7th of February and remained about three weeks. It did no damage, as it was largely across the bay extending to the lock, and the water being very deep the floating ice got sufficient way under the jam or bridge. We tried to cut it away but failed because of its extent and the nature or quality of the ice.

FARRAN'S POINT REPAIRS.

The gates were raised twice. The sheaves were all renewed during the year and new chains put on lower gates. The ice having carried the stone foundation of the lockmen's house away, a wooden pier was built in last September and filled with stones, which has stood well. Lockmen's houses were repaired largely and kitchens built up to stone house for them.

RAPIDE PLAT CANAL REPAIRS.

A pair of new gates were put up at lower entrance of lock 23 in May, and general repairs done on the other gates. The water was let out twice: once on account of the steamer "Acadia" sunk in canal, and once to accommodate the water works of the village of Morrisburg, in putting down a new main pipe under the canal.

Advantage was taken of these occasions to remove any large stone found in the basin of canal.

The boom, at lock 24, across the supply weir required some repairs.

GALOPS CANAL REPAIRS.

At Iroquis, lock 25, a guard fence was built around Government property; bunting posts were removed and one new sheave put in; lock houses were largely repaired; ditch was cleaned out and stones laid up; booms were renewed in canal and wharf at foot of pier replanked in part, and pier timbers in part renewed; swing partly replanked.

The swing bridge at lock 26 was rebuilt. The gates were raised, three new chains put in and several minor repairs done on lock and gates. Repairs were done on lock-houses, especially shingling.

A wharf was built on the outside, or river side of the bank for the accommodation of the village of Cardinal.

At lock 27 general repairs were done on the gates and piers at the entrance to the lock and also on the supply weir. Gates were raised twice, two new sheaves and one chain were placed.

Locks 23, 26 and 27 had to be cleaned out repeatedly during the year on account of stone, logs and gravel which accumulated and made largely by dredging on new work.

Eleven new buoys were purchased which, with the ones we had on hand from last year, were prepared and properly placed in the river between Dickenson's Landing and Prescott.

General repairs were done on the buoy boat and scow, such as replanking, caulking, painting, repairing ways for hauling out, &c. A pair of old gates were hauled out and put on the dry dock at Cardinal ready for rebuilding.

Many minor repairs to the locks, gates, piers and operating appliances, though small individually, represent on the whole a large amount of labour and the consumption of supplies.

A large amount of work was done on the Junction Canal at several points where it had given away or was weak, in drawing stones and blue clay and placing them.

I annex a statement showing the extreme depths of water on the mitre sills of the entrance and exit of the locks of these canals, covering the above dates.

The above is respectfully submitted.

Your obedient servant,

CHAS. E. HICKEY,

Superintendent.

TOM S. RUBIDGE, C. E.,

Superintending Engineer, Cornwall, Ont.

APPENDIX No. 15.

WELLAND CANAL.

ST. CATHARINES, 2nd October, 1893.

SIR,—I beg to submit my annual report upon the Welland Canal and its branches for the fiscal year ending 30th June, 1893.

Commencing at Port Dalhousie, 500 feet in length of tongued and grooved sheet piling, six inches thick and twelve feet long, was driven on the new canal side of the stone wall extending across the pond between locks No. 1 and 2, thereby completing that operation, and stopping any leak under the wall as far as the sheet piling extends.

At lock No. 15, the lower wing wall on the west side of the lock had settled down and moved forward into the canal, necessitating its removal and rebuilding.

This was done before the opening of navigation in April last.

In addition to the rebuilding of this wall, a row of heavy sheet piling was driven in front of the wall, also in front of the corresponding wall on the opposite side of the canal, and to prevent any further movement of the wall, stout timbers, about ten feet apart, placed below the level of the bottom of the canal and bolted to piles at intervals, were laid across the canal from wall to wall, and the spaces between them filled with concrete to a depth ranging from 12 to 18 inches.

At the supply weir above Allanburgh, a leak under the apron was discovered shortly before the opening of navigation last spring, and on examination proved to be of a serious nature, considering the position of the weir.

This weir was built in 1877-78 in the west bank of the summit level of the canal, 14 miles from Port Colborne for the purpose of passing the necessary feed for the old canal, the weir formerly used for that purpose having been removed in the course of construction of the new canal from Allanburgh northward.

It was found that the water had passed through the joints and under the walls of the weir in places, washing out the lower portion of the embankment in rear of the walls, while leaving the surface of the embankment intact.

The extent of the washout and the serious damage which would have resulted from any failure of the canal bank at that point, made it necessary to form a dam above the weir to hold up the summit level, and another below the weir, to admit of the structure being unwatered.

The foundation of the structure was then underpinned with Portland cement concrete, the fissures in the walls filled with Portland cement grout, and the defective embankment made good.

The work, which was critical in its nature, was executed at a cost of \$4,000 in a satisfactory and energetic manner, under the immediate supervision of F. T. Walton.

The pile fenders at the Allanburgh bridge were renewed, as also were those at the Junction bridge.

At the locks and bridges throughout the canal, small repairs were as usual constantly in progress, such as repairing or renewing, opening and closing chains and cables; replacing or repairing broken or bent rods, shafts and gearing, repairing or renewing broken or displaced walings and other portions of the gates, fenders and road bridges, which are exposed to the constant rubbing and wear of passing vessels and teams.

In addition to the above, there has been the frequent adjustment of lock gates, and the removal by the diver of obstructions to the closing of gates, which with the occasional repairs of damages, by vessels running into bridge fenders and piers, and renewing of snubbing posts, and maintenance of towing paths, banks and ditches, has found steady employment for the force engaged on such work.

The above small repairs though spoken of here generally, are kept in detail, and the quantities of materials used in each case are recorded.

On the old canal, in addition to the usual spring repairs of weir aprons and slash boards, replanking road bridges, &c., a new swing bridge was constructed across the upper wing walls of lock No. 2, to replace the original and worn out bridge, 366 feet above the lock.

The new bridge was built by the Weddell Bridge Co., of Trenton, Ont., under contract, upon the extension of the lock walls as constructed for that purpose when the lock was enlarged in 1883.

The repairs to the Allanburgh supply weir, before referred to, interfered with the usual condition of matters on the old canal, until the weir repairs were completed in June. During the repairs, the feed for the old canal and mills, had to be passed through the Allanburgh lock, and was restricted, sometimes causing a scarcity of water, but as some of the largest mills were making extensive alterations in their premises and wheels, the reduced quantity of water passing was not felt as much as it would have been had the mills been running as usual.

With the exception of the passage of an occasional raft, scow or schooner with lumber or raw materials for some of the milling establishments, the traffic of the old canal, may be said to have been confined to that portion of it between St. Catharines and Port Dalhousie.

This has been the case for some years, the greater portion of the old canal being available almost exclusively for milling interests.

There are at the present time, several desirable mill sites available with abundant water power.

On the Feeder Division, swing bridges have been constructed for the first time across the feeder, on the line of the Bird Road and also on the line of the Petit Road.

These bridges, with other crossings of the feeder, constructed a year ago, have greatly improved the means of communication, and increased the value of property in the locality.

On the Port Maitland Branch, where Broad Creek passes under the canal, an additional syphon culvert, formed of timber, with an opening of 4 ft. x 5 ft., has been built under contract, with Mr. Archie McDonald, of Stromness, and gives additional facilities for the drainage of a large and fertile district.

The aprons of the Dunnville dam have been replanked where required and small repairs made at the weirs and culverts where necessary. Some of the ditches and drainage outlets in this locality require attention on a larger scale than comes within the range of repairs and an appropriation for the purpose will be necessary.

Of the 14 cases of damages to canal property by vessels, as seen in the accompanying statement marked A, only one was of any magnitude.

I refer to the damage to lock No. 4 by the steamer "Arabian," when upward bound on the 22nd October, 1892, when navigation was interrupted for thirty-four hours, and an expenditure of \$3,828.33 incurred, or provided for, in replacing four lock gates, and repairing damage to canal banks, towing paths, &c.

The damage was caused by the engineer not obeying signal from the officer on the bridge, and going ahead at such speed that the lines were of no service to check the vessel.

Considering the dismantled condition of the lock, the short time occupied for repairs, speaks well for those engaged in that duty.

The amounts of the damages given in the statement, with the exception of those caused by the "Fairbanks," "Manly" and "Arabian" which are not yet paid, were handed to the canal collectors at Port Dalhousie and St. Catharines, whose receipts for the amounts are in this office.

Since 30th June last, any amounts payable for damages or fines, have been paid direct to the collectors of canal tolls.

During the fiscal year ending 30th June, 1893, the registered tonnage of vessels passing through the New Welland Canal, both ways, shows an increase of 101,640 tons over the preceding year, and may be attributed to the reduction of tolls

Department of Railways and Canals.

on grain, coupled with adverse conditions on the American route; with better arrangements for lighterage or transshipment at Kingston or Prescott, the increase of business would have been much greater.

The canal was closed 12th December, 1892, and was opened for navigation 24th April, 1893.

Attached will be found a statement of the highest and lowest water on the mitre sills of locks Nos. 1 and 27, at Port Dalhousie and Port Colborne, respectively, during the fiscal year ended 30th June, 1893.

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

W. G. THOMPSON, M.I.C.E.,
Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq.,
Chief Engineer, Railways and Canals,
Ottawa.

" A. "

STATEMENT of Damages by Vessels or Steamers to Welland Canal Works, during the Fiscal Year ending 30th June, 1893.

Date of Damage.	Name of Vessel.	Amount of Damage.	Date when paid.
		\$ cts.	
1892.			
May 13.....	Barge "Manly".....	15 38	Due.
do 25.....	Steamer "Everett".....	40 00	May 9, 1893.
Sept. 16.....	do "Hibbard".....	125 00	Nov. 12, 1892.
do 26.....	do "W. R. James".....	12 30	April 24, 1893.
do 28.....	do "John Rugee".....	17 09	Nov. 12, 1892.
Oct. 4.....	do "F. R. Prince".....	6 40	April 24, 1893.
do 22.....	do "Arabian".....	3,828 33	Due.
Nov. 27.....	do "Governor Smith".....	14 08	April 24, 1893.
1893.			
April 24.....	do "Fairbanks".....	14 17	Due.
May 13.....	do "New Orleans".....	100 00	May 20, 1893.
do 23.....	do "Alconas".....	200 00	do 25, 1893.
do 24.....	do "Blanchard".....	130 00	do 25, 1893.
do 19.....	Barge "Augustus".....	4 50	June 13, 1893.
June 9.....	do do.....	25 00	do 15, 1893.
Total.....		4,532 25	
Paid.....		664 37	
Due.....		3,857 88	

"B."

STATEMENT showing the Highest and Lowest Water on the Mitre Sills of New Lock No. 1, at Port Dalhousie, Welland Canal, for the Fiscal Year ending 30th June, 1893.

Months.	Lower Sill.		Months	Lower Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1892.	ft. in.	ft. in.	1893.	ft. in.	ft. in.
July	16 4	15 11	January	14 11	14 5
August	16 5	16 0	February	14 11	14 4
September	16 3	15 9	March	15 5	14 7
October	15 11	15 1	April	16 5	15 4
November	15 6	14 11	May	17 5	16 2
December	15 5	14 9	June	17 4	17 1

"C."

STATEMENT showing the Highest and Lowest Water on the Upper Mitre Sill of New Lock No. 27, at Port Colborne, Welland Canal, for the Fiscal Year ending 30th June, 1893.

Months.	Upper Sill.		Months.	Upper Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1892.	ft. in.	ft. in.	1893.	ft. in.	ft. in.
July	16 2	15 2	January	14 10	13 0
August	15 11	14 11	February	14 4	12 11
September	15 5	14 7	March	15 5	13 0
October	16 5	14 2	April	16 3	13 2
November	16 2	13 10	May	16 2	15 0
December	15 8	13 2	June	16 3	15 4

Department of Railways and Canals.

APPENDIX No. 16.

SUPERINTENDENT'S OFFICE, WELLAND CANAL,
ST. CATHARINES, 12th September, 1893.

W. G. THOMPSON, Esq.,
Superintending Engineer.

DEAR SIR,—Herewith I beg to send you my usual annual report of works done under my direction, during the fiscal year ended 30th June last.

W. ELLIS,
Superintendent.

NEW WELLAND CANAL.

Details of work of Repairs and Maintenance, for year ending 30th June, 1893.

DIVISION No. 1—FROM PORT DALHOUSIE TO LOCK 13.

PORT DALHOUSIE HARBOUR.

The winter float bridge received damage, after having been placed in position some time, by a storm and floating ice.

The sheet piling next lake, along west pier, where started by storms, was repaired and secured for future, by stone deposited along front of same.

New sidewalk, 1,320 feet long and 4 feet wide, laid down on 6 x 6 stringers, from foot of lock 1 to Grand Trunk Railway dock, on east side of harbour, and graded and levelled the ground for the same.

Gate Yard and Shop, Port Dalhousie.

Hauled out one pair gates for lock 22, took them apart, squared them up, put them together again after new trenailed and thoroughly repaired.

Hauled out foot gates of lock 8, took them apart, squared them up, put them together again after new trenailed and thoroughly repaired.

Hauled out one pair lock gates from lock 23, took them apart, squared them up, put them together again after new trenailed and thoroughly repaired.

Hauled out one gate out of lock 2, took it apart, squared it up, put it together again after new trenailed and thoroughly repaired.

Hauled out one gate out of lock 15, took it apart, squared it up, put it together again after new trenailed and thoroughly repaired.

Hauled out one gate out of lock 17, took it apart, squared it up, put it together again after new trenailed and thoroughly repaired.

Hauled out one pair lock gates from lock 10, took them apart, squared them up, put them together again after new trenailed and thoroughly repaired.

Hauled out three lock gates from lock 4, damaged by the accident to the "Arabian," thoroughly repaired and put in order ready for future use.

The lock gates for lock 25 hauled out and opened up and extensive repairs made to same, and laid away on cradle.

The lock gates for lock 20 hauled out and opened up and extensive repairs made to same, and laid away on cradle.

The pontoon No. 2 was hauled out on to ways, and all decayed parts removed and rebuilt, and fitted for new, and caulked and painted.

Labourers cut up large quantity of old wood from all along canal, and decayed portions of scows, walings, broken gate timbers, etc., after being collected by return scows at various times.

Lock No. 1, Bridge No. 1 and Level.

500 feet (lineal) of pine sheet piling, 12 feet long, 6 inches thick, was driven in front of stone dam between locks 1 and 2, and the space between the sheet piling and dam was filled with concrete, and rammed, to prevent leakage under the wall forming the dam.

One new water wheel and case put in, adjusted foot lock gate and put 3 new extension steps in; 20 feet oak plank used, 2 new corbels put on; also, 2 new long and 2 short cables put in lock gates; repaired locking chains; 16 feet of shafts for section waling and 10 feet of $2\frac{1}{2}$ x 8 oak plank used.

One new boxing, 2 wood screws, $8 \times \frac{5}{8}$, 11 lbs. spikes, repaired 1 slide rod and 1 steel shaft, 1 new nosing to gate, 10 lbs. spike, repaired 1 steel shaft, repaired shutting chains, 1 new friction collar, 1 new cone roller, new cross-bar for extension step, new sheer legs and sheave for cable, cut stone for cable drums, 1 new coal chute, repaired 1 extension step, 3 coach screws, $\frac{1}{2} \times 6$; repaired 1 bent steel shaft; repaired broken waling, set 4 cams for bridge and put in 2 new fox bolts and cut the stone for cam rest.

Lock No. 2 and Level.

Adjusted foot gates and placed rollers in position; took 1 lock gate out and took to gate yard and dressed it; hung 1 new lock gate in place, put on one new lock gate foot bridge and its machinery, 1 large spur wheel, 1 intermediate gear, 1 phosphor bronze pinion, 8 waterwheels and cases and steps, 2 new corbels, 1 new adjusting screw, 12 pieces upright oak wales $4\frac{1}{2} \times 9$, 10 lbs. spikes, repaired locking chains, 2 new short and 2 new long gate cables, repaired 4 slide rods, 24 coach screws, $8 \times \frac{5}{8}$, 3 wheel borings, 12 shaft borings, 30 coach screws, $8 \times \frac{5}{8}$, 30 washers, 900 lineal feet ditching cleaned out.

Repaired 1 slide rod, repaired 1 steel shaft, repaired 1 section of handrail, 2 new rag bolts, repaired 1 binder bolt, repaired broken gate bridge, removed sunken piece of oak from between gate and sill, 1 new pike pole, repaired shutting chains several times, 1 pair clip hooks, repaired lock float, 4 coal chutes, 1 new dog and small arch, 2 new waterwheel shafts repaired, and wheel guards repaired, 1 new stud for foot clutch, 1 new pennant line, 2 cone rollers, filled up large washouts caused by the "Arabian" accident; built temporary bridge across weir to haul earth; put stone on spare lock gates in cradles.

Lock No. 3 and No. 2 Bridge Level.

Adjusted all 4 lock-gates and put rollers and frames of gates in order; 1 new mitre block; put new planks in bridge floor; adjusted the foot gates; 1 new matrix; 1 new slide door; 1 new drum and bevelled wheel; 1 new short shaft for gear.

Raised left No. 1 lock gate and right No. 1 gate, and put pieces of oak $1\frac{1}{2}$ inches under the steps; repaired locking chains and shutting chains; laid new platforms at lock and bridge house, front and each end; 4 slide rods repaired; repaired crab rollers; repaired mitre and crab; 1 new key for pinion; cut slot in stonework for crab drum; 1 coal chute; repaired locking wire of bridge; 1 new cone roller; repaired 1 extension bar; set 2 cams and 4 cams of bridge and tightened gearing; 340 yards (lineal) of main back ditch cleaned; washouts caused by "Arabian" accident all made good.

Lock No. 4 and Level.

Adjusted 4 lock-gates and put rollers and roller frames in order; 1 new phosphor bronze pinion, 1 new matrix, 2 water wheels, 3 new short cables, 3 new long cables, 2 pairs new clip hooks, 1 new shutting chain ($37\frac{1}{2}$ ft. of $\frac{5}{8}$), 1 new locking chain, 1 new set of rollers in crab frame, 1 set of new rollers and frames for adjusting lock gates; and adjusted four lock gates; 1 new cone roller and adjusted all 4 lock gates. Put in three new lock gates, 10 ft. 2×8 oak, 15 ft., $\frac{5}{8}$ chain and splice; repaired locking chains; took off old and put on 3 new lock gates, bridges, and all their attending machinery and gearing; repaired 2 sets of gearing, 2 coal shutters;

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repaired 1 short cable, 1 new cone roller, 1 new binder bolt; repaired 2 shells 5 ft. pine, 10 ft. 2 x 8 oak, 2 new sister hooks, 2 pairs slip hook for locking chains; repaired crab drum and straps; cleaned out 300 lineal yards main back ditch.

Lock No. 5 and Level.

Two new phosphor bronze pinion, 3 new ratchet dogs, 1 new lever, 2 new matrices, 2 new long cables put on, 1 new short cable and adjusted all 4 lock gates there, and put cone rollers and frames in order; 1 new roller frame, 2 new extension steps put on, 2 new water wheels, 1 new stud; repaired locking chains and shutting chains; raised lift foot gates and put pieces under steps; 1,638 ft. (lineal) ditches opened up and cleaned out; put on protection planks over water wheels, and repaired 2 foot steps; overhauled and put 6 sets of gears in order; repaired 5 slide rods; 12 butts repaired; repaired 2 extensions steps, 3 crack screw, $\frac{1}{2}$ x 6; took out rubber fender from between slide and lockgate; repaired 1 long cable; repaired 1 slide rod, 6 sets of gearing overhauled and repaired 2 water wheels and 2 bent steel shafts, 1 maple bearing 2 coach screws, $\frac{3}{8}$ x 8; repaired 1 crab, 1 new key, repaired crab drum.

Lake St. Bridge No. 3.

Adjusted 3 cams and tightened gearing and fastening bolts; painted the bridge and approaches, 2 coats; 1 new pike pole, new stove grate for bridgetenders house, 1 chain for floats, 3 shackles, 2 eye bolts; walings repaired; renewed top course of crib with new timber, 192 ft. of 12 x 12 pine, 12-19 ft. ties 10 x 12, 324 ft. lineal 6 x 12 oak; repaired the bridge floor planking, fastened floats several times; put down at each end of bridge 1 curved plank oak.

Grand Trunk Railway Bridge No. 4.

The bridge thoroughly overhauled, slack rods tightened and fastened down segment plate, put carriage spring on bridge lock; set cams several times, and cut stonework for cam seats; spread 5 braces and balanced bridge, &c.; repaired walings and put on 40 ft. 6 x 12 new oak.

Geneva St. Bridge No. 5.

Adjusted cams and tightened all slack rods, &c.

Niagara St. Bridge No. 6.

Adjusted 4 cams, put fox bolt in latch catch and tightened slack rods; took out rotten stringers and planks to both approaches and replaced with new material. The top course of centre pier cribs was rotten and was replaced with new timber and secured and bolted; wire used for unlocking was repaired; renewed decayed approaches to bridge as under; put in 12 new stringers to approaches 23 ft. 6 in. long, 6 x 11, pine; put in 52 pine planks 20 ft. long each $2\frac{1}{2}$ x 8 laid, as under tier, 1,075 ft. surface measure, $2\frac{1}{4}$ x 8 dressed oak planks, top tier; laid down 8 old disused lock gate foot bridges for crossings; put 21 ft. of new oak waling, 6 by 12 under bridge; replanked bridge over back ditch, approaching the main bridge; repaired the planking on the swing part of bridge, 240 ft. lineal; wheel guard timbers bolted to planking 4 x 6; the top course of timber and cross trees of centre gear were rotten and were replaced as follows, by 192 ft. lineal, pine, 12 x 12; 12 x 10 19 feet each 10 x 12 pine; 292 ft. lineal 6 x 12, and waling on crib; 38 ft. pine 12 x 12 float; put two segmental formed planks at end of swing part of bridge.

Lock No. 6 and Level.

Four new brass matrices and washers; 2 water wheels put in; repaired privy, 25 feet 1 inch timber. One new long cable, repaired 3 sets of gearing, adjusted 4 lock gates and put new rollers and frames in order; one phosphor bronze pinion; repaired men's privy and 2 extension steps; 3 screws, 6 x $\frac{1}{2}$ inches; washouts in banks and holes around snubbing posts, filled up and new braces put around snubbing

posts; repaired 1 short cable; 99 yards lineal, ditching opened up and cleaned out; 2 coal chutes; repaired opening and shutting chains, put in protection planks to water wheels; repaired 1 steel shape and 6 sets of gearing and 3 water wheels; repaired 2 slide rods, main back ditch for 600 yards cleaned out.

Lock No. 7 and Level.

Adjusted all 4 lock gates twice, 2 new long cables, 1 pike pole; adjusted foot gates second time and put rollers and frame in proper position, 1 new stud, 1 new pinion; repaired lever and 2 new bolts, 7 wood screws, 8 x $\frac{5}{8}$ inches; repaired hand railing, took rope tender from between mitre sill and gate; repaired opening and shutting chains, 2 new coal chutes; repaired shaft, 1 new stud and pinion; repaired 2 slide rods and 1 slide valve, overhauled 6 sets gearing and put in new extensions; repaired crab and put in new keys, etc.; 25·50 yards of main back ditch cleaned out, banks graded, etc.

Lock No. 8 and Level.

Three new brass matrices, 1 new water wheel; adjusted all 4 lock gates and put rollers and frames in order; raised left No. 1 lock gate and put in new step and oak packing inside; adjusted head gates a second time, 2 new long cables, 1 new sleine, 1 new stud, 1 new gear shaft and lever stand, 1 slide rod, 1 pinion, 1 short cable; repaired opening and shutting chains; repaired lever and 2 new bolts, 7 wood screws 8 x $\frac{5}{8}$ inches; repaired hand railing, put in 2 new extension steps; repaired 1 water wheel, 2 new eye bolts, overhauled 6 sets of gearing and put it in good order; repaired 2 wheel shafts, repaired 1 slide rod, repaired 1 crank, 2 fox bolts and plates for repaired crabs, 1 coal chute, 1 new pike pole; 350 lineal yards main back ditch cleaned out.

Lock No. 9 and Level.

Adjusted all 4 lock gates and put rollers and frames in order twice during season and head gates thrice, 2 new water wheels and cases put in, 1 new shaft pinion, 1 new stud, 1 new long cable and keeper; repaired opening and shutting chains, repaired cone rollers and frames, removed rope fender from between gate and sill; repaired 3 sets of gearing, repaired 2 steel shafts, repaired crabs and put 2 new keys in crab and pinion, repaired 1 short cable; overhauled and put in order 6 sets of gearing and machinery, 1 new cone roller; repaired opening cable. Cleaned off top of gravel pit and hauled out gravel for the approach to lock 2 old canal, loaded same on to scow and hauled it to its destination and unloaded it there, etc.

Cemetery Bridge No. 7.

Painted bridge and approaches, 1 coat only.

The top course of the crib timber of centre pier being rotten was removed and replaced with new timber, stone placed in crib where needed, 178 feet lineal, 12 x 12 pine; 209 feet lineal, 10 x 12, pine, 74 feet lineal, 6 x 12, oak; adjusted cams and cut stonewash to allow bridge lock to clear; lightened down segment plate and raised wheel, put in new bolts 2 x 2 $\frac{1}{2}$ inch.

Homer Road Bridge, No. 8.

Fastened floats, several stones; put in 10 new eye bolts; repaired fence leading up to bridge, put new chains to floats and coal chutes, stripped off decayed top course from centre pier cribs and cross ties and walings, and put in the following new ones in lieu, and bolted all complete:—133 feet pine, 10 x 12; 94 feet lineal, pine, 12 x 12; 209 feet lineal, oak, 6 x 12.

Lock No. 10 and Level.

One new corbel put in; 2 new long cables and 2 cable keepers; adjusted all 4 lock gates and put rollers and frames in order; 1 new slide rod, 1 new short cable;

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repaired opening and shutting chains; took off old and put on new lock gate and foot bridge with all the attendant gearing and machinery; repaired crab and binders; removed rope fender from between sill and gate; repaired shutting chains, 6 new coal chutts; repaired 5 slide valve rods; 3 sets of gearing; 2 slide rods, 3 crabs and put new keys in pinions. Overhauled water wheels and trimmed out shells; repaired bent shaft; removed rope fender from between sill and gate; put 2 ft. chain on shutting chains; 1 new cone roller; cleared shutting chain from behind sheave; repaired chain.

Lock No. 11 and Level.

Two new lever stands put on; 1 new fire grate and lining put in watch house stove; 2 long cables; adjusted the foot gates of lock on three different occasions and on the last put packing under the steps of same; 1 new stud; 2 water wheels. Took off old decayed lock gate bridge and put in new one with all its attendant gearing and machinery; 2 new gear wheels and 1 new nosing; 2 valve screws; 1 new set of intermediate gear; put in new extension steps; repaired opening and shutting chains; put 2 walings on lower lock gates and widened the slash boards on head gates; laid new floor in lock house and refitted doors; 3 slide rods repaired; repaired extension steps; repaired 1 short cable; 1 new stud; 6 sets of gearing; 2 water wheels; 2 shafts; 1 new lever stand; repaired 1 slide and valve rod; bent shaft; 1 new cold chute; removed block of wood from between sill and gate; cleared shutting chains from under timber.

Lock No. 12 and Level.

One new water wheel and case; adjusted all four lock gates and put cone rollers and frames in order thrice; 2 new long cables; 1 new permanent line for gates; 1 new fire grate and set of brick linings for stove in lock tenders house; 2 new cable keepers; 1 new slide valve; 1 new shutting chain 37½ ft. long, $\frac{5}{8}$ iron; 1 new roller; repaired the guards on lower lock gates and opening and shutting chains of cables; 1 crab; put new key in pinion; repaired 2 cables; eye bolts in crab drums; New coal chute; repaired 2 cables and eye bolts; dressed stone for crab boxings; repaired 1 steel shaft; overhauled 6 sets of machinery and water wheels and valves; repaired 2 water wheels and cases; 1 slide rod. 1 coal chute. Overhauled 3 sets of gearings.

Bridge at Lock 13.

Raised wheels and set 4 cams; straightened chords and floor and put in 1 split key and repaired latch; adjusted rods, &c.

Lock No. 13 and Level.

Painted snubbing posts on lock and put in 2 new ones; put on 2 new cables and repaired 2 old ones; repaired 4 crab levers and 6 extension steps; put on 2 new cone rollers; adjusted lock gates 4 times and fixed rollers; repaired 3 crab gears; took rope fenders from mitre sill and lock gates 3 times; levelled and repaired tow-path and heel-path; put 2 plank protectives over wheel rods; calked timber on weir apron and pier, and put one protection piece on lower gate.

Lock No. 14 and Level.

Put in 2 new cables and spliced and repaired four others; repaired 2 shutting chains; crab gear five times; 3 extension steps; lifted head and foot gates and put pieces under steps; put 1 new leaf in valve; stopped leak in mitre-sill with diver; repaired frame to cone roller; took fender out between mitre-sill of gate three times; levelled and repaired tow and heel path; straightened 2 snubbing posts. Put in one protection timber in lower gate; repaired water wheel guard, piers, foot-bridge in foot gate and all its gearing attachments.

Lock No. 15 and Level.

Repaired valve with diver; spliced and repaired 6 cables, and put in 2 new ones; repaired 3 shutting chains and 3 extension steps; took out 2 lock foot-gates and hung 2 new ones in lieu; repaired water wheels at head of lock with diver.

Took down slope wing wall at foot of lock on west side and piled away stone, so removed. Excavated suitable trench for foundation of new wall, and built up same again to full height; removed ice to admit of preparing ground for, and then driving row of piles along foot of wing walls each side of canal and bolted same to extra heavy walings; excavated washed-up clay front of sheet piling and at foot of walls, then drove piles at front of apron at intervals and bolted the same, stretching or bracing timbers across from side to side and filled up between same and front of apron with concrete, say average 12 inches deep; excavated behind wing-walls and filled up again after completed.

Put foot bridge in lower left head gate and all gearing attachments and three protection pieces; put wheel guards on one foot bridge and one protection pier; put 4 x 6 guiding timber on end of apron planks; repaired lock and also bottom; made shoots for concrete and 2 stone boats and mortar box; repaired planking of weir; mitre-sills at head and foot of lock; put new leaf in valve; put in 2 new adjusting screws; removed obstructions from mitre-sills three times; graded and repaired canal and reservoir banks, and put in 8 new snubbing posts.

Lock No. 16 and Level.

Put in 1 new cable and repaired four others and 4 shutting chains; 4 extension steps and crab gearing three times; repaired slip in canal bank head of lock west side on four different occasions by hauling large amount of material from burrow-pits and drove 80 piles in pond at foot of same, and loaded up and put into pond at foot of slip, 5 scow loads of large stones. Took down part of wing-wall at end of highway tunnel under canal, south-west side, and excavated for a new extension of said wall and built same, and connected old and new masonry with strong rod, did all necessary excavations for same. Cleaned out tunnel twice and repaired sidewalk through the same; excavated new ditch leading across fields from east end of tunnel to give better facilities for drainage and put in drain pipes under highway to the same, and graded slopes of adjoining banks and deepened ditches. Straightened 1 snubbing post.

Bolted and secured to stone capping 107 feet lin 12x14 oak to raised wall east side and 120 feet on west side; put 2 planks on wheel guards; rebuilt tow path bridge after small scow had finished on reservoir; put on one protection piece to gate; repaired board fence tunnel road. Spliced 2 binders on head gate. Put wheel guards on lower gate; put new floor in the lock house and refitted all the doors.

Lock No. 17 and Level.

Put new wheel guards on lower gates and repaired two others; put on 2 new cables and repaired and spliced 4; repaired 3 crab gears, 5 extension steps and 3 shutting chains.

Lifted 2 head lock gates and 1 foot gate, and put pieces under steps; removed rope fender from mitre-sill; put in one new adjusting screw; put in 1 new snubbing post and straightened up 2.

Lock No. 18 and Level.

Repaired-crab gear four times; 4 cables, and put in 2 new ones; 6 extension steps, and 2 shutting chains; 2 safety chains; graded and repaired canal banks and filled up cracks. Took rope fender from under lock gate. Repaired 1 crab gear. Put down set of new cone rollers; adjusted 4 lock gates. Repaired rollers; filled up and made good step in reservoir bank. Put new wheel guards on one lock gate. Laid new floor in locktender's watch-house and fitted all doors. Repaired water wheels and shafts; overhauled gearing for 4 gates; 1 new waterwheel and case; 2 steel shafts and slide rod.

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Lock No. 19 and Level.

Put two new walings in lower lock gates, and 1 new foot board of one do. with all the attendant gearing &c. Put on 3 protection pieces. Repaired steel shaft; adjusted all 4 lock gates and put rollers and frames in ends; repaired sliderod and line; 1 new mattress; overhauled the gearing of all 4 gates. Repaired 5 cables and put in 1 new one; 3 crab gear and 5 extension steps; water wheel slide with diver; 2 safety chains and 1 shutting chain; straightened up 2 snubbing posts. Took rope fender from under lock gate. Filled up cracks in banks along canal and reservoir.

Lock No. 20 and Level.

Repaired 4 cables and put in 2 new ones; 4 extension steps and 3 crab gear; 4 shutting chains. Adjusted foot gate and put rollers and frames in order. Took rope fender from under gate. Took out old and put in new lock gates at foot of lock. Repaired safety chain and shutting chain. Put on 3 plank wheel guards, 1 new crossing on foot gate and 2 new foot gate bridges with attendant gearing; put extension step on lower gates and widened slash board on upper gates; 1 new brass washer and 1 new phosphor bronze pinion.

Repaired and graded tow and heel path banks. Straightened 1 snubbing post and put in 4 new ones.

Adjusted all 4 lock gates and put roller and frames in order; 1 new cone roller; 1 new matrix; 1 brass washer; 2 steel shafts; repaired 2 new shaft boxings; 4 washers and 1 intermediate gear.

Lock No. 21 and Level.

One new intermediate gear. Adjusted foot gates and put rollers and frames in order; 1 new matrix; 1 brass washer. Repaired 1 slide rod and 1 bent shaft. Adjusted all 4 gates and put rollers and frames in order; 1 new matrix. Put in two new foot bridges and attendant gearing and 5 protection pieces and repaired wheel guards. Repaired 3 cables and put on 2 new ones; 3 extension steps and 5 crab gears and 4 shutting chains. Adjusted 3 lock gates. Repaired 2 safety chains. Removed obstruction from mitre sill. Filled up cracks in canal and reservoir banks. Straightened 4 snubbing posts.

Lock No. 22 and Level.

Put in 2 adjusting screws. Repaired and placed 4 cables and put on one new one; 4 crab gear; 7 extension steps and took rope fender from under gate. Adjusted 2 foot gates by putting pieces under steps and put in 2 new steps. Repaired water-wheel with diver; floats four times.

Laid new floor in locktender's watch-house, and refitted and repaired all doors. Repaired 3 slide rods and frames; 1 new matrix; 2 brass washers; 3 new water wheels; 3 shafts; 9 new shafts boxings; 24 wood screws; 24 washers. Adjusted foot gate and put rollers and frames in order. Put on one new top corbel on each foot gate. Overhauled gearing.

Lock No. 23 and Level.

Repaired wheel guards, put on 4 protective pieces. Adjusted all 4 four lock gates. Put new braces on gate heap. Repaired 1 steel shaft and 2 slide rods, 2 new extension steps, 2 new water wheel steps and 8 wood screws, 8 x $\frac{7}{8}$, 2 phosphor bronze pinions. Repaired valve screws; 5 new brass matrices, 1 new stud. Adjusted all 4 gates and put cone rollers and frames inside. Repaired 4 cables and put in 4 new do; repaired 4 shutting chains and 3 crab gear; fixed roller; straightened 3 snubbing posts. Removed obstruction from mitre sill three times; fixed cone roller three times; put in 2 new snubbing posts. Took out old foot lock gate and hung new pair in place of same; repaired floats five times; kept banks in order.

Lock No. 24 and Level.

Repaired 3 cables and put in one new one. Repaired floats eight times, cleaned out water wheels on foot gates; repaired cone roller frame; repaired shutting chains and spliced 7 cables. Put in 41 lineal feet of parapet protection railing along bridge over Grand Trunk Railway. Straightened 1 snubbing post. Put in 2 foot steps; repaired highway gate and set posts; repaired 1 slide rod, 1 new phosphor bronze pinion. Adjusted all 4 gates; 1 new cone roller; repaired 1 steel shaft; 2 new slide valves. Repaired 3 steel shafts. Adjusted foot gates and put rollers and frame in order. Overhauled the machinery of all 4 gates.

Bridge No. 10 and Lock No. 24.

Put in 2 new cedar planks at ends of bridge. Put down new planks 60 feet in length by 6 feet wide on each approach. Put in 12 feet of one quarter inch iron rod to meet bolts. Repaired the hinge locks; set 2 cams after repaired and cut away stonework for do; tightened gearing. Straightened floor, adjusted stone with latch on.

Grand Trunk Railway Bridge No. 11.

Packed rollers and fastened them under bridge. Tightened screws, raised wheel; put in 1 new steel pin $14 \times 2\frac{1}{2}$ for travelling wheel on centre track; set 2 cams.

Removed all the old waling from the piling, drove 119 new piles, bolted on new walings throughout and put on 2 iron plates at knuckles 7 feet long, $12 \times \frac{1}{2}$ inch thick. Put up new signal; repaired floats three times; repaired bridge work damaged by Str. "Tecumseh."

Lock No. 25 and Level.

Repaired waling on lower left hand gate, and put new foot board on do., with its attendant gearing. Repaired 4 slide rods; 2 new water wheels; repaired 1 slide rod; adjusted all 4 gates and put roller and frames in order.

Repaired 5 cables and put in 3 new ones; repaired shutting chains four times and crab gear five times; repaired floats three times and extension steps four times. Took a fender from under lock gate three times; straightened 2 snubbing posts and put down five new ones.

Guard Lock No. 26 and Level.

Put in 3 new cables and repaired 2 old ones; repaired lifting rod with diver; put in 1 new adjusting screw; straightened 3 snubbing posts and put in 4 new ones; cleaned out culverts under canal at Higgins and Davis'.

Marlatt's Bridge, No. 13.

Repaired floats 7 times and put in 4 new chains and 8 eye bolts; repaired lock on bridge three times; put chain around piles twice; cleaned out drains on hill and tow paths. Took off old decayed and put on new walings on cluster piles and under the bridge; drove 3 guard piles, 36 feet long and bolted them and bound with chain; put 3 upright guard timbers on crib. Cut off ends of all the stringers at one end of bridge; set 3 cams; refitted bridge lock shortened, weirs; fitted head of double gear to receive the line; tightened gearing and block and adjusted cams.

Made extensive repairs to superstructure of bridge after broken by steamer "Blanchard." Took it apart and straightened chord. Put new iron in centre of bridge, and new floor on 3 new stringers. Two new cams and plates put on.

Hoover's Creek Bridge, near Lock No. 24.

Planked the bridge over and repaired the stop-rack.

Bridge at Lock No. 25.

Repaired the gearing and cut away the stonewash to admit of bridge swinging.

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No. 3 Division—Allanburgh to Welland Aqueduct.

Searched for obstructions on bottom of canal with diver, and removed several near Quaker bridge.

Cleaned out all ditches between the above points from time to time as required. Also graded and levelled tow-path and heel-path, and filled up several tow-path slips along deep cut and put in six drains where required.

Took out and put in 24 new snubbing-posts. Built steps for watchmen at Allanburgh old locks. Repaired stonewall at Round's Creek west of Quaker bridge. Put in 5 snubbing posts east side of canal at Port Robinson. Graded road top of deep cut and put in old timber culverts to carry water away from deep cut slopes. Assisted in stopping the leak at the supply weir, Allanburgh. Dragged or swept the canal near Allanburgh and took out 2 large sticks of timber. Let in projecting bolt-heads, Port Robinson and Quaker bridges. Set 6 snubbing-posts south of Quaker bridge, north side built bridge over ditch near same. Painted snubbing-posts. Repaired old protection cribwork head of old left lock, Allanburgh. Repaired cistern and plastered house at old bridge, Allanburgh. Took drain pipes to Welland. Raised up level of tow-path between old and new canal, Allanburgh, and between old lift lock, and old swing bridge at same. Repaired and raised old swing bridge at Allanburgh twice. Removed obstructions from behind lock gates at Port Robinson. Filled up with earth and sods around the bridgetender's house at Allanburgh, and repaired the supply water bridges at same. Cleaned out the stone road ditch several times. Repaired steps at Port Robinson Ferry. Drew 45 piles out of the new canal pond at lock 11 and dressed and rafted them, and took to Allanburgh bridge, loaded the crane scow and pile-driver "Hercules" with 2 M. feet lineal oak waling and towed her to Allanburgh bridge approaches, then cut down the piling to altered level throughout, and drove the new piles, after taking off the dressed walings, and put on the new walings and lowered the braces leading to the banks, and cut new seats in the stone wings, walls to receive the ends of the brace timbers. Took raft of 35 pile tops from Allanburgh to gate yard, lock 21, to make snubbing-posts.

Put down one new crib foundation at Allanburgh lift lock and put down new floors in 2 of the locktenders' houses at that place. Towed the crane scow "Hercules" from Allanburgh to Port Robinson, and put her on the dry dock and repaired the rakes and sides. Repaired the plastering and cistern at bridgetender's house, old canal, at Allanburgh, and shingled the house.

Rebuilt the pile and waling protection to the centre pier at east end of Quaker bridge, broken by steamer "Hubbard," and repaired the protection piling to the Allanburgh swing bridge, broken by the "Escanaba."

Built 2 coffer dams at Allanburgh supply weir to shut off the supply; pumped out bottom of weir; dug out to the bottom and behind the abutment walls; put in concrete foundation and repuddled the back of walls, and grouted and painted the stonework. Laid new double floor forming the apron, replaced the breast timbers, and put new timber on bridge, and repaired and replaced the valve gear and iron rack in front of weir, removed the coffer dams and left all complete.

No. 4 Division.—Welland Aqueduct to Port Colborne.

Cleared out and deepened where necessary the back ditches of canal bank ditches both sides of canal throughout, also the outlet of the back ditch at Port Colborne to the lake, and repaired and made safe the various bridges across ditches, graded and levelled tow path wherever necessary.

Repaired locks, locktender's house. Painted snubbing post, hauled out drift wood from canal and ditches at various places. Lowered lap aprons on Air Line ferry. Repaired floats on numerous occasions on the rock cut and at Welland and Junction bridges. Repaired slide in canal slope west of Air Line bridge. Repaired plank approaches and over Port Colborne bridge. Cleaned and limed public privy at Port Colborne, built up stonewall to form side of outlet to back ditch adjoining Humberstone bridge, west side, repaired Cleary's tool boat, and the approaches to Humberstone

bridge, and filled in Mr. Morrison's ditch. Built a cistern at Locktender Henshaw's house. Unloaded car of lumber and piled in Government store yard. Rebuilt small punt boat for aqueduct at Welland. Got out stone to load Government boat for lower part of canal. Repaired road on west side between Air Line and Junction.

Renewed and put vaults under public privy on west side of harbour. Repaired stone breakwater west side of harbour. Dug out sand and rubbish back of east pier near small lighthouse and filled in with clay; built chimney in lock-house No. 26. Repaired chimneys on J. Cook's house and plaster on J. Henshaw's. Reset snubbing posts. Put in check timber in Port Colborne lock. Repaired entrance to culvert at concession 3 outlet. Loaded Government boat at Welland with large stone for lock 15 wall. Ditched and filled holes at slide for drainage works of Air Line bridge works. Repaired Air Line ferry landing of the scow, and also the winter floating bridge. Repaired harbour ferry punt and that for "Alabama" scow. Repaired bridge across mill race west of Welland and across the north end of Brown's ditch. Built new steps leading to float bridge at Welland and placed same in position and put handrail complete. Repaired streets with stone north of Welland Bridge on the east and west sides.

Repaired mouth of culvert west side of concession 3, and repaired and raised sunken tow path at Lyon Creek twice. Hauled brush and placed in position to prevent sand from blowing into this harbour at Port Colborne and scraped sand from behind protection fence at same. Placed winter float bridges in position at Welland at Air Line ferry, and removed them in spring on the opening of navigation. Gathered up tools and put away for winter. Pumped Air Line scow. Planked and put in stringers at Brown's bridge Chippewa Creek. Repaired approach to bridge across old canal west of Junction lock. Opened new ditch and put in culvert west of air line west side. Raised valves in supply weir, Port Colborne. Cleaned ice from front of culvert opposite Brown's ditch on Feeder and at other end also. Pumped out Cleary's boat that sunk at Welland. Repaired culvert west side Welland lock. Scraped and levelled tow-path, Welland to Humberstone. Searched for and took sunken timber out of harbour, north of Port Colborne lock. Repaired shafting in valve house. Put brace to lock block west end Port Colborne bridge. Chinking coping stone and levelling and filling holes west side canal between Port Colborne and Humberstone, wheel secured on to scow "Sir Charles" for Allanburgh supply weir. Repaired stonewall east side of harbour. Cleaned junction lock. Took aprons off winter Air Line float bridge. Repaired Port Colborne lock sill. Unloaded stone off scow "Sir Charles" for Adelaide and Calais. Repaired abutments of G. T. R. bridge Port Colborne. Repaired road from Junction Lock to canal bridge. Repaired culvert at junction on the east side.

Rebuilt the pile and wall approaches to the Junction bridge on the south side and also on the west side. Took raft of snub timber cut off from the piles at Junction bridge and surplus piles to the gate yard, lock 21, and took them out and skidded them, also a load of wood for fuel for Port Dalhousie.

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OLD WELLAND CANAL.

DETAILS OF WORKS DONE ON REPAIRS AND MAINTENANCE FROM 1ST JULY, 1892, TO 30TH JUNE, 1893.

Lock No. 1, Bridge and Level.

Repaired and put in place six oak bumpers to protect lock gates from the steamers guards (side wheel) when passing through the lock, also got out and bolted new glide timbers adjoining stone projections for similar protection. Fifteen new piles driven along weakened part of floating tow-path, and patched and repaired same in several places.

Lock No. 2 and Level.

Built temporary bridge across canal at St. Paul's bridge, 16 x 120, and removed wooden tow-path under the bridge, drew the piles and widened the canal 2 feet by 150 feet, re-drove the piling and replaced the tow-path, and removed temporary bridge guy. Repaired the tow-path bridge across the 12 Mile Creek injured by a schooner. Repaired the floor of St. Paul street bridge, and newly planked it several times. Repaired sidewalks, part of which were injured. Formed, graded and macadamized the new road approaches to new lock to bridge at each end of same. Put pipe drain across road with stone cesspit and iron grating. Drove piles along edge of canal bank to carry beams for and building new sidewalk and fence along the new road on north side.

Repaired old swing bridge across Chaplin's race several times, also float bridge part of lock 2. Replanked tow-path bridge near basket factory. Painted St. Paul street bridge and approaches, two coats. Put 38 feet of cable on lock, 2 gates. Repaired banks where needed.

Lock No. 3 and Level.

Put on piece of oak coping at foot gate. Replanked tow-path floats; put one slashboard on weir, and repaired the gearing of the weir. Excavated pier and filled up hole under apron of weir with 8 cords of stone, and then double-planked the apron of same. Repaired cables on lock.

Lock No. 4 and Level and Bridge.

Painted swing bridge, two coats. Repaired and patched tow-path float at head of lock. Dug out for, repaired leak in bank near Neelon's mill. Repaired bridge platform. Replanked heel-path bridge, foot of lock 5.

Hydraulic Race.

Overhauled and renewed parts of bridge across race at Thorold road, and framed and put up a new truss for abutment. Took down old retaining wall for about 200 feet in length adjoining above, and rebuilt it. Excavated for and stopped leak in bank back of Holden's on two occasions, and drove sheet piling for future protection. Stopped leak in bank south side of aqueduct; kept raceway clear of ice during winter months, also the several weirs along canal.

Lock No. 5 and Level and Bridge.

Repaired push bar weir, also the spring lock on bridge.

Lock No. 6 and Level.

Took off old and put on new cable to lock gate. Replanked bridge at the head of the lock.

Lock No. 7, and Bridge and Level.

Put one new roller on weir, and repaired and reset the rest. Replanked the heel approach to swing bridge.

Lock No. 8 and Level.

Repaired foot board in lock and 3 weir rollers; put on one piece of wooden coping to replace rotten piece and backed it; reset push bar sluice, replanked the weir bridge.

Lock No. 9 and Level.

Fastened down the weir apron planks into long old gate bars and rag-bolted same to timber underneath.

Lock No. 10 and Level.

Removed the lock shanty from lock 11; fastened down the apron planks same as lock 9; put on new foot board with its attendant gearing; relaid and double-planked half the apron of weir.

Lock No. 11 and Level.

Put on new slashboard on weir and repaired chains and rollers of same, and stopped leak in weir bank; repaired the foot-board of lock.

Lock No. 12 and Level.

Repaired the foot-board of lock; repaired heel-path bridge, and put in 12 new planks; put gate in weir; removed old sunken scow obstructions from front of weir.

Lock No. 13 and Level.

Repaired leak in bank at weir; put in one new wooden gate bed; pointed wing wall with cement.

Lock No. 14 and Level Bridge.

Nil.

Lock No. 15 and Level Bridge.

Repaired culvert leading to bridge; stopped leak in bank near cotton factory on two occasions, and painted wing walls in corner; stopped leak in bank near Wilson's power house; drew down level and put one new gate in the weir; put on new hand railing to weir and slashboards.

Lock No. 16 and Level.

Repairing extensive leak in embankment by sheet piling and puddling same and put a new slashboard to weir; rebuilt float bridge on heel-path side; repaired 3 weir bars.

Lock No. 17 and Level.

Put in two new slashboards on weir and prepared chain beds, also two weir rods; repaired leak east side pulp mill; painted wing wall and corner; repaired 2 more leaks on same level; repaired floor-bridge and repaired truss foot-bridge and put on handrail.

Lock No. 18 and Level.

Put new handrailing over weir; repaired 2 weir rods and put on 4 foot board beams to lock gates, and 1 eye bolt on balance beam.

Department of Railways and Canals.

Lock No. 19 and Level.

Repaired leak in bank near Goose Island bridge; repaired the steps leading to Government houses, also the garden fence.

Lock No. 20 and Level.

Repaired wire cable on lock safe and push bar sluice; repaired weir bridge.

Lock No. 21 and Level.

Repaired retaining wall on heel-path side.

Lock No. 22 and Bridge Level.

Rebuilt heel-path bridge 12x18 across raceway to knitting mill; replaced the weir bridge; repaired Keefer's bridge, planking from time to time.

Lock No. 23 and Level.

Stopped leak in north side of weir bank and pointed every wall with cement; repaired the weir bridge.

Lock No. 24 and Bridge and Level.

Raised the road bridge at Hart's Alley across rail leading to Welland Mills. Repaired the swing bridge and put in new latch and turnbuckle. Stopped leak, both sides of wall. Pointed the west walls with cement. Rebuilt two walls along Howland mill race under road bridge and renewed plank on swing bridge on various occasions.

Lock Part 25 and Level.

Repaired leak in weir, also leak in mill race near Battle cement mill. Pointed wing walls with cement. Stopped leak at Higgin's weir and pointed wing walls with cement. Took up all rotten timber and replanked same with double new planks, 26 x 30, and rag-bolted all down to timber below.

Repaired the coping timber of lock and put in 30 feet lineal of new board and reset the push bar, sheave, etc.

Gate Yard and Repair Shops, Lock No. 21.

Removed the two-story store house from yard at lock 7, and set it up on blocks, and fitted it up inside for store house, etc. Repaired the derrick scow from No. 3 division. Put in 1 new rake and new wales and caulked deck. Stripped 2 pairs of old lock gates to rebuild for lock 13, and hauled them out on to ways. Took towboat "Hinton" from Allanburgh and drew her out on to ways, and rebuilt the rakes and put in new ledge of caulker and repaired her throughout, painted her and took her to Allanburgh. Rebuilt 11 wheelbarrows. Made 1 square pump, 8 x 8 feet. Turned 13 new snubbing posts. Finished one pair of rebuilt lock gates for lock 13 and launched them. Put 4 sluice gates with crab rollers and chains to work them in the foot gates of Allanburgh lock.

Feeder Division.

Owing to the extraordinary freshet in spring, large quantities of drift wood and rubbish of every imaginable description came down from the headwaters of Grand River and lodged in front of waste weirs and along the west side of the embankment dam at Dunnville. These were with much trouble passed down over the aprons to the river below.

The swing bridges were all properly balanced and tracks levelled where disturbed by action of frosts. All worn out and rotten planks and fenders were removed and replaced with new ones, and the approaches filled up with gravel and stone, set to level of bridge planking.

The mitre sills of Dunnville, Point Muirhead and Junction locks have been cleaned, and the gates received required repairs; benches and valves cleaned. The feeder channel has been thoroughly searched and sunken logs and other obstructions have been removed.

Driftwood and rubbish carried down the ditches of the lowlands during the spring flood and lodged in front of culverts have been all taken out, piled and burnt, and the aprons and approaches to Cranberry Creek and Marshville culvert have been thoroughly repaired and mill holes cleaned out. Logs and brush removed from back ditches. The flood gates of waste weir and in dam have been kept in a good state of repair and worn out and broken planks in aprons removed and renewed with new ones.

All rut holes along the path have been filled up from time to time with stones and gravel between Dunnville and Marshville, also repaired the slopes of banks where much washed out by stone hauled from Humberstone stone piles. The slope of canal was cut back at the bridge at the Inmore side line to allow the float bridge to drop back in rear of the west approach out of the way of barges passing through. The supply of water has been equal to the demands for all the mills throughout.

Took the new bridge from the gate yard, lock 21, old canal, up to Petit road, with piles, walings, etc., and put up the bridge on stone pier, cut down the waste bank and graded approaches to the same on each side.

Repaired road approaches leading to the Fork road bridge and painted the stone pier supporting the same.

A suitable bridge was erected across the Feeder on a stone pivot pier of proper size at the Bird road crossing, and approaches were made to it on each side of canal and the bridge was painted one coat.

GENERALLY.

All thistles and various weeds on all divisions were cut at proper season on all Government property wheresoever situated. All bridges were blocked up for winter and opened in spring.

There has been collected from masters and owners of steamers for damages done to Government works on this canal during the fiscal year ending the 30th June last, the sums mentioned on the appended sheet marked A, for which I hold the receipts of the canal toll collectors therein mentioned.

I also append statements marked "B" and "C" showing the highest and lowest depth of water on mitre sill, old and new lock No. 1, Port Dalhousie, and the old and new locks at Port Colborne in each month during the fiscal year ending 30th June, 1893.

WILLIAM ELLIS,
Superintendent.

WELLAND CANAL OFFICE,
Sept. 12th, 1893.

Department of Railways and Canals.

" A. "

STATEMENT showing amounts collected from Vessels and Steamers for damages to Government Works on Welland Canal during the fiscal Year ended 30th June, 1893.

Date paid.	Name of Vessel or Steamer.	For use of Government Plant.	Amount fined.	Amount Damages.
1892.				\$ cts.
Nov. 12.....	Steamer Hubbard.....			125 00
do 12.....	do John Ruger.....			17 09
1893.				
April 24.....	do F. R. Prince.....			6 40
.....	do W. R. James.....			12 30
.....	do Governor Smith.....			14 08
May 9.....	do A. Everett.....			40 00
do 29.....	do New Orleans.....			100 00
do 25.....	do Alconas.....			200 00
do 25.....	do Blanchard.....			130 00
June 13.....	Barge Augustus.....			4 50
do 15.....	do do.....			25 00
	Total.....			674 37

Handed W. B. Clark, Collector, Port Dalhousie, 12th November, 1892.....	\$ 142 09
do H. H. Collier do St. Catharines, 24th April, 1893.....	32 78
do do do do 9th May, 1893.....	40 00
do do do do 7th July, 1893.....	459 50
Total.....	\$674 37

" B. "

STATEMENT showing the Highest and Lowest depth of Water on Lower Mitre Sill, Lock No. 1, Old Canal, Port Dalhousie, for the Fiscal Year ending 30th June, 1893.

Month.	Lower Sill.		Month.	Lower Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1892.	ft.	in.	1893.	ft.	in.
July.....	13	5	January.....	12	0
August.....	13	6	February.....	12	0
September.....	13	4	March.....	12	6
October.....	13	0	April.....	13	6
November.....	12	7	May.....	14	6
December.....	12	6	June.....	14	5
	ft.	in.		ft.	in.

STATEMENT showing the Highest and Lowest depth of Water on Lower Mitre Sill, Lock No. 1, New Welland Canal, Port Dalhousie, for the Fiscal Year ended 30th June, 1893.

Month.	Lower Sill.		Month.	Lower Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1892.	ft. in.	ft. in.	1893.	ft. in.	ft. in.
July.....	16 4	15 11	January.....	14 11	14 5
August.....	16 5	16 0	February.....	14 11	14 4
September.....	16 3	15 9	March.....	15 5	14 7
October.....	15 11	15 1	April.....	16 5	15 4
November.....	15 6	14 11	May.....	17 5	16 2
December.....	15 5	14 9	June.....	17 4	17 1

“C.”

STATEMENT showing Highest and Lowest depth of Water on Upper Mitre Sill of Old Lock at Port Colborne, Welland Canal, for Fiscal Year ending 30th June, 1893.

Months.	Upper Sill.		Months.	Upper Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1892.	ft. in.	ft. in.	1893.	ft. in.	ft. in.
July.....	13 3	12 3	January.....	11 11	10 1
August.....	13 0	12 0	February.....	11 5	10 0
September.....	12 6	11 8	March.....	12 6	10 1
October.....	13 6	11 3	April.....	13 4	10 3
November.....	13 3	10 11	May.....	13 3	12 1
December.....	12 9	10 3	June.....	13 4	12 5

STATEMENT showing Highest and Lowest depth of Water on Upper Sill of New Lock at Port Colborne, Welland Canal, for Fiscal Year ending 30th June, 1893.

Months.	Upper Sill.		Months.	Upper Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1892.	ft. in.	ft. in.	1893.	ft. in.	ft. in.
July.....	16 2	15 2	January.....	14 10	13 0
August.....	15 11	14 11	February.....	14 4	12 11
September.....	15 5	14 7	March.....	15 5	13 0
October.....	16 5	14 2	April.....	16 3	13 2
November.....	16 2	13 10	May.....	16 2	15 0
December.....	15 8	13 2	June.....	16 3	15 4

Department of Railways and Canals.

APPENDIX No. 17.

ST. PETER'S CANAL.

SUPERINTENDING ENGINEER'S OFFICE,
ST. PETER'S, 15th September, 1893.

SIR,—Herewith I beg to send my annual report for 1892-93, and in explanation of it, I desire to say that there was a parliamentary appropriation of \$8,000 on account of capital for the fiscal year for completing the new wharf at the southern end of the canal, but that wharf was actually completed on the 30th of June, 1892, although the final estimate was only sent in in August following, hence it would I assume, be paid out of the above mentioned appropriation for 1892-93, while it was completed in 1891-92. You will notice in my annual report that there was no work done in 1892-93, on account of "capital."

There was also the channel leading from the canal in Bras d'Or Lake, which was dredged out, by the Public Works Department, in July, 1892; at the request of Mr. McCordack, Superintendent of Dredges, St. John, N. B., I staked the work out, and superintended it, and certified to it when it was completed, but otherwise I had nothing to do with it, nor did I certify to any accounts in connection with it, so I therefore conclude I am not called to make any reference to it in my annual report, and consequently have not done so.

Yours obediently,

WILLIAM McCARTHY,
Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq.,
Chief Engineer Canals,
Ottawa.

SUPERINTENDING ENGINEER'S OFFICE,
ST. PETER'S, 15th September, 1893.

SIR,—I have the honour to submit the annual report of the works in my charge for the fiscal year ending June 30th, 1893.

The work to be executed on account of "income" consisted of completing the removal of the old retaining wall on the west side (1,650 ft. long), as well as the clay behind it, some 51,000 cubic yards, renewing the west tow-path wall in cedar, from one floor below water level to a height of 2 feet above the old wall, thereby dispensing with the necessity of fendering it, removing a point of rock on the tow-path, containing about 200 cubic yards, rebuilding 1,250 feet of road along the west bank of the canal, building about 500 lineal feet (250 cubic yards of dry stone wall between the bridge and the lock, on the west side, riprapping the spoil bank on the southern end of the canal (about 300 cubic yards), and erecting fifteen additional mooring posts, and on account of "revenue," repairing and painting the swing bridge, and repainting bridge masonry, repairing and painting lock gates, and repainting lock masonry, renewing and repairing fifty-eight hanging fenders, raising and repairing freight shed, grading around buildings, repairing and painting lockmaster's house, and outbuildings, clearing and re-sloping part of the east bank of the canal, fencing, repairing roads, reconstructing drains under waiting rooms, regravelling wharfs, etc., there was also some temporary under water repairs made to the track castings, that the gates were run on, &c.

The greater part of the foregoing are about completed, and what remains to be done will be fully completed early next month, the entire west walls (with the

exception of a small piece north of the swing bridge) can then be said to be in first class order, and (with perhaps occasionally some minor repairs) should last for fully twenty years. The tow-path wall, however, on the east side is badly decayed and as the rock behind it is very seamy and broken up, it will be necessary to renew the greater part of it, at an early date, to avert the danger of the rock behind it falling into the canal.

The under water portion of the lock, which I reported fully on last December, is as then explained, very badly worm-eaten, particularly the mitre sills and part of the flooring on the two ends that the gate castings rest on, and in consequence these castings are all more or less broken and out of line, the result being that the rollers refuse to turn, thereby imposing a strain on the winches and chains which they are not capable of sustaining for any lengthened period, besides the extra labour entailed in working them; in their present condition it takes from 4 to 5 men on a single winch, instead of two and already this season two of the winches were broken from overstraining. The gates too are more or less worm-eaten, from the bottom to low water level, and should be repaired at the same time as the mitre sills, the most of them, owing principally to the unevenness and general bad condition of the track castings on which they run, as already explained, are subjected to a severe strain at the collar where it joins the wall, which it was never intended they should have to bear, but on the contrary, should be borne by the "toe-rollers," hence some of the gates in addition to having cedars and "knees" badly strained from this cause are thrown out of plumb, and do not mitre close, but instead, one of them overlaps, thereby allowing a large quantity of water to pass between them, except when the two waters (Atlantic and Bras d'Or Lake) are level. The mitre sills, on the north end particularly, are very badly honey-combed by the worms, and liable if not attended to in time to break way sometimes when the pressure of the gates is on them, which would have the effect of stopping the traffic through the canal until it was repaired, it is therefore in my opinion requisite that the lock should be pumped out without unnecessary delay, and thoroughly repaired throughout, and to overcome the destructiveness of the worms, I would recommend that properly tested creosoted timber be used for that purpose.

There was no work done on this canal during the past year on account of "capital."

Navigation through the canal closed on the 9th of January, and opened again on the 24th of April last.

I have the honour to be, sir,

Your obedient servant,

WM. McCARTHY,
Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq.,
Chief Engineer Canals,
Ottawa.

Department of Railways and Canals.

APPENDIX No. 18.

DEPARTMENT OF RAILWAYS AND CANALS, OFFICE OF INSPECTOR OF CANALS REVENUE, HAMILTON, 21st November, 1893.

SIR,—I have the honour to report that during the fiscal year ending 30th June, 1893, I inspected all offices for the collection of tolls on the Dominion canals.

At dates of inspection detailed returns showing particulars of the revenue collected, were submitted to the department.

The aggregate receipts on account of canal revenue for the fiscal year 1892-93 are \$360,668.83.

For hydraulic and other rents, the receipts for the fiscal year are \$37,598.95.

The exhibit of revenue, classified by districts and offices under subdivisions of tolls, wharfage and storage charges, fines and damages, and other receipts, is as follows:—

WELLAND CANAL.

Collection Divisions.	CANAL REVENUE.				Total Canal Revenue.	Hydraulic and Other Rents.
	Tolls.	Wharfage and Storage.	Fines and Damages.	Other Receipts.		
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Port Colborne	135,710 76			*61 12	135,771 88	72 00
Port Dalhousie.....	64,675 57		142 09	21 22	64,838 88	269 00
Dunnville.....	439 97				439 97	1,600 00
Port Maitland.....	6 80				680 00	
Port Robinson.....	477 05			+158 52	635 57	646 00
St. Catharines.....	766 39		72 78	+164 50	1,003 67	2,863 26
Chippawa.....	29 91				29 91	
Totals.....	202,106 45		214 87	405 36	202,726 68	5,449 26

* Harbour dues. † Dock dues. ‡ House rent, rent of plant.

ST. LAWRENCE CANALS.

Valleyfield.....	1,132 46	*18 75	15 00		1,166 21	1,707 50
Cornwall.....	19,348 36		10 00		19,358 36	800 00
Cardinal.....	788 50		70 00		858 50	2,661 50
Lachine.....	2,066 41	*19 00 18 39		+1,612 43	3,716 23	
Montreal.....	28,515 28	2,686 95	29 00	13,327 55	44,558 78	24,204 14
Kingston.....	15,349 83				15,349 83	
Totals.....	67,200 84	2,743 09	124 00	14,939 98	85,007 91	29,373 14

* Bank dues. † Basin dues.

CHAMBLY CANAL.

Chamblly.....	9,651 00		15 00	1 00	9,667 00	80 00
St. Johns.....	11,461 90				11,461 90	50 00
St. Ours.....	723 30		5 00		728 30	
Totals.....	21,836 20		20 00	1 00	21,857 20	130 00

REVENUE, by districts, of wharfage, fines, &c.—*Concluded.*

OTTAWA RIVER CANALS.

Collection Divisions.	CANAL REVENUE.				Total Canal Revenue.	Hydraulic and Other Rents.
	Tolls.	Wharfage and Storage.	Fines and Damages.	Other Receipts.		
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Ottawa.....	22,786 40				22,786 40	
Grenville.....	16,704 65			16 00	16,720 65	*18 00
Carillon.....	84 01		5 00	12 00	101 01	+3 00
Ste. Anne's.....	1,586 93		5 00		1,591 93	
Totals.....	41,161 99		10 00	28 00	41,199 99	21 00

RIDEAU CANAL.

Ottawa.....	3,486 68	186 32		172 00	3,845 00	1,324 25
Kingston Mills.....	1,066 03				1,066 03	1,047 60
Smith's Falls.....	668 74	4 00	13 00		685 74	190 70
Totals.....	5,221 45	190 32	13 00	172 00	5,596 77	2,562 55

* House rent. † Ground rent.

ST. PETER'S CANAL.

St. Peter's.....	2,948 18				2,948 18	
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MURRAY CANAL.

Brighton.....	619 94				619 94	
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TRENT VALLEY CANALS.

Burleigh Falls.....	61 07				61 07	
Bobcaygeon.....	336 09			44 00	380 09	
Fenelon Falls.....	26 36				26 36	54 00
Hastings.....	23 55				23 55	
Peterboro'.....	147 57				147 57	9 00
Buckhorn.....	73 52				73 52	
Total.....	668 16			44 00	712 16	63 00
Grand Totals.....	341,763 21	2,933 41	381 87	15,590 34	360,668 83	37,598 95

These receipts were balanced by bank remittances in favour of the Receiver General.

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

H. B. WITTON,
Inspector of Canals.

COLLINGWOOD SCHREIBER, Esq.,
Chief Engineer, Railways and Canals.

Department of Railways and Canals

APPENDIX No. 19.

RAILWAYS SUBSIDIZED IN CASH, RAILS OR LAND.

List of Railways receiving a cash subsidy per mile, in a lump sum, or 15 per cent on cost of Tunnel or Bridge; showing the amount of Subsidy granted to each,—amounts paid up to 30th June, 1892,—during the Year ended 30th June, 1893, and during the three months ended 30th September, 1893, respectively; also the total amount paid to the last named date.

No.	Name of Railway.	Estimated length in Miles.	Subsidy granted.	Total Subsidy paid up to 30th June, 1892.	Subsidy paid during the year ended 30th June, 1893.	Total Subsidy paid up to 30th June, 1893.	Subsidy paid up to 30th Sept., 1893.	Total Subsidy paid up to 30th Sept., 1893.
			\$	\$	\$	\$	\$	\$
1	Albert Southern.....	16	51,200 00	50,460 00		50,460 00		50,460 00
2	Baie des Chaleurs.....	70	620,000 00	524,175 00		524,175 00	17,325 00	541,500 00
3	Beauharnois Junction.....	7	96,000 00	58,900 00		58,900 00		58,900 00
4	Belleville and North Hastings.....	7	22,400 00	21,888 00		21,888 00		21,888 00
5	Belleville and Lake Nipissing.....	30	96,000 00					
6	Bracebridge and Baysville.....	15	48,000 00					
7	Brantford, Waterloo and Lake Erie.....	18	57,600 00	52,810 00		52,810 00		52,810 00
8	Brookville, Westport and Sault Ste. Marie.....	60	192,000 00	105,200 00		105,200 00		105,200 00
9	Bucoutche and Moncton.....	32	102,400 00	67,020 00		67,020 00		67,020 00
10	Canada Atlantic.....	54, ¹⁷ / ₁₀₀	314,400 00	282,355 20		282,355 20		282,355 20
11	Canada Central.....	120	1,525,250 00	1,525,250 00		1,525,250 00		1,525,250 00
12	Canadian Pacific.....	1,905	25,000,000 00	25,000,000 00		25,000,000 00		25,000,000 00
13	For extension of Canadian Pacific Railway.....		1,500,000 00	1,500,000 00		1,500,000 00		1,500,000 00
14	Cap Rouge and St. Lawrence.....	12	38,400 00					
15	For a line Cape Tourmente towards Murray Bay.....	20	64,000 00					
16	Carasquet.....	67	224,000 00	224,000 00		224,000 00		224,000 00
17	Central Ontario Ry.....	20	64,000 00					
18	Central, N.E.....	44, ⁸ / ₁₀₀	142,400 00	75,639 00		75,639 00		75,639 00
19	Cobourg, Northumberland and Pacific.....	49	156,800 00					
20	Cornwallis Valley.....	14	44,800 00	44,800 00		44,800 00		44,800 00
21	Columbia and Kootenay.....	35	112,000 00					
22	Cumberland.....	14	44,800 00	39,850 00		39,850 00		39,850 00
23	Dominion Lime Co.....	7	22,400 00	15,360 00		15,360 00		15,360 00
24	Drummond County.....	63, ¹⁶ / ₁₀₀	201,920 00	182,405 00	13,435 00	195,840 00		195,840 00
25	Elgin, Pettoodiac and Havelock.....	12	38,400 00	38,400 00		38,400 00		38,400 00
26	Erie and Huron.....	52	166,400 00	96,000 00		96,000 00		96,000 00
27	Esquimaux and Nanaimo.....	71	750,000 00	750,000 00		750,000 00		750,000 00
28	For a line Fredericton via Oromocto and Gagetown to New Brunswick.....	30	96,000 00					
29	Fredericton and St. Mary's.....	1	30,000 00	30,000 00		30,000 00		30,000 00
30	Goderich and Wingham.....	31	99,200 00					
31	Grand Trunk, Georgian Bay and Lake Erie.....	15	48,000 00					

List of Railways receiving a cash subsidy per mile, in a lump sum, or 15 per cent on cost of Tunnel or Bridge, &c.—Concluded.

No.	Name of Railway.	Estimated length in Miles.	Subsidy granted.	Total Subsidy paid up to 30th June, 1892.	Subsidy paid during the year ended 30th June, 1893.	Total Subsidy paid up to 30th June, 1893.	Subsidy paid up to 30th Sept., 1893.	Total Subsidy paid up to 30th Sept., 1893.
			\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
32	Great Eastern	60	229,500 00	40,345 00	.....	40,345 00	.....	40,345 00
33	Great Northern	50	160,000 00	78,688 00	.....	78,688 00	.....	78,688 00
34	Guelph Junction	16	51,200 00	46,000 00	.....	46,000 00	.....	46,000 00
35	Harvey Branch	3	9,600 00	5,553 57	.....	5,553 57	.....	5,553 57
36	Hereford	49	156,800 00	156,200 00	.....	156,200 00	.....	156,200 00
37	International	49	156,800 00	156,800 00	.....	156,800 00	.....	156,800 00
38	Irondale, Bancroft and Ottawa	50	160,000 00	15,000 00	17,000 00	32,000 00	.....	32,000 00
39	Jacques Cartier Union Ry. Co.	.....	20,000 00	.....	.....	.....	.....	.....
40	Joliette to St. Jean de Matha.	8	25,600 00	.....	.....	.....	.....	.....
41	Joggins	18 ^{5/16}	58,400 00	37,500 00	.....	37,500 00	.....	37,500 00
42	Kingston and Pembroke	15	48,000 00	48,000 00	.....	48,000 00	.....	48,000 00
43	Kingston, Napanee and Western	78	288,400 00	192,944 00	1,856 00	11,200 00	.....	11,200 00
44	L'Assomption	9 ^{5/16}	48,000 00	11,200 00	.....	11,200 00	.....	11,200 00
45	For a line from Lachine Bank to Rivière des Prairies.	15	48,000 00	48,000 00	.....	48,000 00	.....	48,000 00
46	Lake Erie and Detroit River	85	342,400 00	118,400 00	.....	118,400 00	42,482 00	160,882 00
47	Lake Temiscamingue Colonization	69 ^{1/16}	240,200 00	52,760 00	.....	52,760 00	.....	52,760 00
48	Leamington and St. Clair	16	51,200 00	51,200 00	.....	51,200 00	.....	51,200 00
49	Lindsay, Bobcaygeon and Pontypool	32	102,400 00	.....	.....	.....	.....	.....
50	Lotbinière and Mégantic	15	48,000 00	.....	.....	.....	.....	.....
51	Manitoulin and North Shore	30	96,000 00	.....	.....	.....	.....	.....
52	Massawippi Junction	25	80,000 00	.....	.....	.....	.....	.....
53	Maskinongé and Nipissing	30	96,000 00	.....	.....	.....	.....	.....
54	Montreal and Sorel	63	112,000 00	93,757 57	.....	93,757 57	.....	93,757 57
55	Montreal and Champlain Junction	45	103,600 00	88,500 00	15,100 00	103,600 00	.....	103,600 00
56	Montreal and Western	70	361,270 00	108,396 00	133,388 00	241,784 00	75,700 00	317,484 00
57	Montreal and Lake Maskinongé	13 ^{5/16}	42,200 00	41,280 00	.....	41,280 00	.....	41,280 00
58	Montreal and Ottawa	60	192,000 00	49,960 00	.....	49,960 00	.....	49,960 00
59	Montfort Colonization	21	67,200 00	.....	.....	.....	.....	.....
60	New Brunswick and Prince Edward	31	118,440 00	113,440 00	.....	113,440 00	.....	113,440 00
61	New Glasgow Iron, Coal and Railway Co.	21	40,000 00	.....	32,945 84	32,945 84	.....	32,945 84
62	Nicola Valley	25	80,000 00	.....	.....	.....	.....	.....
63	Nipissing and James Bay	25	80,000 00	.....	.....	.....	.....	.....
64	Northern and Western	100	320,000 00	312,000 00	.....	312,000 00	.....	312,000 00
65	Northern Pacific Junction	110	1,320,000 00	1,320,000 00	.....	1,320,000 00	.....	1,320,000 00
66	Nova Scotia Central	80	256,000 00	230,700 00	.....	230,700 00	.....	230,700 00
67	Ontario and Pacific	53 ^{5/16}	172,400 00	.....	.....	.....	.....	.....
68	Ontario, Belmont and Northern	10	32,000 00
69	Orford Mountain	31	99,200 00	32,000 00	32,000 00	52,800 00	84,800 00

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70	Oshawa Railway and Navigation Co.	22,400 00	126,372 00	104,380 00	230,752 00	230,752 00
71	Ottawa and Gatineau Valley	320,000 00				
72	Ottawa, Arnprior and Parry Sound	430,400 00				
73	For a line from Ottawa to Morrisburg	166,400 00				
74	Parry Sound Colonization.	128,000 00	30,400 00	38,820 00	59,220 00	59,220 00
75	Pontiac Pacific Junction	337,100 00	174,828 00		174,828 00	174,828 00
76	Philipsburg Junction	21,600 00				
77	Pontiac and Renfrew	19,200 00	13,600 00		13,600 00	13,600 00
78	Port Arthur, Duluth and Western.	287,200 00	157,075 00	113,125 00	271,200 00	271,200 00
79	Quebec Central.	60,342 00	60,342 00		60,342 00	60,342 00
80	Quebec and Lake St. John	1,003,495 00	844,927 73	76,471 77	921,399 50	954,969 50
81	Quebec, Montmorency and Charlevoix	96,000 00	65,600 00		65,600 00	65,600 00
82	Restigouche and Victoria.	15 25				
83	For a line Revelstoke to head of Arrow Lake.	80,000 00				
84	For a line Sand Point, Shelburne Harbour to Annapolis Royal, and to a point at or near Glasgow to Liverpool.	240,000 00				
85	Shuswap and Okanagan.	163,200 00	162,000 00		162,260 00	162,260 00
86	South Norfolk	54,400 00	54,000 00		54,400 00	54,400 00
87	South Ontario Pacific.	158,400 00				
88	St. Catharines and Niagara.	38,400 00	38,400 00		38,400 00	38,400 00
89	St. Eustache to a point on the C. P. R. to Isle Jésus.	38,400 00				
90	St. Eustache to St. Placide.	57,600 00				
91	St. Flavie or Little Métis to Matane.	160,000 00				
92	St. César to St. Paul d'Abbotsford.	16,000 00				
93	St. Clair Frontier Tunnel.	375,000 00	375,000 00		375,000 00	375,000 00
94	St. Lawrence and Lower Laurentian.	217,600 00	217,600 00		217,600 00	217,600 00
95	St. Louis to Richibucto.	22,400 00	22,400 00		22,400 00	22,400 00
96	St. John Valley and Rivière du Loup.	188,800 00				
97	St. Placide to St. Andrew's	23,600 00				
98	St. Rémi to St. Cyrien	38,400 00				
99	St. Stephen and Mill Town.	11,200 00				
100	St. Lawrence and Adirondack.	82,624 00	40,256 00	24,448 00	64,774 00	64,704 00
101	Stewiacke and Lansdowne	236,800 00				
102	Summerside to Richmond Bay	9,600 00				
103	Sydney to Louisbourg	89,600 00				
104	Temisouata	670,800 00	624,800 00	21,150 00	645,950 00	645,950 00
105	Thousand Islands.	54,400 00	10,400 00		10,400 00	10,400 00
106	Tilsenburg, Lake Erie and Pacific.	51,200 00				
107	Tobique Valley	134,400 00	73,000 00	41,674 44	114,674 44	124,799 98
108	Toronto, Grey and Bruce	16,000 00	14,656 00		14,656 00	14,656 00
109	United Counties Railway	102,400 00				
110	Waterloo Junction	35,200 00	32,800 00		32,800 00	32,800 00
111	Western Counties	500,000 00	500,000 00		500,000 00	500,000 00
112	Woodstock via London to Chatham.	256,000 00	256,000 00		256,000 00	256,000 00
113	Woodstock and Centreville.	83,200 00				
	Total.	45,052,501 00	38,068,053 07	624,794 05	38,692,847 12	38,948,519 65

No. 2.—STATEMENT showing Railways receiving Cash Subsidies (not included in Statement No. 1), of fixed amounts, payable Annually or Semi-annually for fixed periods of years, or Interest, in place of or until the Capital granted be paid.

Year.	Designation of Act.	Succession Number on List of Subsidy Grants.	Description of Lines subsidized.	Miles subsidized.	Amount of Subsidy voted.	Amount of Instalment.	Date and Number of Instalment paid.	Total paid.
					\$ cts.	\$ cts.		\$ cts.
1885	48-49 Vic., c. 58.	63	International Railway Co. (Atlantic and North-western), Montreal to Harbours of St. John and Halifax	252		93,300 00 per ½ year for 20 years..	30th June (8)	746,400
1882	45 Vic., c. 55..	5	Chignecto Marine Transport Ry. Co., Ship Railway—Gulf of St. Lawrence to Bay of Fundy	17		85,301 00 do do ..	Nil.	Nil.
1890	53 Vic., c. 2..	171, 198, 239, 244	Kingston, Smith's Falls and Ottawa Railway Co....	56	179,200 00	3,136 00 do do ..	do	do
1888	51 Vic., c. 3..	219	Quebec Central Railway Co.	38	288,000 00	10,595 77 do do ..	do	do
1889	52 Vic., c. 3..	176, 190, 265	St. Catharines and Niagara Central Railway Co.	54	†108,000 00	1,890 00 do do ..	do	do
1882	55-56 Vic., c. 5..	18, 19	Provincial Government of Quebec— Montreal to Quebec..... 159 miles= \$ 954,000 do Ottawa..... 120 do = 1,440,000 }	279	2,394,000 00	*59,850 00	do (17)	1,017,450
			Total.....	676				

* Annual interest at rate of 5 per cent; interest only paid, subsidy still due.

† \$800 short voted in amount specified under the Acts 52 and 53 Vic., as being replaced by the Act 55-56 Vic., c. 5

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No. 3.—STATEMENT showing Railways subsidized by the Grant of Loans.

Succession No. of List of subsidized Grant.	Year.	Designation of Act.	Description of Lines subsidized.	Amount of authorized Loan.	Amount of Loan paid to the Company.	Amount of Loan undrawn.
<i>Loans.</i>				\$	\$ cts.	\$ cts.
95	1886	49 Vic., c. 10.	Albert Railway Co., Salisbury to Hopewell...	15,000	14,725 56	274 44
165	1889	52 Vic., c. 3.	Fredericton and St. Mary's Bridge Co.	300,000	300,000 00	.....
17	1883	46 Vic., c. 26.	St. John Bridge and Railway Extension Co. ...	500,000	433,900 00	66,100 00

No. 4.—STATEMENT showing Railways subsidized by the Grant of certain used Iron Rails valued at the amount set forth, and aid for services performed in transporting men, supplies, material, mails, &c.

Succession No. of List of subsidized Grant.	Year.	Designation of Act.	Tons of used Rails.	Standing in Public Accounts as an Asset.	Paid.	Still due, 30th June, 1893.	
				\$ cts.	\$ cts.	\$ cts.	
143	1888	51 Vic., c. 3.	Central Ry. Co. of New Brunswick ..	4,052	83,612 54	83,612 54	
144			Elgin, Petitcodiac and Havelock Ry.	2,201	44,252 82	44,252 82	
145			Kent Northern Railway of New Brunswick	2,549	58,334 27	58,334 27
146			Halifax Cotton Company Siding	233	4,335 00	4,335 00
147			Steel Company of Canada	597	11,964 66	11,964 66
148			Albert Railway Company	726	14,665 45	14,665 45
149			Chatham Branch Railway	958	24,439 84	24,439 84
Total .....			.....	241,604 58	152,305 20	89,299 38
185	1889	52 Vic., c. 5.	Special Act—Qu'Appelle, Long Lake and Saskatchewan Railway and Steamboat Company.	For transport of men, supplies, materials, and mails for 20 years, \$80,000 per annum.			
230	1890	52 Vic., c. 5.	Special Act—Calgary and Edmonton Railway Company	do	do		

No. 5.—STATEMENT showing Railways subsidized by Grants of Land.

Succession Num- ber on List of Subsidy (Land) Granted.	Year.	Act.	Line subsidized.	Acres per Mile.	Estimated Number of Miles.	Total Grant. — Acres.
22	1889.	52 Vic., c. 4.	Alberta Railway and Coal Co., from Lethbridge to International boundary.	6,400	50	320,000
25	1890.	53 Vic., c. 3.	Alberta and Athabasca Ry. Co., from point on Bow River on C.P.R., or between Calgary and Crow Foot Creek to Town Plot at Edmonton.	6,400	300	1,920,000
10	1887.	50-51 Vic., c. 23.	Brandon and South-western Ry. Co., from point in Township 1, Range 23 or 24, west of 1st Principal Meridian, to Deloraine.	6,400	17	108,800
19	1890.	53 Vic., c. 4.	From Calgary to a point at or near Edmonton.	6,400	190	2,176,000
21	1890.	53 Vic., c. 4.	From Calgary to a point on International boundary.	6,400	150	
17	1890.	53 Vic., c. 4.	From Calgary westerly to point on branch from Brandon running south-westerly.	6,400	60	384,000
18	1890.	53 Vic., c. 4.	Branch from near Brandon on C.P.R. to near Township 3, Range 27, west of 1st Principal Meridian; also from Township 3, Range 27, west of 1st Principal Meridian to Deloraine.	6,400	100	800,000
29	1891.	54-55 Vic., c. 10.	In addition to subsidy grant to line from Brandon, and extension of branch from western end of 100 miles from point La Roche Ferce, situated in Township 1, Range 6, west of 2nd Meridian.	6,400	25	
7	1886.	49 Vic., c. 11.	Canadian Pacific Ry. Co., from Brandon to Battleford.	6,400	60	384,000
16	1889.	52 Vic., c. 4.	North-west Central Ry. Co., from Brandon to Battleford.	6,400	450	2,880,000
23	1890.	53 Vic., c. 4.	Lake Manitoba Ry. and Canal Co. From Portage la Prairie to Lake Winnipegosis, or near Meadow Portage.	6,400	17	908,800
20	1890.	53 Vic., c. 4.	Lac Seul Ry. Co., from point near Shelley Station, C.P.R., to a point near White Mud Lake on Winnipeg River.	6,400	142	
1885.	48-49 Vic., c. 60.	Manitoba and North-western Ry. Co.	From Portage la Prairie to crossing of River Saskatchewan, 20 miles from Prince Albert.	6,400	125	115,200
6	1886.	49 Vic., c. 11.	From near Teoburn to the Assiniboine River near Shellmouth.	6,400	450	3,046,400
3	1885.	48-49 Vic., c. 60.	Winnipeg to Whitewater Lake.	6,400	26	
27	1891.	54-55 Vic., c. 10.	In addition and to complete distance constructed.	6,400	150	1,396,800
28	1891.	do	Carmen to Barnsley	6,400	62	
24	1890.	53 Vic., c. 4.	Manitoba South-eastern Ry. Co., Winnipeg southerly or south-easterly to west side of Lake of the Woods.	6,400	64	704,000
12	1887.	50-51 Vic., c. 23.	Medicine Hat Ry. and Coal Co., from at or near Medicine Hat to Coalfield, Township 12 and 13, Range 6, west of 4th Meridian.	6,400	110	
15	1889.	52 Vic., c. 4.	North-western Railway of Calgary to near Edmonton.	6,400	8	51,200
9	1885.	48-49 Vic., c. 60.	Also Calgary to Lethbridge.	10,000	210	3,900,000
2	1887.	50-51 Vic., c. 22.	Medicine Hat to Coal Banks on Belly River.	10,000	120	418,000
13	1889.	52 Vic., c. 4.	Additional do Dunmore Station to Lethbridge or Belly River.	3,800	40	4,400
				2,600	110	286,000

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5	1885	48-49 Vic., c. 60.	Qu'Appelle, Long Lake (From near Regina to navigable waters of Long Lake.	6,400	22	347	2,220,800
11	1887	50-51 Vic., c. 23.	and Saskatchewan Ry. (From, at or near Laketon, to Elbow of North Saskatchewan,	6,400	325		
14	1889	52 Vic., c. 4.	with branches to Prince Albert and Battleford.....	6,400			
26	1891	54-55 Vic., c. 9.	Red Deer Valley Ry. and (From Cheadle Station, C.P.R., to point near Township 29,	6,400	55		352,000
1	1884	47 Vic., c. 26.	Coal Co. Range 23, west of 4th Meridian. (In Manitoba, Div. A.	6,400	225		1,440,000
1	1884	47 Vic., c. 70.	Winnipeg and Hudson (Winnipeg to Hudson Bay and branch (N.W.T., Div. B.	12,800	425	900	5,540,000
1	1880	43 Vic., c. 59.	Bay Ry. and Branch.. (north end Lake Winnipeg to Mani- (Manitoba, Div. C.	6,400	250		1,600,000
8	1886	49 Vic., c. 11.	Wood Mountain and Qu'Appelle Ry. Co., from Wood Mountain <i>via</i> Qu'Appelle and Fort- Qu'Appelle to the Manitoba and North-western Railway.....	6,400	240		1,536,000

APPENDIX No. 20.

STATEMENT of Contracts entered into during the Fiscal Year ended 30th June, 1893.

1. SUBSIDIZED RAILWAYS.

No. of Contract.	Name of Contractor.	Date of Signature.	General Description.
11326	Thousand Islands Railway Co.	30th Nov., 1892.	From Gananoque Junction, on company's line, to a point connecting with the Brockville, Westport, and Sault Ste. Marie Railway, the Kingston, Napanee and Western Railway, the Kingston, Smith's Falls and Ottawa Railway, or waters of Rideau Canal, and an extension across mouth of Gananoque River.
11327	Ontario, Belmont and Northern Railway Co.	9th March, 1893.	From Belmont iron mines to Junction, in Hastings, of Central Ontario Railway and Canadian Pacific Railway.
11342	Ottawa, Arnprior and Parry Sound Railway Co.	8th Nov., 1892.	From Barry's Bay towards the Northern Pacific Junction Railway.
11384	Lake Erie and Detroit River Railway Co.	20th Dec., 1892.	From Cedar Creek to Ridgetown.
11362	New Glasgow Iron, Coal and Railway Co.	23rd Nov., 1892.	From Eureka Junction on I. C. Railway to Sunnybrae.
11177	Manitoba and South Eastern Railway Co.	3rd June, 1892.	<i>Land Subsidy</i> —From Winnipeg to N.W. angle of Lake of the Woods.
11452	Philipsburg Junction Railway and Quarry Co.	27th Feb., 1893.	From Stanbridge Station to Philipsburg.
11463	Terminal City Railroad Co.	25th do 1893.	To connect Eastern Extension Railway with Middle Milford, to Strait of Canso (not subsidized).
11533	Montfort Colonization Railway Co.	16th May, 1893.	From St. Sauveur to Montfort and westward.
11544	Red Deer Valley Railway and Coal Co.	17th June, 1893.	<i>Land Subsidy</i> —From Calgary to Township 29, R. 23, W. of 4th Meridian.
11554	Lotbinière and Megantic Railway Co.	17th July, 1893.	From a point near St. Jean Deschaillons for 15 miles towards Glen Lloyd.
11568	United Counties Railway Co.	19th Aug., 1893.	Iberville to St. Hyacinthe and towards Sorel.
11386	Kingston, Napanee and Western Railway Co.	18th Sept., 1893.	Harrowsmith to Sydenham.

2. INTERCOLONIAL RAILWAY.

11377	Grant & Ross	18th Oct., 1892.	Dwelling apartments at Cedar Hall Station.
11380	G. S. Mayes	26th do 1892.	Cribwork, York Point, St. John, N.B.
11381	J. F. Teed	27th do 1892.	Tanks at Elmsdale, West River and Calhoun.
11383	J. Matheson & Co.	14th Nov., 1892.	Ferry steamer for Strait of Canso.
11405	James Brown	23rd do 1892.	Station at Acadieville, N.B.
11407	Cumberland Railway and Coal Co.	20th June, 1893.	Supply 55,000 tons of coal.
11413	Dussault and Piton	29th Nov., 1892.	Transshipping goods at Chaudière Junction.
11440	A. S. Ross & J. S. Ross	23th Dec., 1892.	Farm crossing gates, &c.
11448	Barrow Hematite Steel Co., Limited	1st March, 1893.	Supply steel rails for I. C. Railway.
11449	Jas. Watson & Co.	22nd Feb., 1893.	do do
11450	do	22nd do 1893.	do Windsor Branch.
11461	Jas. Fleming	28th Jan., 1893.	Steel bridge for Palmer's Pond, east of Dorchester station.
11504	City of St. John, N.B.	28th Feb., 1893.	Extension of I.C.R., harbour front of St. John, N.B.
11504a	do do	6th May, 1893.	Deed of land, &c., for do do
11507	Canada Bridge and Iron Co.	27th Feb., 1893.	Iron bridge on West River, near Antigonish.
11513	Dominion Bridge Co.	2nd Mar., 1893.	Steel bridges, west branch, Barney's River, Dewar's Mills.

Department of Railways and Canals.

APPENDIX No. 20.—Statement of Contracts entered into during the Fiscal Year ended 30th June, 1893—*Continued.*

2. INTERCOLONIAL RAILWAY—*Concluded.*

No. of Contract.	Name of Contractor.	Date of Signature.	General Description.
11523	Canada Bridge and Iron Co.	29th Mar., 1893.	Steel bridge, Ste. Croix River, Windsor Branch.
11532	Jas. Harris & Co. (Limited).	10th do 1893.	50 box freight cars.
11545	St. Lawrence Steam Navigation Co.	5th May, 1893.	Run steamer "Contest" between Rimouski wharf and mail steamers.
11553	Jas. Harris & Co. (Limited).	8th April, 1893.	2 2nd class sleeping cars.
11571	McManus & McDonald.	8th June, 1893.	Construct water front extension of I.C.R., at St. John.
11573	Jas. Brown	14th do 1893.	Construct 2 houses at Assametquagan, for section men.
11585	Max Ungar.	3rd July, 1893.	Laundry work for parlor, sleeping and official cars.
11588	Cumberland Railway & Coal Co.	16th June, 1893.	Supply 85,000 tons coal for I.C.R.
11589	Acadia Coal Co. (Limited).	16th do 1893.	do 35,000 do do
11590	Dominion Coal Co.	16th do 1893.	do 15,000 do do
11591	River Hebert Mining Co.	16th do 1893.	do 5,000 do do
11595	Canada Coal and Railway Co. (Limited).	16th do 1893.	do 25,000 do do
11596	Intercolonial Coal Mining Co. (Limited).	16th do 1893.	do 25,000 do do

3. GRENVILLE CANAL.

11375	F. Toms.	29th Oct., 1892.	Rebuild 2 wing walls at guard lock.
11432	do	30th Jan., 1893.	Supply stone for dry wall at lock 6.

4. CORNWALL CANAL.

11290	Wm. Davis & Sons.	25th Aug., 1892.	Widen to 100 ft., and deepen to 16 ft. the prism of sections 2, 3, 4, and straighten section 2.
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5. LACHINE CANAL.

10939	Heney & Borthwick.	25th July, 1891.	Drain along north side of canal, at Lachine.
11412	J. B. de Lorimier	13th Nov., 1892.	Supply stone for Wellington St. bridge.
11427	Dominion Bridge Co. (L'd).	18th Jan., 1893.	Swing bridge on line of do Montreal.
11459	do do	13th Feb., 1893.	do do Grand Trunk Ry. do

6. OXFORD AND NEW GLASGOW RAILWAY.

11457	D. P. Kent.	1st Dec. 1892.	Assigns his contract No. 10,503, well boring, to Executors N. C. Calhoun.
11458	Executors N. C. Calhoun.	20th Jan. 1893.	Receipt for \$1,012.61 in full for do do

7. RIDEAU CANAL.

11396	Dominion Bridge Co. Ltd.	6th Dec. 1892.	Steel bridge, Oliver's Ferry.
11469	Brewder & McNaughton.	24th Feb. 1893.	Cribwork (ice breaker) at Hogsback.

8. SAULT STE. MARIE CANAL.

11371	Hugh Ryan & Co.	8th Nov. 1893.	To complete lift lock, &c., 1st July, 1894 (one year sooner).
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APPENDIX No. 20.—Statement of Contracts entered into during the Fiscal Year ended 30th June, 1893—*Concluded.*

9. SOULANGES CANAL.

No. of Contract.	Name of Contractor.	Date of Signature.	General Description.
11419	C. F. Raynor	29th Dec. 1892	Form section 8 of canal.
11421	R. Macdonald	30th Jan. 1893	do 9 do
11423	Rogers & Taylor	24th Dec. 1892	do 10 do
11515	J. & M. O'Leary	27th March, 1893	do 3 do
11518	Geo. Goodwin	9th May, 1893	do 4, 5, 6, 7 of canal.
11520	do	9th do 1893	do 12 of canal.

10. TRENT VALLEY CANAL.

11517	M. Beatty & Sons	29th May, 1893	A boom dredge for canal service.
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11. WILLIAMSBURGH CANALS.

11529	Murray & Cleveland	7th April, 1893	Additional masonry, &c., Galops division.
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12. PRINCE EDWARD ISLAND RAILWAY.

11103	N. Boulter	14th Jan. 1892	Hemlock sleepers.
11104	D. McKenzie	12th do 1892	do do
11105	A. McKinnon	12th do 1892	Cedar posts, sleepers, &c.
11106	R. Ellis, jr.	12th do 1892	do do
11107	W. Taylor	13th do 1892	Cedar and juniper sleepers.
11108	J. R. Larkins	13th do 1892	Hemlock sleepers.
11109	S. E. Gallant	12th do 1892	do do
11110	O. Haywood	12th do 1892	do do
11111	J. T. Windsor	13th do 1892	Cedar sleepers.
11199	Glace Bay Mining Co.	22nd April, 1892	Steam coal for engines.
11202	Patent Nut and Bolt Co., Ltd.	9th May, 1892	Bolts and nuts.
11451	Jas. Watson & Co.	22nd Feb., 1893	Supply steel rails.
11582	Intercolonial Coal Mining Co., Ltd	30th May, 1893	do coal.

Department of Railways and Canals.

GENERAL STATEMENTS

1ST.—WATER POWER AND OTHER PUBLIC PROPERTY LEASED DURING
THE YEAR ENDED 30TH JUNE, 1893.

2ND.—PROPERTY PURCHASED OR DAMAGED DURING THE YEAR
ENDED 30TH JUNE, 1893.

3RD.—AGREEMENTS RESPECTING SUBSIDIES ENTERED INTO DURING
THE YEAR ENDED 30TH JUNE, 1893.

APPENDIX

GENERAL STATE

1st. WATER POWER and other Public Property leased by the Department

Date of Signature of Lease.	Term of Lease.	Lessees.	Property leased.	Area of Property leased.
Dec. 9, '92	Pleasure of the Government.	Midland Ry. of Canada	<i>Trent Valley Canal.</i> Wharf lot, east shore, Lake Katchewanooka, Lakefield.	594 feet. . . .
May 9, '93	do	Patrick Kelly & Sons.	<i>Grenville Canal.</i> Pt. lot 9, Tp. Chatham, No. of lock 4.	50 x 30 feet. . . .
May 29, '93	do	John O. Noyes.	Pt. lot 7, 8, 9 Tp. Chatham, both sides of lock at Chute à Blondeau.	9'50 acres
			<i>Intercolonial Railway.</i>	
	'92 1 year	Int'l. Coal & Ry. Co.	1½ mile of I.C.R., from Co's. Ry. to ½ mile from Sydney station.	1½ miles
	'92 do	do do	From do do to Sydney station.	½ mile.
	'92 Pleasure of the Government.	Pictou Steam Ferry Co., (Ltd).	Water through Co's. pipes at Pictou landing, from I.C.R. tank.	. . . . .
Sept. 16, '92	21 year	S. Grey.	To sell newspapers on P.E.I. Railway.	. . . . .
Dec. 13, '92	21 years.	Windsor and Annapolis Ry. Co., (Ltd).	Use of Windsor branch and running powers on I.C.R., Windsor Junction to Halifax.	. . . . .
June 27, '93	5 years.	Quebec Central Ry. Co.	Room in Co's. station, near Ferry Wharf, Quebec.	. . . . .
Sept. 1, '92	Pleasure of the Government.	Minister of Fisheries.	O.C. transferring wharf lot at Halifax.	. . . . .
			<i>Railways.</i>	
Nov. 6, '92	To end of next Session	C. E. B. Young.	License to operate Elgin, Petitcodiac and Havelock Ry. (Ry. Act, 1888, 51 Vic., c. 29, sec. 279.)	26 miles
May 15, '93	do	do	do (sec. 250) do do	do do
June 1, '93	Up to Dec. '97	Alberta Ry. & Coal Co.	Lease to C.P. Ry. Co. of pt. of their railway from Dunmore to Lethbridge	109½ miles
			<i>Cornwall Canal.</i>	
Aug. 28, '93	21 years renewable.	Canadian coloured cotton Mills Co. (Ltd).	Lots A, B, C, D, Cornwall, as pt. 4, and lots 5, 6, 7, 8.	3'31 acres.
Aug. 9, '93	do	do	Surplus water on Tp. lot 7, 1st con., Cornwall.	. . . . .

Department of Railways and Canals.

No. 21.

MENT SHOWING

of Railways and Canals, during the Fiscal year ended 30th June, 1893.

For what Purpose used.	Amount of Water Power leased.	Date from which Lease is reckoned.	Annual Rental.	Terms of Payment.			Remarks.
				Amount of each instalment	When due each year.	When first instalment was due.	
			\$ cts.	\$ cts.			
Wharf		July 1, '93	1 00	1 00	July 1...	On delivery of lease.	In advance.
Stables		May 1, '93	3 00	3 00	May 1...	May 1, '93	do
Farming		May 1, '93	5 00	5 00	May 1...	May 1, '93	do
.....			1 00	1 00	.....	On executing lease.	
Running powers.			Rates.	.....	Monthly..	do	
Water for st'mr.		Date of lease	100 00	100 00	July 1...	do	
.....		Sept. 1, '92	300 00	25 00	Monthly..	Sept. 5, '92	do
.....		Jan. 1, '93	Rates.	.....	do	.....
I.C. Ry. office ..		May 1, '93	300 00	75 00	Quarterly.	.....
Wharfage		Sept. 1, '91	100 00	100 00	Sept. 1...	Sept. 1, '91	do
Purchaser							
do							
.....							Approved by O. C., July 5, '93.
Cotton mills....	800 horse power.	July 1, '93	Minimum rental. 1,620 00	810 00	Jan. 1...	July 1, '93	In advance, ground rent, \$20; \$2.00 per horse power, up to 1,040 horse power.
do	1,300 horse power.	July 1, '93	2,600 00	1,300 00	Jan. 1...	July 1, '93	Cancels, 3,124 (Stephen's.)

GENERAL STATE

1st. WATER POWER and other Public Property leased by the Department

Date of Signature.	Term of Lease.	Lessees.	Property leased.	Area of Property leased.
<i>Welland Canal.</i>				
Not signed. June 20, '93	'93 Pleasure of the Government.	Erie Glass Co., of Canada, Ltd. Capt. N. J. Wigle	Lot on Welland St., south, Port Colborne. Addnl. lot at St. Catharines, below old lock No. 2.	1'69 acres..... 0'94 acres.....
Feb. 8, '93	1 year	W. H. Andrews	Pt. lot 203, Thorold, Port Robinson.	
April 24, '93	Pleasure of the Government.	Wm. Hutchinson	Lot on east pier, Port Dalhousie, and trestle for coaling vessels.	650".....
Not signed.	'93 1 year	A. & W. Muir	Lot near old lock No. 1, Port Dalhousie.	1 acre.....
April 1, '93	10 years	Canadian Coloured Cotton Mills Co., Lt.	Pt. lot 11, 10th con., Grantham, at Merritton.	2 rods 15 per..
Not signed.	'93 Pleasure of the Government.	L. S. Bessey <i>et al.</i>	2" spyhon pipe over canal bank, St. Catharines.	
June 1, '93		St. Catharines, Grimsby and Toronto Navigation Co., Ltd.	Capt. N. J. Wigle assigns them his lease of 15th July, 1892, water lot at lock No. 2.	0'30.....
<i>Rideau Canal.</i>				
May 8, '93	Pleasure of the Government.	F. Rogers	Pt. lot K, con. C. Nepean, near sublots 37, 38, 39.	
Feb. 17, '93	do	R. C. Lampman	Pt. lot 35, subd. 5, con. B, Nepean	
<i>Lachine Canal.</i>				
Oct. 4, '92	Pleasure of the Government.	G. W. Cameron	Lot 22, W. St. Gabriel basin, No. 2, Montreal.	16,912".....
do 4, '92	do	G. & J. Esplin	Lot 18, E. St. Gabriel basin, No. 3, and 19 W. do 3, Montreal.	33,824".....
Not signed.	'92 do	Montreal Warehousing Co.	Build retaining crib, S. of lot 19, along tail race, Montreal, on lot 20.	
Dec. 22, '92	do	Montreal Gas Co.	Water through 4" pipe from basin 2, to factory on Dalhousie St., Montreal.	
July 20, '92	5 years	Royal Insurance Co. (to Government).	Rooms, in chambers, N. D. St., Montreal.	
May 22, '93	Pleasure of the Government.	Montreal Street Railway Co.	24" pipe, from canal to their works.	
do 31, '93	21 years only.	Dominion Coal Co.	Lot W. of Wellington basin, Montreal.	

Department of Railways and Canals.

MENT SHOWING

of Railways and Canals, during the Fiscal Year ended 30th June, 1893.

For what Purpose used.	Amount of Water Power leased.	Date from which is reckoned.	Annual Rental.	Terms of Payment.			Remarks.
				Amount of each instalment	When due each year.	When first instalment was due.	
			\$ cts.	\$ cts.			
Glass factory		Aug. 1, '92	50 00	50 00	Aug. 1 ...	Aug. 1, '92	In advance.
Pleasure ground.		Jan. 1, '93	5 00	5 00	Jan. 1....	Jan. 1, '93	do
Dry dock.	Water to float vessels.	..... '93	60 00	60 00	do	do '93	do
Coaling vessels		Mar. 1, '93	60 00	60 00	Mar. 1 ...	Mar. 1, '93	do
Day dock	Water to float vessels.	Feb. 1, '93	176 00	88 00	{ Jan. 1. } { July 1. }	July 1, '93	do
Extend weaving room.	2" pipe ...	April 1, '93	20 00	20 00	April 1 ...	April 1, '93	do
Watering cattle.		July 1, '93	1 00	1 00	July 1....	July 1, '93	do
Wharf		do 1, '92	15 00	15 00	do 1....	do 1, '93	do Minister consents, July 3, '93.
Ornamental grds		Mar. 15, '93	2 00	2 00	Aug. 1....	On del. of lease.	In advance, cancels W. D. Morris's lease, 10744.
.....		Jan. 1, '92	2 00	2 00	Jan. 1 ...	do	In advance, cancel, No. 9,919.
Storing lumber.		Oct. 15, '91	169 12	169 12	Oct. 15....	Oct. 15, '91	In advance.
do		May 1, '92	465 08	465 08	May 1....	May 1, '92	do
To protect G. T. siding to Co.'s elevator.		Sept. 1, '92	1 00	1 00	Sept. 1 ...	Sept. 1, '92	do
Gas factory	4" pipe ...	Dec. 1, '92	40 00	40 00	Dec. 1....	Dec. 1, '92	do
Canal office		May 1, '92	1,250 00	312 50	May, Aug, Nov., Feb.	Aug. 1, '93	Quarterly.
Water to power house.	24" pipe ...	Mar. 1, '92	300 00	300 00	Jan. 1....	Jan. 1, '94	Thence in advance.
Shipping coal....		May 1, '92	1,500 00	1,50 00	May 1....	May 1, '93	In advance.

2ND. PROPERTY purchased, or damaged, by the Department of Railways and Canals, during the Fiscal Year ended 30th June, 1893.

Date of Signature.	Who sold to Her Majesty.	Property purchased, &c.		County.	Area of Land.	Amount Paid.	Remarks.
		Lot.	District, &c.				
Jan. 29, 1892.	Geo. Cossett, <i>et al.</i>	Flat.	<i>Annapolis and Digby Railway.</i>	Digby	0.75	\$ 40 00	
Oct. 1, 1891.	G. B. Thomas	Lot					
Aug. 24, 1891.	Thos. Francis	(Pt. 15) (Pt. 17) (Pt. 17a) (Pt. 18)	S. of basin (Annapolis)	do	0.05 0.09 1.66	35 00 4 00	
Dec. 30, 1890.	John A. Cossett.		S. of Joggins	do	{ 0.87 0.05 }	200 00	
July 2, 1890	John Daley, <i>et al.</i>		Digby	do	0.12	500 00	Digby Bathing House Co.
Nov. 24, 1892.	David Pinkney	31	Damages	Annapolis		47 00	Release.
March 27, 1893.	Western Counties Ry. Co.	All claims	Govt. to convey to Co. all rights to line between Annapolis and Digby	do &c.			
July 30, 1892.	J. N. Berry	39, 38a	Clementsport	do	{ 1.47 0.23 }	100 00	do
			<i>Cornwall Canal.</i>				
Oct. 18, 1892	M. Gallinger	W 1 15	1st Con. Cornwall	Stormont	0.75	100 00	
Nov. 14, 1892.	Geo. C. Smith	E 1 15	do	do	0.51	100 00	
April 14, 1893.	Evan Roys	W 1 23	do	do	0.25	60 00	
			<i>Cape Breton Railway.</i>				
Dec. 30, 1892.	M. & A. Campbell.	162, 162½	McKinnon's Harbour	Victoria	0.40	10 00	Release damages,
Jan. 10, 1893	Jos. McKinnon	45	Big Beach	Cape Breton		15 00	do (mortgage).
May 22, 1891.	Eliza Grant, <i>et al.</i>	216½	Ball's Creek	do	1.52	300 00	
July 25, 1889.	Jas. Moffatt, <i>et al.</i>	19½	George's River	do	1.67	30 00	
Nov. 12, 1889.	M. McIntyre, <i>et al.</i>	145c	Boisdale	do	1.10	33 00	

Department of Railways and Canals.

July 22, 1889.	Ann McPherson.	81	Shunacadie	do	1 62	9 72	
do 25, 1889.	John Campbell, et al.	136½	Boisdale	do	2 76	100 00	
Aug. 12, 1889.	Catharine McPhee, et al.	61	Shunacadie.	do	4 93	60 00	
Nov. 12, 1890.	Ann Campbell, et al.	135	Boisdale	do	2 40	100 00	
Feb. 22, 1892.	Jos. A. Gillies.	248	Sydney	do	1 86	803 00	\$101.95 costs. Quit claim deed, 29th Oct., 1887.
do 19, 1892.	A. McKinnon, et al.	10	Grand Narrows	do	7 65	50 00	\$101.95 costs.
May 1, 1891.	R. McKinnon, et al.	10	do	do	7 65	40 00	
Sept. 1, 1890.	C. McDodd, et al.	265	Sydney	do	4 03	1 00	
April 26, 1891.	Geo. Nunn.	274	South Bar	do	0 03	50 00	
July 26, 1889.	C. O'Neil.	167	Ball's Creek	do	0 92	28 60	
Jan. 3, 1890.	Alex. McDonald.	221	Long Island	do	6 88	41 28	
May 23, 1889.	Alex. McLean.	153	Barrassois	do	2 63	15 78	Release of mortgage.
Aug. 23, 1890.	Alex. Moore.	188a	George's River	do	3 80	100 00	
July 23, 1889.	J. McKeagan.	224	North West Arm.	do	0 41	1,250 00	
March 6, 1891.	J. McKenzie, et al.	254a	Sydney	do	2 40	105 00	
May 25, 1890.	Catharine Campbell, et al.	135	Boisdale	do	1 56	25 00	
Nov. 12, 1890.	S. McNeil.	54a	Shunacadie	do	7 65	40 00	\$101.95 costs.
March 3, 1892.	D. McNeil	10	Grand Narrows	do	7 65	40 00	do
May 1, 1891.	H. McKinnon.	10	do	do	0 20	73 00	
Feb. 1, 1888.	Arch. McDonald, et al.	279	Sydney	do	0 12½	150 00	\$80 costs.
March 12, 1892.	C. Chisholm, et al.	276	Maggah's Creek.	do		5 00	Sink drain across Dodd St.
July 18, 1892.	C. E. Leonard.	268, 277, 280	Sydney	do		1 00	Dig a well.
Nov. 23, 1891.	M. Dodd	265	do	do		80 00	Damage to barn and well.
Sept. 12, 1891.	Jas. Gallivan	11	do	do		50 00	Crossing his lot.
June 5, 1891.	John Gillis.	187	George's River	do			
Aug. 13, 1891.	W. H. Dunlop.	207½	Leitch's Creek	do			
April 28, 1893.	Mary McKenzie.	254a	Sydney (reconveying her part of lot)	do			
May 8, 1893.	Mary Johnston, et al.	25	George's River	do	4 17	349 25	\$30 costs.
July 25, 1892.	N. de Veber, et al.	(Harris proper	Intercolonial Railway.	do			
do 25, 1892.	J. P. McIntyre, et al.	do	ty) Portland, City St. John, N. B.	do	{ 0 15	500 00	
March 26, 1892.	T. Barry, et al.	13, 14, letter D & pt. block E. Lot.	do	do	{ 0 25	5,000 00	
June 3, 1888.	Maria Kearney.		Halifax.	Halifax.	0 30		
May 2, 1892.	H. Brodie et al.	3603	Lachine Canal.	Lachine ditch	0 43	2,844 44	Release for damages.
April 13, 1892.	T. C. Somerville	3603	Côte St. Paul, p. Montreal	do		1 00	
June 4, 1892.	Wm. Trenholme	977, 966, 965, 952	do	do	177, 126	9,500 00	Damages, as lessee.
May 25, 1892.	Widow M. Shannon	3604	Parish of Lachine.	do	{ 85,061	10,400 00	
do 23, 1892.	Wm. West, lessee	3604	Côte St. Paul.	do	{ 285,441	3,550 00	
Aug. 29, 1892.	G. B. Burland	3606	do	do	{ 110,158	251 00	do
Sept. 2, 1892.	D. S. Leach et al.	138	St. Augustin Village, p. Montreal	do	{ 89,592	9,500 00	
Feb. 28, 1893.	J. & H. McGee.	915	Parish of Montreal	do	434,643	72 00	
			do Lachine.	do	3,600	3,095 00	
			do	do	86,212		

2ND. PROPERTY purchased or damaged—Continued.

Date of Signature.	Who sold to Her Majesty.	Property Purchased, &c.		Area of Land.	Amount paid.	Remarks.
		Lot.	District, &c.			
Dec. 31, 1890.	T. McTiernan, mortgagee.	Village lot 7	Ottawa River Dams (Cutbate). Bryson, N. of Front St	Pontiac	\$ cts.	Damages, consents that they be paid to W. G. LeRoy, owner.
Nov. 2, 1891.	Jos. Rainville et al.	28	9th r. tp. Grand Calumet.	do	90 00	Damages.
Jan. 30, 1892.	T. C. Gaboury	27	do	do	60 00	do
March 27, 1893.	J. W. Bryson	A 14, 15, 16, 18, 22, 23	2nd r. Mansfield	do	864 00	do
do 20, 1893.	Philip Gillis.	8	R. B. do	do	255 00	do
Jan. 8, 1892.	Jas. Harris.	149	Oxford and New Glasgow Ry. Town gut	Pictou	112 96	
July 18, 1882.	Wm. McLeod.	97, 97½	Hardwood Hill	do	47 30	
Feb. 22, 1892.	John McLean	109	Rogers Hill	do	198 60	
June 7, 1893.	P. Blake et al	E½ and lot 9	Rideau Canal. 5th e. tp. Pittsburg	Kingston Mills wks	40 00	do
April 18, 1892	M. J. Oliver	Lot 3	N. Harvey St., Perth	Tay Canal	1,250 00	do
Aug. 25, 1891.	Indian Department.		Canadian Pacific Ry. O. C. transferring Indian reserves at Siska Flat, Kanaka, Suppel, Lytton, Cook's Ferry and Boothroyd, to Dept. of Railways and Canals.	British Columbia	640 65	
June 29, 1892.	X. Letendre		S½ SW¼ 18 Tp. 8, r. 4 E	Pembina Branch.	10 00	Quit claim.
Sept. 23, 1892	do		NW¼ sec. 7	do	10 00	do
Jan. 13, 1893.	Torrrens certificate		NW¼ & W½ Tp. 8, r. 2 E. (ex F. Thompson)	Pembina Mountain Branch.		

Department of Railways and Canals.

Date	Party	Description	Legal Reference	Particulars	Acres	Price	Remarks
Oct. 31, 1892.	T. Carney and Corporation of Emerson	Emerson, (Judgment of Exchequer Court declaring same vested in Her Majesty.)	2, 3, 4, block 11 7, 9 do 31 1, 2, 3, 4, 5 do 45 1, 2, 3, 4, 5 do 54 1, 2, 3 do 59	Pembina Branch	60 00		
April 10, 1893.	Torrens certificate	Stc. Agathe (J. Nolin & L. H. Peto)	58, 60	do	5-20		
Dec. 10, 1887.	Merchants Bank	do	do	do	6-00		
Oct. 1, 1892.	Her Majesty to the Canadian Pacific Railway Co.	In town plot, Fort William, the Jos. Davidson addition, the Blackwood addition, in tp. Neening.	NW 1/4 & N 1/2 of SW 1/4 19	Lake Superior Section.			Formerly owned by Price Arthur's Landing and Kaunisticquia R. R. Co.
do 4, 1892.	do	Between Prince Arthur's Landing and Fort William.	do	do			
Sept. 30, 1892.	do	In tp. Paipouge	do	do			
do 30, 1892.	do	do Neening	do	do			
June 2, 1890.	Owens & McBean	Exchequer Court declaring it vested in Her Majesty.)	SE 1/4 25	do	62 80		
12 Dec. 13, 1891.	Dept. of Interior	<i>Soulanges Canal.</i>	130	Soulanges.			
do 15, 1892.	Thos. Monro	Power of Attorney to him to sign all deed of lands	do	do			
Feb. 2, 1892.	Joseph Annais	St. Ignace du Coteau du Lac.	Lot 237	Soulanges.	1-13	1,200 00	Transferred by O.C. to Dept Rys. & Canal.
Jan. 20, 1892.	H. E. Watier, et al	do	S. pt. 144	do	4-18	770 00	M. Bowell, Act. Minister
do 26, 1892.	O. E. Watier	do	pt. 147	do	6-03	1,075 00	J. Haggart, Minister.
Feb. 8, 1892.	C. Pilon	do	pt. 148	do	6-80	1,200 00	
Jan. 21, 1892.	M. L. Adams (widow).	do	240	do	18-82	2,250 00	
Feb. 18, 1892.	Bishop of Montreal	do	238	do	3-44	3,500 00	
do 18, 1892.	Synod, Diocese of Montreal	do	239	do	0-43	3,500 00	
April 21, 1892.	Mrs. G. Dauth	do	150	do	5-47	1,100 00	
May 20, 1892.	E. G. French.	do	152, 153	do	10-92	3,075 00	
June 13, 1892.	H. E. Watier, widow, et al.	do	235	do	8-51	3,390 00	
do 18, 1892.	P. Guerin.	do	154, 155	do	9-34	1,950 00	
do 8, 21, 1892.	Her Majesty to D. O'Brien & Son.	Buildings of Gareau Freres, for \$150.	do	do			Sold to them.
Aug. 6, 1892.	S. Filiatreault.	Fence and ditch servitude on lot 236, St. Ignace.	do	do			
do 9, 1892.	Mrs. G. Dauth	do	130	do		200 00	
do 6, 1892.	G. H. Dumesnil (wi low).	do	144	do		500 00	
do 9, 1892.	E. G. French.	do	152	do		260 00	
Dec. 17, 1892.	R. T. Curry	do	241	do		1,200 00	
do 24, 1892.	Jos. Annais	do	241	do		200 00	
Aug. 11, 1892.	G. H. Dumesnil (widow).	do	144	do	36-33	30 00	
		St. Ignace				2,925 00	

2ND. PROPERTY purchased, or damaged, &c.—Continued.

Date of Signature.	Who sold to Her Majesty.	Property purchased, &c.			Area of Land.	Amount paid.	Remarks.
		Lot.	District, &c.	County.			
Nov. 7, 1892.	P. Birmingham, widow <i>et al.</i>	151	<i>Soulanges Canal</i> —Continued.	Soulanges	Acres. 31.95	\$ 2,500 00	Release.
Feb. 14, 1893.	A. M. Giroux	157, 233	do	do	{ 7.35	6,500 00	
do 24, 1893.	P. Guerin	154, 155	(damages and removal)	do	{ 7.28	550 00	
April 7, 1893.	O. Tremblay	{ 1 1	St. Joseph St. Ignace	do	{ 14.57 11.30 10.61	4,550 00	
do 22, 1893.	P. A. Q. V. S. de Beaujeu	4, 5, 6, 9, 10, 11	do	do	{ 5.47 5.31 5.23 5.39 7.04 6.34 5.67	7,500 00	
do 25, 1893.	A. Charest	95, 106	do	do	{ 5.26 14.63	3,750 00	
May 4, 1893.	P. A. Q. V. S. de Beaujeu	13, 14	do	do	{ 5.25	1,500 00	
do 15, 1893.	S. Filiatreault	234	do	do	{ 11.47	5,002 50	
June 4, 1893.	Gareau et Frère	156	do	do	{ 11.65	7,250 00	
do 9, 1893.	Mrs. T. Peltier (Wilson)	16, 24	do	do	{ 4.47 0.51	950 00	
do 19, 1893.	T. Peltier, <i>et al</i> (tuteurs)	15	do	do	{ 5.29	950 00	
do 22, 1893.	Néré Legros	139, 140	do	do	{ 4.04 3.45	1,000 00	
July 5, 1893.	P. C. T. de Montigny	446	St. Joseph	do	{ 6.80	1,500 00	
do 18, 1893.	H. Gauthier	21	St. Ignace	do	{ 0.30	130 00	
Aug. 11, 1893.	H. Lalonde, widow, <i>et al.</i>	127	do	do	{ 0.81	650 00	
Feb. 10, 1893.	A. Calder	Damage to cellar on lot 2, Crescent, Lakefield.	<i>Trent Valley Canal.</i>	Lakefield Dam		55 00	As contractor.
April 6, 1893.	C. Wynn	do to the dams, Young's Point, & Lakefield.		do		3,800 00	

Department of Railways and Canals.

		<i>Williamsbury Canals.</i>					
June	29, 1891	J. F. Farlinger, et al.	A 1st c. Matilda and 38 1st Con. Williamsburg.	Rapide Plat.	0.60	600 00	
do	29, 1891	do	do	do	3.75	5,200 00	
Feb.	2, 1893	S. J. Casselman	1st Con. Williamsburg	do	0.50	1,000 00	
do	2, 1893	W. J. Poupore	do	do	0.177	2,200 00	
do	2, 1893	C. A. Snyder	Block 99, Morrisburg.	do	0.044	1,000 00	
do	2, 1893	Jas. Gillespie	do B	do	0.24	100 00	
do	2, 1893	M. G. Snyder	do B and pt. block C, M'burg.	do	0.24	900 00	
April	5, 1893	H. G. Merkle	1st Con. Edwardsburg.	Galops.	1.78	400 00	
May	22, 1893	John Ward	do	do	0.46	700 00	
do	22, 1893	M. Ward	Indian Reserve, Canborough.	Dunnville, damages	7.00	300 00	Release.
Aug.	31, 1892	M. A. Darling et al.	Dunnville (property)	do	0.50	483 00	do
Oct.	17, 1892	M. A. Smith	1st r. Moulton.	do			do
do	22, 1892	Executor M. Walker et al.	Lots 3, 4, 5, 6, 7, Dockstader tract, Canboro.	do		1,552 00	(and Hon. Sir O. Mowat.
Sept.	3, 1892	Corp. Canboro et al.	Canal St. East, Dunnville.	do		75 00	do
Jan.	13, 1893	Mary Mackay	6th c. Grantham (back ditch)	do	17.00	239 00	do
Feb.	25, 1893	H. C. Fitzgerald et al.	Thorold (parts)	Special ground...	3.36	229 35	Deed.
Mar.	9, 1893	H. Vanderburgh	1 Main St., Petersburg (back ditch)	Dunnville, damages	0.16	25 00	Release.
do	9, 1893	E. L. Rose et al.	4th c., N. Cayuga, br. ft.	do	1.00	52 00	do
May	17, 1893	Hon. T. M. Daly	do	do	0.92	11 96	do
do	17, 1893	do	do	do			do

3RD. AGREEMENTS respecting Subsidies in aid of construction of

Date of Signature.	Name of Railway Company.	Lines of Railways to be constructed,	Acts of Canada granting Subsidy.	Amount of Subsidy.	
				Per Mile.	Not more in all than.
1893.				\$	\$
Mar. 9. 1892.	Ontario, Belmont & Northern.	From Belmont Iron Mines to Junction of Central Ontario Ry. & C. P. Ry.	55-56 V. c. 5	3,200	32,000
Dec. 20. 1893.	Lake Erie & Detroit River.	Cedar Creek to Ridgetown	55-56 V. c. 5	3,200	224,000
Sept. 18. 1892.	Kingston, Napanee & Western.	Harrowsmith to Sydenham	55-56 V. c. 5	3,200	9,600
Nov. 23. 1893.	New Glasgow Iron, Coal & Ry. Co.	Eureka Junction, I.C.R., to Sunnybrae.	55-56 V. c. 5	3,200	40,000
June 3. 1893.	Manitoba & S. Eastern.	Land Subsidy—Winnipeg to N. W. Angle of Lake of the Woods.	53 V. c. 4	6,400 acres per mile.	
Feb. 27. 1893.	Philipsburg Junction Ry. & Quarry Co.	Stanbridge to Philipsburg	55-56 V. c. 5	3,200	21,600
May 16. 1893.	Montfort Colonization.	St. Sauveur to Montfort and westward	55-56 V. c. 5	3,200	67,200
July 17. 1893.	Lotbinière & Megantic.	St. Jean Deschaillons towards Glen Lloyd.	55-56 V. c. 5	3,200	48,000
Aug. 19. 1893.	United Counties.	Iberville to St. Hyacinthe, &c	56 V. c. 2	3,200	102,400
June 17. 1893.	Red Deer Valley Ry. & Coal Co.	Land Subsidy—Calgary to tp. 29 R. 23 W. of 4th Meridian.	52 V. c. 4 54-55 V. c. 9 and 76 48-49 V. c. 60	6,400 acres per mile, in all 356,400 acres.	
Not signed	Alberta Ry. & Coal Co.	Land Subsidy—Widen guage, 3' to 4' 8 1/2", Dunmore to Lethbridge.	52 V. c. 4 53 V. c. 3 55-56 V. c. 5	3,800 acres per mile.	

OTTAWA, 25th August, 1893.

Department of Railways and Canals.

Railways, entered into during the fiscal year ended 30th June, 1893.

No. of Miles sub- sidiized.	Maximum Grade, Feet per mile.	Radius of Curvature not less than	Width of Clearing each side.	Width of Cuttings.	Embankments.	Steel Rails, lbs. per lineal yard.	When to be com- pleted.	Remarks.
No.	Feet.	Feet.	Feet.	Feet.	Ft.	Lbs.		
10	130	716	33	16	14	56	Aug. 1, 1896..	
58	52 $\frac{7}{65}$	1,430	50	20	15	56	Dec. 1, 1894..	
3	80	955	50	20	15	56	do 1, 1893..	
12 $\frac{1}{2}$	80	955	50	20	15	56	do 1, 1894	
98	53	1,433	50	20	14	56	Sept. 1, 1894..	
6 $\frac{3}{4}$	40	955	50	20	15	56	Mar. 1, 1894	
21	175	573	50	15	12	56	Sept. 1, 1895..	
15	53	2,865	50	20	15	56	Aug. 1, 1894..	
32	53	955	50	20	15	56	do 1, 1895	
55	66, and 88 at Knee Hill Creek.	10° at St. Hyacinthe	50	20	14	56	Nov. 1, 1894..	
110	1' p. c.	1,348	(On top	(In cuttings	14 20	56	Dec. 31, 1893..	

H. A. FISSIAULT.

APPENDIX No. 22.

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 Act 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 Matapedia, on the Intercolonial Railway, to Paspébiac, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 320,000 |
|---|---------|

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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 Have-lock 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 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 Dungannon, 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

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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 mille, 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 mille, 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 Metapediac 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 Indiantown, 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 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

* 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 at Quebec.

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	Boiestown, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$19,200
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 Chaudière Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
61.	For a line of railway from Indiantown <i>via</i> 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.

“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

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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 for 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 <i>via</i> 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 Sandridge, 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
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'Epiphanie, 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 <i>via</i> 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	

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	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 <i>via</i> Douglastown 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
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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
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 Joggins 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 Hagarville 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

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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 Caraquez Railway Company, for seven miles of their railway from Lower Caraquez 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 Parrsboro' 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
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, not 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 nor 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

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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 84 $\frac{3}{4}$ 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
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

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- 148.** To the Albert Railway Company of New Brunswick, a grant as 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, chap. 8, nor 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
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 Quion 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

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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 annum, 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
- 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.”

Department of Railways and Canals.

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 <i>via</i> 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 <i>via</i> 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 <i>via</i> 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
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, <i>via</i> 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

Department of Railways and Canals.

“ 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 portion 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., ch. 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 29 Vic., ch. 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 Victoria, 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, 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 <i>via</i> Charlesbourg 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

Department of Railways and Canals.

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 its 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 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

Department of Railways and Canals.

- 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 Sault 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 Palmer's 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.

"3. 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 payments have been recommended, and copies of all contracts between the Government and the company under which the said subsidies are authorized to be paid.

"4. 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, ch. 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 Ridgetown, 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	

Department of Railways and Canals.

	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 Orangedate, 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 Deschaillons 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 Campbellton 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
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 53 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,

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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.

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|---|--------------|
| 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, Napanec 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 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
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	

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	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, <i>via</i> 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 toward 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 2, 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 Adirondaek 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

" 2. 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 specification, 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 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.

" 3. 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., ch. 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

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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, <i>via</i> 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 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 Monfort 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 Monfort 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

2. 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

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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.

3. 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.

4. 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.

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., cap. 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.
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 each 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:—

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.

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- 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., cap. 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 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.
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.

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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 incumbrance 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 Vic., ch. 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, 1890 (*Assented to 30th September, 1891*):—

26. In lieu of the subsidy in land authorized by the Act fifty-second Victoria, chapter four, 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 fifty-third Victoria, chapter four, 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.”

APPENDIX No. 23.

CANAL STATISTICS

FOR SEASON OF NAVIGATION, 1892.

REVENUE.

The total revenue, exclusive of hydraulic rents for two years, is as follows:—

For 1891.	\$350,351 97
1892.	358,711 04

By comparing the statistics of 1891 with 1892, it will be seen that the gross revenue has increased \$8,359.07.

The increases and decreases are as follows:—

	Increase.	Decrease.
On the Welland Canal.....		\$ 3,925 38
“ St. Lawrence Canals.....	\$ 7,471 32	
“ Chambly Canals.....	1,445 97	
“ Rideau Canals.....		646 75
“ Ottawa Canals.....	2,626 29	
“ St. Peter's Canal.....	1,374 10	
“ Trent Valley Canals.....	98 28	
“ Murray Canal.....		84 76
Total.....	\$ 13,015 96	\$4,656 89
Total increase	\$ 8,359 07	

These figures are somewhat changed by refunds under Orders in Council hereafter referred to.

There were refunded, Welland and St. Lawrence Canal tolls, on grain in 1891, to the amount of \$49,834.98, and in 1892, \$40,030.83, including the amount of \$1,279.62, refunds of Welland Canal tolls on wheat which was ground and the flour exported out of the country, which makes an actual increase of revenue for 1892 of \$18,163.22.

In compliance with the renewed request of forwarders and shippers of Montreal for the continuance of the reduction of tolls on certain agricultural products, His Excellency the Governor General, on the 4th of April, 1892, authorized a refund of canal tolls as follows, viz.:—

That a refund be made of a portion of the canal tolls collected on wheat, Indian corn, pease, barley, rye, oats, flax seed and buckwheat which have been carried through the Welland Canal, and the St. Lawrence Canals to Montreal or to any port east of Montreal, in all cases where the said products so carried are exported, and in such cases only.

That this rebate be such as to reduce the tolls to two cents per ton of the said products or any of them, and that the conditions of such refund be the following:—

That the products aforesaid on which the rebate of tolls may be claimed shall be shown to have been originally shipped for Montreal or for some port east of Montreal and shall be shown to have been carried to Montreal or to some port east of Montreal, and actually sent out of the country.

That the right of this rebate shall not be lost by reason of intermediate transshipment, provided that the place of such transshipment is one within the Dominion of Canada.

Department of Railways and Canals.

That the right to this rebate shall extend to any portions of cargoes lightered at Port Colborne and re-shipped at Port Dalhousie, and also to shipments of the above named products made from any Canadian Lake Ontario port.

That payment of the amount to be refunded be made, from time to time, as cargoes of the said products are despatched for export from Montreal or from some port east of Montreal.

That this Order in Council remain in force for the present year, 1892, only.

This refund was made applicable by Order in Council on the 15th July, 1892, to the above named products when shipped from any Lake Ontario ports.

There were 195,224 tons of grain passed down the Welland Canal and transhipped at Canadian ports to Montreal, and exported out of the country, during the season of 1892, upon which a refund was made of 18 cents a ton, Welland Canal tolls to the amount of \$35,140.32.

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 eleven years, is as follows:—

QUANTITY PASSED DOWN TO MONTREAL.	QUANTITY ON WHICH FULL TOLLS WERE PAID.		
	Tons.	To Ports in Ontario.	Quantity from U.S. Ports to U.S. Ports.
		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

* Of this quantity 17,817 tons of corn and wheat were transhipped at Ogdensburg.

† Of this quantity 4,341 tons of wheat were transhipped at Ogdensburg.

A refund of 10 cents per ton was allowed on grain passed down the Welland and St. Lawrence Canals to Montreal, for 1884, and to June, 1885, and 18 cents per ton from 1st July, 1885, to December, 1891, and 18 cents a ton on the quantity passed down to Montreal and exported out of the country during the season of 1892.

During the last decade the quantity of agricultural products, as above, passed down the Welland and St. Lawrence Canals to Montreal, has increased from 186,814 tons to 261,954 tons; and the quantity passed down the Welland Canal, from United States ports to United States ports, has increased from 121,876 to 201,540 tons

The quantity of barley, corn, oats, pease, rye and wheat, arrived at Montreal via Grand Trunk and Canadian Pacific Railways, for a period of 11 years, is reported as follows:—

For 1882	Tons. 75,026
1883	98,672
1884	142,231
1885	160,821
1886	165,613

	Tons.
For 1887	191,760
1888	113,794
1889	94,943
1890	119,208
1891	184,410
1892	291,680

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 1882	230,055
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

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 SEABOARD 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 1891	320,434
1892	302,899
Showing a decrease of	<u>17,535</u>

The quantity of grain and pease carried to Montreal *via* Canadian Pacific and Grand Trunk Railways, is reported as follows:—

	Tons.
For 1891	184,410
1892	291,680
Showing an increase of	<u>107,270</u>

The quantity of grain arrived at tidewater by New York canals, is reported as follows:—

	Tons.
For 1891	1,055,278
1892	899,313
Showing a decrease of	<u>155,965</u>

The quantity of grain carried to tidewater by the New York railways, is reported as follows:—

	Tons.
For 1891.....	2,356,660
1892.....	4,515,041
Showing an increase of.....	<u>2,158,381</u>

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The increases and decreases for 1892, as compared with 1891 on the several routes, competing for the carrying trade to the seaboard, are as follows:—

	Increase.	Decrease.	Increase.	Decrease.
	Tons.	Tons.	Per cent.	Per cent.
On the St. Lawrence Canals.....		17,535		5.48
do Canadian Pacific and Grand Trunk Railways.....	107,270		58.16	
do New York Canals.....		155,965		14.78
do do Railways.....	2,158,381		91.58	

By reference to Appendix U, it will be seen that the quantity of freight from ports west of Port Colborne to United States ports, on the south of Lake Ontario, has increased from 175,455 tons in 1883, to 330,403 tons in 1892; and the quantity to Ontario ports, between Port Dalhousie and Cornwall, has decreased from 184,502 tons in 1883, to 69,886 tons in 1892. The quantity passed down to Montreal shows an increase from 205,394 tons in 1883, to 267,485 tons in 1892.

TRANSHIPMENT OF GRAIN.

The quantity of grain passed down the Welland Canal in Canadian and United States vessels to Kingston for seven years, is as follows:—

In Canadian vessels, there were in—

	Tons.
1886, 244 cargoes, with an aggregate quantity of.....	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

In United States vessels, there were in—

	Tons.
1886, 97 cargoes, with an aggregate quantity of.....	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

Two Canadian vessels took their cargoes of 924 tons of grain through to Montreal intact in 1892, against three in 1891 with 1,441 tons, and three in 1890 with 1,281 tons.

Twenty-five Canadian vessels lightened their cargoes at Kingston in 1892, against 44 in 1891, and 63 in 1890.

Two hundred and twenty discharged the whole of their cargoes at Kingston in 1892, against 293 in 1891, and 172 in 1890.

The quantity of grain transhipped at Port Colborne in 1892 and the three previous years is given below. The total number of grain laden vessels lightened at this port in 1892, was 74, against 81 the previous year.—

Variety.	1889.	1890.	1891.	1892.
	Bush.	Bush.	Bush.	Bush.
Wheat	37,222	4,310	16,665	68,736
Corn	254,690	773,687	482,802	576,289
Rye	Nil.	Nil.	1,330	2,467
Oats	8,218	44,294	130,276	102,529

The quantity discharged in this port from vessels which did not enter the canal was as follows:—

Variety.	1889.	1890.	1891.	1892.
	Bush.	Bush.	Bush.	Bush.
Wheat	8,608	Nil.	16,628	Nil.
Corn	Nil.	Nil.	Nil.	Nil.
Rye	Nil.	Nil.	Nil.	Nil.
Oats	Nil.	Nil.	Nil.	Nil.

The total quantity of freight moved on the Welland Canal during the season of 1892, was 955,554 tons; of this quantity 929,946 tons was through freight, and 25,608 tons were way or local freight.

WELLAND CANAL.

East and West-bound Freight.

There were 685,348 tons of freight passed eastward, and 270,206 passed westward.

The total quantity of freight passed through the whole length of the Welland Canal during the season of 1892 was 929,946 tons.

Of this quantity 263,680 tons were west-bound and 666,266 tons east-bound freight.

Of the through east-bound freight Canadian vessels carried 245,739 tons and United States vessels carried 420,527 tons; and of the west-bound freight Canadian vessels carried 22,267 tons, and United States vessels carried 241,413 tons.

Of the total quantity of through freight Canadian vessels carried 268,006 tons, and United States vessels carried 661,940 tons.

The total quantity of freight moved on the St. Lawrence Canal during the season of 1892 was 966,755 tons. Of this quantity 518,273 tons were through freight, and 448,482 tons were (way) or local freight.

ST. LAWRENCE CANALS.

East and West-bound Freight.

Of the total quantity of freight passed through the canals during 1892, there were 720,580 tons passed eastward and 246,175 tons passed westward.

The total quantity of through freight was 518,273 tons; of this quantity 486,314 tons was east-bound and 31,959 tons was west-bound.

Of the total quantity of (way) or local freight, 234,266 tons were east-bound and 214,216 tons west-bound freight.

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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 twelve 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

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 twelve years, is as follows:—

	Eastward. Tons.	Westward. Tons.	Total.
1881.....	96,266	97,907	— 194,173
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.....	244,916	239,562	— 484,478
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

The total quantity of freight passed through the Welland Canal from United States ports to United States ports, shows a decrease of 12,735 tons as compared with the previous year; and an increase of 346,892 tons as compared with 1881.

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 tidewater, it will be observed that the quantity carried by the New York canals was 937,999 tons in 1892, against 1,092,355 in 1891 and 1,167,901 in 1890.

The quantities of vegetable food carried by the New York Central, Erie and New York, West Shore and Buffalo Railways being:—

	Tons.		Tons.
In 1892.....	5,913,013	In 1885.....	4,105,594
1891.....	3,565,381	1884.....	3,639,805
1890.....	4,336,199	1883.....	4,422,461
1889.....	3,654,984	1882.....	3,888,557
1888.....*	3,197,634	1880.....	4,732,385
1887.....	3,847,766	1869.....	1,087,809
1886.....	3,802,262		

* Flour and grain only.

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-two 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	1,305,550	2,343,241	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

The total quantity of freight passed through the several divisions of the canals during the season of 1892 is as follows:—

—	Farm Stock.	Forest, Produce of Wood.	Manu- factures.	Merchandise	Agricultural Products.	Total.
Welland	92	140,175	15,182	271,536	528,569	955,554
St. Lawrence	913	112,523	51,052	337,595	464,672	966,755
Chambly	255	162,216	3,833	96,370	8,092	270,766
Ottawa	1,070	628,449	320	8,010	9,162	647,011
Rideau	33	73,443	2,916	16,154	3,820	96,366
St. Peter's		4,572		41,684	12,786	59,042
Murray	52	6,203	660	3,057	3,757	13,729
Trent Valley		22,317	26	170		22,513

The total quantity of freight moved on the Welland was 955,554 tons, of which 528,569 tons were agricultural products.

On the St. Lawrence Canals, the total quantity of freight moved was 966,755 tons, of which 464,672 tons were agricultural products, and 337,595 tons were merchandise.

On the Ottawa Canals, the total quantity of freight moved was 647,011 tons, of this quantity 628,449 tons were the produce of the forest.

The total quantity of freight moved on all the canals for the season of 1892 was 3,031,736 tons.

Department of Railways and Canals.

NORWAY TO CHICAGO.

During the month of May the steamship "Wengerland," of Bergen, Norway, passed up the St. Lawrence and Welland Canals with a cargo of fish from Norway to Chicago, and returned on the 6th of June with a cargo consisting of 176 tons of flour, 294 tons of wheat and 29 tons of meat.

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 1881.....	18·5
1869.....	47·0	1882.....	19·0
1870.....	38·9	1883.....	18·7
1871.....	38·9	1884.....	19·0
1872.....	40·1	1885.....	17·1
1873.....	34·9	1886.....	16·9
1874.....	31·7	1887.....	16·3
1875.....	28·4	1888.....	18·8
1876.....	24·6	1889.....	15·1
1877.....	28·3	1890.....	13·9
1878.....	27·1	1891.....	13·4
1879.....	23·7	1892.....	9·8
1880.....	25·1		

The quantity of freight carried by the canals and railways was greater in 1892 by 5,094,390 tons than the quantity carried in 1891 and an increase of 31,165,395 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	·389%
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

Average freight rates, grain, Chicago to Buffalo:—

Year.	Wheat.	Year.	Wheat.
1878.....	3·1	1887.....	4·1
1879.....	4·7	1888.....	2·7
1880.....	5·7	1889.....	2·5
1881.....	3·2	1890.....	1·9
1882.....	2·5	1891.....	2·5
1883.....	3·5	1892.....	2·2
1884.....	2·1		
1885.....	2·0	Average fifteen years.	3·1
1886.....	3·6		

Handling charge to vessel on grain, \$3.50 to \$4.00 per 1,000 bushels.

“Wheat was shipped from Duluth to Kingston, Ont., during the season of 1887, at 6¼ to 7¼ cents; in 1888, at 4 to 5 cents; in 1889, at—; in 1890, at 5¼, 5½, 4½, 4¼, 4 cents; in 1891, during May, 3¼, 3½, 3, 2½ cents; during June, 3 cents; and on 25th July, 2½ cents; and in 1892, 5 cents in April; 5¼ cents in May; 4 cents in June; 4½ cents in July; 3 cents in August; and 6, 6½ in October, per bushel.”

SAULT STE. MARIE CANAL.

The following is the comparative statement showing the trade through the Sault Ste. Marie Canal, for the years 1891 and 1892:—

Items.		1891.	1892.
Steam and sail vessels.....	Number.	10,191	12,580
Lockages.....	“	4,891	5,867
Tonnage, registered.....	net tons.	8,400,685	10,647,203
do freight.....	“	8,888,759	11,214,333
Passenger.....	Number.	26,190	25,896
Coal.....	net tons.	2,507,532	2,904,266
Flour.....	barrels.	3,780,143	5,418,135
Grain.....	bushels.	39,848,674	42,661,470
Manufactured, and pig iron.....	net tons.	69,741	59,772
Salt.....	barrels.	234,528	41,748
Copper.....	net tons.	69,190	64,993
Iron ore.....	“	3,560,213	4,901,132
Lumber.....	feet.	366,305,000	512,844,000
Silver ore, bullion.....	net tons.	1,731	1,930
Building stone.....	“	44,080	39,698
Unclassified freight.....	“	417,039	459,146
Total valuation of property, 1886.....	\$	69,080,071	95
do do 1887.....		79,031,757	78
do do 1888.....		82,156,019	97
do do 1889.....		83,732,527	15
do do 1890.....		102,214,948	70
do do 1891.....		128,178,208	51
do do 1892.....		133,117,267	10

ERIE CANAL.

Mr. Hannan, Superintendent of Public Works, Albany, reports on the traffic through the Erie Canal, for 1892, as follows:—

TONNAGE.

“The whole number of tons of freight carried upon the canals of this state for the season of 1892 was 4,281,995 tons, and was composed of the following described classes of articles:—

Produce of the forest.....	Tons.	1,249,381
Agriculture.....		1,038,851
Manufactures.....		125,781
Merchandise.....		292,468
Other articles.....		1,575,514
Total.....		4,281,995

Department of Railways and Canals.

"Of the total tonnage moved 2,404,484 tons were through freight, and 1,877,511 tons were way freight, and 2,986,070 tons went east, 1,295,925 tons went west.

"Comparing the tonnage of the past season with that of 1891 there is shown to be a loss of 281,447 tons, which is attributable to the fact that the railroads have advanced their equipments to such a degree that they are able to carry freight as cheaply by rail as it can be done by canal. This is especially so in such articles as grain, stone and clay, anthracite and bituminous coal, and iron and other ores, which, together with lumber, make up ninety per cent of the merchandise usually transported by canal.

"In my annual report submitted to the legislature in 1891, I directed attention to the improvements made by railroads as compared with the improvements made to the canals of this state for the past several years. The statements made then have since been corroborated by the fact that the railroads have been able to carry freight at a rate which would have been unprofitable to the canal boatmen, and in consequence the canal did not get its share of the carrying trade.

"This was the case during the early part of the season of navigation, and was continued for two months. With the ripening of the crops and the consequent shipment of grain to the seaboard, prices became remunerative to the boatmen and the volume of shipments increased.

"It will be noted, however, that as the railway improvements are perfected, the tonnage of the competing railroads increases, while there is a decrease in canal shipments to a greater or less degree.

"The following is the tonnage of the canals and the principal competing lines each year since the abolition of tolls on the canals :—

Year.	Canals.	New York Central Railway.	Erie Railway.
	Tons.	Tons.	Tons.
1883	5,664,056	10,892,440	13,610,623
1884	5,009,488	10,212,418	16,219,598
1885	4,731,784	10,733,499	10,253,489
1886	5,293,982	12,636,435	18,668,235
1887	5,553,805	14,531,726	13,949,260
1888	4,942,948	15,162,812	15,174,009
1889	5,370,369	15,011,541	15,084,132
1890	5,246,102	16,108,441	16,269,656
1891	4,563,472	16,621,567	17,339,140
1892	4,281,995	20,721,752	18,334,716

IMPROVEMENTS.

"What improvements can be made to the canal to meet its wants and place it on a footing to compete with other carrying routes, so as to continue its use as a great freight regulator and to place it in such a condition that it will remain a benefit to the people of the state? This question has agitated the ingenious minds of a great many people. Various methods have been proposed and considered. Among them one method has been to lengthen the locks so as to permit two boats to be locked at once, thereby saving expense to boatmen in transportation by enabling them to tow two boats by using a less number of horses and men, also reducing the time of transportation between Buffalo and tide water. This improvement has been tried, and while it has been of some benefit, it is still inadequate for the occasion.

"There are two other propositions for improvement being offered, one to increase the speed by power other than horses, and the other to increase the capacity of boats by either deepening the canal or raising its banks, thereby enabling it to get a greater depth of water.

"The question of deepening the canal would require a great expenditure of money, as it would cause the rebuilding of all its structures. The propositions of

raising the banks would be the most feasible of either of the suggestions, as the present structures could be utilized by increasing their height. The other proposition is to increase the motive power and thereby increase the speed of boats; this should be considered very favourably. The power to be considered is electricity, for the great natural facilities for generating such power along the line of the canal are very favourable."

The usual detailed statements in explanation of the various points referred to and of in-transit trade are hereto appended.

(From Reports of Geo. F. Stone, Secretary, Board of Trade, Chicago.)

QUANTITY and Value of Exports from Chicago to Canada, by Lake, 1892.

	UNITED STATES VESSELS.		CANADIAN VESSELS.		TOTALS.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		\$ cts.		\$ cts.		\$ cts.
Wheat..... Bush.	1,453,677	1,077,964 48	641,562	494,155 75	2,095,239	1,572,118 23
Corn..... "	1,502,528	712,679 03	748,566	377,647 59	2,251,094	1,090,326 62
Oats..... "	35,925	11,855 00			35,925	11,855 00
Rye..... "	156,870	123,792 60	181,780	132,418 97	338,650	256,211 57
Flax seed..... "	31,675	32,774 08			31,675	32,774 08
Timothy seed..... "			141	185 00	141	185 00
Flour..... Brls.			1,795	8,000 00	1,795	8,000 00
Corn meal..... "	50	150 00			50	150 00
Pork..... "	50	612 50			50	612 50
Beef..... "	20	142 50	709	6,950 00	729	7,092 50
Lard..... "	20	235 12			20	235 12
Gen'l merchandise... Pkgs.			87	870 00	87	870 00
Total value.....		1,960,205 31		1,020,225 31		2,980,430 62

SHIPMENTS of Grain (in-transit and export) from Chicago, by Lake, during 1892.

Shipped to	CORN.		OATS.		WHEAT.	RYE.	TOTALS.
	Export.	In Transit.	Export.	In Transit.	Export.	Export.	
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Christiansand, Norway and Sweden.....					9,800		9,800
Collingwood, Ont.....		21,519					21,519
Kingston, Ont.....	1,786,202		35,925	465,193	2,041,002	230,246	4,057,450
Midland, Ont.....	265,917	1,179,286					1,946,320
Montreal, Que.....	107,662				44,437	108,404	260,503
Port Edward, Ont.....		595,003		212,607			807,610
Prescott, Ont.....	66,313						66,313
Sarnia, Ont.....		395,936		1,016,391			1,412,327
Toronto, Ont.....	25,000						25,000
Totals.....	2,251,094	2,191,744	35,925	1,694,191	2,095,239	338,650	8,606,843

Department of Railways and Canals.

GRAIN FREIGHT BY LAKE AND ERIE CANAL.

The following were the current rates of freight on wheat and corn from Chicago to Buffalo, Ogdensburg or Kingston, and to Montreal (steam); also to New York by Lake and Erie Canal, for each week during the season of navigation in 1892:—

(From Report, Board of Trade, Chicago.)

WEEK ENDING.	TO BUFFALO.		TO KINGSTON.		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	Wheat 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 16.	3 $\frac{3}{4}$	3 $\frac{1}{2}$								
do 23.	2	1 $\frac{1}{2}$								
do 30.	2 $\frac{1}{4}$	2			2 $\frac{3}{4}$	6				
May 7.	2	1 $\frac{1}{2}$			3 $\frac{1}{4}$	6	3 to 4	2 $\frac{3}{4}$ to 3 $\frac{3}{4}$	5 $\frac{1}{4}$ to 6 $\frac{1}{4}$	5 $\frac{1}{4}$ to 6 $\frac{1}{4}$
do 14.	2	1 $\frac{1}{2}$				6	2	1 $\frac{1}{2}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$
do 21.	2	1 $\frac{1}{2}$				6	2	2 $\frac{3}{4}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$
do 28.	1 $\frac{1}{2}$	1 $\frac{1}{2}$				6	2 $\frac{1}{2}$	2 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{1}{2}$
June 4.	1 $\frac{1}{2}$	1 $\frac{1}{2}$					2 $\frac{1}{2}$	2 $\frac{1}{2}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$
do 11.	1 $\frac{1}{2}$	1 $\frac{1}{2}$			2 $\frac{3}{4}$		2 $\frac{1}{2}$	2	4 $\frac{1}{2}$	4 $\frac{1}{2}$
do 18.	2	1 $\frac{1}{2}$	3		2 $\frac{3}{4}$		2 $\frac{1}{2}$	2	4 $\frac{1}{2}$	4 $\frac{1}{2}$
do 25.	2	1 $\frac{1}{2}$	3		2 $\frac{3}{4}$		2 $\frac{1}{2}$	2	5 $\frac{1}{2}$	5 $\frac{1}{2}$
July 2.	2	1 $\frac{1}{2}$	3				2 $\frac{1}{2}$	2	5 $\frac{1}{2}$	4 $\frac{1}{2}$
do 9.	2	1 $\frac{1}{2}$	3			5	2 $\frac{1}{2}$	2 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{1}{2}$
do 16.	2	1 $\frac{1}{2}$	3 $\frac{1}{2}$				2 $\frac{1}{2}$	2 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{1}{2}$
do 23.	2 $\frac{1}{4}$	2	3 $\frac{1}{2}$				2 $\frac{1}{2}$	2 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$
do 30.	2 $\frac{1}{4}$	2	3 $\frac{1}{2}$			5 $\frac{1}{4}$	2 $\frac{1}{2}$	2 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$
Aug. 6.	2	1 $\frac{1}{2}$	3 $\frac{1}{2}$	3 $\frac{1}{2}$			2 $\frac{1}{2}$	2 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{1}{2}$
do 13.	2 $\frac{1}{2}$	2 $\frac{1}{2}$	3 $\frac{1}{2}$				2 $\frac{1}{2}$	3	6 $\frac{1}{2}$	5 $\frac{1}{2}$
do 20.	2 $\frac{1}{2}$	2 $\frac{1}{2}$	4	3 $\frac{1}{2}$	6		3	3 $\frac{1}{2}$	6 $\frac{1}{2}$	6 $\frac{1}{2}$
do 27.	2 $\frac{1}{2}$	2	3 $\frac{3}{4}$	3 $\frac{1}{2}$	6	5 $\frac{1}{4}$	3	2 $\frac{3}{4}$	6 $\frac{1}{2}$	5 $\frac{1}{2}$
Sept. 3.	2 $\frac{1}{2}$	2 $\frac{1}{2}$	3 $\frac{3}{4}$	3 $\frac{1}{2}$	6		3	3 $\frac{1}{2}$	6 $\frac{1}{2}$	6 $\frac{1}{2}$
do 10.	2 $\frac{1}{2}$	2 $\frac{1}{2}$	3 $\frac{3}{4}$		6		3 $\frac{1}{2}$	4	6 $\frac{1}{2}$	6 $\frac{1}{2}$
do 17.	2 $\frac{1}{2}$	2 $\frac{1}{2}$	4				3 $\frac{1}{2}$	4	7 $\frac{1}{2}$	6 $\frac{1}{2}$
do 24.	2 $\frac{1}{2}$	2 $\frac{1}{2}$	4 $\frac{1}{4}$				3 $\frac{1}{2}$	4	7 $\frac{1}{2}$	6 $\frac{1}{2}$
Oct. 1.	2 $\frac{1}{2}$	2 $\frac{1}{2}$					4	4	7 $\frac{1}{2}$	6 $\frac{1}{2}$
do 8.	2 $\frac{1}{2}$	2 $\frac{1}{2}$	4 $\frac{1}{4}$				4	4 $\frac{1}{2}$	7 $\frac{1}{2}$	7 $\frac{1}{2}$
do 15.	2 $\frac{1}{2}$	2 $\frac{1}{2}$	4 $\frac{1}{4}$					4	7 $\frac{1}{2}$	7 $\frac{1}{2}$
do 22.	2 $\frac{1}{2}$	2 $\frac{1}{2}$					4 $\frac{1}{2}$	5 $\frac{1}{2}$	8 $\frac{1}{2}$	8
do 29.	2 $\frac{1}{2}$	2 $\frac{1}{2}$					5 $\frac{1}{2}$	6	8 $\frac{1}{2}$	8 $\frac{1}{2}$
Nov. 5.	2 $\frac{1}{2}$	2 $\frac{1}{2}$					5	6	8 $\frac{1}{2}$	8 $\frac{1}{2}$
do 12.	2 $\frac{1}{2}$	2 $\frac{1}{2}$					4	5	7 $\frac{1}{2}$	8
do 19.	2 $\frac{1}{2}$	2 $\frac{1}{2}$					4	4	7 $\frac{1}{2}$	8 $\frac{1}{2}$
do 26.	2 $\frac{1}{2}$	2 $\frac{1}{2}$					4	5	7 $\frac{1}{2}$	8 $\frac{1}{2}$
Dec. 3.	2 $\frac{1}{2}$	2 $\frac{1}{2}$								

Lake Freight from Chicago to Buffalo on Wheat and Corn, reported as follows, by William Thurstone, Secretary Merchants' Exchange, Buffalo.

STATEMENT showing the dates of the changes in the ruling rates of lake freights on wheat and corn from Chicago during 1892.

1892.		Wheat, bush.	Corn, bush.	1892.		Wheat, bush.	Corn, bush.
		Cts.	Cts.			Cts.	Cts.
April	4	3	2 $\frac{3}{4}$	July	27	2	1 $\frac{3}{4}$
do	6	2 $\frac{3}{4}$	2 $\frac{3}{4}$	Aug.	1	2 to 2 $\frac{1}{4}$	1 $\frac{3}{4}$ to 2
do	8	2 $\frac{3}{4}$	2 $\frac{3}{4}$	do	2	2 $\frac{1}{4}$	2
do	9	2 $\frac{1}{4}$	2	do	5	2 $\frac{3}{4}$	2 $\frac{1}{4}$
do	11	2	2	do	11	2 $\frac{3}{4}$ to 2 $\frac{1}{2}$	2 $\frac{1}{4}$
do	12	2	1 $\frac{3}{4}$	do	12	2 $\frac{1}{4}$	2
do	18	1 $\frac{3}{4}$	1 $\frac{3}{4}$	Sept.	9	2 $\frac{1}{4}$	2 to 2 $\frac{1}{4}$
do	20	1 to 1 $\frac{1}{4}$	1	do	10	2 $\frac{1}{4}$	2 $\frac{1}{4}$
do	21	1 $\frac{1}{4}$	1	do	24	2 $\frac{1}{4}$	2
do	22	1 $\frac{1}{4}$ to 1 $\frac{3}{4}$	1 to 1 $\frac{1}{4}$	Oct.	10	2 $\frac{3}{4}$	2 $\frac{1}{4}$
do	23	1 $\frac{3}{4}$	1 $\frac{3}{4}$	do	11	2 $\frac{3}{4}$	2 $\frac{1}{4}$
do	26	2	1 $\frac{3}{4}$	do	19	2 $\frac{1}{4}$	2
do	29	2 $\frac{1}{4}$	2	Nov.	2	2 $\frac{3}{4}$ to 2 $\frac{1}{4}$	2 $\frac{1}{4}$
May	5	2	1 $\frac{3}{4}$	do	4	2 $\frac{1}{4}$	2 $\frac{1}{4}$
do	21	1 $\frac{3}{4}$	1 $\frac{3}{4}$	do	5	2 $\frac{3}{4}$	2 $\frac{1}{4}$
do	26	1 $\frac{3}{4}$	1 $\frac{3}{4}$	do	11	3	2 $\frac{3}{4}$
June	6	1 $\frac{3}{4}$	1 $\frac{3}{4}$	do	12	2 $\frac{1}{4}$ to 3	2 $\frac{1}{4}$
do	11	2	1 $\frac{3}{4}$	do	14	2 $\frac{3}{4}$	2 $\frac{1}{4}$ to 2 $\frac{3}{4}$
do	30	1 $\frac{3}{4}$ to 2	1 $\frac{3}{4}$	do	15	2 $\frac{3}{4}$	2 $\frac{1}{4}$
July	1	2	1 $\frac{3}{4}$	do	17	2 $\frac{3}{4}$	2 $\frac{1}{4}$
do	23	2 to 2 $\frac{1}{4}$	1 $\frac{3}{4}$ to 2	do	21	2 $\frac{1}{4}$	2
do	25	2 $\frac{1}{4}$	2	do	25 to Dec. 4	2 $\frac{1}{4}$	2 $\frac{1}{4}$
do	26	2 to 2 $\frac{1}{4}$	1 $\frac{3}{4}$ to 2				

NOTE.—Rates from Milwaukee about the same as from Chicago. As a rule oats $\frac{1}{4}$ cent less than corn.

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:—

Grain.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
1883 { Wheat	3.0	2.5	2.5	3.8	4.6	3.8	4.0
{ Corn	2.7	2.2	2.2	3.5	4.3	3.5	3.7
Highest rate, wheat, 1883, 5 $\frac{1}{2}$ ¢.; lowest, 2.2¢.; average for the season, 3 $\frac{3}{4}$ ¢.							
1884 { Wheat	2.2	2.2	2.0	1.9	2.1	2.0	2.3
{ Corn	2.0	2.0	1.7	1.6	1.9	1.6	2.1
Highest rate, wheat, 1884, 3¢.; lowest, 1.6¢.; average for the season, 2.1¢.							
1885 { Wheat	2.1	1.3	1.3	1.8	1.6	3.1	3.2
{ Corn	1.8	1.2	1.1	1.5	1.4	2.2	2.8
Highest rate, wheat, 1885, 3 $\frac{3}{4}$ ¢.; lowest, 1.1¢.; average for the season, 2¢.							
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, 5 $\frac{3}{4}$ ¢.; lowest, 2¢.; average for the season, 3.6¢.							
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, 6¢.; lowest, 3¢.; average for the season, 4.1¢.							
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, 4¢.; lowest, 1.7¢.; average for the season, 2.7¢.							
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, 3.6¢.; lowest, 2¢.; average for the season, 2.5¢.							
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, 2 $\frac{1}{2}$ ¢.; lowest, 1.5¢.; average for the season, 1.9¢.							
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, 5 $\frac{1}{4}$ ¢.; lowest, 1¢.; average for the season, 2.4¢.							
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, 3¢.; lowest, 1¢.; average for the season, 2.2¢.							

Department of Railways and Canals.

LAKE FREIGHTS FROM DULUTH TO BUFFALO ON WHEAT.

The following statement shows the dates of the changes in the ruling rates on wheat from Duluth to Buffalo during the season of 1892, on the dates specified:—

Date, 1892.	Rate.	Date, 1892.	Rate.
	Cents.		Cents.
Opening to May 7.....	3½	Aug. 27.....	3
May 16.....	3¼	Oct. 1.....	3½
June 4.....	2½	do 15.....	3¼
do 18.....	2¼	do 22.....	4
do 25.....	3	Nov. 5.....	3½
July 9.....	3½	do 12.....	4
do 16.....	3 to 3¼	do 17.....	3½
Aug. 2.....	3	do 26.....	3¼
do 6.....	3½	do 30.....	4
do 20.....	2½		

In 1885 the range of freight on wheat, Duluth to Buffalo, was 1½ to 5 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; and in 1892, 2½ to 4 cents per bushel.

The first arrival by lake at Duluth, in 1892 on 21st April, in 1891 on 30th April, in 1890 on 23rd April, in 1889 on 20th April, in 1888 on 12th May, in 1887 on 8th May, and in 1886 on 4th May.

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 year:

Grain.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
1883 { Wheat.....	5·0	4·3	3·9	4·6	6·3	5·5	4·6
{ Corn.....	4·5	3·9	3·6	4·3	5·9	5·0	4·1
Highest rate, wheat, 1883, 6·5c.; lowest, 3·5c.; average for the season, 4·9c.							
1884 { Wheat.....	3·8	3·4	3·6	4·2	4·7	5·0	4·7
{ Corn.....	3·4	3·1	3·2	3·8	4·2	4·4	4·2
Highest rate, wheat, 1884, 5·5c.; lowest, 3·2c.; average for the season, 4·2c.							
1885 { Wheat.....	4·2	3·1	3·0	3·7	3·5	4·2	5·0
{ Corn.....	3·8	2·9	2·8	3·3	3·2	3·9	4·5
Highest rate, wheat, 1885, 6c.; lowest, 3c.; average for the season, 3·8c.							
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, wheat, 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, 4·¾c.; 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, 2¼c.; average for the season, 3·5c.							

NOTE.—Canal free of tolls.

FREIGHTS, 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:—

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	1½
1871.....	61,319,313	12·6	3·1	1½
1872.....	58,703,666	13·0	3·1	1½
1873.....	65,498,955	11·4	3·1	1½
1874.....	55,660,198	10·0	3·1	1½
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	.....	1
1884.....	58,011,800	4·2	.....	1
1885.....	52,671,090	3·8	.....	1
1886.....	75,570,850	5·0	.....	1
1887.....	87,073,570	4·6	.....	1
1888.....	73,977,390	3·4	.....	1
1889.....	* 92,290,550	4·8	.....	1
1890.....	91,994,680	3·8	.....	1
1891.....	135,315,510	3·5	.....	1
1892.....	138,872,560	3·5	.....	1

NOTE.—Prior to 1870 tolls were 6·21 cents a bushel, and the elevating charges 2 cents a bushel.

* Including flax-seed. † Storage varied; five or ten days' limit.

Department of Railways and Canals.

ANNUAL average through 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, from 1880 to 1892.

(Prepared by Secretary of the Board of Trade, Chicago.)

Shipped to	Articles.	1892.	1891.	1890.	1889.	1888.	1887.	1886.	1885.	1884.	1883.	1881.	1880.
Liverpool	Grain	3287	4075	3187	3958	3490	3487	3672	2943	4428	3647	3718	4922
do	Sacked flour	3625	4187	3625	4162	3371	3491	3490	2287	2782	4030	3499	5423
do	Provisions	4585	5531	5109	5846	3748	4073	4415	3508	4674	4183	4670	6871
Glasgow	Grain	3550	4425	3550	4075	3605	3705	3910	3228	2641	.....	3932	.....
do	Sacked flour	3906	4469	4188	4425	3579	3968	3951	3443	.....	.....	4400	5651
do	Provisions	4969	5953	5833	6142	4658	4855	5329	4086	2783	.....	5361	6732
London	Grain	3462	4250	3550	.....	3802	3945	4086	2921	2811	.....	4400	5651
do	Sacked flour	3681	4328	4047	4510	3776	3784	4021	3171	3825	.....	5440	6732
do	Provisions	4688	5953	5813	6196	4570	4781	5471	4046	4891	.....	5550	7385
Antwerp	do	5025	5250	4688	6094	4472	4961	5219	4327	5373	6245	5708	7385
Hamburg	do	5000	5500	5250	6262	5426	5229	5154	3842	5434	6279	5471	.....
Amsterdam	do	5500	6000	5000	6500	5426	5525	5562	4383	5434	6683	.....	.....
Rotterdam	do	5500	6000	5000	6500	5426	5508	5562	4383	5434	6683	.....	.....
Copenhagen	do	6094	6375	5813	6492	5483	5508	5169	4951	5434	7158	.....	.....
Stockholm	do	7219	6938	6094	7500	6071	5865	5543	5468	5908	8255	.....	.....
Stettin	do	6694	6375	6813	6492	5483	5508	5833	5210	5422	7420	.....	.....
Bordeaux	do	6200	7500	6650	7491	5821	6021	5708	5066	5603	6432	.....	.....

THE UNITED STATES IN-TRANSIT TRADE.

(Foreign Commerce, Bureau of Statistics, Washington.)

"The in-transit and transshipment transactions of 1892 were distributed as to countries and ports as follows:—

"Of the value of merchandise received from British North America, amounting to \$23,928,255, \$19,005,704 came from the provinces of Quebec, Ontario, Manitoba and the North-west Territory, and \$4,922,551 from other British possessions.

"The receipts from Europe amounted to \$27,598,909, of which \$21,334,783 came from the United Kingdom, and \$6,264,126 from other parts of Europe. The receipts from the West Indies were valued at \$12,604,194, of which those from Cuba amounted to \$11,054,445.

"Merchandise valued at \$1,260,421 was received from Asia and Oceanica.

"Of the shipments from the United States, articles valued at \$26,704,114 were destined for British North America, \$24,189,181 worth of which were shipped to the provinces of Quebec, Ontario, Manitoba and the North-west Territory. The value of shipments to Europe was \$30,317,164, of which merchandise valued at \$20,141,862 was destined for the United Kingdom. The value of shipments to Mexico was \$4,953,911, and of those to the West Indies, \$4,309,014.

"The value of receipts of in-transit merchandise at leading ports of entry was as follows:—At New York, \$33,812,074; Portland, Maine, \$5,987,065; Boston, \$4,853,428; New Orleans, \$2,563,336; San Francisco, \$841,198; Galveston, \$199,841; and at northern border and lake ports, \$16,949,263.

THE CARRYING TRADE.

"Values of the imports and exports of merchandise, by geographical divisions and of merchandise in the in-transit and transshipment trade, carried in cars and other land vehicles, in American and in foreign steam and sailing vessels, respectively, during the year ended 30th June, 1892, with the percentages of the total value of such merchandise carried in American vessels.

IMPORTS and Exports.

Geographical Divisions.	In Cars and other Vehicles.	In American Vessels.		In Foreign Vessels		Total.	Per cent of American Vessels.
		Steam.	Sailing.	Steam.	Sailing.		
	\$	\$	\$	\$	\$	\$	
Europe	63,842,568	9,634,223	5,932,021	1,146,124,815	76,717,992	1,242,251,619	1 25
North America...	64,835,838	65,642,632	39,844,178	87,112,450	22,185,267	279,620,365	37 72
South America...		39,721,598	20,176,046	107,457,299	16,520,430	183,875,373	32 58
Asia	64,268,818	9,202,553	7,115,038	61,003,808	18,138,384	99,728,601	16 36
Oceanica		3,581,660	16,433,955	8,287,870	10,427,092	38,730,577	51 68
Africa		81,993	2,631,579	4,833,581	2,807,416	10,354,569	26 21
All other countries			176,259	2,769,168	174,079	3,119,506	5 65
Total	72,947,224	127,864,659	92,309,076	1,417,588,991	146,970,660	1,857,680,610	11 85

IN-TRANSIT and Transshipment Trade.

Total received and shipped	48,385,275	20,218,417	503,040	54,373,624	552,756	6139,135,474	14 89
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a. Transported through adjacent foreign territory.

b. Includes \$13,102,362 merchandise carried in vessels of which the nationality and motive power are not known.

Department of Railways and Canals.

“Of the total value of merchandise, amounting to \$327,402,462, imported during the fiscal year, 1892, \$39,726,595 came overland, \$139,139,891 in United States vessels, and \$648,535,976 in foreign vessels; of the total value of merchandise exported, amounting to \$1,030,278,148 there was shipped by land vehicles \$33,220,629, by United States vessels, \$81,033,844, and by foreign vessels, \$916,023,675.

“It thus appears that, of the imports, only 16·82 per cent of the total value, and of the exports only 7·87 per cent, were shipped in United States vessels.

“Analysing the carrying trade in our foreign commerce by geographical divisions, we find the following percentages of total values carried in United States vessels, to wit:—

Geographical Divisions.	Imports from.	Exports to.
	Per cent.	Per cent.
Europe.....	98	1·38
North America.....	38·05	37·19
South America.....	28·42	51·46
Asia.....	16·10	17·41
Oceania.....	55·00	46·76
Africa.....	9·31	44·05
All other countries.....	4·09	10·89

“It will be observed that over \$8,000,000 worth of merchandise is returned as imported and exported from and to Europe and Asia “in cars and other land vehicles.” This apparent inconsistency is explained by the fact that this merchandise was received and shipped through adjacent foreign territory, and the merchandise having crossed the border of the United States in land vehicles, the transportation is necessarily so returned.

“Of the total value of merchandise shipped in the in-transit and transshipment trade, viz., \$139,135,474, \$48,385,275 was carried in cars and other land vehicles, \$20,721,457 in United States vessels, \$54,926,380 in foreign vessels, and \$15,102,362 in vessels, the nationality and motive power of which were not known. Of the total value of merchandise in the trade only 14·89 per cent was carried in United States vessels. The merchandise valued \$15,102,362, returned as shipped in vessels, nationality and motive power not known, is such merchandise as was shipped across the territory of the United States, the transportation by which the same left the last port of the United States for the foreign countries of destination not being known.”

TONNAGE ENTERED AND CLEARED IN THE FOREIGN TRADE OF
THE UNITED STATES.

“The tonnage entered at ports of the United States in the foreign trade during the year ended 30th June, 1892, as compared with 1891 was as follows:—

	1891.		1892.		INCREASE + DECREASE—	
	Number.	Tons.	Number.	Tons.	Tons.	Per cent.
<i>Entered at Sea Ports.</i>						
American—						
Sailing	3,152	1,336,468	3,126	1,427,976	+91,508	+6.84
Steam	2,626	2,333,904	2,01	2,318,675	—15,229	— .65
Total	5,578	3,670,372	5,627	3,746,651	+76,279	+2.08
Foreign—						
Sailing	6,812	2,942,115	6,413	3,044,594	+102,479	+ .35
Steam	5,607	8,782,124	7,210	11,389,235	+2,607,111	+29.69
Total	12,419	11,724,239	13,623	14,433,829	+2,709,590	+23.11
Total entered at sea ports.	18,197	15,394,611	19,250	18,180,480	+2,785,869	+18.10
<i>Entered at Lake Ports.</i>						
American	5,268	710,432	5,285	723,304	+12,872	+1.81
Foreign	9,113	2,099,252	8,609	2,109,640	+10,388	+ .49
Total entered at lake ports	14,381	2,809,684	13,894	2,832,944	+23,260	+ .83

ELEVATOR CAPACITY, RECEIPTS AND RATES AT BUFFALO.

Mr. Thurstone, Secretary of Board of Trade, Buffalo, reports as follows:—

1892.

“Opening of navigation to 10th November. Elevating, receiving, weighing and discharging sound grain, $\frac{3}{8}$ cent per bushel; for storing each ten days or parts thereof, $\frac{1}{4}$ cent per bushel. Above charge to be paid by the consignee of the grain. No grain will be received for transfer. The vessel paying only the shovelling.

“November 10th to close of navigation. For elevating, receiving, weighing and discharging sound grain, per bushel, $\frac{3}{8}$ cent; storing first ten days or parts thereof, per bushel, $\frac{1}{4}$ cent; storing each succeeding ten days or parts thereof, per bushel, $\frac{1}{4}$ cent, until such charge (accumulated after the first ten days) shall amount to 2 cents per bushel, then the grain shall be free of storage until five days after the opening of canal navigation in 1893. On all grain in store before 10th November, 1892, the charge for winter storage will be $\frac{1}{4}$ cent per bushel for each ten days or parts thereof, until such charge (accumulated after 10th November, 1892) shall amount to 2 cents per bushel, then the grain shall be free of storage until five days after the opening of canal navigation in 1893. Above charge to be paid by the grain. No grain will be received for transfer.

“The following are about the charges made by elevators for handling sound car grain:—

“Elevating from cars, including shovelling and storing, five or ten days, or parts thereof, one-half of one cent per bushel. Storage each succeeding ten days, or parts thereof, one-quarter of one cent per bushel. Running to side-bin for delivery to cars and wagons, one-quarter of one cent per bushel. Blowing and cleaning, one-quarter of one cent per bushel.

Department of Railways and Canals.

“The following statement shows the names and storage capacity of the several grain elevators, transfers and floaters of the port of Buffalo:—

Names of Elevators.	Capacity.	Names of Elevators.	Capacity.
	Bushels.		Bushels.
Bennett	801,000	Swiftsum (unused)	
Brown	250,000	Union	130,000
City A	600,000	Watson	600,000
City B	800,000	Wheeler	350,000
C. J. Wells	550,000	Wilkeson	400,000
Coatsworth	1,200,000	William Wells (unused)	
Connecting terminal	950,000		
Dakota	850,000	Total, 36 elevators	15,130,000
Erie Basin (unused)			
Erie Canal (Black Rock)	140,000	Transfer Towers—	
Evans	400,000	Horton	
Exchange	500,000	Hefford	
Frontier	650,000	Chicago	
Flax Seed	65,000	Fulton	
International (Black Rock)	650,000	Merchants'	
Kellogg	600,000	North-west	
Lake Shore (unused)		Western Transit	
Lyon (unused)		Total, 7 transfers	
Marine	125,000		
National and Globe Mills	100,000	Floaters—	
N. Y. L. E. & Western	720,000	Cyclone	
Niagara A	800,000	Buffalo	
Niagara B	1,200,000	Free Canal	
Niagara C	200,000	Free Trade	
Ontario	450,000	Iva. Y. Munn	
Queen City, A., B. and C.	450,000	Marquette	
Richmond	250,000	Total, 6 floaters	
Schreck	50,000		
Sternberg (unused)			
Sturges	300,000		

“Showing a total elevator storage capacity of 15,130,000 bushels of grain; but it may be noted that about twenty per cent should be deducted from this capacity for storage of remnants, working room, and elevators out of repair. The estimated cost of the elevators, transfers and floaters, over \$9,000,000. The transfer capacity for each twenty-four hour would probably aggregate 4,500,000 bushels—that is to say, there are facilities for receiving from lake vessels and railroad, and transporting to canal boats and cars, daily the quantity named from forty-nine elevators, transfers and floaters.

“Of the above list, the connecting terminals, Kellogg, Ontario, Bennett, Niagara B, Dakota, Wilkeson and Evans each have two legs. The terminal, Kellogg and Bennett each have one portable leg, which enables them to work in two hatches of any vessel at the same time. The City B. also has a portable leg, which can be worked in connection with the stationary leg of City A.”

(Circular.)

TOLLS TO BE PAID BY VESSELS PASSING THROUGH THE ST. MARY'S FALLS CANAL.

1892.

Department No. 145.
Bureau of Navigation.

TREASURY DEPARTMENT,
WASHINGTON, D.C., 20th August, 1892.

To Collectors of Customs and others—

For your information and guidance, I append hereto a copy of instructions of this date, addressed to the collector of customs at Marquette, Michigan, relative to tolls to be exacted, under the proclamation of the president, dated the 18th instant, from vessels passing through the St. Mary's Falls Canal.

Sgd., O. L. SPAULDING,
Acting Secretary.

TREASURY DEPARTMENT,

WASHINGTON, D.C., 20th August, 1892.

Collector of Customs, Marquette, Mich.—

SIR,—Your attention is invited to the following proclamation by the president, dated the 18th instant. viz.:—

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA.

A PROCLAMATION.

Whereas, by an Act of Congress, approved 26th July, 1892, entitled "An Act to enforce reciprocal commercial relations between the United States and Canada, and for other purposes," it is provided: "That, with a view of securing reciprocal advantages for the citizens, ports and vessels of the United States, on and after the first day of August, eighteen hundred and ninety-two, whenever and so often as the president shall be satisfied that the passage through any canal or lock connected with the navigation of the St. Lawrence River, the great lakes or the water ways connecting the same, of any vessels of the United States, or of cargoes or passengers in transit to any port of the United States, is prohibited or is made difficult or burdensome by the imposition of tolls or otherwise which, in view of the free passage through the St. Mary's Falls Canal, now permitted to vessels of all nations, he shall deem to be reciprocally unjust and unreasonable, he shall have the power, and it shall be his duty, to suspend, by proclamation to that effect, for such time and to such extent (including absolute prohibition) as he shall deem just, the right of free passage through the St. Mary's Falls Canal, so far as it relates to vessels owned by the subjects of the government so discriminating against the citizens, ports or vessels of the United States, or to any cargoes, portions of cargoes, or passengers in transit to the ports of the government making such discrimination, whether carried in vessels of the United States or of other nations.

"In such case and during such suspension tolls shall be levied, collected and paid as follows, to wit: Upon freight of whatever kind or description, not to exceed two dollars per ton; upon passengers, not to exceed five dollars each, as shall be, from time to time, determined by the president: *Provided*, That no tolls shall be charged or collected upon freight or passengers carried to or landed at Ogdensburg, or any port west of Ogdensburg and south of a line drawn from the northern boundary of the state of New York through the St. Lawrence River, the great lakes and their connecting channels to the northern boundary of the state of Minnesota.

"Sec. 2. All tolls so charged shall be collected under such regulations as shall be prescribed by the secretary of the treasury, who may require the master of such vessel to furnish a sworn statement of the amount and kind of cargo and the number of passengers carried and the destination of the same, and such proof of the actual delivery of such cargo or passengers at some port or place within the limits above named as he shall deem satisfactory; and until such proof is furnished such freight and passengers may be considered to have been landed at some port or place outside of those limits, and the amount of tolls which would have accrued if they had been so delivered shall constitute a lien, which may be enforced against the vessel in default wherever and whenever found in the waters of the United States," and

Whereas the government of the Dominion of Canada imposes a toll amounting to about 20 cents per ton on all freight passing through the Welland Canal in transit to a port of the United States, and also a further toll on all vessels of the United States and on all passengers in transit to a port of the United States, all of which tolls are without rebate. And

Whereas, the government of the Dominion of Canada, in accordance with an order in Council of 4th April, 1892, refunds 18 cents per ton of the 20 cent toll at the Welland Canal on wheat, Indian corn, pease, barley, rye, oats, flaxseed and buckwheat, upon condition that they are originally shipped for and carried to Montreal, or some port east of Montreal for export, and that, if transhipped at an intermediate point, such transhipment is made within the Dominion of Canada, but allows no such nor any other rebate on said products when shipped to a port of the

Department of Railways and Canals.

United States, or when carried to Montreal for export if transhipped within the United States. And

Whereas, the government of the Dominion of Canada, by said system of rebate and otherwise, discriminating against the citizens of the United States in the use of said Welland Canal in violation of the provisions of article 27 of the treaty of Washington, concluded 8th May, 1871. And

Whereas, said Welland Canal is connected with the navigation of the great lakes, and I am satisfied that the passage through it of cargoes in transit to ports of the United States is made difficult and burdensome by said discriminating system of rebate and otherwise, and is reciprocally unjust and unreasonable;

Now, therefore, I, Benjamin Harrison, President of the United States of America, by virtue of the power to that end conferred upon me by said act of congress, approved 26th July, 1892, do hereby direct that from and after 1st September, 1892, until further notice, a toll of 20 cents per ton be levied, collected and paid on all freight of whatever kind or description passing through the St. Mary's Falls Canal in transit to any port of the Dominion of Canada, whether carried in vessels of the United States or of other nations; and to that extent I do hereby suspend from and after said date the right of free passage through said St. Mary's Falls Canal of any and all cargoes or portions of cargoes in transit to Canadian ports.

In testimony whereof I have hereunto set my hand and caused the seal of the United States to be affixed.

Done at the city of Washington this 18th day of August, in the year of our Lord one thousand eight hundred and ninety-two, and of the independence of the United States of America the one hundred and seventeenth.

Sgd., BENJ. HARRISON.

[SEAL.]

By the President,

JOHN W. FOSTER,

Secretary of State.

On the passage through the canal at St. Mary's Falls, in your district, from and after the 1st proximo, of any vessel with cargo, you will exact tolls as provided for above. But no tolls will be charged or collected as regards freight carried to and landed at Ogdensburg, or any port west of Ogdensburg and south of a line drawn from the northern boundary of the state of New York through the St. Lawrence River, the great lakes and their connecting channels to the northern boundary of the state of Minnesota.

The master of every such vessel will be required to furnish a sworn statement, substantially in the form of a manifest, showing the date, the name of the vessel, its destination, the name of the master, and the number of tons and the kind of merchandise carried. If the destination be such as to exempt the vessel from the tolls, you will make entry of the fact in a book with columns exhibiting the particulars specified in the master's statement, and also the amounts chargeable and the amounts paid. On the next arrival of the vessel you will exact the tolls, unless on or before that time, and within one month from her passage through the canal, there shall be furnished to you proof of the actual delivery of the cargo at some port or place within the limits of the United States above specified. Such proof will consist of the certificate of the collector of customs at the port of destination, showing the

entry of the vessel and the landing of the merchandise there. The certificate will be in the following form:—

CERTIFICATE OF LANDING OF CARGO TRANSPORTED THROUGH THE
ST. MARY'S FALLS CANALS.

CUSTOM-HOUSE, PORT OF _____,

COLLECTOR'S OFFICE, _____, 189 .

These are to certify, that there have been delivered at this port from on board the _____, whereof _____ is master, from the port of _____, the following merchandise, *_____ transported through the St. Mary's Falls Canal, viz.:

Witness my hand and seal, this _____ day of _____, 189—.

Collector

* Specify number of tons.

Should the prescribed evidence not be furnished within a period of one month after the passage of the canal by the vessel, you will report the facts to the department, to the end that measures may be taken by it for the recovery of the amounts due.

The tolls collected will be deposited as miscellaneous receipts, and included in a special account forwarded to the first auditor, in which the total amount received each month will be credited, and the amount deposited debited, and will be entered on stub book (Cat. No. 399), with other collections, as "tolls for passage of vessels through St. Mary's Falls Canal, _____ tons of freight, \$_____."

An abstract will accompany each account, showing the name of the vessel and of the master, the number of tons of merchandise, the date of the master's statement, and the date of payment.

Receipts for the amounts paid will be given to the payers.

Respectfully yours,

Sgd., O. L. SPAULDING,

Acting Secretary.

(Circular.)

TOLLS, ST. MARY'S FALLS CANAL.

1892.

Department No. 161.
Bureau of Navigation.

TREASURY DEPARTMENT,

WASHINGTON, D.C., 10th September, 1892.

To Collectors of Customs, Northern, North-eastern and North-western Frontiers:

Tolls, as prescribed by the department's circular No. 145, of 1892, will be collected in the case of vessels passing through St. Mary's Falls Canal, consigned to American ports, but whose manifests state that the cargo is to be exported to Canada, either to be retained there or for export therefrom to a foreign country other than the United States.

When the manifest shows that the final destination of the cargo is the United States, or a foreign place other than Canada, *via* the United States, whether the merchandise be subject to "shippers' orders" or otherwise, the collector will issue landing certificate accordingly, unless upon investigation he shall find that the manifest was made out with intent to defraud the United States, or to conceal the true final destination, and that tolls were properly payable, in each case he will withhold his certificate and take measures for the collection of the tolls due.

Sgd., O. L. SPAULDING.

Acting Secretary.

Department of Railways and Canals.

(Circular.)

TOLLS, ST. MARY'S FALLS CANAL..

1892.
Department No. 166.
Bureau of Navigation.

TREASURY DEPARTMENT, 19th September, 1892.

To Collectors of Customs :

Circular No. 161, of 10th September, 1892, relative to tolls on freight shipped in certain cases to ports in the United States *via* St. Mary's Falls Canal, is hereby suspended, pending further investigation.

Sgd.,

O. L. SPAULDING,

Assistant Secretary.

No. 1.—Total Values of Merchandise received from British North America for Immediate Transit across United States Territory, for the Immediate Transshipment in Ports of the United States to British North America, and so shipped, during each year from 1873 to 1892, inclusive.

YEAR ENDING JUNE 30TH.	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.		Nova Scotia, New Brunswick, and Prince Edward Island.	Quebec, Ontario, Manitoba and the North-west Territories.	British Columbia.	Newfoundland and Labrador.	Total.	
1873.	495,289	12,894,164	5,240		13,394,693		5,282,290	21,320,174	181,720		26,784,184	
1874.	449,655	13,616,344	97,691		14,163,690		7,150,086	19,843,169	317,534		27,310,739	
1875.	443,570	17,342,933	256,074		18,042,577		8,999,596	20,283,639	517,060		29,800,295	
1876.	261,443	22,134,275	195,047	1,137	22,591,902		9,102,600	14,658,358	658,836	94	24,419,888	
1877.	160,658	12,092,619	218,418		12,471,695		2,879,422	15,551,238	544,018	2,475	18,417,153	
1878.	163,978	11,627,114	412,966		12,204,058		951,268	11,436,470	524,013	934	12,912,685	
1879.	194,129	11,606,832	280,079	55	12,081,095		889,539	11,520,877	476,824	2,347	12,869,587	
1880.	215,131	16,782,315	137,271		17,134,717		1,643,716	14,896,663	631,436	288	17,042,103	
1881.	171,383	16,758,108	72,555		17,002,046		1,778,836	20,857,827	719,268	333	23,356,264	
1882.	164,990	28,265,083	113,018	87	28,543,178		2,732,665	34,005,845	855,784	1,190	37,595,484	
1883.	561,791	29,204,031	36,873	25	29,802,820		2,455,557	35,878,389	971,307	7,335	39,312,568	
1884.	656,233	12,574,953	188,041		13,419,227		1,740,900	13,717,466	1,475,883	5,186	22,939,385	
1885.	933,806	12,290,483	308,691	633	13,523,613		1,635,442	16,448,942	1,615,283	781	20,241,079	
1886.	1,165,973	9,303,864	359,104	32,079	10,861,020		2,040,298	16,369,229	1,825,178	6,174	19,700,458	
1887.	1,684,730	9,606,175	213,816		11,504,721		1,621,748	19,930,496	635,841	70	22,187,955	
1888.	1,825,048	6,417,701	372,924	27,134	8,542,817		1,781,028	13,459,169	370,322	1,137	13,611,656	
1889.	2,596,233	8,355,178	294,859	89,853	11,336,123		2,484,937	18,993,957	665,527	2,704	22,146,375	
1890.	3,070,657	12,449,772	306,897	174,584	16,001,910		5,277,210	21,140,138	913,106	4,690	27,335,204	
1891.	3,859,079	15,310,945	422,806	187,640	19,780,470		5,605,614	21,695,992	547,144	34,273	27,983,023	
1892.	4,393,062	19,005,704	201,373	328,116	23,928,255		2,079,783	24,189,181	428,188	6,962	26,704,114	

Department of Railways and Canals.

No. 2.—STATEMENT showing the Total Values of Foreign Merchandise transported in the In-transit and Transhipment Trade of the United States with the British North American Possessions during the Year ended 30th June, 1892.

CUSTOMS DISTRICTS INTO WHICH RECEIVED.		COUNTRIES FROM WHICH RECEIVED.				CUSTOMS DISTRICTS FROM WHICH SHIPPED.				COUNTRIES TO WHICH SHIPPED.							
Alaska.	Nova Scotia, New Brunswick and Prince Edward Island.	Quebec, Ontario and the Northwest Territories.	British Columbia.	Newfoundland and Labrador.	British West Indies.	Alaska.	Nova Scotia, New Brunswick and Prince Edward Island.	Quebec, Ontario and the Northwest Territories.	British Columbia.	Newfoundland and Labrador.	British West Indies.	Alaska.	Nova Scotia, New Brunswick and Prince Edward Island.	Quebec, Ontario and the Northwest Territories.	British Columbia.	Newfoundland and Labrador.	British West Indies.
Baltimore, Md	3,435,894	103,820	18,274					3,435,894	18,274					18,274			
Boston and Charleston, Mass	210,922	53,056	81,070				311,640	4,307,155	16					16			13,615
Buffalo Creek, N.Y.	1,489,295	1,362,690					1,690	1,705	1,885								98,798
ChAMPLAIN, N.Y.	29,808	595,305					42,919	1,300	350					350			628
Detroit, Mich.	947,599	841						29,458	34,649					29,458			
Duluth, Minn.	711,456	4,616,859						709,119	228,480					709,119			
Huron, Minn.		600,102						9,705,473	73,259					9,705,473			1,129,398
New York, N.Y.		383,133						550,807						550,807			11,652
Niagara, N.Y.		1,506,091															
North and South Dakota.		282															
Oswegatchie, N.Y.		6,756,798															
Passamaquoddy, Me.		19,005,704															
Philadelphia, Pa.		201,373															
Portland and Falmouth, Me.		328,116															
Puget Sound, Wash.		774,869															
San Francisco, Cal.																	
Vermont.																	
Totals	4,393,062	19,005,704	201,373	328,116	774,869		2,079,783	24,189,181	428,188	6,962				428,188			1,269,796

Department of Railways and Canals.

FOREIGN COMMERCE OF THE UNITED STATES.

No. 4.—STATEMENT showing the Total Value of Imports and Exports, and of Gold and Silver Coin in Bullion, into and from the United States, by Countries and Customs Districts, during the year ending 30th June, 1893.

IMPORTS AND EXPORTS OF MERCHANDISE BY COUNTRIES.

Order by magnitude of total Imports and Exports.	COUNTRIES.	IMPORTS.				EXPORTS.				TOTAL IMPORTS AND EXPORTS.			
		Value	Percent of total group.	Percent of total Imports.	Percent of total Exports.	Domestic.	Foreign.	Total value.	Percent of total group.	Percent of total Exports.	Value.	Percent of total group.	Percent of total of Imports and Exports.
		\$				\$	\$	\$			\$		
1	<i>Europe.</i>												
	United Kingdom of Great Britain and Ireland	156,300,881	39.91	18.89	498,957,868	5,357,464	499,315,332	58.70	48.46	653,616,213	52.77	35.29	
	<i>British North American Possessions.</i>												
2	Nova Scotia, New Brunswick and Prince Edward Island	5,168,218	2.97	.62	3,387,712	280,178	3,667,890	3.48	.36	8,836,108	3.16	.48	
	Quebec, Ontario, Manitoba, Ruperts Land and the North-west Territory ..	26,999,366	15.51	3.26	35,827,559	1,854,057	37,681,616	35.70	3.65	64,680,982	23.13	3.48	
	British Columbia	2,786,619	1.60	.34	1,790,849	159,432	1,950,281	1.84	.19	4,736,900	1.69	.25	
	Newfoundland and Labrador	380,344	.22	.05	1,574,458	11,743	1,586,201	1.50	.15	1,966,545	.71	.11	
	Total	35,334,547	20.30	4.27	42,680,578	2,305,410	44,985,988	42.52	4.36	80,220,535	28.69	4.32	

FOREIGN CARRYING TRADE.

No. 5.—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 1892, 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		203,700,016	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		228,544,055	134,001,399		279,082,902	121,039,394	507,247,757	255,040,793	762,288,550	66.5	
1861		201,164,855	134,106,098		179,972,733	69,372,180	381,536,788	203,478,278	584,995,066	65.2	
1862		92,274,100	113,497,629		125,421,318	104,317,667	217,635,418	218,015,296	435,710,714	50.0	
1863		109,744,580	143,175,340		132,127,891	199,860,691	241,872,471	343,066,031	584,928,502	41.4	
1864		81,212,077	248,350,818		102,849,409	237,442,730	184,061,486	485,793,548	669,855,034	27.5	
1865		74,385,116	174,170,396		93,017,756	262,859,588	167,492,872	437,010,124	604,412,996	27.7	
1866		112,040,395	393,471,763		213,671,466	351,754,928	325,711,861	685,226,691	1,010,938,552	32.2	
1867		117,299,586	300,622,035		180,625,368	280,708,368	297,634,904	581,330,403	879,165,307	33.9	
1868		122,965,225	248,659,583		175,106,348	301,866,491	297,981,573	590,346,074	848,527,647	36.1	
1869		136,802,024	300,512,231		153,154,748	285,979,781	289,956,772	536,492,012	876,448,784	33.1	
1870		153,237,077	309,140,510		199,732,324	329,786,978	352,969,401	638,927,488	991,896,889	35.6	
1871		163,285,710	363,020,644	7,798,156	190,378,462	392,401,932	353,664,172	755,822,576	1,132,472,258	31.2	
1872		177,286,681	445,416,783	10,015,089	188,044,799	393,929,579	27,650,770	830,346,362	1,212,328,253	28.5	
1873		174,739,884	471,866,765	10,799,430	171,566,758	494,315,886	27,869,978	966,723,651	1,340,899,221	25.8	
1874		14,513,335	405,320,135	8,509,205	174,424,216	533,885,971	23,022,540	350,451,994	1,312,680,640	26.7	
1875		13,083,859	157,872,736	7,304,356	136,385,066	501,838,949	20,388,883	884,788,517	1,119,434,544	25.8	
1876		12,148,667	321,139,500	6,324,487	167,686,467	492,215,487	18,473,154	311,076,171	1,142,904,312	27.2	
1877		151,834,067	329,565,833	6,767,170	164,826,214	530,354,703	17,464,810	859,920,536	1,194,045,627	26.5	
1878		146,499,282	307,407,565	7,511,365	166,551,624	569,583,564	20,477,364	313,050,906	1,210,519,399	25.9	
1879		143,690,363	310,499,599	7,439,862	128,425,339	600,709,633	29,423,685	272,015,692	1,202,708,609	22.6	
1880		15,142,465	503,494,913	5,838,928	109,029,209	720,770,621	20,981,393	258,346,577	1,503,658,404	17.18	
1881		17,193,213	133,631,146	8,259,308	116,955,324	777,162,714	25,452,521	250,586,470	1,269,062,983	16.22	
1882		22,864,948	130,266,826	12,118,371	96,962,919	641,460,967	34,973,317	227,229,745	1,475,181,831	15.40	
1883		23,063,048	136,092,290	25,089,844	104,418,210	694,331,348	48,082,892	240,420,500	1,258,506,024	15.54	
1884		20,140,294	135,046,207	26,873,774	98,652,828	615,287,907	46,714,068	233,699,035	1,408,211,302	16.60	
1885		21,149,476	112,864,052	24,183,239	82,001,661	636,004,765	45,332,775	194,865,743	1,319,717,084	14.76	
1886		24,555,683	118,942,817	19,144,667	78,406,680	581,373,477	43,790,350	197,349,503	1,314,960,966	15.01	

Department of Railways and Canals.

1887.....	27,562,059	121,365,493	543,392,216	21,389,666	72,991,253	621,802,292	48,951,725	194,356,746	1,165,194,508	1,408,502,979	13-80
1888.....	32,209,459	123,525,298	568,222,357	22,147,368	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	32,949,902	77,502,138	747,376,644	73,576,263	202,451,086	1,371,116,744	1,647,139,083	12-29
1891.....	40,932,755	127,471,678	676,511,763	31,923,439	78,968,047	773,589,324	72,856,194	206,439,725	1,450,101,807	1,729,397,006	11-94
1892.....	39,726,595	133,139,891	648,535,976	33,220,629	81,033,844	916,023,675	72,347,224	220,173,735	1,564,589,651	1,857,680,610	11-85

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.

No. 6.—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 1890.

Year ending 30th June.	Received for transit and transhipment from British North American Possessions.			Shipped in transit to or transhipment 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	15,611,656
1889.....	8,303,171	3,032,952	11,336,123	19,299,965	2,849,263	22,149,229
1890.....	13,524,298	2,477,612	16,001,910	24,788,152	2,547,052	29,335,201

NOTE.—This movement forms no part of the import and export trade.

No. 7.—STATEMENT showing the Kinds and Weights of Commodities, the Produce and Manufacture of the United States, exported from the United States through British Columbia via the Canadian Pacific Railway, to China and Japan during the Year ending 30th June, 1892.

(From Reports furnished by the Canadian Pacific Railway, Treasury Department, Washington.)

Articles.	EXPORTED AT PORT OF						
	Neche, N. Dakota.	Ogdensburg, N. Y.	Portland, Oregon.	Richford, Vt.	San Francisco, Cal.	Tacoma, Wash.	Total.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Beans.....					14,160		14,160
Books.....		14,460		580			15,040
Cotton.....		685,703		4,252,390			4,938,093
Canned goods.....		90,840			24,490		115,330
Flour.....			15,451,330		887,800	1,606,000	18,005,130
Ginseng.....	15,560	58,720					74,280
Glass.....				6,690			6,690
Hoops.....	86,520		9,400		15,000		110,920
Leather.....					31,320		31,320
Machinery.....	113,825	101,025		7,440			222,290
Personal effects.....	3,730	7,065		200			10,995
Old glass and iron.....					234,214		234,214
Soap.....					29,610		29,610
Tallow.....					22,980		22,980
Woollens.....		8,000		20,260			28,260
Wire.....				4,220			4,220
Merchandise, not specified.....	2,550	85,982	22,770	16,580	33,550		161,432
Electric goods.....				43,382			43,382
Totals.....	222,185	1,051,795	15,483,500	4,351,742	1,293,124	1,666,000	24,068,346

Department of Railways and Canals.

No. 8.—STATEMENT showing the Kinds and Weights of Commodities imported into the United States, through British Columbia via the Canadian Pacific Railway, from China and Japan, during the Year ended 30th June, 1892.

(From Reports furnished by the Canadian Pacific Railway; Treasury Department, Washington.)

Articles.	IMPORTED AT PORT OF								Total.	
	Buffalo, N. Y.	Detroit, Mich.	Neche, N. Dakota.	Ogdensburg, N. Y.	Paget Sound, Wash.	Portland, Oregon.	Rouse Point, N. Y.	Richford, Vt.		San Francisco, Cal.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	
Beans				7,228		38,620				45,848
Coffee					131,690	51,266			17,400	17,400
Curios			98,032	341,125	265,250	1,826,200		27,350		649,463
Gunnies						418,800				2,031,450
Hemp						290,000				418,800
Jute										260,000
Matting				93,658	10,578	28,210				93,658
Oil										38,788
Personal effects			1,829	1,050						2,879
Rice			905,473	252,977	639,385	1,916,172		16,900	652,000	4,365,007
Silks			2,644	1,035,100						1,034,704
Straw braid				15,978						15,978
Straw					525,000	901,070				1,426,070
Sugar					99,791	501,730				10,009,895
Tea	31,680	248,612	5,307,645	3,741,313	755,173	1,640,154	31,770	47,364		2,808,749
Merchandise, not specified		1,500	28,810	336,184				46,928		
Totals	31,680	250,112	6,344,433	5,824,673	2,366,867	7,582,212	31,770	138,542	669,400	23,239,689

No. 9.—STATEMENT showing the kinds and weights of merchandise shipped over the Canadian Pacific Railway from Eastern Ports of the United States to United States ports on the Pacific Coast during the Year ending 30th June, 1892.

(From reports furnished by the Canadian Pacific Railway ; Treasury Department, Washington.)

Articles.	PORT FROM WHICH SHIPPED.						Total.
	Buffalo, N. Y.	Detroit, Mich.	Neché, N. Dak.	Ogdens- burg, N. Y.	Rouse's Point, N. Y.	Richford, Vt.	
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Agricultural implements.....			47,400				47,400
Advertising matter				21,860			21,860
Blacking						2,712	2,712
Boots and shoes.....	100		39,023	12,128	850	312,017	364,118
Baking powder.....			20,636				20,636
Bricks.....			725,528				725,528
Books.....						100	100
Canned goods.....			1,212,115	24,690		69,290	1,306,095
Candles.....			24,000				24,000
Castings.....		28,000		26,140			54,140
Clothing.....				4,060			4,060
Coffee.....						40,830	40,830
Dairy products.....			43,040				43,040
Dry goods.....			140,809	367,454	2,960	266,240	777,463
Drugs.....			160	9,420			9,580
Earthen, China and glass- ware.....			215,388	24,260		2,130	241,778
Electric supplies.....		24,000	28,400	595		23,520	76,515
Furniture.....			148,535	10,120	9,026	5,649	173,330
Glucose.....			69,310				69,310
Grain.....			26,940				26,940
Hardware.....	452	5,440	473,211	55,370	4,338	34,783	573,594
Hoops.....			24,433				24,433
Household goods.....	560	25,130	148,295	1,820	1,000	40,555	217,360
Iron—							
Bars, &c.....			848,331	67,386	144,866	20,000	1,080,583
Pipe.....			198,950				198,950
Bolts.....			25,100				25,100
Rails.....			283,515				283,515
Leather.....			1,270	1,010		8,750	11,030
Liquor and wines.....			427,240	1,792			429,032
Machinery.....	500	46,250	451,548	87,850		3,200	589,348
Maple sugar.....						2,980	2,980
Musical instruments.....			46,220	140,100	2,363	208,426	397,109
Nails.....			7,300		22,700		30,600
Oatmeal.....			53,870				53,870
Oils.....			1,103,943	30,300			1,134,243
Packing-house products.....			40,560				40,560
Paints.....			34,073			880	34,953
Paper.....	150		375,609	128,375		243,462	747,596
Patent medicine.....			42,140			123,064	165,204
Railway equipments.....			20,000	60,000	60,000		140,000
Roofing, felt.....			46,000	1,010			47,010
Rope, cordage, &c.....			28,120	28,442		98,400	154,962
Rubber goods.....				220		32,440	32,660
Refrigerators.....			16,000				16,000
Starch.....			33,586	198,760			232,346
Soap.....			28,790	460		320	29,570
Steel rails.....			104,550				104,550
Stoves.....			164,925	420			165,345
Syrup.....			189,450				189,450
Street cars.....			134,500				134,500
Stone.....			31,600				31,600
Sheet metal.....						69,510	69,510
Tar.....			30,680				30,680
Tins and stamped ware.....			66,220	26,120		32,000	124,340
Tobacco, cigars, &c.....			91,503	300,365		179,482	571,350
Vehicles.....			47,410			16,105	63,515
Varnish.....			22,900				22,900
Water gates.....		31,000					31,000
Wire.....			25,600				25,600

Department of Railways and Canals.

No. 9.—STATEMENT showing the kinds and weights of merchandise, &c.—*Continued.*

ARTICLES.	PORTS FROM WHICH SHIPPED.						
	Buffalo, N. Y.	Detroit, Mich.	Neché, N. Dak.	Ogdens- burg, N. Y.	Rouse's Point, N. Y.	Richford, Vt.	Total.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Wood—							
Lumber			35,850				35,850
Pulp					24,000		24,000
Woodenware			177,497			26,800	204,297
Waste			44,070				44,070
Miscellaneous	1,217	30	588,702	303,214	29,830	395,086	1,318,079
Total	2,979	159,850	9,254,839	1,933,741	301,933	2,258,731	13,912,073

No. 10.—STATEMENT showing the kinds and weights of merchandise shipped over the Canadian Pacific Railway, from United States ports on the Pacific Coast, to eastern ports of the United States, during the year ending 30th June, 1892.

(From reports furnished by the Canadian Pacific Railway; Treasury Department, Washington.)

ARTICLES.	PORT TO WHICH SHIPPED.						
	Buffalo, N. Y.	Detroit, Mich.	Neché, N. Dak.	Ogdens- burg, N. Y.	Rouse's Point, N. Y.	Richford, Vt.	Total.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Hides			770	21,383			22,153
Hops			48,385	91,650			140,035
Household goods			37,410			300	37,710
Liquors			1,200				1,200
Mincemeat				1,000			1,000
Quicksilver				189,000			189,000
Salmon—							
Canned	26,250	21,000	916,997	323,935	21,210	24,500	1,333,892
Pickled						23,100	23,100
Sugar			2,204,977				2,204,977
Wood—							
Unmanufactured						157,124	157,124
Shingles			7,488,470				7,488,470
Wool				281,603	186,031	1,215,420	1,683,054
Merchandise, not specified..			11,450	150			11,600
Total	26,250	21,000	10,709,659	908,721	207,241	1,420,444	13,293,315

C.—TABLE showing the Tonnage of the undermentioned Articles, moved

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	563,922	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

* Apples, meals, all kinds, pease and potatoes.

Department of Railways and Canals.

on all Canals in the State of New York, during a series of Twenty-two 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	2,289,365
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
1,305,550	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	58,828	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	78,650	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	201,610	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

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

* Fiscal. † Apples, meal, all kinds, pease, potatoes.

Department of Railways and Canals.

the Welland Canal, during a series of Twenty-two Years ended 31st Dec., 1892.

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	4,535	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	8,138	240,349
367,177	127	1,510	2,567	7,953	224,644	3,415	240,316
527,426	163	1,567	878	3,666	211,616	355	218,245

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-four Years.

VEGETABLE FOOD.

Year.	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles *	Total.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Per cent.	Per cent.
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	469,965	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	498,641	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	.....

* Apples, meals, all kinds, pease and 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.	Per cent.	Per cent.
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	1,193	7,053	3,747	243,325	.....	9·14
1875.	1,728	32,690	3,034	75,033	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	51,381	.....	10,598	5,222	93,149	..	65·21
1879.	734	25,740	9,268	71,693	.....	16,623	3,110	127,168	.....	52·51
1880.	951	17,466	15,656	82,743	.....	12,598	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	.....	52·65
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	10,498	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

F.—TABLE showing the Tonnage of the undermentioned Articles cleared downward on the Welland Canal, during a series of Twenty-two Years, ended 31st December, 1892.

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	2,693	7,594	64	2,300	524,889
1873	30,660	345,720	180,042	2,643	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		14,571	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

* Fiscal.

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-two Years, ended 31st December, 1892.

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	89,086	28,566	35,912	285,962	
1872	10,482	124,685	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	13,236	4,659	40,507	170,242	62,942	292,176	
1874	8,250	229,053	125,627	2,944	5,948	500	5,368	374,226	5,742	8,941	22,888	203,673	19,651	290,895	
1875	1,881	113,832	54,188	2,641	2,946	500	1,920	177,908	14	4,123	12,931	192,747	34,616	244,451	
1876	5,187	96,247	58,138	1,905	1,905	525	403	162,405	8,976	5,531	29,305	167,110	25,808	227,844	
1877	3,342	107,306	65,260	1,603	2,314	258	413	180,586	8,976	8,688	8,336	172,868	41,107	239,975	
1878	1,316	65,542	60,026	859	277	341	341	128,361	2,405	10,713	3,892	150,583	13,535	178,723	
1879	159	53,791	33,401	464	464	11	11	87,826	2,405	3,648	6,318	118,573	17,797	148,741	
1880	30,611	16,122	1,551	1,551	296	10	10	48,580	4,743	3,515	371	65,945	18,380	92,954	
1881	107	34,320	30,031	924	537	684	14	65,285	1,313	5,570	83,858	83,858	6,464	97,205	
1882	2,041	30,227	32,433	735	735	884	14	64,002	4,076	4,076	158,562	158,562	14,583	177,161	
1883	1,715	40,366	53,707	735	731	684	8,579	132,486	1,209	6,901	8	196,462	24,891	229,471	
1884	124	53,255	63,229	732	882	9,874	8,170	114,422	698	599	210,790	210,790	15,100	227,187	
1885	7,591	53,258	94,048	732	882	9,874	1	118,203	156	1,594	198,416	198,416	15,029	215,039	
1886	11,780	37,678	83,431	1,732	4,790	179	13,201	172,898	156	5,328	189,964	189,964	11,364	206,813	
1887	8,563	39,999	102,974	2	26,510	179	11,598	180,825	63	4,406	82,780	82,780	627	87,822	
1888	5,017	39,229	147,045	6,519	27,432	179	17,225	236,208	1,601	1,601	56	173,259	2,309	177,288	
1889	9,204	31,527	180,842	6,519	27,432	179	20,497	275,619	1,587	1,587	896	227,476	2,309	231,163	
1890	6,802	32,097	127,494	8,113	52,823	179	26,115	253,444	504	504	708	162,231	1,620	164,563	
1891	11,018	26,950	131,222	6,433	36,935	179	31,992	244,550	292	292	705	186,572	1,773	189,342	
1892	11,018	26,950	131,222	6,433	36,935	179	31,992	244,550	576	576	2	183,895	1,773	184,473	

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-two Years, ended 31st December, 1892.

Year.	Total on New York Canals.	Total on Welland Canal.	Total on New York Central and Erie Railways.	Quantity cleared at Buffalo and Tonawanda by Erie Canal.	Quantity cleared at Oswego by Canal.	Quantity cleared 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	1,157,509	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	3,885,557	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	23,444
1892	937,999	527,426	5,913,013	870,570	18,558	244,550

* Fiscal.

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 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891 and 1892.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	174	62,665	432	121,150	41	17,482	329	97,257	976	298,554
	Tons.		Tons.		Tons.		Tons.		Tons.	
1882.										
Wheat.....	60,535		46,201		5,203		87,213		199,152	
Corn.....	7,431		6,075		3,468		38,360		55,334	
Rye.....							1,954		1,954	
Coal.....	1,673		51,127		112		27,968		80,880	
Miscellaneous merchandise.....	2,939		3,744		1,553		2,605		10,841	
Lumber..... Ft. B.M.	1,021,957		1,943,568		3,969,790		17,327,483		24,262,798	
Timber..... Cub. ft.	125,960		2,847,066				13,500		3,013,526	
Staves..... No.	59,600		1,065,233				104,000		1,228,833	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	180	68,850	468	130,844	111	68,609	417	127,616	1176	365,929
		Tons.		Tons.		Tons.		Tons.		Tons.
1883.										
Wheat.....	32,761		29,385		5,928		76,715		144,789	
Corn.....	25,651		21,073		36,146		99,272		182,142	
Barley.....							735		735	
Rye.....							518		518	
Oats.....					731				731	
Coal.....	8,398		48,329		835		40,388		97,950	
Miscellaneous merchandise.....	5,238		3,590		13,195		2,299		24,322	
Lumber..... Ft. B.M.	2,102,292		3,455,590		5,287,386		15,143,274		25,988,542	
Timber..... Cub. ft.	83,700		3,514,944				70,500		3,669,144	
Staves..... No.	32,876		1,038,349				90,000		1,161,225	
	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.
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	

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.
	199	67,461	347	80,828	81	35,613	350	106,873	977	290,775
	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.
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	
	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, woodenware, &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 timber..... Cub. ft.	498,770		1,285,594						1,784,364	
Staves..... No.			266,697						266,697	
Firewood..... Cords.	299		466						765	

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.
	242	86,838	339	93,450	114	104,505	219	60,500	914	345,293
	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	
Coal	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	5,262,700	11,977,905			4,451,360	12,539,672			34,230,637	
Square timber	687,728	1,555,307			19,000				2,262,035	
Staves	106,972	211,436				34,000			352,408	
Firewood	179	201							380	
	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	5,789,226	11,632,330			11,792,850	21,026,211			50,240,617	
Square timber	924,645	2,934,989							3,859,634	
Staves	35,700	194,649							220,349	
Firewood		46							46	
	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.	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	5,167,201			10,274,335	14,290,800			35,653,576	
Square timber	1,141,194	3,395,832							4,537,026	
Staves	12,255	19,947							32,202	
Firewood		15			566				581	

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.
	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..... Ft. B.M.	4,268,874		4,648,824		8,067,351		18,745,628		35,730,677	
Square timber..... Cub. ft.	449,406		566,109						1,015,515	
Staves..... No.	1,000								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		7,360		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	2,159		2,786		44,117				49,042	
Shingles, woodenware, &c.	1				45		9		55	
Sawed lumber..... Ft. B.M.	6,278,253		7,504,256		10,494,692		26,832,564		51,109,765	
Square timber..... Cub. ft.	754,213		1,421,260		2,601		1,310		2,179,384	
Staves..... No.	46,800		32,838						79,638	
Firewood..... Cords.										

Department of Railways and Canals.

J.—STATEMENT of Large Class of 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 1892.

CANADIAN STEAM VESSEL.

Date of Arrival.	Name of Vessels.	Registered Tonnage.		Dimensions.		Depth of Water on Arrival.		Original Cargo to Canal.			Lighterage over Welland Railway.			Lighterage in Tons.				
		Tons.	Ft.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Forward.	Aft.	Wheat.	Corn.	Bush.	Wheat.	Corn.	Bush.	Oats.	Rye.	Tons.
1892.																		
Sept. 29	Algonquin	1,172	245	40	0	20	6	14	2	13	10	66,001						110
													3,635					

UNITED STATES STEAM VESSELS.

April 16	Pueblo	1,054	225	36	0	19	0	14	11	15	0								243
do	H. R. James	1,553	240	42	0	16	8	14	8	15	0								387
do	J. R. Langdon	1,550	240	42	0	16	8	13	0	15	0	740							215
do	F. H. Prince	1,548	240	42	0	16	8	14	6	15	0								345
do	Rhoda Family	654	166	32	0	19	8	14	0	14	0	37,323							69
do	22 Omaha	940	215	34	6	18	9	14	11	14	0	55,922							232
May 3	J. no. Rugee	950	216	35	0	18	0	14	10	14	5								163
do	4 Argonaut	985	213	35	0	12	0	14	11	14	6	48,101							120
do	5 Gov. Smith	1,547	240	42	0	16	8	14	6	14	4	14,000							170
do	9 Pueblo	1,054	225	36	0	19	0	15	2	14	10	57,000							203
do	9 Escanaba	918	201	35	6	20	1	14	7	14	6	49,242							273
do	12 Omaha	940	215	34	6	18	9	14	10	13	10								178
do	15 W. A. Langdon	1,550	240	42	0	16	8	14	9	14	11	64,400							327
do	15 W. A. Haskill	1,441	265	37	0	16	6	14	5	14	5								148
do	29 W. J. Merritt	1,425	265	36	6	16	5	14	1	14	7	1,136							110
June	Jas. R. Langdon	1,550	240	42	0	16	8	13	8	15	0	24,920							203
do	5 W. A. Haskill	1,441	265	37	0	16	6	14	7	14	8	51,816							203
do	7 F. A. Prince	1,548	240	42	0	16	8	14	3	14	3	24,103							42
do	Argonaut	985	213	35	0	12	0	15	0	15	0	50,217							137
do	13 A. McVittie	1,553	240	42	0	16	8	15	0	15	2	42,855							188
do	17 W. J. Averill	1,425	265	36	6	16	5	14	6	15	0	46,333							216
do	18 H. R. James	1,553	240	42	0	16	8	14	2	14	4	42,862							82

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do	5	Jas. R. Langdon	1,550	240	42	0	16	8	14	10	15	2	61,639	333	13,654	167	382
do	6	Escanaba	918	201	35	6	20	1	14	10	14	8	5,504	430	12,845	360	360
do	7	F. H. Prince	1,548	240	42	0	16	8	15	3	15	2	14,089	328	8,536	394	239
do	10	Gov. Smith	1,547	240	42	0	16	8	15	1	15	3	2,582	145	9,619	77	219
do	11	W. A. Haskill	1,441	265	37	0	16	6	14	5	15	3	34,666	647	11,871	342	382
do	15	Kate Butterrie	693	174	32	0	20	0	14	8	14	3	65,000	386	8,410	393	169
do	16	A. McVittie	1,553	240	42	0	16	8	14	5	15	3	11,400	162	12,569	392	382
do	16	Topeka	1,111	228	36	0	19	0	15	7	15	3	11,400	162	6,031	392	382
do	17	W. J. Averill	1,425	265	36	6	16	5	14	9	14	11	60,332	1,062	9,080	392	382
do	19	H. R. James	1,553	240	42	0	16	8	15	0	15	3	66,959	226	7,040	392	382
do	21	Jno. Rugee	950	216	35	0	18	0	14	5	14	7	54,000	243	14,655	392	382
do	25	Jas. R. Langdon	1,550	240	42	0	16	8	13	9	15	5	63,851	279	8,198	392	382
do	26	F. H. Prince	1,548	240	42	0	16	8	15	4	15	2	50,474	286	12,555	392	382
do	27	Omaha	940	215	34	6	18	9	15	7	15	1	57,441	388	6,194	392	382
do	28	W. A. Haskill	1,441	265	37	0	16	6	14	9	15	3	38,855	816	5,441	392	382
do	30	Gov. Smith	1,547	240	42	0	16	8	14	0	15	8	14,697	920	2,738	392	382
do	4	A. McVittie	1,553	240	42	0	16	8	13	0	15	1	17,023	392	4,943	392	382
do	5	W. J. Averill	1,425	265	36	6	16	5	14	3	15	3	60,000	284	7,988	392	382
do	7	Dewar	1,023	222	37	0	19	0	15	10	15	4	38,340	327	7,732	392	382
do	8	H. R. James	1,553	240	42	0	16	8	14	4	15	7	50,000	388	12,555	392	382
do	12	J. R. Langdon	1,550	240	42	0	16	8	14	1	15	1	57,441	388	6,194	392	382
do	15	Jno. Rugee	950	216	35	0	18	0	14	8	15	0	38,855	816	5,441	392	382
do	17	W. A. Haskill	940	215	34	6	18	9	14	11	14	4	14,697	920	2,738	392	382
do	23	Gov. Smith	1,441	265	37	0	16	6	13	3	14	8	17,023	392	4,943	392	382
do	30	A. McVittie	1,547	240	42	0	16	8	13	0	15	1	60,000	284	7,988	392	382
do	3	H. R. James	1,553	240	42	0	16	8	14	1	15	1	38,340	327	7,732	392	382
do	9	J. R. Langdon	1,550	240	42	0	16	8	13	0	15	16	50,000	498	7,335	392	382
do	9	Rhoda Family	654	166	32	0	19	8	13	9	14	0	34,000	2,787	2,980	392	382
do	17	W. A. Haskill	1,441	265	37	0	16	6	13	1	14	6	35,766	562	2,980	392	382
do	17	F. H. Prince	1,548	240	42	0	16	8	14	4	14	8	50,000	503	7,940	392	382
do	20	Dewar	1,029	222	37	0	19	0	15	3	15	3	61,000	503	10,562	392	382
do	23	Topeka	1,111	228	36	0	19	0	15	2	15	3	62,733	621	9,989	392	382
do	25	Jno. Rugee	950	216	35	0	18	0	15	0	15	3	58,000	621	8,642	392	382
do	29	A. McVittie	1,553	240	42	0	16	8	13	8	14	0	39,617	679	4,805	392	382
do	29	H. R. James	1,553	240	42	0	16	8	13	1	14	3	19,605	679	2,922	392	382
do	30	Pueblo	1,054	225	36	0	19	0	15	0	15	2	62,301	679	10,507	392	382
do	Mont Eagle	1,035	237	35	0	19	8	15	0	15	2	57,855	679	9,040	392	382	
do	2	Omaha	940	215	34	6	18	9	14	6	14	10	59,512	679	7,126	392	382

UNITED STATES SAIL VESSELS.

July	4	W. S. Coosthwaite	640	197	34	8	13	3	.....	.....	.....	.....	47,697	.....	2,513	.....	70
Aug.	25	Baltic	870	202	34	7	16	6	14	8	14	6	67,000	.....	5,736	.....	160

J.—STATEMENT of Large Class Vessels Lightened at Welland Railway Elevator at Port Colborne, &c.—Continued.

CANADIAN STEAM VESSEL—Continued.

Date of Arrival	Names of Vessels.	Grain Cargo and Rolling Freight through the Canal.						Total Cargo through Canals.	Depth of Water through Canal midship.	Destination.		Time occupied in Light-erage.
		Wheat.	Corn.	Rye.	Oats.	Wheat.	Corn.			From	To	
1892.		Bush.	Bush.	Bush.	Tons.	Tons.	Tons.	Tons.	Ft. in.			Cts. H. M.
Sept. 29	Algonquin	62,366						1,871	13 6	Duluth	Kingston	2 3 0

UNITED STATES STEAM VESSELS—Continued.

Date of Arrival	Names of Vessels.	Wheat.	Corn.	Rye.	Oats.	Wheat.	Corn.	Rye.	Oats.	Rolling freight	Total Cargo through Canals.	Depth of Water through Canal midship.	Destination.		Time occupied in Light-erage.
													From	To	
April 16	Pueblo	50,729										13 8	Chicago	Kingston	3 0
do	H. R. James.	47,085				1,421				279	1,421	13 4	do	Ogdensburg.	3 4 0
do	J. R. Langdon.	24,795			525	685				405	1,598	13 3	do	do	3 0
do	F. H. Prince.	53,496				1,498				159	1,657	13 5	do	do	5 0
do	Rhoda Emily			34,854				976			976	13 7	do	Kingston	1 0
do	Omaha	48,170				1,446					1,446	13 8	Gladstone	do	3 0
May 3	Jno. Rugee	49,151				1,377					1,377	13 10	Chicago	do	2 15
do	Argonaut	43,756				1,226					1,226	14 7	do	do	2 0
do	Gov. Smith	28,041				217				566	1,569	13 3	do	Ogdensburg.	6 0
do	Pueblo	47,872				1,437					1,437	13 8	do	Kingston	2 30
do	Escanaba	43,283				1,299					1,299	13 9	do	do	2 30
do	Omaha	52,228				1,463				74	1,463	13 6	do	do	3 0
do	J. R. Langdon.	53,478				1,605				299	1,579	13 6	do	do	2 0
do	W. A. Haskill.	45,386				1,271				529	1,555	13 11	do	Ogdensburg.	2 0
do	W. J. Merritt.				1,026					500	1,713	13 7	do	do	3 0
June 1	Jas. R. Langdon.	17,640			719	494				309	1,557	13 11	do	do	2 30
do	W. A. Haskill	44,565				1,248				374	1,770	13 11	do	do	2 0
do	F. A. Prince	21,297			374	597				799	1,269	14 0	do	Kingston	2 0
do	Argonaut	45,310				1,063				446	1,668	13 11	do	Ogdensburg.	4 0
do	McVittie	37,934			159	1,081				449	1,530	13 11	do	do	3 0
do	W. J. Averil	38,093				1,119				405	1,701	13 11	do	do	1 45
do	H. R. James.	39,947			177	1,119				352	1,662	13 11	do	do	2 0
do	Jas. R. Langdon	11,849			978	332				290	1,310	13 9	do	do	2 0
do	Escanaba	36,402			290	1,020				290	1,310	13 9	do	do	2 0
do	Topeka	52,700				1,476					1,476	14 0	do	Kingston	2 30

Department of Railways and Canals.

do	26	W. A. Haskill	10,120	926	284	1,535	13 0	do	Ogdensburg.	2	2	30
July	3	A. McVittie	25,801	586	725	1,676	13 11	do	do	2	2	0
do	4	W. J. Averill	40,874		1,145	1,539	14 0	do	do	2	2	30
do	7	H. R. James	40,637		1,138	1,729	14 0	do	do	2	2	0
do	9	Jas. R. Langdon	11,372	1,029	319	1,677	13 7	do	do	2	2	0
do	11	Rhoda Emily	36,922		1,034	1,034	14 0	do	do	2	2	0
do	14	Escauaba		1,283		1,283	13 11	do	do	2	2	1
do	14	W. A. Haskill	24,821		695	1,517	13 9	do	do	2	2	15
do	18	Gov. Smith	24,145		677	1,725	13 11	do	do	2	2	0
do	20	Jno. Rugee		594	703	1,405	14 0	do	Kingston.	2	2	0
do	20	A. McVittie	25,074		1,112	1,670	13 11	do	Ogdensburg	2	2	30
do	25	W. J. Averill	39,697		327	1,531	14 0	do	do	2	2	30
do	27	H. R. James	11,644	1,380	418	1,707	14 0	do	do	2	2	0
do	27	Jas. R. Langdon	14,890	912	418	1,670	13 0	do	do	2	2	30
do	31	H. A. Prince	48,020	576	1,147	1,723	13 11	do	do	2	2	30
Aug.	5	Gov. Smith	34,787	300	975	1,535	13 11	do	do	2	2	0
do	7	A. McVittie	37,538		1,052	1,708	13 11	do	Kingston.	2	2	30
do	13	H. R. James	36,520		1,023	1,715	13 11	do	do	2	2	0
do	16	W. J. Averill	42,787	315	1,199	1,554	14 0	do	Ogdensburg	2	2	30
do	17	F. H. Prince	36,265	1,045	1,014	1,746	13 11	do	do	2	2	0
do	19	Jas. R. Langdon		617	1,148	1,659	13 6	do	do	2	2	15
do		W. A. Haskill	40,976		775	1,534	13 10	do	do	2	2	15
do	23	Gov. Smith	27,663		1,425	1,683	13 11	do	do	2	2	30
do	28	A. McVittie	50,889		1,429	1,730	14 0	do	do	2	2	30
do	31	W. J. Averill	51,020	700	647	1,560	14 0	do	do	2	2	30
Sept.	1	H. R. James	23,068		1,344	1,710	14 0	do	do	2	2	0
do	5	J. R. Langdon	47,985		1,321	1,677	13 7	do	do	2	2	0
do	6	Escauaba		1,321	7	1,321	13 11	do	Kingston.	2	2	30
do	7	F. H. Prince	46,664		1,307	1,737	13 10	do	Ogdensburg	2	2	45
do	10	Gov. Smith	50,545		1,416	1,744	13 11	do	do	2	2	30
do	11	W. A. Haskill	50,745		1,421	1,566	13 11	do	do	2	2	0
do	15	Kate Butteroni		647	702	1,078	14 0	do	Kingston.	2	2	0
do		A. McVittie	25,047		1,488	1,685	13 11	do	Ogdensburg	2	2	15
do	16	Topeka	53,129		1,495	1,562	14 0	do	do	2	2	0
do	17	W. J. Averill	53,358		925	1,667	13 10	do	do	2	2	30
do	19	H. R. James	33,024	349	303	1,421	14 0	do	do	2	2	0
do	21	Jno. Rugee	50,478		797	1,705	13 7	do	do	2	2	0
do	25	Jas. R. Langdon	28,442	571	1,490	1,750	13 11	do	do	2	2	15
do	26	F. H. Prince	53,192		1,468	1,468	13 10	do	do	2	2	0
do	27	Omaha		1,468	1,440	1,602	14 0	do	Kingston.	2	2	40
do	28	W. A. Haskill	51,404		697	1,730	13 11	do	Ogdensburg	2	2	25
Oct.	2	Gov. Smith	24,857	1,023	1,465	1,691	13 10	do	do	2	2	0
do	4	A. McVittie	52,304		1,398	1,526	13 11	do	do	2	2	0
do	5	W. J. Averill	45,802		1,398	1,398	13 11	do	do	2	2	0
do	7	Dewar	49,925		1,449	1,728	13 11	do	do	2	2	40
do	8	H. R. James	51,748		1,062	1,666	13 6	do	do	2	2	45
do	12	J. R. Langdon	37,919	318	1,483	1,483	14 0	do	do	2	2	0
do	15	Jno. Rugee	51,247		1,496	1,496	13 11	do	do	2	2	0
do		Omaha	53,414		1,496	1,496	13 11	do	do	2	2	0

J.—STATEMENT of Large Class of 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 1892.

UNITED STATES STEAM VESSELS.

Date of Arrival.	Name of Vessel.	Grain Cargo and Rolling Freight through the Canal.										Total Cargo through the Canal.	Depth of Water through the Canal Midship.	Destination.		Time occupied in lightering.		
		Wheat.	Com.	Rye.	Oats.	Wheat.	Corn.	Rye.	Oats.	Rolling freight	Tons.			Ft. in.	From.		To.	cts.	H. M.
1892.																		
Oct. 17	W. A. Hasckill	Bush.	Bush.	Bush.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	1,544	13 8	Chicago	Ogdensburg.	2 3 0	
do 23	Gov. Smith		11,959		816	335		816	393				1,651	13 6	do	do	2 2 0	
do 30	A. McVittie		12,080		920	339		920	392				1,741	13 11	do	do	2 2 30	
do 1	H. R. James		52,012		327	1,457		327	284				1,710	13 10	do	do	2 4 0	
do 12	J. R. Langdon		30,608		327	858		327	525				1,693	13 5	do	do	2 3 15	
do 9	Rhoda Emily	31,213			937	1,195			498				937	13 4	do	Kingsston.	2 2 0	
do 17	W. A. Hasckill		32,786			919			562				1,481	13 4	do	Ogdensburg.	2 1 45	
do 20	Dewer		42,060			1,178			503				1,681	13 9	do	do	2 3 0	
do 23	Topoka		50,438			1,413							1,413	14 0	do	do	2 3 0	
do 25	J. no. Rugee		52,744			1,477							1,477	14 0	do	do	2 4 0	
do 29	A. McVittie		49,358			1,883							1,883	14 0	do	do	2 4 0	
do 30	H. R. James	15,416			463	975			621				1,596	13 5	do	do	2 2 30	
do	Pueblo		16,683			468			679				1,610	13 4	do	do	2 2 30	
do	Mount Eagle		51,794			1,451							1,451	13 9	do	do	2 3 15	
do	Omaha		48,815			1,367							1,367	13 10	do	do	2 6 15	
Dec. 2			52,386			1,467							1,467	13 10	do	do	2 3 30	

UNITED STATES SAIL VESSELS.

July 4	W. S. Coosthwaite	45,184											1,266	13 10	Chicago	Ogdensburg.	2 1 30
Aug. 25	Baltic	61,264											1,716	13 10	do	Kingsston.	2 3 30

Department of Railways and Canals.

K.—STATEMENT showing the Quantity of Freight passed Eastward, from Lake Erie, through the whole length of the Welland and St. Lawrence Canals, to Montreal, during the Seasons of Navigation in 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891 and 1892.

Articles.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 3.</i>												
Iron, pig	858	459	5		7	15		418			371	
do all other		9										
Stone for cutting.	233	2			513	49	33					54
Apples		1		38								
Barley	259											
Corn	69,066	17,474	109,191	55,552	44,401	116,517	24,909	66,443	195,350	139,798	52,539	58,689
Flour	4,476	5,920	5,080	9,659	2,874	2,934	6,140	3,865	6,841	3,065	3,324	2,874
Meal, all kinds.			1,188		16	125	87	100	148	222	67	16
Oats				872					320	479		
Pease			726	433	11	608	362				390	524
Rye		1,269	518	477						1,120	64,978	9,119
Seeds, all kinds		37	2		42	33		12	3	2		75
Tobacco, raw		1				25					1	
Wheat	77,061	161,682	76,379	84,822	52,157	86,815	160,063	98,915	70,815	75,515	159,785	194,281
All other agricultural products, vegetable		1			1		17		798	3	2	
Hides, skins, horns and hoofs.			77									20
Horses		1			2	1	1	2	2	3	2	2
Lard and lard oil	361	206	6			22		54			100	
Pork	5,141	278	212	318	30	936	418	285	1,220	221	201	
All other agricultural products, animals					4	68	29	39	32	117		103
Total, Class 3	157,196	187,609	183,393	152,171	100,058	208,148	191,759	165,113	276,813	220,545	281,762	260,757
<i>Class 4.</i>												
Ashes	13	10	3	36	97	44	113	85	107	70	40	17
Furniture	4	12	6	10	5	6	9	2		1	1	1
Glass, all kinds	47	16	1					3				
Molasses		18	43			28						
Nails				1			1					
Oil		425		78	7	6	14		4			

K.—STATEMENT showing the Quantity of Freight passed Eastward, from Lake Erie, &c.—Concluded.

Articles.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 4—Concluded.</i>												
Paint.....		4				1						
Pitch and tar.....		1										
Sugar.....		484	269	317			15					
Stone, wrought.....	291						12					
Turpentine.....		2	35	1								
Whiskey, beer and other spirits.....	60	105	53	37	29	100	72	3	20	26	105	6
Merchandise not enumerated.....								103	133	142	278	36
Total, Class 4.....	415	1,092	412	480	138	193	236	198	324	246	426	60
<i>Class 5.</i>												
Barrels, empty.....	1	3				6		40				1
Sawed lumber.....	2,849	3,639	6,311	7,531	19,945	18,707	7,001	5,175	6,118	3,579	3,908	1,678
Staves, pipe and barrel.....	1,001	2,359	2,024	2,900	856	332	184	139				8
do West India and pipe.....	1,198	1,130	451	863		287	131	1,623	270			200
Timber, square, in vessels.....	3,227	1,574	290		630	1,330						
do do rafts.....	3,250	1,149	2,314	7,365	11,128	15,410	14,390	11,586	9,302		5,680	440
Woodenware.....	76	205	199	68	76	101	45	25		1		
Total, Class 5.....	11,692	10,059	11,589	16,064	32,772	36,173	21,839	18,588	15,690	3,580	9,588	2,327
<i>Special Class.</i>												
Coal.....		75										
Grand total.....	169,213	198,835	205,394	168,715	132,068	244,514	213,834	183,899	292,827	224,371	291,776	263,144

Department of Railways and Canals.

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 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891 and 1892.

Articles.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 3.</i>												
Bricks.....	81	96	78	200	44	66	3	187	84	252	469	1,570
Cement and water lime.....	38	533	508	219	117	498	1,740	1,177	823	62	2,380	240
Clay, lime and sand.....	121	56	56	.....	.....	1	134	95	3	8	296	7
Fish.....	18	406	.....	.....	.....	1	95	1	80	26	.....	426
Gypsum.....	.....	.....	.....	.....	13	.....	.....	.....	.....	.....	.....	.....
Iron, railway.....	16,476	11,246	8,725	2,031	12,356	6,629	.....	9,148	15,513	20,003	2,855	1,171
do pig.....	8,131	3,575	2,460	43	23	10	368	573	250	20	112	74
do all other.....	990	686	528	366	290	76	1,987	297	584	584	595	387
Salt.....	5,175	1,820	5,324	802	1,574	5,609	4,197	3,599	4,216	7,440	4,391	2,031
Stone for cutting.....	5	.....	.....	.....	7	.....	.....	.....	.....	12	.....	145
Flour.....	.....	.....	21	.....	.....	.....	.....	.....	.....	48	.....	.....
Meals.....	.....	.....	5	.....	.....	.....	.....	31	.....	.....	.....	.....
Oats.....	.....	.....	264	.....	.....	.....	.....	.....	.....	.....	.....	.....
Potatoes.....	359	23	.....	.....	.....	.....	4	.....	.....	.....	.....	.....
Seeds, all kinds.....	65	14	.....	.....	.....	.....	.....	24	215	100	.....	.....
Agricultural products not enumerated, vegetable.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Horses.....	2	.....	25	1	1	.....	.....	35	19	.....	32	.....
Lard and lard oil.....	.....	2	.....	.....	.....	.....	.....	.....	2	.....	.....	.....
Pork.....	.....	.....	.....	45	3	.....	3	.....	.....	72	.....	16
Wool.....	.....	3	.....	.....	.....	.....	4	.....	.....	33	.....	13
All other articles not enumerated.....	.....	.....	.....	.....	.....	6	4	77	.....	13	2	.....
Total Class 3.....	31,371	18,460	17,994	3,707	14,428	12,896	8,702	15,244	21,495	28,674	11,071	6,076
<i>Class 4.</i>												
Ashes, pot and pearl.....	24	116	137	47	226	20	164	386	112	10	31	88
Crockery and earthenware.....	.....	.....	2	.....	10	40	4	.....	.....	11	281	8
Dye woods, &c.....	3	4	4	1	.....	1	.....	1	.....	.....	.....	3
Furniture.....	97	359	156	160	32	39	53	77	71	23	30	152
Glass, all kinds.....	.....	5	5	17	.....	7	.....	1	.....	.....	.....	.....
Manilla.....	14	58	3	.....	.....	23	1	7	56	.....	.....	82
Molasses.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

L.—STATEMENT showing the Quantity of Freight passed westward from Montreal, &c.—Continued.

Articles.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 4—Concluded.</i>												
Nails.....	258	576	1,085	160	205	389	147	578	736	453	560	276
Oil in barrels.....	54	119	122	80	10	82	28	22	9	11	64	2
Paint.....	47	124	103	161	24	36	80	59	49	24	61	15
Pitch and tar.....	1		50	1		5	1			13	22	15
Rosin.....		11	21							1		
Soda, ash.....	3,177	1,040	1,801	1,427	164	375	1,116	1,196	766	554	377	352
Steel.....	29		3	142		1	423	3	3	1		269
Stone, wrought.....			2									
Sugar.....	5	465	375	290	64	316	207	98	7	551	412	1,320
Tin.....	959	641	1,669	1,832	10	549	2,225	198	480	40	23	27
Turpentine.....			1	1		1	1	1	1	2		
White lead.....		14		3		3	4	2	4	19	3	6
Whiting.....	10	5	19		9		7		33	34	50	71
Whiskey, beer, &c.....	91	564	791	364	259	174	287	228	124	350	284	220
Merchandise not enumerated.....	984	1,992	2,608	1,001	712	1,008	619	1,259	1,422	1,180	810	538
Total Class 4.....	5,753	6,093	8,957	5,687	1,725	3,678	5,373	4,065	3,873	3,277	2,989	3,394
<i>Class 5.</i>												
Barrels, empty.....	40	130	179			227			2			
Lumber, sawn, in vessels.....		175	318									
Woodenware.....	26	23		3	2							
Total Class 5.....	66	328	497	3	2	227			2			
<i>Special Class.</i>												
Coal.....												
Grand Total.....	37,190	24,881	27,488	9,425	16,155	16,801	14,075	19,310	25,370	31,951	14,060	9,470

Department of Railways and Canals.

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 in 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891 and 1892.

ARTICLES.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 3.</i>													
Bricks.....	22		3				41				4		
Cement and water lime.....			2				31		4				
Fish.....				1				2				1	
Iron, railway.....				142									
do all other.....		79	114	90	40		45			520	1	10	1
Salt.....				8			1					494	
Stone for cutting.....	258			38	15								
Apples.....		1	8										
Barley.....			537	735				1,709	2				
Corn.....	16,122	30,031	32,433	66,128	53,707	63,229	93,503	83,431	102,974	147,045	6,519	8,113	6,433
Flour.....			107	2,041	1,715	124	7,591	11,780	8,563	5,017	9,204	6,802	11,018
Hay, pressed.....			5	8,579	8,170	13	13,201	10,726	11,598	17,224	20,482	26,096	31,724
Meal, all kinds.....													
Oil cake.....				731	9,874		4,790	12,050	26,510	27,492	27,030	52,823	36,935
Oats.....	296					882							
Potatoes.....			1						179				
Rye.....			684				236	44	48	151	135	256	50
Seeds, all kinds.....		16		662	511								
Wheat.....	30,611	34,920	30,227	54,282	40,956	53,235	53,258	37,078	39,999	39,229	31,527	32,097	26,950
Agricultural products, vegetable.....			5	3			2				14	42	
Hides and skins, &c.....				60	73		414	170	39				
Horses.....			1	6	6		1	2		1			3
Lard and lard oil, &c.....				5	7		13	14	19	32	30	10	
Meats, other than pork.....			1	12	4		18	18	14	3	15	2	29
Pork.....			1	163			106	108	19	21	88	73	1
Sheep.....													
Wool.....				95			1,125	86	18	452		1,237	70
Total, Class 3.....	47,309	64,447	64,129	138,782	115,092	117,470	174,359	157,820	189,986	237,188	275,893	255,553	244,433
<i>Class 4.</i>													
Agricultural implements.....		3	1	1				9					
Crockery and earthenware.....		4	15	25	16			24	30	1	21	7	
Furniture.....													

M.—STATEMENT showing the Quantity of Freight passed Eastward through the Welland Canal, &c.—Concluded.

Articles.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 4—Concluded.</i>													
Glass, all kinds			66		1		2					1	
Nails		102	7	51	26		4						
Oil, in barrels			995	206	255		6	8				1	
Paint			3	6									44
Soda, ash			7										
Steel			1						3				
Stone, wrought	192	29	33	87	7		38			2			1
White lead		2	6	5							1		
Whiskey, beer and all other													
spirits	14		12	136	26		21	63	151	190	228	167	46
Merchandise, not enumerated	1	49	91	941	481	2	824	469	1,453	1,679	1,822	1,865	1,331
Total, Class 4	207	189	1,237	1,479	812	2	916	573	1,638	1,902	2,075	2,041	1,422
<i>Class 5.</i>													
Lumber, sawn, in vessels	33,555	30,402	34,182	34,189	43,713	44,668	43,776	29,845	28,333	55,074	38,080	45,504	54,173
Hoops				26									
Shingles	9		9	9	76	111	463		6	51			
Staves, barrel				25					82				
Woodenware, &c.	1	4	43	30	11			26	141	333	8	1	54
Total, Class 5	33,565	30,406	34,234	34,279	43,800	44,779	44,241	29,871	28,562	55,458	38,088	45,508	54,227
<i>Special Class.</i>													
Coal	871	1,164	10,686	5,372	4,293	4,974	5,400	1,163	878	1,124	615	1,382	651
Stone not suitable for cutting										1,681	18		
Kryofite											1,620	1,773	
Total, Special Class	871	1,164	10,686	5,372	4,293	4,974	5,400	1,163	878	2,805	2,253	3,155	651
Grand Total	81,922	96,266	110,286	174,912	163,997	167,225	224,916	189,427	221,064	297,353	318,259	306,257	300,733

Department of Railways and Canals.

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 1892.

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"	629	167	462
do do	658	163	495
do "Alma Munro"	674	284	390
do "Cuba"	660	268	392
do "Lake Michigan"	510	216	294
do do	510	249	261
do "St. Magnus"	1,041	.....	420
do do	1,035	633	402
do do	1,023	635	388
Canadian sailing vessel "Kildonan"	1,140	288	852
Norwegian steamship "Wergeland"	294	245	49
Total	8,174	3,148	4,405

Number of cargoes of wheat.....	11
Quantity through Welland Canal to Kingston	8,174 Tons.
do transhipped at Kingston.....	3,148 "
do taken to Montreal in vessels in which it arrived at Kingston.....	4,405 "
do remaining at Kingston	621 "

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 1892.

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"	476	.....	476
do "Cuba"	654	261	393
do do	448	.....	448
do do	644	239	405
do "Alma Munro"	625	54	571
do "Lake Michigan"	482	202	280
do do	490	181	309
Canadian sailing vessel "Jennie"	924	350	574
do do "Jno. Gaskin"	1,023	358	665
do do "Regina"	826	256	570
Total	6,592	1,901	4,691

Number of cargoes of corn.....	10
Quantity through the Welland Canal to Kingston.....	6,592 Tons.
do transhipped at Kingston.....	1,901 "
do taken to Montreal in vessels in which it arrived at Kingston	4,691 "

N.—STATEMENT showing the Number of Vessels and their Cargoes of Pease and Rye, 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 in 1892.

PEASE.

Name of Vessels.	Original Cargo	Quantity transhipped	Cargo
	through the Welland Canal.	at Kingston.	through the St. Lawrence Canals.
	Tons.	Tons.	Tons.
Canadian steamer "Lake Michigan".....	524	253	271

RYE.

Canadian steamer "Alma Munro".....	507	112	395
do do	629	227	402
do do	627	247	380
do do	659	252	407
do "Cuba".....	616	258	358
Totals.....	3,038	1,096	1,942

Number of cargoes of rye.....	5	
Quantity through the Welland Canal to Kingston.....	3,038	Tons.
do transhipped at Kingston.....	1,096	"
do taken to Montreal in vessels in which it arrived at Kingston.....	1,942	"

Department of Railways and Canals.

RECAPITULATION of the Number of Vessels passed down the Welland Canal, with Cargoes of Grain to Kingston, the Quantity transhipped, and the Quantity taken to Montreal for the Season of 1892.

	Number of Cargoes.	Total.
Wheat.....	11	
Corn.....	10	
Pease.....	1	
Rye.....	5	
Total.....		27
	Tons.	Tons.
Quantity of wheat through the Welland Canal bound for Montreal.....	8,174	
do corn do do.....	6,592	
do pease do do.....	524	
do rye do do.....	3,038	
Total through Welland Canal.....		18,328
Quantity of the above transhipped at Kingston, viz. :—		
Wheat.....	3,148	
Corn.....	1,901	
Pease.....	253	
Rye.....	1,096	
Total transhipped.....		6,398
Quantity of the above cargoes taken to Montreal in vessels in which it arrived at Kingston, viz. :—		
Wheat.....	4,405	
Corn.....	4,691	
Pease.....	271	
Rye.....	1,942	
Total quantity to Montreal.....		11,309
Quantity remaining at Kingston.....		621
Total.....		18,328

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 1892.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	98	69,430	60	30,082	69	62,288	20	11,837	247	173,637
	Tons.		Tons.		Tons.		Tons.		Tons.	
Corn.....	16,776		7,360		27,742		5,341		57,219	
Pease.....	524		.....		.....		.....		524
Rye.....	5,066		.....		2,862		608		8,536
Wheat.....	74,528		54,764		56,520		16,739		202,551	
Total.....	96,894		62,124		87,124		22,688		268,830	

	Tons.
98 cargoes in Canadian steam vessels, total quantity.....	96,894
60 do do sailing do do	62,124
69 do United States steam vessels, total quantity.....	87,124
20 do do sailing do do	22,688

Department of Railways and Canals.

P.—TOTAL Quantity of Grain arrived at Kingston in Vessels which passed down the Welland Canal during the Season of 1892.

Summary.	Tons.	Tons.
Canadian steam vessels, 98 cargoes of grain	96,894	
do sailing do 60 do	62,124	
Total in Canadian vessels		159,018
United States steam vessels, 69 cargoes of grain	87,124	
do sailing do 20 do	22,688	
Total in United States vessels		109,812
Total in Canadian and United States vessels		268,830
Distributed as follows:—		
2 cargoes taken to Montreal in vessels in which it arrived at Kingston		924
25 do arrived at Kingston in Canadian vessels with an aggregate quantity of	18,328	
Transhipped at Kingston	6,398	
Discharged	621	
	7,019	
Quantity taken to Montreal in vessels in which it arrived at Kingston		11,309
Vessels arrived at Kingston and discharged all their cargoes as follows:—		
131 cargoes in Canadian vessels	139,766	
89 do in United States vessels	109,812	
Aggregate quantity discharged	249,578	
Quantity transhipped to Montreal	238,361	
Total quantity transhipped to Montreal		244,759
Quantity taken to Ogdensburg and transhipped to Montreal		4,341
do transhipped to Cardinal	3,838	
do remaining at Kingston	3,659	
	7,497	
Total		268,830

Q.—COMPARATIVE statement of the Quantity of Grain passed down the Welland Canal to Kingston for the Seasons of 1891 and 1892.

	1891.		1892.	
	No. of Cargoes.	Tons.	No. of Cargoes.	Tons.
Quantity arrived at Kingston in Canadian vessels.....	209	190,664	158	159,018
do do do in United States vessels.....	77	90,153	89	109,812
Total.....	286	280,817	247	268,830
Quantity transhipped at Kingston in Canadian vessels for Montreal.....		259,655		244,759
Quantity taken to Montreal in vessels in which it arrived at Kingston.....		17,196		12,233
Quantity remaining at Kingston.....		1,241		3,659
Quantity transhipped to Cardinal.....		2,725		3,838
Quantity taken to elevators at Ogdensburg and transhipped to Montreal.....				4,341
Total.....		280,817		268,830

2 vessels took their cargoes through to Montreal intact in 1892 against 3 in 1891.

25 vessels lightered a portion of their cargoes at Kingston in 1892 against 44 in 1891.

220 vessels discharged the whole of their cargoes at Kingston in 1892 against 239 in 1891.

R.—STATEMENT showing the Quantity of Oats arrived at Montreal by Canal and Rail during the Years 1884 to 1892, inclusive, and the total shipments for the same period.

Years.	Receipts <i>via</i> Lachine Canal.	Receipts <i>via</i> C. P. R. and G. T. R. is reported as follows.	Total Receipts at Montreal.	Shipments <i>via</i> River St. Lawrence and G. T. R.
	Bushels.	Bushels.	Bushels.	Bushels.
1884.....	297,326	528,032	825,358	246,643
1885.....	678,866	550,425	1,229,291	1,463,932
1886.....	650,910	595,756	1,246,666	2,033,098
1887.....	341,568	452,748	794,316	509,010
1888.....	123,213	542,007	665,220	70,809
1889.....	119,958	812,750	932,708	88,914
1890.....	200,896	1,448,187	1,649,083	244,380
1891.....	102,162	1,616,004	1,718,166	791,691
1892.....	341,376	5,536,818	5,878,194	5,081,459

Department of Railways and Canals.

S.—THE Quantity of Coal passed through the Welland Canal during a series of years from 1885 to 1892, inclusive, and the Amount of Tolls collected thereon, is as follows:—

Years.	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.	
	Up.	Up.	Down.	Up.	Down.		Rate 20 cents a ton.	
	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

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 and 1892 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 of 1885 to 1892, 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

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 1883 to 1892, 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.
1883.	Tons.	Tons.	Tons.
Ashes, pot and pearl	3	2	3
Agricultural products, not enumerated, vegetable		3	3
do do animal		6	
Agricultural implements			1
Barley			735
Coal		89,344	5,372
Corn	109,191	6,815	66,128
Crockery and earthenware			1
Fish			1
Flour	5,089		2,041
Furniture	6	8	25
Glass	1	9	
Horses			6
Hides and skins	77	26	60
Iron, railway			142
do all other	5	39	90
Lard and lard oil	6	1	5
Meal, all kinds	1,188	138	8,579
Meats, other than pork		2	12
Manilla			4
Molasses	43	4	1
Nails			51
Oats			731
Oil, in barrels		300	206
Oil cake			1
Pease	726		
Pork	212	13	163
Paint			6
Rags			271
Rye	518		
Salt			8
Stone, intended for cutting		2,584	38
do wrought	269	353	87
Seeds, all kinds	2		662
Steel	1		
Sugar	2		
Spirits, beer, &c.	35	98	156
Tobacco, raw		5	
Tallow		2	
Wheat	76,379	3,835	54,282
White lead			5
Wool			95
All other merchandise, not enumerated	52	109	665
Barrels, empty		4	
Firewood, in vessels		930	
Hoops			26
Lumber, sawn, in vessels	6,311	792	34,732
Staves and headings, barrel		31	
do pipe	2,024	2,738	
do West India	451	1,946	
Staves, salt barrel			25
Shingles			9
Split posts and fence rails, in vessels		1	
Timber, square	2,604	74,329	
Woodenware and wood, partly manufactured	199	35	30
Total	205,394	184,502	175,455

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.
1884.	Tons.	Tons.	Tons.
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.....			1
Nails.....	1		26
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.....	84,822	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 heading, barrel.....		22	
do pipe.....	200	487	
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.

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.
1885.			
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.

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 Ontario Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1886.	Tons.	Tons.	Tons.
Ashes, pot and pearl.....	44	10	11
Apples.....	49		41
Agricultural products, not enumerated, vegetable.....		1	1
Bricks.....			26
Cement and water lime.....			5,400
Coal.....		49,724	93,503
Corn.....	116,517	8,871	7,591
Flour.....	2,934		21
Furniture.....	6	15	2
Glass, all kinds.....			1
Horses.....	1		414
Hides and skins, &c.....		617	43
Iron, pig.....		12	1
do all other.....	15	9	13
Lard and lard oil.....	22	18	13,201
Meal, all kinds.....	125	64	1
Meats, other than pork.....	67	2	
Marble.....		7	
Molasses.....	28		4
Nails.....			4,790
Oats.....		41	6
Oil.....	6	28	
Pease.....	608		
Pork.....	936	407	106
Paint.....	1	1	
Rags.....			13
Salt.....		29	1
Stone for cutting.....		4,314	
do wrought.....		103	38
Seed, all kinds.....	33	3	236
Sugar.....			3
Spirits, beer, &c.....	8	12	21
Tobacco, 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, &c.....	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.

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.
1887.			
Ashes, pot and peal.....	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 do pipe.....	184		
do 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 ten was allowed on wheat, corn, pease, barley and rye, passed down to Montreal, per O.C. 21st March, 1887.

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.
1888.	Tons.	Tons.	Tons.
Ashes, pot and 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
Wool.....			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.

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.
1889.	Tons.	Tons.	Tons.
Ashes, pot and pearl	107	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
Oils, 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 pipe	202	304	
do West Indies	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.

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.
1890.	Tons.	Tons.	Tons.
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
Kyrolite.....		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
<hr/>			
Corn.....	16,033	219,539	144,301
Oats.....	400		327,833
	16,433		*16,433
<hr/>			
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 Order in Council 26th February and 5th May, 1890.

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	54,315
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.

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.
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.....			70
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 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.

U.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &c.—Continued.

RECAPITULATION.

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.
1884.			
	Tons.	Tons.	Tons.
Barley.....	38	52	.....
Corn.....	55,552	9,552	53,707
Oats.....	872	.....	9,874
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.—COMPARATIVE STATEMENT of the Quantity of Freight passed down the Welland Canal, &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.....		632	179
Wheat.....	93,915	14,365	39,999
Total Grain.....	160,358	140,520	169,664
Other Articles.....	23,541	73,281	68,893
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.....	52,539	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.....	53,689	7,637	6,433
Corn.....			131,232
Oats.....			36,935
Pease.....	524		
Rye.....	9,119	273	
Wheat.....	104,281	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
Grand total.....	267,485	69,886	330,403

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.
1883.	Tons.	Tons.
Grain	10,650	121,876
Other articles	173,852	53,579
Total	184,502	175,455
1884.		
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	73,281	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
1892.		
Grain	8,942	201,540
Other articles	60,944	128,863
Total	69,886	330,403

* Of this quantity of grain 16,433 tons were transhipped to Montreal in 1890, and 17,817 tons in 1891.

CANAL

COMPARATIVE Statement for Years ended

	January.	February.	March.	April.	May.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Welland Canal, 1891.....	205 00			6,519 99	28,972 97
do 1892.....		242 54		11,510 42	25,056 46
Increase.....		242 54		4,990 43	
Decrease.....	205 00				3,916 51
St. Lawrence Canals, 1891.....	15 52			201 50	8,151 22
do 1892.....				570 75	9,949 00
Increase.....				369 25	1,797 78
Decrease.....	15 52				
Chambly Canal, 1891.....					3,310 07
do 1892.....				19 45	3,463 15
Increase.....				19 45	153 08
Decrease.....					
Rideau Canal, 1891.....				41 14	609 33
do 1892.....			72 00	9 20	847 23
Increase.....			72 00		237 90
Decrease.....				31 94	
Ottawa Canals, 1891.....				541 88	8,064 90
do 1892.....				432 50	6,526 48
Increase.....					
Decrease.....				109 38	1,538 42
St. Peter's Canal, 1891.....				28 89	154 70
do 1892.....	31 10		1 06	180 14	254 58
Increase.....	31 10		1 06	151 25	99 88
Decrease.....					
Trent Valley Canal, 1891.....				2 70	71 53
do 1892.....				78 50	59 00
Increase.....				75 80	
Decrease.....					12 53
Murray Canal, 1891.....				13 52	54 85
do 1892.....				24 39	66 32
Increase.....				10 87	11 47
Decrease.....					
Total increase.....		242 54	73 06	5,475 73	
Total decrease.....	189 42				3,167 35

Amount refunded on account of reduction of tolls on grain through Welland and St. Lawrence Canals, 1891, \$49,834.98; actual revenue, \$300,516.99.

Amount refunded on account of reduction of tolls on grain through Welland and St. Lawrence Canals, 1892, \$40,030.83; actual revenue, \$318,680.21.

Department of Railways and Canals.

REVENUE.

31st December, 1891 and 1892.

June.	July.	August	September.	October.	November.	December.	Total.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
28,772 52	25,662 27	31,879 90	33,200 17	29,979 75	14,234 57	976 16	200,403 30
21,838 60	26,462 27	26,650 27	31,281 49	30,205 81	21,176 64	2,053 42	196,477 92
6,933 92	800 00	5,229 63	1,918 68	226 06	6,942 07	1,077 26	3,925 38
13,629 48	15,732 89	12,600 99	10,688 44	10,892 53	8,640 03	101 37	80,653 97
15,877 85	16,916 14	12,486 40	10,973 91	12,225 28	9,043 62	82 34	88,125 29
2,248 37	1,183 25	114 59	285 47	1,332 75	403 59	19 03	7,471 32
3,026 21	3,176 19	2,746 49	2,180 91	3,197 81	1,897 20	.....	19,534 88
2,757 04	3,021 47	3,719 52	3,072 86	3,494 99	1,432 37	.....	20,980 85
269 17	154 72	973 03	891 95	297 18	464 83	.....	1,445 97
1,151 39	1,145 24	966 88	819 04	901 42	508 61	2 84	6,145 89
810 52	983 36	923 33	701 69	721 04	430 27	0 50	5,499 14
340 87	161 88	43 55	117 35	180 38	78 34	2 34	646 75
6,938 18	6,898 19	5,422 33	4,598 07	4,649 97	3,343 87	1 00	40,458 39
6,692 54	6,621 12	7,225 16	6,282 02	6,545 83	2,759 03	.....	43,084 68
245 64	277 07	1,802 83	1,683 95	1,895 86	584 84	1 00	2,626 29
112 98	102 35	111 36	286 05	438 40	383 37	163 66	1,781 76
368 24	413 07	412 94	481 83	443 45	362 32	207 13	3,155 86
255 26	310 72	301 58	195 78	5 05	21 05	43 47	1,374 10
119 95	129 86	139 60	125 24	95 05	19 80	.....	703 73
113 79	159 11	137 86	114 30	90 07	49 38	.....	802 01
6 16	29 25	1 74	10 94	4 58	29 58	.....	98 28
135 67	146 09	178 74	63 85	46 05	31 28	.....	670 05
80 29	124 86	103 35	80 22	64 11	41 75	.....	585 29
55 38	21 23	75 39	16 37	18 06	10 47	.....	84 76
5,346 51	1,708 32	2,387 46	1,026 55	3,599 60	6,236 65	1,098 36	8,359 07
Total for year 1891.....							350,351 97
Total for year 1892							358,711 04

COMPARATIVE STATEMENT showing the Quantities of Vegetable Food and Lumber passed through the Canals during the Years ended 31st December, 1891 and 1892.

	FLOUR.	WHEAT.	CORN.	BARLEY.	OATS.	RYE.	ALL OTHER.	LUMBER.	TOTAL.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Welland Canal, 1891.....	13,517	198,658	185,180	8,113	52,959	65,888	28,042	64,887	617,244
do 1892.....	17,048	232,019	192,548	6,433	37,173	9,392	32,815	86,072	613,500
Increase.....	3,531	33,361	7,368	1,680	15,786	56,496	4,773	21,185	3,744
Decrease.....									
St. Lawrence Canals, 1891.....	8,123	190,843	67,603	17,646	8,923	66,917	42,730	48,322	451,067
do 1892.....	8,546	262,890	59,340	9,340	44,294	10,119	54,597	37,475	486,601
Increase.....	423	72,047	8,263	8,296	35,371	56,798	11,867	10,847	35,534
Decrease.....									
Chambly Canal, 1891.....	228			842	1,239		2,474	97,551	102,344
do 1892.....	285				3,034		907	91,464	95,690
Increase.....	57				1,795		1,567	6,097	6,654
Decrease.....									
Rideau Canal, 1891.....	690	290	22	373	124	170	437	38,524	40,630
do 1892.....	369	65	20	82	1,551	81	463	29,622	32,253
Increase.....	321	225	2	291	1,427	89	26	8,902	8,377
Decrease.....									
Ottawa Canals, 1891.....	112	18		150	1,038		3,275	424,116	428,709
do 1892.....	26	28	4	76	4,579	57	1,749	469,727	476,246
Increase.....									
Decrease.....	86	10	4	74	3,541	57	1,526	45,611	47,537

SUPPLEMENTARY APPENDIX A—Continued.

No. (A) 7.—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 1892.

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.											19			3 80
Apples		283			267				19	297	283			16 54
Agricultural products, not enumerated, vegetable.		91	16	400					16	491				22 60
Agricultural products, not enumerated, animal	1		10						11					1 65
Agricultural implements.	223		40			6,433			263		6,433			1,286 60
Barley														36 44
Bricks														
Bones														
Brimstone	314		501						815					78 65
Cement and water lime		70							70					5 25
Clay, lime and sand					183,244				195,635					39,127 00
Coal					651				15,330					3,157 13
Coal					131,222				61,326					38,569 60
Corn														0 02
Corn														
Cattle														
Cotton (raw)														
Crockery and earthenware.														
Dyewood and dye stuffs.														
Fish		9			15				15	9				2 25
Flax and hemp.														
Flour		4,618	2			11,018			1,410	2	17,046			2,601 10
Furniture		1	16			7			1	9				1 62
Gypsum		200							200					5 00
Glass (all kinds)		18	20		51				89					13 35
Hay (pressed).														
Hogs														
Horses		59	5		1				2	65	26			0 95
Hides and skins, horns and hoofs.					93				20	93	20			4 00
Ice														17 95

Department of Railways and Canals.

Iron, railway.	100	63				63	100	163	9 45	20 00	29 45
do pig	44										
do all other.	765	182	575	1		801	766	1,567	115 97	153 20	269 17
Iron ore		69				69		69	3 45		3 45
Kryolite chemical ore and other ore, except iron.											
Lard and lard oil.	16			31,724			31,740	31,740		6,348 00	6,348 00
Meal, all kinds.				29			79	79		15 80	15 80
Meats, other than pork											
Marble		2	3,188			3,190		3,190	478 50		478 50
Manilla.			66								
Molasses			107								
Nails	13	27									
Oats.				36,935			37,173	37,173	4 95	7,434 60	7,434 60
Oil (in barrels).	238	2				2	42	44	0 30	3 15	3 45
Oil cake.											
Pease.	524						524	524		104 80	104 80
Potatoes				1			1	1		0 20	0 20
Pork		20		44			44	44		8 80	8 80
Paint.											
Pitch and tar.											
Rags.											
Rye.											
Rosin											
Salt.	10	1	2								
Stone intended for cutting.	865	1		1,264			1,264	1,264	1 95	173 00	174 95
do wrought										252 80	252 80
do not suitable for cutting.	263										
do wrought											
do not suitable for cutting.											
Seeds, all kinds.	71		10,031	50		4	125	10,294	1,019 47	25 00	1,019 47
Sheep.											
Soda ash											
Steel.											
Sugar	356		14								
Spirits, beer, &c	4		2,556	1			1	2,557	2 10	0 20	383 60
Tobacco (raw)			2,760	20			30	3,172	426 30	4 19	430 49
Tallow.			1	46			70	161	13 65	13 67	27 32
Tin											
Turpentine.			108								
Wheat.	2,209	241									
White lead.											
Whiting											
Wool											
All other goods and merchandise not enumerated.	1,096	255	37,086	1,304	37	38,437	1,825	40,262	5,651 55	283 06	5,934 71
Bark											
Barrels, empty											
Boat knees											
Floats											
Firewood, in vessels.	15	1,350					5,655	7,020	33 89	303 11	337 00

No. (A) 7.—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.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Firewood, in rafts.....														
Hoops.....														
Hop poles.....														
Lumber, sawn, in vessels.....	15	1,473	3	29,230		54,173	1,178		18	86,054	86,072	1 87	15,425 63	15,427 50
do rafts.....														
Masts, spars and telegraph poles, in vessels.....														
Masts, spars and telegraph poles, in rafts.....	5	96												
Railway ties, in vessels.....														
do rafts.....	185	1,315												
Saw-logs.....														
Staves and headings, barrel pipe.....														
do W. India.....														
Staves, salt barrel.....														
Shingles.....														
Split posts and fence rails, in vessels.....														
Split posts and fence rails, in raft.....														
Timber, square, in vessels.....		8,090		440										
do rafts.....	100	70							70	170	170	2 82	1 98	4 80
Traverses.....														
Woodenware and wood partly manufactured.....	2													
Total freight paying tolls.....	4,932	87,642	2,945	32,583	240,182	300,733	12,391	254,390	250,450	685,348	945,798	47,589 90	130,554 59	178,144 49
Articles having paid full Tolls on the St. Lawrence Canals, &c.														
Ashes, pot and pearl.....			88							88				

Department of Railways and Canals

Cement and water lime.....	869	701	1,570	1,570		
Clay lime and sand.....		240	240	240		
Crockery and earthenware.....	2	6	8	8		
Fish.....		426	426	426		
Furniture.....		3	3	3		
Glass, all kinds.....		152	152	152		
Iron, railway.....	937	214	1,171	1,171		
do pig.....		74	74	74		
do all other.....	20	367	387	387		
Lard and lard oil.....		16	16	16		
Molasses.....		32	32	32		
Nails.....	25	251	276	276		
Oil, in barrels.....		2	2	2		
Paint.....		15	15	15		
Pitch and tar.....	15	15	15	15		
Salt.....	50	1,984	2,034	2,034		
Soda ash.....		352	352	352		
Spirits, beer, &c.....	14	206	269	269		
Steel.....	258	11	145	145		
Stone intended for cutting.....			1,320	1,320		
Sugar.....	463	857	1,320	1,320		
Tin.....		27	27	27		
White lead.....		6	6	6		
Whiting.....	49	22	71	71		
Wool.....		13	13	13		
Merchandise, having paid full tolls on the Rideau Canal.....	96	437	538	538		
(Grand total freight.....)	7,750	87,642	286	286		
		9,733	32,563	300,733	270,206	685,348
			245,332	12,391	204,390	955,554
Total tolls on vessels.....						8,522 85
do passengers.....						8,631 67
do free goods.....						240 40
Total tolls.....						56,376 59
Fines and damages.....						139,426 66
Other receipts.....						195,803 25
Total revenue, exclusive of hydraulic rents.....						540 95
						183 72
						196,477 92

B. H. TEAKLIES,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 26th April, 1893.

SUPPLEMENTARY APPENDIX A.—Continued.

No. (A) 8.—STATEMENT showing the Quantity of each Article of Through Freight transported on the Welland Canal, and the Amount of Tolls Collected thereon, during the Season of Navigation in 1892.

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														
Apples		54												
Agricultural products, not enumerated, vegetable.														
Agricultural products, not enumerated, animal.														
Barley	1		10											
Bricks	200		40											
Bones														
Brimstone				29										
Cement and water lime														
Clay, lime and sand														
Coal				183,244										
Corn							651							
Cattle							131,222							
Cotton, raw.														
Crockery and earthenware														
Dye wood and dye stuffs.														
Fish		9												
Flax and hemp.														
Flour			2				11,018							
Furniture			16											
Gypsum														
Glass, all kinds.	18		20											
Hay, pressed														
Hogs														
Horses														
Hides and skins, horns and hoofs			5											
Ice				98										
									20	98	113	13 95	4 00	17 95

Department of Railways and Canals.

Iron, railway.	1000	63	1000	163	9 45	20 00	29 45
do pig.	12		769	1,585	115 35	153 20	268 55
do all other	182						
do ore.	69			69	3 45		3 45
Kryolite chemical ore and other ore, except iron							
Lard and lard oil.	16		31,740	31,740		6,348 00	6,348 00
Meat, all kinds.	2	50	79	79	478 50	15 80	15 80
Meats, other than pork				3,190	9 90		478 50
Marble				66	32		9 90
Manilla.	27		107	107	16 05		16 05
Molasses	5		32	32	4 80		4 80
Nails			36,935	36,935		7,387 00	7,387 00
Oats.		7			0 30	1 40	1 70
Oil, in barrels	2						
do cake							
Pease	524		524	524		104 80	104 80
Potatoes		1	1	1	0 20		0 20
Pork		44	44	44		8 80	8 80
Paint.	20			20	3 00		3 00
Pitch and tar							
Rags							
Rye.			9,392	9,392		1,878 40	1,878 40
Resin							
Salt.	10	2	1,264	1,264		173 00	174 95
Stone, intended for cutting.	865					252 80	252 80
do wrought							
do not suitable for cutting.							
do unwrought.	71			10,031	1,003 05	25 00	1,003 05
Seeds, all kinds				125			25 00
Sheep				14	2 10		2 10
Soda ash				2,556	383 40	0 20	383 60
Steel				2,796	419 40	4 00	423 40
Sugar	10		20	20	13 65		27 05
Spirits, beer, &c.	4		46	46			
Tobacco, raw							
Tallow				108	16 20		16 20
Tin	8		20	20	3 00		3 00
Turpentine.							
Wheat.	61,433		1,226,604	226,605	0 15	45,320 80	45,320 95
White lead							
Whiting							
Wool.							
All other goods and merchandise, not enumerated.	222	36	1,953	38,916	5,634 45	270 60	5,905 05
Bark.							
Barrels, empty							
Boat knees							
Floats							
Firewood, in vessels.							

No. (A) 8.—STATEMENT showing the Quantity of each Article of Through Freight, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian 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.				
Firewood, in rafts.														
Hoops														
Hop poles		650	3											
Lumber, sawn, in vessels.				54,173				1,178		3	85,231		15,332 92	15,333 44
do rafts.														
Masts, spars and telegraph poles, in vessels.														
Masts, spars and telegraph poles, in rafts														
55 Railway ties, in vessels.														
do rafts														
Saw-logs														
Staves and headings, barrel.													16 10	16 10
do pipe.													51 68	51 68
do W. India													18 10	18 10
Staves, salt barrel.														
Shingles														
Split posts and fence rails, in vessels.														
Split posts and fence rails, in rafts.		8,090	440				35,118			43,648		6,541 16	6,541 16	
Timber, square, in vessels.														
do rafts.														
Traverses.														
Woodenware and wood partly manufactured.	2									7		2 80		2 80
Total freight paying tolls.	484	72,590	867	29,670	240,182	300,733	12,391	263,273	253,924	646,266	920,190	47,363 67	129,359 28	176,722 95
Articles having paid full tolls on the St. Lawrence Canals, free.—														
Ashes, pot and pearl.			88							88				88
Cement and water lime.	869		701						1,570					1,570

Department of Railways and Canals.

Clay, lime and sand.....	240								240	
Crockery and earthenware.....	6								8	
Fish.....	426								426	
Furniture.....	3								3	
Glass, all kinds.....	152								152	
Iron, railway.....	214								1,171	
do pig.....	74								74	
do all other.....	367								387	
Lard and lard oil.....	16								16	
Molasses.....	32								32	
Nails.....	251								276	
Oil in barrels.....	2								2	
Paint.....	15								15	
Pitch and tar.....	50								15	
Salt.....	1,984								2,034	
Soda ash.....	352								352	
Spirits, beer, &c.....	14								220	
Steel.....	258								269	
Stone intended for cutting.....				145					145	
Sugar.....	463								1,320	
Tin.....	27								27	
White lead.....	6								6	
Whiting.....	49								71	
Wool.....	13								13	
Merchandise.....	96								538	
do Kryolite, free, having paid full tolls on the Rideau Canal.....										
Grand total freight.....	3,302	72,590	29,670	240,352	300,738	12,391	263,273	263,080	666,266	929,946
Total tolls on vessels.....										
do passengers.....										8,094 44
do free goods.....										53 25
Total through tolls.....										8,147 69
										16,332 06
										110 65
										193,165 66

B. H. TEAKLES,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 26th April, 1893.

No. (A) 9—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.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Firewood, in rafts.														
Hoops.														
Hop poles.														
Lumber, sawn, in vessels.	15	823							15	823	838	1 35	92 71	94 06
do rafts.														
Masts, spars and telegraph poles, in vessels.														
Masts, spars and telegraph poles, in rafts.	5	96		121					5	217	217	0 25	6 78	0 25 6 78
66 Railway ties, in vessels.														
do rafts.	185	1,315		1,055					185	2,370	2,555	9 72	94 33	104 05
Saw-logs.				95						95	95		7 60	7 60
Staves and headings, barrel.														
do pipe.														
do W. India.														
Staves, salt barrel.														
Shingles.														
Split posts and fence rails, in vessels.														
Split posts and fence rails, in rafts.														
Timber, square, in vessels.	100	70							100	70	170	2 82	1 98	4 80
do rafts.														
Traverses.														
Woodenware and wood partly manufactured.														
Total freight paying tolls.	4,448	15,052	2,078	2,913				1,117	6,526	19,082	25,608	226 23	1,195 31	1,421 54

Department of Railways and Canals.

Total way tolls on vessels.....	428 41	394 05	822 46
do passengers.....	210 59	183 00	393 59
Total way tolls.....	865 23	1,772 36	2,637 59
			\$

B. H. TEAKLES,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
 OTTAWA, 26th April, 1893.

Department of Railways and Canals.

Iron, railway	989	4	214				1,203	4	1,207	177 69	0 15	177 84
do pig	1,184	10	64				1,248	10	1,258	157 10	0 38	157 48
do all other	11,754	1,817	381				12,135	1,817	13,052	658 89	72 52	731 41
do ore												
Kyrolite chemical ore and other ore, except iron												
Lard and lard oil	130	72	16				146	72	218	17 74	2 78	20 52
Meal, all kinds	613	611					613	611	1,224	25 27	31 18	56 45
Meats, other than pork	15	5					15	5	20	1 82	0 53	2 35
Marble	5						17		17	1 85		1 55
Manilla	9						9		9	1 80		1 80
Molasses	700	22	32				732	22	754	72 39	1 10	73 49
Nails	1,188	684	263				1,449	684	2,133	275 35	35 40	310 75
Oats	872	48,422					872	48,422	44,204	29 92	2,050 16	2,080 08
Oil, in barrels	808	157	1				930	157	1,087	117 71	22 70	140 41
Oil cake	3						3		3	0 16		0 16
Pease	549	46,870					549	46,870	47,419	15 56	2,854 28	2,869 84
Potatoes	52	87					52	87	139	2 00	7 41	9 41
Pork	376	192					376	192	568	39 17	9 82	48 49
Paint	212	187	17				255	187	442	43 78	12 65	56 43
Pitch and tar	71	48	15				287	48	335	24 47	2 75	27 22
Rags	57	66					57	66	123	6 00	12 90	18 90
Rye	17	983					17	983	1,000	1 66	69 16	70 82
Rossin	315	47					2,117	47	2,164	108 90	2 35	111 25
Salt	3,647	31	1,941				5,588	31	5,619	713 37	1 52	714 89
Stone intended for cutting	191	160		60			1,809	220	2,029	84 62	26 25	110 87
do wrought	326						326		326	17 65		17 65
do not suitable for cutting, unwrought	83	4,268					83	4,268	4,351	1 65	85 35	87 00
needs, all kinds	6,076	379					6,076	379	6,455	229 84	16 55	246 39
Sheep	3	110					3	110	113	0 24	8 34	8 58
Soda ash	630	35	378				1,008	35	1,043	198 98	5 35	204 33
Steel	1,015	13	11				1,026	13	1,039	132 99	0 51	133 50
Sugar	4,783	34	896				5,679	34	5,713	1,126 81	3 20	1,130 01
Spirits, beer, &c	373	473	221				594	483	1,077	106 00	91 05	197 05
Tobacco, raw	1						1		1	0 10		0 10
Tallow	36	1					36	1	37	4 50	0 08	4 58
Tin	364	17	27				391	17	408	73 08	1 30	74 38
Turpentine	23	26					164	26	190	11 45	1 30	12 75
Wheat	14,455	49,067					14,455	54,154	68,609	542 22	3,860 20	4,402 42
White lead	150		8				158		158	30 82		30 82
Whiting	192		83				275		275	55 96		55 96
Wool		10	13				13	10	23	1 95	1 50	3 45
All other goods and merchandise not enumerated	6,505	2,840	477	34	407	450	8,032	3,361	11,993	1,192 31	492 10	1,684 41
Bark					5				5	0 19		0 19
Barrels, empty	415	7			19		434	7	441	46 82	0 59	47 41
Boat knives												
Floats	3,100	4,364					3,100	4,364	7,464	57 75	70 77	128 52
Firewood, in vessels	6,202	7,345	9	1,170	171		6,382	8,515	14,897	106 70	227 19	333 89

No. (A) 10.—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.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Firewood, in rafts														
Hoops														
Hop poles														
Lumber, sawn, in vessels	20,097	14,692	33	197		5	527		20,130	15,421	35,551	495 29	605 22	1,100 51
do rafts		125								125			5 64	5 64
Masts, spars and telegraph poles, in vessels														
Masts, spars and telegraph poles, in rafts														
Railway ties, in vessels	148	13,540									13,540	2 95	338 50	338 50
do rafts									148		148		2 95	2 95
Saw-logs	88	18,271							88	18,271	18,359	2 00	418 24	420 24
Staves and headings, barrel														
do pipe		80								80			2 50	2 50
do W. India		104								104			3 90	3 90
Staves, salt barrel	25	3							25	3	28	3 87	0 45	4 32
Shingles														
Split posts and fence rails, in vessels														
Split posts and fence rails, in rafts	628	2,057							628	2,057	2,685	22 88	26 14	49 02
Timber, square, in vessels	1,630	7,237							1,630	7,237	8,867	48 90	186 85	235 75
do rafts		8,222								8,222			21 40	21 40
Traverses														
Woodenware and wood partly manufactured	26	18							26	18	44	8 60	3 50	12 10
Total freight paying tolls.	130,423	333,645	6,190	1,424	702	2,046	8,367	116,411	145,682	453,526	589,208	9,419 10	40,154 90	49,574 00
Free articles, having paid full tolls on the Welland Canal:														
Apples		54								54				
Ashes		17								17				

SUPPLEMENTARY APPENDIX—Continued.

No. (A) 11.—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, 1892.

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.		36							88	36	124	17 60	7 20	24 80		
Apples.		4,927	88						4,927	4,927	4,927		739 05	739 05		
Agricultural products, not enumerated, vegetable.	155	1,992							155	1,992	2,147	23 25	141 89	165 14		
Agricultural products, not enumerated, animal.	3	2,407							3	2,407	2,410	0 45	361 05	361 50		
Barley.	2	4,165							2	4,165	4,165	0 40	291 30	291 30		
Bricks.	34	58							34	58	34	5 10	8 70	8 70		
Bones.	5								5		5	0 75		0 75		
Brimstone.	2,001								2,737	410 52	2,737	410 52		410 55		
Cement and water lime.	341	565		636					341	1,697	2,038	51 15	254 55	305 70		
Clay, lime and sand.	62,503						1,132		157,134	157,134	157,134	23,570 10	165 84	23,570 10		
Coal.	1,701						94,631		1,701	1,701	1,701	15	1 80	1 95		
Corn.	1	12							1	12	13	18 00	2 60	20 60		
Cattle.									90	13	103	0 40		0 40		
Cotton, raw.	80	13		10					502	75 30	502	75 30		75 30		
Crockery and earthenware.	2															
Dye wood and dye stuffs.	452			50												
Fish.																
Flax and hemp.	8	3,682							8	3,682	3,690	1 20	552 30	553 50		
Flour.	72	618		3					75	618	693	15 00	123 60	138 60		
Furniture.	1	17		162					1	17	435	0 15	3 40	0 15		
Gypsum.	266								418	17	435	83 60		87 00		
Glass, all kinds.																
Hay, pressed.																
Hogs.	16	30							16	30	46	2 40	4 50	6 90		
Horses.																
Hides and skins, horns and hoofs.																
Ice.		39							39	39	39		5 85	5 85		

Department of Railways and Canals.

Iron, railway	957	214	1,171	1,171	1,171	175 65	175
do pig	766	64	830	830	830	124 50	124 50
do all other	1,077	381	1,458	1,471	1,471	218 70	220 65
Iron ore							
Kryolite chemical ore and other ore, except iron	66	16	82	82	82	12 30	12 30
Lard and lard oil		41	5	41	41	6 15	6 15
Meal, all kinds	5	3	9	8	8	0 75	1 20
Meats, other than pork							
Marble	9		9	9	9	1 80	1 80
Manilla	21	32	53	53	53	10 60	10 60
Molasses	700	263	963	971	971	192 60	194 20
Nails		8	5,802	5,802	5,802	710 61	710 66
Oats	295	99	296	296	296	59 20	59 00
Oil, in barrels							
Oil cake		13,750	13,750	13,750	13,750	1,711 11	1,711 11
Pease		17	17	17	17	2 55	2 55
Potatoes	6	22	6	28	28	0 90	3 20
Pork	132	17	149	171	171	29 80	34 20
Paint	26	2	41	43	43	8 20	8 60
Pitch and tar	3	63	3	66	66	0 60	13 20
Rags		377	377	377	377	47 58	47 58
Rye	8		8	8	8	1 60	1 60
Rosin	1,584	1,941	3,525	3,525	3,525	528 75	528 75
Salt		145	145	365	365	21 75	45 75
Stone intended for cutting, do wrought	9		9	9	9	1 80	1 80
do not suitable for cutting, unwrought							
Seeds, all kinds	26	26	26	26	26	3 90	3 90
Sheep	2		2	2	2	0 30	0 30
Soda ash	554	378	932	936	936	186 40	191 20
Steel	820	11	831	831	831	124 65	124 65
Sugar	3,539	10	4,435	4,445	4,445	887 00	889 00
Spirits, beer, &c	94	436	315	446	446	63 00	152 20
Tobacco, raw							
Tallow	28		28	28	28	4 20	4 20
Tin	288	3	295	298	298	59 00	59 60
Turpentine	10	27	10	10	10	2 00	2 00
Wheat	14,404	5,087	19,491	19,491	19,491	2,642 98	2,642 98
White lead	185	8	143	143	143	28 60	28 60
Whiting	148	83	231	231	231	46 20	46 20
Wool		10	13	23	23	1 95	3 45
All other goods and merchandise not enumerated	2,761	472	3,233	5,169	5,169	646 60	1,033 80
Bark							
Barrels, empty	131	2	131	133	133	24 38	24 52
Boat knees							
Floats	400	400	400	400	400	2 80	2 80
Firewood, in vessels							

SUPPLEMENTARY APPENDIX A—Continued.
No. (A) 12.—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 1892.

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.....	20	262	6				6		26	268	294	2 32	12 73	15 05
Apples enumerated, not enumerated, vegetables.....	110	1,828					1		111	1,828	1,939	9 48	68 00	77 48
Agricultural products, not enumerated, vegetables.....	122	83							122	83	205	8 47	6 03	14 50
Agricultural products, not enumerated, animal.....	94	1							94	1	95	11 61	0 10	11 71
Barley.....	741	4,434							741	4,434	5,175	27 81	160 63	188 44
Bricks.....	10,284	362					193		10,477	362	10,839	415 17	23 03	438 20
Bones.....		17							17		17		1 32	1 32
Brimstone.....	552								552		552	53 83		53 83
Cement and water lime.....	821	242							821	242	1,063	70 45	9 09	79 54
Clay, lime and sand.....	18,190	4,986			40		3,104		21,334	4,986	26,330	824 18	200 59	1,024 77
Coal.....	8	2,617			1,527		14,981		8	1,527	20,939	0 72	1,503 06	1,503 06
Corn.....	50	229							50	229	2,640	2 78	15 74	18 52
Cattle.....	71	6							71	6	77	11 63	0 30	11 93
Cotton, raw.....	43						108		151		151	7 89		7 89
Crockery and earthenware.....	382	42							382	42	424	19 31	2 91	22 22
Dye wood and dye stuffs.....														
Fish.....	836	1,232			4				836	1,236	2,072	56 30	48 27	104 57
Flax and hemp.....	274	246							274	246	520	23 87	14 40	37 27
Flour.....	2,472	37							2,472	37	2,509	33 40	1 42	34 82
Furniture.....	60	54					2		62	54	116	9 51	3 25	12 76
Gypsum.....	458	655							458	655	1,113	17 71	40 12	57 83
Glass, all kinds.....														
Hay, pressed.....	167	288							167	288	455	8 79	16 11	24 90
Hogs.....														
Hides and skins, horns and hoofs.....											8		0 59	0 59
Ice.....														

Department of Railways and Canals.

	32	4	32	4	36	2 04	0 15	2 19
	418	10	418	10	428	32 60	0 57	32 98
	10,677	1,804	10,677	1,804	12,481	440 19	70 57	510 76
Iron, railway.....	32	4	32	4	36	2 04	0 15	2 19
do pig.....	10	10	418	10	428	32 60	0 57	32 98
do all other.....	1,804	1,804	10,677	1,804	12,481	440 19	70 57	510 76
Iron ore.....								
Kryolite chemical ore and other ore, except iron.....	64	72	64	72	136	5 44	2 78	8 22
Lard and lard oil.....	613	570	613	570	1,183	25 27	25 03	50 30
Meal, all kinds.....	10	2	10	2	12	1 07	08	1 15
Meats, other than pork.....	5		17		17	1 55		1 55
Manila.....	679	22	679	22	701	61 79	1 10	62 89
Molasses.....	486	676	486	676	1,162	82 75	33 80	116 55
Nails.....	872	37,620	872	37,620	38,492	29 92	1,339 50	1,369 42
Oats.....	513	58	634	58	602	58 51	2 90	61 41
Oil in barrels.....	3		3		3	16		16
Oil cake.....	549	33,120	549	33,120	33,669	15 56	1,143 17	1,158 73
Pease.....	52	70	52	70	122	2 00	4 86	6 86
Potatoes.....	370	170	370	170	540	38 27	6 52	44 79
Pork.....	165	106	165	106	271	13 98	8 25	22 23
Paint.....	45	46	246	46	292	16 27	2 35	18 62
Pitch and tar.....	3	3	54	3	57	5 40	30	5 70
Rags.....	17	606	17	606	623	1 66	21 58	23 24
Rye.....	307	47	2,109	47	2,156	107 30	2 35	109 65
Rosin.....	2,063	31	2,063	31	2,064	184 62	1 52	186 14
Salt.....	191	60	1,664	60	1,724	62 87	2 25	65 12
Stone intended for cutting.....	317		317		317	15 85		15 85
do wrought.....								
do not suitable for cutting, unwrought.....	83	4,268	83	4,268	4,351	1 65	85 35	87 00
Seeds, all kinds.....	6,076	353	6,076	353	6,429	229 84	12 65	242 49
Sheep.....	3	108	3	108	111	24	8 04	8 28
Soda ash.....	76	11	76	11	87	12 58	55	13 13
Steel.....	195	13	195	13	208	8 34	51	8 85
Sugar.....	1,244	24	1,244	24	1,268	239 81	1 20	241 01
Spirits, beer, &c.....	279	37	279	37	316	43 00	1 85	44 85
Tobacco, raw.....	1	1	1	1	1	10		10
Tallow.....	8	1	8	1	9	30	08	38
Tin.....	96	14	96	14	110	14 08	70	14 78
Turpentine.....	13	26	154	26	180	9 45	1 30	10 75
Wheat.....	14,455	34,663	14,455	34,663	49,118	542 22	1,217 22	1,759 44
White lead.....	15		15		15	2 22		2 22
Whiting.....	44		44		44	9 76		9 76
Wool.....								
All other goods and merchandise not enumerated.....	3,744	941	5,399	407	6,824	545 71	104 90	650 61
Bark.....	284	5	303	5	308	22 44	45	22 89
Barrels, empty.....								
Boat keels.....	3,100	3,964	3,100	3,964	7,064	73 29	52 43	125 72
Floats.....	6,202	7,345	6,382	8,515	14,897	106 70	227 19	333 89
Firewood, in vessels.....								

Department of Railways and Canals.

Kyrolite chemical ore and other ore, except iron.....	581	581	29 05
Lard and lard oil.....	5	5	18
Meal, all kinds.....	73	73	5 57
Meats, other than pork.....	1	1	10
Marble.....	1	1	24
Mamilla.....	12	12	70
Molasses.....	13	13	75
Nails.....	4,579	4,579	356 12
Oats.....	5	5	1 13
Oil, in barrels.....	989	989	71 29
Oil cake.....	580	580	46 49
Pease.....	580	580	46 49
Potatoes.....	17	17	2 26
Pork.....	2	2	3
Paint.....	1	1	43
Pitch and tar.....	1	1	05
Rags.....	22	22	4 00
Rye.....	57	57	5 52
Rosin.....	2	2	15
Salt.....	24	24	1 65
Stone intended for cutting.....	1	1	10
do wrought.....			
do not suitable for cutting, unwrought.....			
Seed, all kinds.....	38	38	2 70
Sheep.....	345	345	24 42
Soda ash.....	3	3	57
Steel.....	54	54	10 89
Sugar.....	10	10	79
Spirits, beer, &c.....	1	1	
Tobacco, raw.....	18	18	1 15
Tallow.....	14	14	75
Tin.....	14	14	
Turpentine.....	28	28	2 11
Wheat.....	1	1	19
White lead.....	1	1	
Whiting.....	9	9	89
Wool.....	281	281	47 81
All other goods and merchandise not enumerated.....	88	88	
Bark.....	35	35	4 15
Barrels empty.....	1	1	03
Boat knees.....	41,060	41,060	451 33
Floata.....	31,854	32,991	1,321 33
Firewood, in vessels.....	174	420	4 20
do rafts.....	28	28	2 00
Hoops.....	28	28	
Hop poles.....	9	9	34,940 41
Lumber, sawn, in vessels.....	368,927	39	13 11
do rafts.....	99,988	36	2 79
Masts, spars and telegraph poles, in vessels.....	36	36	
do rafts.....			

No. (A) 13.—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 Amount of Tons.	Total Tons.	Total Amount of Tons.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.			
Railway ties, in vessels		125											53 50
do rafts		1,563		200							325		83 34
Saw-logs		21,085									1,563		481 88
Staves and headings, barrel											21,085		
do pipe													
do West India													
Staves, salt barrel													
Shingles				455							526		457 68
Split posts and fence rails, in vessels											1		0 88
do do rafts													
Timber, square, in vessels		2,560									2,560		62 91
do rafts		12,480									12,480		145 28
Traverses		1,060									1,060		2 65
Woodenware and wood partly manufactured													
Total freight paying tolls	551	499,563	1	101,780					552	601,343		601,896	39,159 27
<i>Free per Order in Council, 27th June, 1890.</i>													
Floata		23,460									23,460		23,460
Firewood, in rafts		4,290									4,290		4,290
Lumber, sawn, in rafts		704									704		704
Square timber do		2,940									2,940		2,940
Saw-logs		13,662									13,662		13,662
Traverses		60									60		60
Grand total freight	551	544,679	1	101,780					552	646,459		647,011	

\$ cts.

Department of Railways and Canals.

Total tolls on vessels.....	3,766.78
do passengers.....	140.63
do free goods.....	\$605.49
Fines.....	10.00
Other receipts.....	8.00
Total revenue, exclusive of hydraulic rents.....	43,084.68

B. H. TEAKLES,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
 OTTAWA, 26th April, 1893.

No. (A) 14.—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.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Railway ties, in vessels.												\$ cts.
do rafts.	4,036			2,088					6,124		6,124	488 80
Saw-logs.												
Staves and headings, barrel.												
do pipe.												
do do West India												
Staves, salt barrel												
Shingles.												
do do												
Split posts and fence rails, in vessels.												
do do rafts											23	3 20
Timber, square, in vessels.												
do do rafts.												
Traverses												
Woodenware and wood partly manufactured												
Total freight paying tolls	9,714	8,828	154,170		204		97,850	103,884	106,882	270,766	18,170 23	
Total tolls on vessels..... 2,701 13 do passengers..... 88 49 Fines and damages..... 20 00 Other receipts..... 1 00 Total revenue exclusive of hydraulic rents..... 29,980 85												

B. H. TEAKLES,
Comptroller of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
 OTTAWA, 26th April, 1893.

No. (A) 15.—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.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Lard and lard oil.	38	40							38	40	78	2 13
Meal, all kinds.	5	60							5	60	60	1 45
Meats, other than pork.	3	7							3	7	12	0 30
Marble.	3	2							3	2	5	0 45
Manilla.	56	1							56	1	57	5 21
Molasses.	241	3							241	3	244	23 50
Nails.	129	1,422							129	1,422	1,551	49 49
Oats.	182	157							182	157	339	32 11
Oil, in barrels.		3								3	3	0 11
Oil cake.		41								41	54	1 57
Pease.	13	41							13	41	54	5 72
Potatoes.	5	201							5	201	206	6 23
Pork.	185	36							185	36	221	1 17
Paint.	11	1							11	1	12	0 18
Pitch and tar.	2	2							2	2	2	0 18
Rags.	12	37							12	37	49	5 77
Rye.	65	16							65	16	81	2 00
Resin.	2	2							2	2	2	0 18
Salt.	1,737	315							1,737	315	2,052	56 53
Stones intended for cutting.	5	33							5	33	38	1 68
do wrought.	3	788							3	788	788	0 37
do not suitable for cutting, unwrought.		6								6	6	0 15
Seeds, all kinds.	2	2							2	2	2	0 06
Sheep.	2	2							2	2	2	0 18
Soda ash.	4	6							4	6	10	0 29
Steel.	592	53							592	53	645	61 41
Sugar.	55	22							55	22	77	7 08
Spirits, beer, &c.	1	1							1	1	1	0 03
Tobacco, raw												
Tallow.												
Tin.	14	14							14	14	14	1 34
Turpentine.	1	64							1	64	65	1 86
Wheat.	6	6							6	6	6	0 54
White lead.												
Whiting.	22	22							22	22	22	1 94

Department of Railways and Canals.

	3	11	3	11	3	11	14	11
Wool.....	721	498	721	498	1,219	53	53	0 51
All other goods and merchandise not enumerated.....	54	48	54	48	102	2 48	2 48	122 98
Bark.....	440	200	440	200	640	10 15	10 15	7 91
Barrels, empty.....	32,570	3,039	32,961	3,039	36,000	633 99	633 99	.....
Boat knees.....	.....	.....	.....	.....	.....	.....	.....	.....
Floata.....	.....	.....	.....	.....	.....	.....	.....	.....
Firewood, in vessels.....	17,327	10,753	18,864	10,753	29,617	947 34	947 34	.....
do rafts.....	5	5	5	5	5	0 19	0 19	.....
Hoops.....	54	54	54	54	54	2 90	2 90	.....
Hop poles.....	.....	.....	.....	.....	.....	.....	.....	.....
Lumber, sawl, in vessels.....	5,624	126	5,624	126	5,750	649 12	649 12	.....
do rafts.....	534	.....	534	.....	534	46 68	46 68	.....
Masts, spars and telegraph poles, in vessels.....	47	105	47	105	152	3 48	3 48	.....
do do rafts.....	.....	.....	.....	.....	.....	.....	.....	.....
Railway ties, in vessels.....	.....	.....	.....	.....	.....	.....	.....	.....
do rafts.....	.....	.....	.....	.....	.....	.....	.....	.....
Saw-logs.....	.....	.....	.....	.....	.....	.....	.....	.....
Staves and heading, barrel.....	.....	.....	.....	.....	.....	.....	.....	.....
do do pipe.....	.....	.....	.....	.....	.....	.....	.....	.....
do do West India.....	.....	.....	.....	.....	.....	.....	.....	.....
Staves, salt barrel.....	50	61	50	61	111	20 65	20 65	.....
Shingles.....	5	5	5	5	5	0 77	0 77	.....
Split posts and fence rails, in vessels.....	.....	.....	.....	.....	.....	.....	.....	.....
do do rafts.....	20	20	20	20	40	0 76	0 76	.....
Timber, square, in vessels.....	357	20	357	20	377	7 10	7 10	.....
do do rafts.....	91	14	91	14	105	9 26	9 26	.....
Traverses.....	.....	.....	.....	.....	.....	.....	.....	.....
Woodenware and wood partly manufactured.....	.....	.....	.....	.....	.....	.....	.....	.....
Coal, free, per Order in Council.....	64,313	24,145	64,141	24,145	90,286	3,102 63	3,102 63	.....
Grand total freight.....	6,080	1,828	6,080	1,828	6,080	.....	.....	.....
Total tolls on vessels.....	70,393	24,145	72,221	24,145	96,366	.....	.....	.....
do passengers.....	.....	.....	.....	.....	.....	.....	.....	1,715 06
do free coal.....	.....	.....	.....	.....	.....	.....	.....	169 83
Wharfage and storage.....	.....	.....	.....	.....	.....	.....	.....	191 42
Fines and damages.....	.....	.....	.....	.....	.....	.....	.....	23 00
Other receipts.....	.....	.....	.....	.....	.....	.....	.....	297 20
Total revenue, exclusive of hydraulic rents.....	.....	.....	.....	.....	.....	.....	.....	5,499 14

B. H. TEAKLES,
Compiler of Canal Statistics.

SUPPLEMENTARY APPENDIX A—Continued.

No. (A) 16.—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 1892.

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.		
Fish.....		1,749									1,749	17 49
Flour.....	2,150	65							2,150	65	2,215	22 15
Coal.....		36,597									36,597	365 97
Lumber.....	3,838	734							3,838	734	4,572	45 72
Other agricultural products.....	4,854	5,717							4,854	5,717	10,571	105 71
do merchandise.....	2,719	619							2,719	619	3,338	33 38
Total freight paying tolls.....	13,561	45,481							13,561	45,481	59,042	590 42
Total tolls on vessels.....											2,565 44	
Total revenue.....											3,155 86	

B. H. TEAKLES,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 26th April, 1893.

Department of Railways and Canals.

SUPPLEMENTARY APPENDIX A—Continued.
 No. (A) 17.—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 1892.

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.....												
Agricultural products not enumerated, vegetable.												
do do animal.....												
Agricultural implements												
Barley.....											26	0 50
Bricks.....												
Bones.....												
Bristone.....												
Cement and water lime.....												
Clay, lime and sand.....												
Coal.....												
Corn.....												
Cattle.....												
Cotton, raw.....												
Crockery and earthenware												
Dye wood and dye stuffs.....												
Fish.....												
Flax and hemp.....												
Flour.....												
Furniture.....												
Gypsum.....												
Glass, all kinds.....												
Hay, pressed.....												
Hogs.....												
Horses.....												
Hides and skins, horns and hoofs												
Ice.....												
Iron, railway.....												
do pig.....												
do all other.....												
Iron ore.....												

No. (A) 17.—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. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Kryolite chemical ore and other ore, except iron.....												
Lard and lard oil.....												
Meal, all kinds.....												
Meats, other than pork.....												
Marble.....												
Manilla.....												
Molasses.....												
Nails.....												
Oats.....												
Oil, in barrels.....												
Oil cake.....												
Pesse.....												
Potatoes.....												
Pork.....												
Paint.....												
Pitch and tar.....												
Rags.....												
Rye.....												
Rosin.....												
Salt.....												
Stone intended for cutting.....												
do wrought.....												
do not suitable for cutting, unwrought.....												
Seeds, all kinds.....												
Sheep.....												
Soda ash.....												
Steel.....												
Sugar.....												
Spirits, beer, &c.....												
Tobacco, raw.....												
Tallow.....												
Tin.....												
Turpentine.....												
Wheat.....												
White lead.....												

No. (A) 18.—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 Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	
Railway ties, in vessels.									25		0 25
do do rafts.			25								
Saw-logs.											
Staves and headings, barrel.		1								1	0 05
do do pipe.											
do do West India.											
Staves, salt barrel.									24		2 06
Shingles.		1									
Split posts and fence rails, in vessels.											
do do rafts.											
Timber, square, in vessels.											
do do rafts.		3,265							3,265		40 75
Traverses.										2	0 10
Woodenware and wood partly manufactured.	4,174	7,126									
Total freight paying tolls.			1,416				1,013		5,590	8,139	219 82
<p>Total tolls on vessels..... 235 16</p> <p>do passengers..... 130 31</p> <p>Total revenue exclusive of hydraulic rents..... 585 29</p>											

B. H. TEAKLES,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 26th April, 1893.

Department of Railways and Canals.

STATEMENT OF TRAFFIC

SUPPLEMENTARY

No. (A) 19.—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.	417,571	3,845 02	681,459	3,936 69	77,255	255 71
United States vessels, steam.	495,219	7,428 54	21,098	160 43	438	7 18
Canadian vessels, sail.	174,507	3,538 67	1,132,464	11,944 20	46,527	614 46
United States vessels, sail.	105,004	2,342 29	73,662	643 39	138,659	1,823 78
Total, class No. 1.	1,192,301	17,154 52	1,908,683	16,684 71	262,879	2,701 13
<i>Class No. 2.</i>	No.		No.		No.	
Passengers.	43,884	504 24	64,199	2,808 75	5,218	88 49
<i>Class No. 3.</i>	Tons.		Tons.		Tons.	
Bricks.	263	36 44	10,873	443 30	745	46 58
Brimstone.			557	54 58		
Cement and water lime.	815	78 05	3,800	490 09		
Clay, lime and sand.	70	5 25	28,368	1,330 47	4,668	483 55
Fish.	24	4 05	926	97 52	1	04
Gypsum.	200	5 00	2,510	34 97		
Iron, railway.	163	29 45	1,207	177 84		
do pig.			1,258	157 48		
do all other.	1,567	269 17	13,952	731 41	10	87
Salt.	878	174 95	5,619	714 89	317	20 45
Steel.	2,557	383 60	1,039	133 50		
Stone, for cutting.	1,264	252 80	2,029	110 87	602	60 20
Apples.	550	56 59	5,221	754 10	717	63 16
Barley.	6,433	1,286 60	9,340	479 74		
Corn.	192,548	38,509 60	4,341	265 58		
Cotton, raw.						
Flax and hemp.						
Flour.	17,048	2,601 40	5,762	658 07	285	9 51
Hay, pressed.			1,113	57 83	3,727	153 28
Meals, all kinds.	31,740	6,348 00	1,224	56 45		
Oil cake.			3	16	5	17
Oats.	37,173	7,434 60	44,294	2,080 80	3,034	133 49
Pease.	524	104 80	47,419	2,869 84	166	5 55
Potatoes.	1	20	139	9 41	24	82
Rye.	9,392	1,878 40	1,000	70 82		
Seeds, all kinds.	125	25 00	6,455	246 39		
Tobacco, raw.			1	10		
Wheat.	232,019	45,792 91	68,609	4,402 42		
All other agricultural products, vegetable.	507	24 70	4,086	242 62		
Bones.			75	10 02	139	13 90
Cattle.	1	0 02	292	20 47	45	1 50
Hogs.			5	0 75		
Hides and skins, horns and hoofs.	113	17 95	47	6 44		
Horses.	91	3 03	501	31 80	24	0 80
Lard and lard oil.			218	20 52		
Meats, other than pork.	79	15 80	20	2 35		
Pork.	44	8 80	568	48 99		
Sheep.			113	8 58	186	6 20
Tallow.	108	16 20	37	4 68		
Wool.	70	14 00	23	3 45		
All other agricultural products, animal.			2,615	376 00		
Total, Class No. 3.	536,367	105,377 36	275,659	17,204 48	14,695	1,000 07

Department of Railways and Canals.

APPENDIX A—Continued.

the Amount of Tolls collected during the Season of Navigation in 1892.

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Newcastle District Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
149,529	190 42	156,983	631 12	102,431	783 97	41,601	832 02	35,922	243 07
95	75	1	25	878	14 84			20	25
8,930	34 99	175,370	2,470 85	87,077	857 90	84,752	1,695 04	29,587	102 89
401	9 00	28,331	664 56	6,070	58 35	1,919	38 38		
158,955	235 16	360,685	3,766 78	196,456	1,715 06	128,272	2,565 44	65,529	346 21
No.		No.		No.		No.		No.	
10,459	130 31	11,038	140 63	7,442	169 83			10,199	96 91
Tons.		Tons.		Tons.		Tons.		Tons.	
				94	2 88			26	50
1	03	4	34	202	5 59				
2	04	7,002	218 74	791	24 06				
9	18	8	64	38	1 08	1,749	17 49		
		1	10						
				10	24				
				243	8 19				
2	04	71	4 70	500	13 81				
343	6 47	24	1 65	2,052	56 53				
				10	29				
38	72	1	10	38	1 68				
452	8 54	107	5 50	143	4 72				
573	10 77	76	5 03	82	1 92				
		4	39	20	53				
41	81	26	1 97	369	9 59	2,215	22 15		
2	04	860	81 32	165	3 95				
		73	5 57	60	1 45				
1	02			3	11				
51	96	4,579	356 12	1,551	49 49				
1,531	28 78	989	71 29	54	1 57				
		580	46 49	206	5 72				
34	64	57	5 52	81	2 00				
152	2 86	38	2 70	6	15				
				1	03				
765	14 37	28	2 11	65	1 86				
150	2 85	240	21 55	115	3 39	10,571	105 71		
2	0 04	1	0 10	16	0 55				
5	0 10	528	35 74	8	0 24				
		21	1 36	1	0 03				
		5	0 50	6	0 19				
30	0 60	176	8 35	22	0 70				
		5	0 18	78	2 13				
		1	0 10	12	0 30				
		37	2 26	221	6 23				
17	0 32	345	24 42	2	0 06				
		18	1 15						
1	0 02	9	0 89	14	0 51				
1	0 02	1,429	118 31	555	17 56				
4,203	79 22	17,343	1,025 19	7,834	229 33	14,535	145 35	26	50

No. (A) 19.—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	19	3 80	124	24 80		
Agricultural implements	11	1 65	97	12 11		
Crockery and earthenware			180	32 53	19	1 84
Dye woods and dye stuffs			153	8 29	80	8 00
Furniture	25	4 02	1,213	175 87	2	0 20
Glass, all kinds	89	13 35	551	99 76		
Marble	3,190	478 50	17	1 55		
Manilla	66	9 90	9	1 80		
Molasses	107	16 05	754	73 49	2	0 08
Nails	40	4 95	2,133	310 75	1	0 04
Oil, in barrels	44	3 45	1,087	140 41	129	12 74
Paint	20	3 00	442	56 43	31	3 10
Pitch and tar			335	27 22	226	22 60
Rags			123	18 90		
Rosin			2,164	111 25	2,357	235 64
Soda ash	14	2 10	1,043	204 33	149	9 93
Sugar	3,172	430 49	5,713	1,130 01	2	0 08
Stone, wrought			326	17 65	478	47 80
Tin	20	3 00	408	74 38		
Turpentine			190	12 75	144	14 40
White lead			158	30 82		
Whiting			275	55 96		
Whisky, and all other spirits	161	27 32	1,077	197 05		
Merchandise, not enumerated	40,262	5,934 71	11,993	1,684 41	3,703	288 12
Total, Class No. 4	47,240	6,936 29	30,565	4,502 52	7,323	644 57
<i>Class No. 5.</i>						
Bark			5	19		
Barrels, empty	30	5 72	441	47 41	11	0 44
Boat knees						
Floats	4	0 25	7,464	128 52		
Fire wood, in vessels	7,020	337 00	14,897	333 89	64,258	2,124 57
do rafts						
Lumber, sawn, in vessels	86,072	15,427 50	35,551	1,100 51	91,464	5,401 74
do rafts			125	5 64		
Hoops					347	20 80
Railway ties, in vessels	217	6 78	148	2 95	6,124	488 80
do rafts						
Masts, spars and telegraph poles, in vessels						
Masts, spars and telegraph poles, in rafts	5	0 25	13,540	338 50		
Square timber, in vessels	43,648	6,541 16	2,685	49 02		
do rafts	170	4 80	8,867	235 75		
Woodenware and wood partly manufactured	7	2 80	44	12 10		
Shingles	25	18 10	28	4 32	23	3 20
Split posts and fence rails, in vessels						
do rafts						
Saw-logs	2,555	104 05	18,359	420 24		
Staves and headings, barrel	95	7 60				
do do pipe	88	16 10	80	2 50		
do do West India	276	51 68	104	3 90		
do do salt barrel						
Traverses			8,222	21 40		
Hop poles						
Total, Class No. 5	140,212	22,523 79	110,560	2,706 84	162,227	8,039 55

Department of Railways and Canals.

Canals, and the amount of Tolls collected, &c.—*Continued.*

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Newcastle District Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
		5	0 95	15	2 03				
14	0 41	22	2 65	139	13 82				
14	0 35	6	0 49	96	9 43				
4	0 10								
133	3 50	36	4 28	41	3 86				
2	0 05	8	0 54	32	3 06				
		2	0 24	5	0 45				
2	0 05								
		12	0 70	57	5 21				
79	1 98	13	0 75	244	23 50				
61	1 54	17	1 13	339	32 11				
17	0 43	3	0 43	12	1 17				
		1	0 05	2	0 18				
4	0 10	22	4 00	49	5 77				
		2	0 15	2	0 18				
		3	0 57	2	0 18				
298	7 39	56	10 89	645	61 41				
				3	0 27				
1	0 03	14	0 75	14	1 34				
				6	0 54				
26	0 65	1	0 19	22	1 94				
				77	7 08				
9	0 23	11	0 79	1,219	122 98	3,338	33 38	170	5 10
992	24 91	369	47 81						
1,656	41 72	603	77 36	3,021	296 51	3,338	33 38	170	5 10
				53	2 48			78	3 09
		35	4 15	102	7 91				
		1	0 03						
		41,060	451 33	640	10 15			202	2 76
349	2 93	33,165	1,321 53	36,000	633 99			14,282	154 52
		420	4 20						
2,539	28 62	468,924	34,940 41	29,617	947 34	4,572	45 72	1,512	24 89
		99	13 11	5	0 19			25	0 50
		28	2 00						
25	0 25	325	53 50	5,750	649 12				
		1,563	83 34	534	46 68			250	10 00
		36	2 79	54	2 90				
								6	0 55
		2,560	62 91	40	0 76			1,142	11 42
3,265	40 75	12,480	145 28	377	7 10			50	0 75
								2,083	31 63
2	0 10			7	1 00				
24	2 06	526	457 68	111	20 65				
		1	0 88	5	0 77			472	15 56
		21,085	481 88	152	3 48			2,005	17 62
	0 05								
		1,060	2 65	105	9 26			210	3 75
6,205	74 76	583,368	38,027 67	73,552	2,343 78	4,572	45 72	22,317	277 04

No. (A) 19.—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.		\$ est.
Coal.....	211,616	42,284 12	178,073	25,073 16	86,500	8,478 16
Kyrolite or chemical ore.....	69	3 45				
Iron ore.....						
Stone, unwrought, not suitable for cutting.....	10,294	1,019 47	4,351	87 00	21	7 88
Ice.....						
Total, Special Class.....	221,979	43,307 05	182,424	25,160 16	86,521	8,486 04
Total freight and tolls.....	945,798	195,803 25	599,208	69,067 46	270,766	20,959 85
Timber and other wood, free.....			2,449	290 28		
Wheat, corn, flour, iron, salt, coal, &c., free.....	9,756	1,434 80	365,098	33,003 46		
Grand Totals, passengers and tonnage of vessels not included. .	955,554	197,238 05	966,755	102,361 20	270,766	20,959 85

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 26th April, 1893.

Department of Railways and Canals.

Canals, and the Amount of Tolls collected, &c.—*Concluded.*

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Newcastle District Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
850	15 97	581	29 05	3,625 1,466	142 66 72 84	36,597	365 97		
815	8 15			788	17 51				
1,665	24 12	581	29 05	5,879	233 01	36,597	365 97		
13,729	585 29	601,895 45,116	43,066 68 605 49	90,286	4,987 52	59,042	3,155 86	22,513	725 76
				6,080	162 31				
13,729	585 29	647,011	43,672 17	96,366	5,149 83	59,042	3,155 86	22,513	725 76

B. H. TEAKLES,
Compiler of Canal Statistics.

SUPPLEMENTARY

No. (A) 20.—SUMMARY STATEMENT of Traffic on the undermentioned Canals during 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	1,192,301	17,154 52	1,908,683	16,684 71	262,879	2,701 13
Passengers	No. 43,884	504 24	No. 64,199	2,808 75	No. 5,218	88 49
<i>Forest, Produce of Wood.</i>						
	Tons.		Tons.		Tons.	
Bark			5	0 19		
Boat knees						
Floats	4	0 25	7,464	128 52		
do Free						
Firewood	7,020	337 00	14,897	333 89	64,258	2,124 57
do Free						
Hoops and hop poles					347	20 80
Lumber, sawed	86,072	15,427 50	35,676	1,106 15	91,464	5,401 74
do Free			1,799			
Maats, spars, &c.	5	0 25	13,540	338 50		
Railway ties	217	6 78	148	2 95	6,124	488 80
Saw-logs	2,555	104 05	18,359	420 24		
do Free						
Staves, all kinds	459	75 38	184	6 40		
do Free			208			
Shingles	25	18 10	28	4 32	23	3 20
Split posts and rails						
do Free			1			
Timber, square	43,818	6,545 96	11,552	284 77		
do Free			440			
Traverses			8,222	21 40		
do Free						
Total	140,175	22,515 27	112,523	2,647 43	162,216	8,039 11
<i>Farm Stock.</i>						
Cattle	1	0 02	292	20 47	45	1 50
Hogs			5	0 75		
Horses	91	3 03	501	31 80	24	80
do Free			2			
Sheep			113	8 58	186	6 20
Total	92	3 05	913	61 60	255	8 50
<i>Produce of Animals.</i>						
Bones			75	10 02	139	13 90
Horns and hoofs, hides and skins, raw	113	17 95	47	6 44		
do do Free			20			
Lard and lard oil			218	20 52		
do Free	16					
Meats, other than pork	79	15 80	20	2 35		
do Free			94			
Pork	44	8 80	568	48 99		
Tallow	108	16 20	37	4 58		
Wool	70	14 00	23	3 45		
do Free	13					
Agricultural products, not enumerated, animal			2,615	376 00		
Total	443	72 75	3,717	472 35	139	13 90

Department of Railways and Canals.

APPENDIX A—Continued.

the Season of Navigation ended 31st December, 1892, showing the Total Quantity of 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.
158,955	235 16	360,685	3,766 78	196,456	1,715 06	128,272	2,565 44	65,529	346 21
No. 10,459	130 31	No. 11,038	140 63	No. 7,442	169 83	No.		No. 10,199	No. 96 91
Tons.		Tons.		Tons.		Tons.		Tons.	
			0 03	53	2 48			78	3 09
		1	451 33	640	10 15			202	2 76
		41,060							
		23,460							
349	2 93	33,585	1,325 73	36,000	633 99			14,282	154 52
		4,290							
		28	2 00						
2,539	28 62	469,023	34,953 52	29,622	947 53	4,572	45 72	1,537	25 39
		704							
		36	2 79	54	2 90			1,148	11 97
25	0 25	1,888	136 84	6,284	695 80			250	10 00
		21,085	481 88	152	3 48			2,005	17 62
		13,662							
1	0 05								
24	2 06	526	457 68	111	20 65			472	15 56
		1	0 88	5	0 77				
3,265	40 75	13,040	208 19	417	7 86			2,133	32 38
		2,940							
		1,060	2 65	105	9 26			210	3 75
		60							
6,203	74 66	628,449	38,023 52	73,443	2,334 87	4,572	45 72	22,317	277 04
5	0 10	528	35 74	8	24				
		21	1 36	1	0 03				
30	0 60	176	8 35	22	0 70				
17	0 32	345	24 42	2	0 06				
52	1 02	1,070	69 87	33	1 03				
2	0 04	1	0 10	16	0 55				
		5	0 50	6	0 19				
		5	0 18	78	2 13				
		1	0 10	12	0 30				
		37	2 26	221	6 23				
		18	1 15						
1	0 02	9	0 89	14	0 51				
				555					
1	0 02	1,429	118 31		17 56				
4	0 08	1,505	123 49	902	27 47				

No. (A) 20.—SUMMARY STATEMENT of Traffic on the undermentioned Canals

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Agricultural Products.</i>						
		\$		\$		\$
		cts.		cts.		cts.
Agricultural products not enumerated, vegetable	507	24 70	4,086	242 62		
Apples.....	550	56 59	5,221	754 10	717	63 16
do Free.....			54			
Barley.....	6,433	1,286 60	9,340	479 74		
Cotton, raw.....						
Corn.....	192,548	38,509 60	4,341	265 58		
do Free.....			54,999			
Flax and hemp.....						
Flour.....	17,048	2,601 40	5,762	658 07	285	9 51
do Free.....			2,874			
Hay, pressed.....			1,113	57 83	3,727	153 28
Meals, all kinds.....	31,740	6,348 00	1,224	56 45		
do Free.....			16			
Manilla.....	66	9 90	9	1 80		
Oats.....	37,173	7,434 60	44,294	2,080 08	3,034	133 49
Pease.....	524	104 80	47,419	2,869 84	166	5 55
do Free.....			524			
Potatoes.....	1	20	139	9 41	24	82
Rye.....	9,392	1,878 40	1,000	70 82		
do Free.....			9,119			
Seeds—Flax, clover and grass.....	125	25 00	6,455	246 39		
do do Free.....			75			
Tobacco, raw.....			1	10		
Wheat.....	232,019	45,792 91	68,609	4,402 42		
do Free.....			194,281			
Total.....	528,126	104,072 70	460,955	12,195 25	7,953	365 81
<i>Manufactures.</i>						
Ashes, pot and pearl.....	19	3 80	124	24 80		
do Free.....	88		17			
Agricultural implements.....	11	1 65	97	12 11		
Barrels, empty.....	30	5 72	441	47 41	11	0 44
do Free.....			1			
Bricks.....	263	36 44	10,873	443 30	745	46 58
Cement and water lime.....	815	78 05	3,800	490 09		
do Free.....	1,570		456			
Crockery and earthenware.....			180	32 53	19	1 84
do Free.....	8					
Furniture.....	25	4 02	1,213	175 87	2	20
do Free.....	3		1			
Glass.....	89	13 25	551	99 76		
do Free.....	152					
Iron, railway.....	163	29 45	1,207	177 84		
do Free.....	1,171					
Iron, pig.....			1,258	157 48		
do Free.....	74					
Iron, all other.....	1,567	269 17	13,952	731 41	10	0 87
do Free.....	387		10			
Molasses.....	107	16 05	754	73 49	2	0 08
do Free.....	32					
Nails.....	40	4 95	2,133	310 75	1	0 04
do Free.....	276					
Oil.....	44	3 45	1,087	140 41	129	12 74
do Free.....	2					
Oil cake.....			3	0 16	5	0 17
Paint.....	20	3 00	442	56 43	31	3 10
do Free.....	15					
Pitch and tar.....			335	27 22	226	22 60
do Free.....	15					
Rosin.....			2,164	111 25	2,357	235 64
Soda ash.....	14	2 10	1,043	204 33	149	9 93
do Free.....	352					

Department of Railways and Canals.

during the Season of Navigation, ended 31st December, 1892, &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.
150	2 85	240	21 55	115	3 39	10,571	105 71		
432	8 54	107	5 50	143	4 72				
573	10 77	76	5 03	82	1 92				
		4	0 39	20	0 53				
41	0 81	26	1 97	369	9 59	2,215	22 15		
2	0 04	860	81 32	165	3 95				
		73	5 57	60	1 45				
2	0 05								
51	0 96	4,579	356 12	1,551	49 49				
1,531	28 78	989	71 29	54	1 57				
		580	46 49	206	5 72				
34	0 64	57	5 52	81	2 00				
152	2 86	38	2 70	6	0 15				
				1	0 03				
765	14 37	28	2 11	65	1 86				
3,753	70 67	7,657	605 56	2,918	86 37	12,786	127 86		
		5	0 95	15	2 03				
14	0 41	22	2 65	139	13 82				
		35	4 15	102	7 91				
				94	2 88			26	0 50
1	0 03	4	0 34	202	5 59				
14	0 35	6	0 49	96	9 43				
133	3 50	36	4 28	41	3 86				
2	0 05	8	0 54	32	3 06				
				10	0 24				
				243	8 19				
2	0 04	71	4 70	500	13 81				
		12	0 70	57	5 21				
79	1 98	13	0 75	244	23 50				
61	1 54	17	1 13	339	32 11				
1	0 02			3	0 11				
17	0 43	3	0 43	12	1 17				
		1	0 05	2	0 18				
		2	0 15	2	0 18				
		3	0 57	2	0 18				

No. (A) 20.—SUMMARY STATEMENT of Traffic on the undermentioned Canals

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Manufactures—Con.</i>						
		\$ cts.		\$ cts.		\$ cts.
Spirits, whisky, &c.....	161	27 32	1,077	197 05		
do Free.....	220		6			
Steel.....	2,557	383 60	1,039	133 50		
do Free.....	269					
Sugar.....	3,172	430 49	5,713	1,130 01	2	0 08
do Free.....	1,320					
Tin.....	20	3 00	408	74 38		
do Free.....	27					
Turpentine.....			190	12 75	144	14 40
White lead.....			158	30 82		
do Free.....	6					
Whiting.....			275	55 96		
do Free.....	71					
Woodenware.....	7	2 80	44	12 10		
Total.....	15,182	1,318 41	51,052	4,963 21	3,833	348 71
<i>Merchandise.</i>						
Brimstone, crude.....			557	54 58		
Clay, lime and sand.....	70	5 25	28,368	1,330 47	4,668	483 55
do Free.....	240		500			
Coal.....	211,616	42,284 13	178,073	25,073 16	86,500	8,478 16
do Free.....			101,267			
Dye wood and dye stuffs.....			153	8 29	80	8 00
Fish.....	24	4 05	926	97 52	1	0 04
do Free.....	426		9			
Gypsum.....	200	5 00	2,510	34 97		
Ores, all kinds.....	69	3 45				
do Free.....	286		614			
Marble.....	3,190	478 50	17	1 55		
Rags.....			123	18 90		
Salt.....	878	174 95	5,619	714 89	317	20 45
do Free.....	2,034					
Stone, all kinds.....	11,558	1,272 27	6,706	215 52	1,101	115 88
do Free.....	145		124			
All other goods and merchandise, not enumerated.....	40,262	5,934 71	11,993	1,684 41	3,703	288 12
do Free.....	538		36			
Total.....	271,536	50,162 31	337,595	27,549 85	96,370	9,394 20
Grand totals, passengers and tonnage of vessels not included.....	955,554	195,803 25	966,755	69,067 46	270,766	20,959 85

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 26th April, 1893.

Department of Railways and Canals.

during the Season of Navigation ended 31st December, 1892, &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.
9	0 23	11	0 79	77	7 08				
				10	0 29				
298	7 39	56	10 89	645	61 41				
1	0 03	14	0 75	14	1 34				
26	0 65	1	0 19	6	0 54				
				22	1 94				
2	10			7	1 00				
660	16 75	320	34 50	2,916	207 06			26	0 50
2	0 04	7,002	218 74	791	24 06				
850	15 97			3,625	142 66	36,597	365 97		
4	0 10			6,080					
9	0 18	8	0 64	38	1 08	1,749	17 49		
		1	0 10						
		581	29 05	1,466	72 84				
		2	0 24	5	45				
4	0 10	22	4 00	49	5 77				
343	6 47	24	1 65	2,052	56 53				
853	8 87	1	0 10	829	19 46				
992	24 91	369	47 81	1,219	122 98	3,338	33 38	170	5 10
3,057	56 64	8,010	302 33	16,154	445 83	41,684	416 84	170	5 10
13,729	585 29	647,011	43,066 68	96,366	4,987 52	59,042	3,155 86	22,513	725 76

B. H. TEAKLES,
Compiler of Canal Statistics.

SUPPLEMENTARY APPENDIX A—Continued.

No. (A) 21.—STATEMENT showing the Amount of Tolls accrued each month during the Season of Navigation, ended 31st December, 1892.

Canals and Offices.	January	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total Tolls.
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
WELLAND CANAL.												
Chippawa.....				3 79	6 06	3 27	4 54	4 60	0 25	11 45		33 96
Colborne.....			6,505 16	20,211 65	16,682 95	18,684 07	18,049 47	21,974 25	19,836 81	14,189 26	2,047 54	138,161 16
Dalhousie.....			4,878 01	4,581 77	4,819 45	7,503 40	8,271 78	9,109 28	10,286 47	6,635 52	5 88	56,091 56
Dunnville.....				29 17	56 04	80 31	92 64	34 67	2 17	116 24		411 24
Maibland.....				1 76	1 76	1 00	1 72		4 08			8 56
Robinson.....			71 01	151 52	73 45	51 35	24 82	61 51	0 75	59 49		493 90
St. Catharines.....			30 88	65 84	62 57	131 91	144 82	74 98	75 28	16 59		602 87
Total, Welland Canal.			11,485 06	25,043 74	21,682 28	26,455 31	26,589 79	31,259 29	30,205 81	21,028 55	2,053 42	195,803 25
ST. LAWRENCE CANAL.												
Beauharnois.....				49 85	96 01	150 41	91 63	152 29	297 34	293 23		1,130 75
Cardinal.....			127 84	61 22	115 88	128 65	39 27	64 83	78 09	102 05	15 25	733 09
Cornwall.....				2,859 13	4,063 72	4,413 39	2,876 05	2,642 59	2,265 16	1,508 65	2 20	20,330 80
Kingston.....			442 91	1,159 45	3,459 13	4,452 56	1,545 10	1,737 87	2,816 19	1,639 29		17,263 50
Lachine.....				198 51	261 67	223 57	381 04	470 10	326 48	190 71		2,052 08
Montreal.....				3,321 64	4,053 61	4,671 94	5,091 91	3,473 38	3,812 39	3,079 39	52 89	27,557 15
Total, St. Lawrence Canals.			570 75	7,649 80	12,041 02	14,040 53	9,725 00	8,541 96	9,595 65	6,833 31	70 34	69,067 46
CHAMBLY CANAL.												
Chambly.....				883 85	1,020 07	1,382 09	1,471 72	1,536 21	1,901 03	737 40		9,042 37
St. Johns.....				2,507 86	1,639 42	1,518 04	2,155 17	1,420 45	1,375 45	569 98		11,206 37
St. Ours.....			19 45	71 44	77 55	111 34	81 63	96 20	128 51	124 99		711 11
Total, Chambly Canal.....			19 45	3,463 15	2,757 04	3,011 47	3,708 52	3,072 86	3,494 99	1,432 37		20,959 85

Department of Railways and Canals.

OTTAWA CANALS.											
Ottawa	261 25	3,548 14	3,347 92	3,836 26	3,724 66	3,748 97	3,591 56	1,328 43	28,387 19		
Carleton	1 25	23 90	13 03	10 70	12 40	8 42	20 03	6 57	96 30		
Grenville	156 65	2,839 98	3,051 44	2,553 56	3,139 03	2,248 14	2,709 52	1,315 68	18,014 00		
Ste. Anne's	5 35	114 46	280 15	220 60	349 07	276 49	219 72	103 35	1,569 19		
Total, Ottawa Canals	424 50	6,526 48	6,692 54	6,621 12	7,225 16	6,282 02	6,540 83	2,754 03	43,066 68		
RIDEAU CANAL.											
Kingston Mills		157 02	86 56	129 38	160 88	158 60	131 48	41 47	865 39		
Ottawa		406 19	548 34	657 06	596 25	425 11	405 68	312 68	3,441 31		
Smith's Falls		41 86	108 08	141 26	146 76	107 78	68 56	66 32	680 82		
Total, Rideau Canal		605 07	742 98	927 70	903 89	691 49	695 72	420 67	4,987 52		
ST. PETER'S CANAL.											
St. Peter's	30 92	1 06	254 58	368 24	413 07	491 83	443 45	362 32	3,155 86	297 13	
TRENT VALLEY CANALS.											
Bobbygeon		19 81	41 33	67 44	71 72	58 55	66 43	20 41	345 69		
Buckhorn		0 50	8 90	21 80	17 87	11 80	1 00	7 25	70 12		
Burleigh		2 36	4 76	21 02	13 70	6 25	2 27	1 09	73 03		
Fenelon Falls		1 00	2 25	7 50	6 65	4 65	4 25	3 31	32 11		
Hastings			13 14	2 50	2 50	7 00	4 50	2 50	34 07		
Peterborough		6 14	16 54	41 04	23 42	24 05	11 62	14 82	170 74		
Total, Trent Valley Canals		10 50	113 79	156 86	135 86	112 30	90 07	49 38	725 76		
MURRAY CANAL.											
Brighton		24 39	80 29	124 86	103 35	80 22	64 11	41 75	585 29		
Grand Total	30 92	1 06	12,714 97	43,666 14	51,750 92	48,804 51	50,521 07	32,922 38	2,330 89	388,351 67	

There were refunded, Welland Canal tolls, on grain, per O. C., 4th April, 1892, to the amount of \$35,140.32, and St. Lawrence tolls to the amount of \$4,880.51.

B. H. TEAKLES,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 26th April, 1893.

SUPPLEMENTARY APPENDIX A—Continued.

No. (A) 22.—GENERAL STATEMENT showing the Number, Tonnage and Nationality of Vessels passed through all the Canals during the Season of Navigation ended the 31st December, 1892, 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.		
WELLAND CANAL.													
Canadian vessels, steam	1,226	138,431	130,061	66,162	5,511	528	394	4,297	63,187	209,418	208,153	417,571	3,845 02
do sail	592	33,423	32,436	42,823	6,210	908	.....	9,737	48,970	86,891	87,616	174,507	3,538 67
Total Canadian	1,818	171,854	171,497	108,985	11,721	1,436	394	14,034	112,157	296,309	295,769	592,078	7,383 69
United States vessels, steam	536	67	49	13,248	225	232,018	184,440	228	64,944	245,561	249,658	495,219	7,428 54
do sail	261	575	.....	7,566	4,609	39,325	35,872	4,588	12,469	52,054	52,950	105,004	2,342 29
Total United States	797	642	49	20,814	4,834	271,343	220,312	4,816	77,413	297,615	302,608	600,223	9,770 83
Grand Total, Welland Canal	2,615	172,496	171,546	129,799	16,555	272,779	220,706	18,850	189,570	593,924	598,377	1,192,301	17,154 52
ST. LAWRENCE CANALS.													
Canadian vessels, steam	3,158	355,914	304,750	13,618	11	.....	.....	11	7,155	369,543	311,916	681,459	3,036 69
do sail	6,076	602,400	445,468	31,842	15	30	.....	.....	52,709	634,272	498,192	1,132,464	11,944 20
Total Canadian	9,234	958,314	750,218	45,460	26	30	.....	.....	59,864	1,003,815	810,108	1,813,923	15,880 89
United States vessels, steam	546	113	226	2,039	10	8,036	8,120	144	1,810	10,932	10,166	21,098	160 43
do sail	632	1,992	13,934	10,530	1,475	936	1,065	31,557	12,233	45,015	28,647	73,662	643 39
Total United States	1,178	2,105	14,160	13,169	1,485	8,972	9,125	31,701	14,043	55,947	38,813	94,760	803 82
Grand Total, St. Lawrence Canals	10,412	960,419	764,378	58,629	1,511	9,002	9,125	31,712	73,907	1,059,762	848,921	1,908,683	16,684 71
CHAMBLEY CANAL.													
Canadian vessels, steam	603	38,293	38,364	246	.....	.....	.....	.....	352	38,530	38,716	77,255	255 71
do sail	626	11,288	10,701	8,627	.....	.....	.....	.....	15,911	19,915	26,612	46,527	614 46
Total Canadian	1,229	49,581	49,065	8,873	.....	.....	.....	.....	16,263	58,454	65,328	123,782	870 17

Department of Railways and Canals.

United States vessels, steam.....	25	4	118	299	17	303	135	488	7 18
do sail.....	1,442	1,371	2,941	53,410	80,937	54,781	83,878	138,659	1,823 78
Total United States.....	1,467	1,375	3,059	53,709	80,954	55,084	84,013	139,097	1,830 96
(Grand Total, Chamby Canal.....)	2,696	50,956	52,124	62,582	97,217	113,538	149,341	262,879	2,701 13
OTTAWA CANALS.									
Canadian vessels, steam.....	1,017	48,262	107,401	1,320		48,262	108,721	156,983	6 31 12
do sail.....	1,341	8,181	151,074	16,115		8,181	167,189	175,370	2,470 85
Total Canadian.....	2,358	56,443	258,475	17,435		56,443	275,910	332,353	3,101 97
United States vessels, steam.....	1	1				1		1	0 25
do sail.....	308	3,894	7,475	16,444	518	4,412	23,919	28,331	664 56
Total United States.....	309	3,895	7,475	16,444	518	4,413	23,919	28,332	664 81
Grand Total, Ottawa Canals.....	2,667	60,338	265,950	33,879	518	60,856	239,829	360,685	3,796 78
RIDEAU CANALS.									
Canadian vessels, steam.....	1,320	49,973	52,248	210		50,183	52,248	102,431	783 97
do sail.....	1,039	43,889	43,581	107		43,496	43,581	87,077	857 90
Total Canadian.....	2,359	93,862	95,829	317		93,679	95,829	189,508	1,641 87
United States vessels, steam.....	57	400	478			400	478	878	14 84
do sail.....	74	1,692	4,063	315		2,007	4,063	6,070	58 35
Total United States.....	131	2,092	4,541	315		2,407	4,541	6,948	73 19
Grand total, Rideau Canal.....	2,690	95,454	100,370	632		96,086	100,370	196,456	1,715 06
St. PETER'S CANAL.									
Canadian vessels, steam.....	220	21,599	20,002			21,599	20,002	41,601	832 02
do sail.....	1,665	42,910	41,392	450		43,360	41,392	84,752	1,695 04
Total Canadian.....	1,885	64,509	61,394	450		64,959	61,394	126,353	2,527 06
United States vessels, steam.....									
do sail.....	6	1,843	76			1,843	76	1,919	38 38
Total United States.....	6	1,843	76			1,843	76	1,919	38 38
Grand total, St. Peter's Canal.....	1,891	66,352	61,470	450		66,802	61,470	128,272	2,565 44

SUPPLEMENTARY APPENDIX A—Continued.
No. (A) 22.—GENERAL 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.		
TRENT VALLEY CANAL.													
Canadian vessels, steam	836	16,986	18,936							16,986	18,936	35,922	243 07
do sail	454	14,110	15,477							14,110	15,477	29,587	102 89
Total Canadian	1,290	31,096	34,413							31,096	34,413	65,509	345 96
United States vessels, steam	1										20	20	0 25
do sail													
Total United States	1										20	20	0 25
Grand total, Trent Valley Canals.	1,291	31,096	34,433							31,096	34,433	65,529	346 21
MURRAY CANAL.													
Canadian vessels, steam	656	89,412	34,704	13,185						102,597	46,932	149,529	190 42
do sail	148	2,678	4,910	316				164	862	3,158	5,772	8,930	34 99
Total Canadian	804	92,090	39,614	13,501				164	13,090	105,755	52,704	158,459	225 41
United States vessels, steam	3	39		49						88	7	95	0 75
do sail	36	32	25	165				2	177	199	202	401	9 00
Total United States	39	71	25	214				2	184	287	209	496	9 75
Grand total, Murray Canal	843	92,161	39,639	13,715				166	13,274	106,042	52,913	158,955	235 16

Department of Railways and Canals.

SUPPLEMENTARY APPENDIX A—Continued.
No. (A) 22.—GENERAL STATEMENT showing the Number, Tonnage and Nationality of Vessels, &c.—Continued.
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 Tons.	Amount of Tolls.
			Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
CANADIAN VESSELS.														
<i>Steam and Sail.</i>														
Welland	1,818		171,854	171,497	108,985	11,721	1,486	394	14,084	112,157	286,309	295,769	592,078	7,883 69
St. Lawrence	9,234		958,314	750,218	45,460	26	30		11	59,864	1,003,815	810,108	1,813,923	15,880 89
Chambly	1,229		49,581	49,065	8,873					16,263	56,443	65,328	123,752	870 17
Ottawa	2,358		56,443	258,475		17,435					275,910	95,829	332,353	3,101 97
Rideau	2,659		93,862	95,829	317				450		93,679	95,829	189,508	1,641 87
St. Peter's	1,885		64,509	61,394							64,959	61,394	126,353	2,527 06
Trent Valley	1,290		31,096	34,413							31,096	34,413	65,509	345 96
Murray	804		92,090	39,614	13,501				164	13,090	105,755	52,704	158,459	225 41
Total, Canadian	21,177		1,517,249	1,460,505	177,136	29,184	1,466	394	14,659	201,374	1,710,510	1,691,455	3,401,965	31,977 02
UNITED STATES VESSELS.														
<i>Steam and Sail.</i>														
Welland	797		642	49	20,814	4,834	271,343	220,312	4,816	77,413	297,615	302,608	600,223	9,770 83
St. Lawrence	1,178		2,105	14,160	13,169	1,485	8,972	9,125	31,701	14,043	53,947	38,813	94,760	868 82
Chambly	1,467		1,375	3,059	53,709				80,954		53,084	84,013	139,097	1,880 96
Ottawa	309		3,895	7,475		16,444			518		4,413	23,919	28,332	664 81
Rideau	131		2,092	4,541	315						2,407	4,541	6,948	73 19
St. Peter's	6		1,845	76							1,843	76	1,919	38 38
Trent Valley	1			20					2	184		20	20	0 25
Murray	39		71	25	214						287	209	496	9 75
Total, United States	3,928		12,023	29,405	88,221	22,763	280,315	229,437	37,037	172,594	417,596	454,199	871,795	13,191 99
Grand total, Canadian and United States	25,105		1,529,272	1,489,910	265,357	51,945	281,781	229,831	51,696	373,968	2,128,100	2,145,654	4,273,760	45,169 01

SUPPLEMENTARY APPENDIX A—Concluded.

No. (A) 22½.—COMPARATIVE STATEMENT of Grand Total Freight passed through the undermentioned Canals during the Seasons of Navigation of 1891 and 1892, 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.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
1891.												
Welland Canal.....	11,415	58,559	13,845	13,963	247,543	306,257	17,409	306,022	290,212	684,801	975,013	198,823 88
St. Lawrence Canals.....	203,211	547,727	10,725	1,545	645	1,701	33,314	137,926	237,895	688,890	986,734	62,726 56
Chambly Canal.....	56,763	7,547	66,881					98,073	123,644	105,620	229,264	19,346 58
Rideau Canal.....	69,714	28,142	11,457	107,435					81,171	28,142	109,313	5,910 41
Ottawa Canals.....	871	476,735							871	584,170	585,041	40,440 39
St. Peter's Canal.....	6,512	28,008							6,512	28,008	34,520	1,778 48
Trent Valley Canals.....	16,652	4,207							16,652	4,207	20,859	651 73
Murray Canal.....	5,002	4,322	906	250			24	1,238	5,932	5,810	11,742	670 05
1892.												
Welland Canal.....	7,750	87,642	9,733	32,563	240,332	300,733	12,391	294,390	270,206	685,348	955,354	195,803 25
St. Lawrence Canals.....	204,078	599,062	6,390	1,424	702	2,046	35,005	118,048	246,175	720,580	966,755	69,067 46
Chambly Canal.....	9,714	8,828	154,170			204		97,850	163,884	106,882	270,766	20,959 85
Rideau Canal.....	70,893	24,145	1,828						72,221	24,145	96,366	4,987 52
Ottawa Canals.....	591	544,679		101,780					552	646,459	647,011	43,066 68
St. Peter's Canal.....	13,561	45,481							13,561	45,481	59,042	3,155 86
Trent Valley Canals.....	17,339	5,174							17,339	5,174	22,513	725 76
Murray Canal.....	4,174	7,126	1,416				1,013		5,590	8,139	13,729	585 29

B. H. TEAKLES,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 26th April, 1893.

Department of Railways and Canals.

RATES OF TOLLS

No. 23—RATES of Tolls on the Canals

WELLAND, ST. LAWRENCE, RIDEAU, OTTAWA AND CHAMBLY CANALS

(O.C., 25th April, 1873.)

The Rates of Tolls are divided into Six Classes, as under, and as per ton, unless otherwise specified.

	Welland Canal, westward.	Welland Canal, eastward.	Lake Erie to Montreal.	St. Lawrence Canals, each way.	Chamby Canal and St. Ours Lock, each way.	Rideau Canal, each way.	Ottawa Canals and St. Ann's Lock, each way.	Ottawa to St. John's, each way.
	\$ cts.	¢ cts.	\$ cts.	¢ cts.	¢ cts.	¢ cts.	¢ cts.	¢ cts.
<i>Class No. 1.</i>								
Vessels, steam.....per ton.	0 01½	0 01½	0 02½	0 00½	0 00½	0 01½	0 00½	0 01½
do sail.....do	0 02½	0 02½	0 03½	0 01½	0 01½	0 02½	0 01	0 02½
<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 02½	0 09½
Passengers, under 21 years each	0 05	0 05	0 10	0 05	0 02	0 04	0 01½	0 04½
<i>Class No. 3.</i>								
Bricks, cement and water lime....	0 15	0 20	0 20	0 15	0 10	0 07	0 06	0 19½
Clay, lime and sand.....								
Brimstone.....								
Corn.....								
Flour.....								
Iron, railway.....								
do pig.....								
do all other, including steel (O. C., 1st Feb., 1888.....								
Plaster, gypsum.....								
Salt.....								
Salt meats or fish in barrels or otherwise.....								
Agricultural products, vegetable, not enumerated.....								
Agricultural products, animals, 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

Department of Railways and Canals.

of the Dominion of Canada, 1892.

TRENT VALLEY CANALS (O.C., 25TH JULY, 1888).

1ST SECTION.	2ND SECTION.	3RD SECTION.	4TH SECTION.	THROUGH.	Whitlaw's to Hastings.
Fenelon Falls. to Bobcaygeon.	Bobcaygeon to Buckhorn.	Buckhorn to Burleigh.	Burleigh to Lakefield.	Fenelon Falls. to Lakefield.	
Tolls chargeable at Fenelon Falls.	Tolls chargeable at Bobcaygeon.	Tolls chargeable at Buckhorn.	Tolls chargeable at Burleigh.	Tolls chargeable at Fenelon Falls.	Tolls chargeable at Whitlaw's.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
0 00 ³ / ₁₆ 0 00 ¹ / ₄	0 00 ³ / ₁₆ 0 00 ¹ / ₄	0 00 ³ / ₁₆ 0 00 ¹ / ₄	0 00 ³ / ₁₆ 0 00 ¹ / ₄	0 00 ³ / ₁₆ 0 01	0 00 ³ / ₁₆ 0 00 ¹ / ₄
0 01 0 00 ¹ / ₂	0 01 0 00 ¹ / ₂	0 01 0 00 ¹ / ₂	0 01 0 00 ¹ / ₂	0 04 0 02	0 01 0 00 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

No. 23.—RATES of Tolls on the Canals

WELLAND, ST. LAWRENCE, RIDEAU, OTTAWA AND CHAMBLY CANALS.

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.	Chamby Canal and St. Ours Lock, each way.	Rideau Canal, each way.	Ottawa Canals and St. Anne's Lock, each way.	Ottawa to St. John's, each way.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Class No. 5.</i>								
Bark	0 20	0 20	0 20	0 15	0 10	0 07	0 06	0 19 $\frac{1}{4}$
Barrels, empty, each	0 02	0 02	0 02	0 02	0 02	0 02	0 01	0 03 $\frac{1}{4}$
Boat knees, each	0 05	0 05	0 05	0 02	0 02	0 02	0 01	0 03 $\frac{1}{4}$
Floats, per 1,000 lineal feet	1 40	1 40	1 40	1 40	1 20	1 05	0 50	2 05
Firewood, per cord, in vessels	0 20	0 20	0 20	0 20	0 10	0 15	0 08	0 23
do do rafts	0 25	0 25	0 25	0 25	0 15	0 19	0 09	0 30 $\frac{1}{4}$
Hoops	0 25	0 25	0 25	0 20	0 15	0 15	0 10	0 30
Masts and spars, telegraph poles, per ton of 40 cubic ft., in vessels	0 15	0 15	0 15	0 05	0 05	0 08	0 07	0 13 $\frac{1}{4}$
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 $\frac{1}{4}$
Railway ties, in vessels, each	0 01	0 01	0 01	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 01 $\frac{1}{2}$
do do rafts, each	0 02	0 02	0 02	0 01	0 01	0 02	0 01	0 02 $\frac{1}{4}$
Sawed stuff, boards, planks, scantling and sawed timber, per M. feet, board measure, in vessels	0 30	0 30	0 30	0 15	0 10	0 11 $\frac{1}{4}$	0 06 $\frac{3}{4}$	0 20
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 $\frac{1}{2}$
Square timber, per M. cubic feet, in vessels	3 00	3 00	3 00	1 00	1 00	0 56	0 44	1 69
Square timber, per M. cubic feet, in rafts	4 50	4 50	4 50	2 00	2 00	1 12	0 63	3 13
Wagon stuff, woodenware and wood, partly manufactured, per ton of 40 cubic feet	0 40	0 40	0 40	0 40	0 25	0 30	0 20	0 55
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
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
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
Saw-logs, each standard log	0 08	0 08	0 08	0 08	0 05	0 06	0 06	0 13
Staves and headings, brls., per M.	0 40	0 40	0 40	0 20	0 15	0 15	0 10	0 30
do pipe, per M.	1 50	1 50	1 50	1 00	1 00	0 75	0 50	1 75
do W. India, per M.	0 75	0 75	0 75	0 60	0 25	0 45	0 25	0 65
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
Traverses, per 100 pieces	0 50	0 50	0 50	0 50	0 40	0 38	0 15	0 67 $\frac{1}{4}$
Hop poles, per 1,000 pieces	2 00	2 00	2 00	2 00	1 50	1 50	0 65	2 65
<i>Special Class.</i>								
Gypsum, crude (per O. C., 28th October, 1892)	0 15	0 05		0 05		Westward		
Coal	0 20	0 20	0 20	0 15	0 10	0 08	0 05	0 17 $\frac{1}{4}$
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 $\frac{1}{2}$
Kryolite, iron ore or chemical ore	0 05	0 05	0 05	0 05	0 05	0 05	0 05	0 05
Ice	0 05	0 05	0 05					

Department of Railways and Canals.

of the Dominion—*Continued.*

TRENT VALLEY CANALS.

1ST SECTION.	2ND SECTION.	3RD SECTION.	4TH SECTION.	THROUGH.	Whitlaw's to Hastings.
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 at Bobcaygeon.	Tolls Charge- able at Buckhorn.	Tolls Charge- able at Burleigh.	Tolls Charge- able at Fenelon Falls,	Tolls Charge- able at Whitlaw's.
\$ 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 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 01	0 00 $\frac{1}{2}$
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 02
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 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$
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 11	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 03	0 00 $\frac{3}{4}$
Free.	Free.	Free.	Free.	Free.	Free.

Sec. 76.—Standard for estimating weight, 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		Whiskey, 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 40 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 lime, 7 barrels	1	Staves and headings, pipe, 1 Mille	8
Fire bricks, 1,000	3	do W. India, 1 Mille	4
Fish, 7 barrels	1	do barrel, 1 Mille	2½
Flour, 9 barrels	1	do salt barrel, 1 Mille	1
Gypsum and manganese, 6 barrels	1	Saw-logs, standard, 1	1
Horses, 2	1	Square timber, 50 cubic feet	5
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		
Seed, 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 above named articles are to be estimated by the cental of 100 lbs.

WAY RATES.

Sec. 77. The following way rates are to be levied on vessels and property passing the several subdivisions of the canals :—

	Rate.
WELLAND CANALS.	
1. From Port Maitland, Dunnville and Port Colborne to Port Robinson or Allanburg, not passing the lock, each way	1
2. From Chippawa Cut, or any part thereof, to Dunnville, Port Maitland or Port Colborne	1
3. From Dunnville to Port Colborne	1
4. From Thorold to St. Catharines or Port Dalhousie	1
5. From Maitland, Dunnville, Colborne or Port Robinson to Marshville and intermediate places	1
6. From Marshville or intermediate places to Port Maitland, Dunnville, Port Colborne and Port Robinson	1
7. From Port Robinson to Allanburg or Thorold	1
8. From Port Robinson to St. Catharines or Port Dalhousie	1
9. From St. Catharines to Port Dalhousie	1
10. From Dunnville to Maitland	1
11. From Port Robinson through the lock and Chippawa Cut	1
12. From Port Colborne to Port Maitland	1
13. From Chippawa Cut through lock to Port Robinson	1
14. From Colborne, Dunnville, Maitland and Marshville to Thorold	1
15. From Colborne, Dunnville, Maitland and Marshville to St. Catharines	1
16. Through the Chippawa Cut only	1
17. Through the Port Robinson Lock only	1

ST. LAWRENCE CANALS.

Sec. 78. 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.

Sec. 79. Vessels and property passing from Sorel to Chambly, to pay
 Vessels and property passing from Chambly to St. Johns, to pay

Department of Railways and Canals.

OTTAWA CANALS.

Sec. 80. 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 CANALS.

Sec. 81. 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.

GENERAL.

Sec. 82. (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.

SPECIAL REGULATIONS RELATING TO TOLLS ON SOME OF THE CANALS.

Sec. 83. Coal may pass up all canals, except the Welland Canal, free of toll. O. C. June 7, 1869.

Sec. 84. Logs, lumber or other produce may pass free of toll down the Chippewa Creek, between the Aqueduct and Port Robinson. O. C. May 18, 1863.

NOTE.

O. C. June 27, 1890.

That the following words be added to Section 84 :—

(1.) "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, as provided by the Order in Council of the 9th July, 1888.

(2.) "Rafts may be passed through the Carillon Canal free of tolls, as provided by the Order in Council of the 9th July, 1888."

Sec. 85. Iron ore, kyrolite or chemical ore, may pass through one section, or through all the canal sections aforesaid, for 5 cents per ton.

Sec. 86. (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.

(c.) 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 then up and down the canals as often as desired. O. C. April 18, 1873.

Sec. 87. 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.

Sec. 88. During the season of navigation for 1889, the rate of toll for the passage of wheat, Indian corn, pease, barley and rye, when shipped for Montreal or for any port east of Montreal, shall be two cents per ton, such toll covering the Welland and the St. Lawrence Canals; and during the said period, if the ordinary full tolls for passage of the said food products through the Welland Canal have been paid, the said products shall be exempted from payment of any further toll for passage through any portion of the St. Lawrence Canal system, though not traversing the whole distance to Montreal. O. C. March 18, 1889.

HARBOUR DUES.

Sec. 89. 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.

TOLLS AT SHEDS AT LACHINE CANAL BASIN.

Sec. 90. 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	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.....	$\frac{1}{2}$
Bales, crates, cases, &c. do per ton weight or measurement.....	24
Coals do per chaldron.....	12

Sec. 91. (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.

(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.

Flour.

Sec. 92. (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 once 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.

TOLLS ON VESSELS TRADING TO LOWER PORTS AND ENTERING THE LACHINE CANAL AT MONTREAL HARBOUR.

Sec. 93. The following rates of toll shall be levied upon vessels trading to lower ports, and entering the Lachine Canal from the harbour of Montreal, and on certain goods herein mentioned; said vessels to be allowed 48 hours for discharge of cargo before the following be incurred; and said discharge to be made below the St. Gabriel Lock.

	Mills.
Steamboats measuring 50 tons or upwards, per ton register, per day of 24 hours..	8
All other vessels measuring 50 tons or upwards, per ton register, per day of 24 hours.....	4
	Cents.
Steamboats measuring under 50 tons register, each day of 24 hours.....	40
All other vessels measuring from 25 to 50 tons register, per day of 24 hours....	20
All vessels measuring less than 25 tons register, per day of 24 hours.....	10
Coal, per chaldron.....	10
Salt, per 100 minots.....	15
Iron of all kinds, per ton weight.....	15
Merchandise as in class No. 6 of the tariff of tolls on Dominion Canals.....	10

Provided always that the above tolls be levied only on goods for consumption in Montreal, and on vessels trading with that port. O. C. June 8, 1860.

CHARGES FOR WHARFAGE ON FIREWOOD ON WHARFS AND BANKS OF LACHINE CANAL.

Sec. 94. 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 crafts occupying any of the basins between Wellington Street Bridge and Lock No. 3, four cents per cord,

Department of Railways and Canals.

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.

(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.

CANAL BASINS IN MONTREAL PART OF MONTREAL HARBOUR.

Sec. 95. 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.

PHOSPHATES.

Sec. 96. 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.

CHARGES ON VESSELS WINTERING IN LACHINE CANAL.

Sec. 97. 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.

DUES ON VESSELS IN THE NEW BASIN, LACHINE CANAL.

98. 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 basins of said canal and of the revenue that may be derived from their use, and the rates shall be levied by the Government on vessels loading or unloading in the new basins equal and similar to those levied by the Commissioners in respect of the old basin. O. C. Jan. 26, 1883.

DUES IN THE HARBOUR OF MONTREAL UNDER ACTS 40 VIC., CHAP. 53, AND 42 VIC., CHAP. 28.

Sec. 99.—*Tonnage Dues.*

On steamboats, for each day of twenty-four hours, or part of a day they remain in the harbour, reckoned from the hour of their arrival to that of their departure.	Per ton register. 1 cent.
On all other vessels, per day, as aforesaid	½ do

Sec. 100.—*Wharfage Dues.*

	Per ton.
All goods, wares and merchandise, not elsewhere specified	25 cents.
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, swine	15 do
Ballast, clay, fire-bricks, gypsum, lime, marble, phosphates, sand, salt	10 do
Coal and coke, grain and seeds of all kinds	7½ do
Special.—Bricks, 10 cents per 1000 ; cordwood, 5 cents per cord ; lumber, 10 cents per 1000 feet, board measure.	
Bullion specie	Free.

Note.

101. (a.) On all goods, wares and merchandise whatsoever, the quantity of which by weight, measurement or other mode of estimate provided for in the tariff of the next preceding section cannot

be conveniently ascertained, it shall be lawful for the Harbour Commissioners to levy a rate of $\frac{1}{4}$ of 1 per cent on the value thereof.

(b.) Each entry shall pay not less than 5 cents.

(c.) All property landed on the wharfs for re-shipment shall only pay one wharfage.

(d.) The ton mentioned in the tariff of wharfage dues shall be 2,000 lbs. weight or 40 cubic feet measurement, according to the bill of lading.

Sec. 102.— *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.

TOLLS ON FLOATED TIMBER, &C., ENTERING THE BASIN AT LACHINE.

Sec. 103. 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 Tim-ber, &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 flatted, 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		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.....	2	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

NOTE.

O. C. 27th June, 1890.

3. That the following words be added to Section 103 :—“The monthly charge of 3 cents per cord on firewood is cancelled, as provided by Order in Council of the 4th February, 1880.”

Note.

Sec. 104. (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 superintendent may direct.

(c.) The rates on timber to take effect upon the completion of the booms in Lachine Canal. O. C. June 8, 1860.

CHARGES FOR WINTERING VESSELS IN RIDEAU CANAL.

Sec. 105. 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.....	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.

Department of Railways and Canals.

CHARGES FOR REPAIRING VESSELS ON THE BANKS OF CANALS.

Sec. 106. (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.

Sec. 107. Rules with respect to the repairing vessels on the banks of the Lachine Canal, the Beauharvais and the Chambly:—

(a.) Repairs shall only be executed at such points as may be indicated and approved by the superintendent.

(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 a manner for the repairs of vessels, whether such vessels are actually hauled up or not. O. C. August 6, 1881.

ST. PETER'S CANAL.

Sec. 109. On each and every vessel passing through the said canal, two cents per ton on vessel and one cent per ton on the freight, each way. O. C. June 23, 1883.

ORDER IN COUNCIL.

12th December, 1889.

On a memorandum dated 10th of December, 1889, from the Minister of Railways and Canals, representing that in certain instances it has been the practice to tie up vessels for the winter alongside of canal piers, but not inside the gates, and that consequently such vessels thereby, to some extent advantaged, do not receive there the protection from the rise and fall of water which they would obtain inside, that nevertheless they have been charged with winterage dues.

The Minister recommends that henceforward, including the winter now current, but not otherwise retroactive, no charges be made for vessels so wintering outside the locks of any Government canal.

The Committee submit the above recommendation for your Excellency's approval.

O. C. 16th May, 1890.

His Excellency, under the authority conferred upon him by Chapter 37 of the Revised Statutes, intitled: "An Act respecting the Department of Railways and Canals," and by and with the advice of the Queen's Privy Council for Canada, is pleased to order that the rules and regulations for the management, maintenance, proper use and protection of the Canals of the Dominion of Canada, made and established by the Order in Council of the 26th day of October, 1889 (Consolidated Orders in Council of 1889), together with any amendments thereof or additions thereto, shall be, and the same are hereby made applicable to the Murray Canal, with the exception of such sections or provisions as relate especially and only to other works named therein.

O. C. 20th May, 1890.

His Excellency, in pursuance of the provisions of Chapter 37 of the Revised Statutes, intitled: "An Act respecting the Department of Railways and Canals," and by and with the advice of the Queen's Privy Council for Canada, is pleased to order that the rates of toll to be imposed and collected on the Murray Canal, now open for regular traffic, shall be and the same are hereby fixed at the rate of one-eighth of those charged for passage through the St. Lawrence Canals.

ORDER IN COUNCIL.

27th September, 1890.

On a memorandum dated 25th September, 1890, from the Minister of Railways and Canals, representing that under date the 20th August, 1890, an Order in Council was passed prohibiting 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.

The Minister recommends, as this prohibition has entailed the use of tugs and consequently expense to the parties concerned, and upon the advice of the Deputy Head of the Department of Railways and Canals. that all tugs used solely for the purpose 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 works on that section.

The Committee submit the above recommendation for your Excellency's approval.

ORDER IN COUNCIL.

27th day of September, 1890.

PRESENT :

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL.

His Excellency, under the authority conferred upon him by Chapter 37 of the Revised Statutes, intituled : " An Act respecting the Department of Railways and Canals," and by and with the advice of the Queen's Privy Council for Canada, is pleased to declare the now completed Tay Canal to be part of the Rideau Canal, and that the rules and regulations for the management, maintenance, proper use and protection of the canals of the Dominion of Canada, made and established by the Order in Council of the 26th of October, 1889 (Consolidated Orders in Council of 1889, chapter 115), together with any amendments thereof or additions thereto, shall be applicable to the said Tay Canal, and the same are hereby made applicable to the Tay Canal accordingly, with the exception of such sections or provisions as relate specially, and only to works other than the Rideau Canal named therein.

And His Excellency is further pleased, under the authority of the above cited Act, and by and with the advice of the Queen's Privy Council for Canada, to impose and authorize the collection of the following rates of toll upon the said Tay Branch of the Rideau Canal system, now open for regular traffic, namely :—

From Perth to Smith's Falls, 1 section, or $\frac{1}{3}$ of Rideau Canal rates.

From Perth to Kingston, 2 sections, or $\frac{2}{3}$ Rideau Canal rates.

From Perth to Ottawa Basin, 2 sections, or $\frac{2}{3}$ Rideau Canal rates.

From Perth to River Ottawa, 3 sections, or full Rideau Canal rates.

A portion of a section to be charged as a whole section.

AT THE GOVERNMENT HOUSE, AT OTTAWA.

MONDAY, 18th day of May, 1891.

PRESENT :

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL.

His Excellency, in virtue of the powers vested in him by section 13 of Chapter 37 of the Revised Statutes, intituled : " An Act respecting the Department of Railways and Canals," and by and with the advice of the Queen's Privy Council for Canada, is pleased to order that all 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.

(Signed)

JOHN J. MCGEE,

Clerk, Privy Council.

The Right Honourable
The Minister of Railways and Canals.

O. C. 18th May, 1891.

Whereas, in consequence of the operations of the contractors for the enlargement of the Cornwall Canal, access to the river wharf opposite the town of Cornwall is temporarily prevented for the steamers of the Richelieu and Ontario Navigation Company, such steamers being obliged, in place of stopping at such wharf, to pass through the two locks at the lower entrance of the canal to another wharf in that town ;

His Excellency, under the authority conferred upon him by Section 13 of Chapter 37 of the Revised Statutes, intituled : " An Act respecting the Department of Railways and Canals," and by and with the advice of the Queen's Privy Council for Canada, is pleased to order that during the current season the steamers of the said Richelieu and Ontario Navigation Company shall be allowed passage free of toll through the said two locks at the lower entrance of the Cornwall Canal.

(Signed)

JOHN J. MCGEE,

Clerk, Privy Council.

Department of Railways and Canals.

O. C. 31st October, 1890.

His Excellency, under the authority conferred by him by Chapter 37 of the Revised Statutes, intituled : " An Act respecting the Department of Railways and Canals," and by and with the advice of the Queen's Privy Council for Canada, is pleased to impose and authorize the collection of the following tolls and dues for the use of the dry dock at Robcaygeon, 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	4	12
15 tons and under.....	20	3	10

AT THE GOVERNMENT HOUSE AT OTTAWA.

MONDAY, the 4th day of April, 1892.

PRESENT :

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL.

His Excellency, having had under consideration the Tariff on Tolls on the Canals of the Dominion and the several Orders in Council, under which a special rate has from time to time been established temporarily on certain food products passing through the Welland Canal, and through the St. Lawrence Canals, for shipment at Montreal and ports east of Montreal, is pleased to order in virtue of the powers vested in him by Chapter 37 of the Revised Statutes, intituled : " An Act respecting the Department of Railways and Canals," and by and with the advice of the Queen's Privy Council for Canada, that the following amendments shall be, and the same are hereby made to the Tariff of Tolls in force in the said Canals, viz. :—

That a refund be made of a portion of the Canal tolls collected on wheat, Indian corn, pease, barley, rye, oats, flax seed and buckwheat which have been carried through the Welland Canal, and the St. Lawrence Canals to Montreal or to any port east of Montreal in all cases where the said products so carried are exported, and in such cases only.

That this rebate be such as to reduce the tolls to two cents per ton of the said products or any of them, and that the conditions of such refund be the following :—

That the products aforesaid on which the rebate of tolls may be claimed shall be shown to have been originally shipped for Montreal or for some port east of Montreal and shall be shown to have been carried to Montreal or to some port east of Montreal, and actually sent out of the country.

That the right to this rebate shall not be lost by reason of intermediate transshipment, provided that the place of such transshipment is one within the Dominion of Canada.

That the right to this rebate shall extend to any portions of cargoes lightered at Port Colborne and reshipped at Port Dalhousie, and also to shipments of the above named products made from any Canadian Lake Ontario Port.

That payment of the amount to be refunded be made, from time to time, as cargoes of the said products are despatched for export from Montreal or from some port east of Montreal.

That this Order in Council remain in force for the present year, 1892, only.

(Signed) JOHN J. MCGEE,
Clerk, Privy Council.

CERTIFIED COPY of a Report of a Committee of the Honourable the Privy Council, approved by His Excellency the Governor General in Council on the 18th of May, 1892.

On a memorandum dated 19th April, 1892, from the Minister of Railways and Canals, submitting a memorandum copy herewith, from the proper Officers of the Department of Railways and Canals upon certain objections raised by the Montreal Board of Trade, by forwarders and others to the existing tonnage and wharfage charges on vessels and freight using the basin of the Lachine Canal at Montreal.

From such memorandum, which is of a detailed and explanatory character, it appears that the complaints made are well founded, the complications shown being due to the fact that the various Orders in Council have from time to time been passed, fixing and changing rates and charges to meet particular cases as they arose ; and pending a general revision of the whole matter of Canal regulations, tolls and charges which seems to be desirable, it is expedient that the subject of these complaints should be dealt with at once.

The Minister, accordingly, on the advice of the Canal Revenue Officers, endorsed by the Superintending Engineer of the Lachine Canal, and the Deputy Head of the Department of Railways and Canals, recommends the adoption of the following :—

1st. The cancellation of Section No. 93 of Consolidated Orders in Council on the 26th October, 1889, Chapter 115, and the substitution thereof of the following :—

Wharfage Dues on Coal for local consumption in Montreal.

Section 93. 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 5 cents a ton.

Coal screenings shall be charged 3 cents a ton.

2nd. The cancellations of sections Nos. 98, 99, 100, 101, and the substitution of the following :

Wharfage Dues in all basins of the Lachine Canal on Sea-going vessels.

Section 98. 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, coal and coke, grain and seeds of all kinds.....	7½ do
<i>Special</i> —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., 3½ cents per 1,000 feet board measure.

The Committee submit the above recommendation for Your Excellency's approval.

(Signed) JOHN J. MCGEE,
Clerk, Privy Council.

To the Honourable
The Minister of Railways and Canals.

AT THE GOVERNMENT HOUSE AT OTTAWA.

MONDAY, the 6th day of June, 1892.

PRESENT :

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL.

His Excellency, in virtue of the provisions of Chapter 37 of the Revised Statutes, intituled : "An Act respecting the Department of Railways and Canals," and by and with the advice of the Queen's Privy Council for Canada, is pleased to order that the provisions of the Order in Council of the 29th day of April, 1891, under which, in the case of steamers specially chartered for the conveyance of excursion parties, going and returning in the same boat on the same day, one-half only of the usual rates of passenger tolls were charged for passage through the Lachine Canal and the Ste. Anne Lock, and for passage through the Welland Canal, in the case of excursion parties leaving Toronto or Hamilton for St. Catharines, and excursion parties leaving St. Catharines for Toronto or Hamilton, shall be, and the same are hereby continued in force for the present season of navigation only.

(Signed) JOHN J. MCGEE,
Clerk, Privy Council.

The Honourable
The Minister of Railways and Canals.

Department of Railways and Canals.

AT THE GOVERNMENT HOUSE AT OTTAWA.

FRIDAY, the 15th day of July, 1892.

PRESENT :

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL.

Whereas, by a clause of the Order in Council of the 4th April, 1892, respecting the rebate to be allowed on certain food products traversing the Welland and St. Lawrence Canals bound for Montreal or some port east of Montreal for exportation, it was provided that the right to such rebate should extend to shipments of the said products made "from any Canadian Lake Ontario Port," this provision being taken from the Order in Council of the 29th April, 1891 ;

And whereas it was not intended that the restriction in favour of Canadian Lake Ontario ports, should be continued ;

His Excellency, under the provisions of Chapter 37 of the Revised Statutes, intituled : " An Act respecting the Department of Railways and Canals," and by and with the advice of the Queen's Privy Council for Canada, is pleased to order that the said Order in Council of the 4th April, 1892, shall be and the same is hereby amended by the omission of the word " Canadian " from the clause in question ; and that such amendment shall have force and effect from the 4th day of April last.

(Signed) JOHN J. MCGEE,
Clerk, Privy Council.

AT THE GOVERNMENT HOUSE AT OTTAWA.

MONDAY, the 19th day of July, 1892.

PRESENT :

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL.

Whereas application has been made for the extension to the Trent Valley Canals of the concession of reduced passenger rates for excursion parties now enjoyed on the Lachine and Welland Canal under an Order in Council of the 6th of June, 1892.

His Excellency, under the provisions of Chapter 37 of the Revised Statutes, intituled : " An Act respecting the Department of Railways and Canals," and by and with the advice of the Queen's Privy Council for Canada, is pleased to order that for the present season of navigation only, steamers specially chartered for the conveyance of excursion parties going and returning the same day, one-half of the usual passenger tolls shall be charged for passage through the Trent Valley Canals.

(Signed) JOHN J. MCGEE,
Clerk, Privy Council.

The Honourable
The Minister of Railways and Canals.

AT THE GOVERNMENT HOUSE AT OTTAWA.

TUESDAY, the 2nd day of August, 1892.

PRESENT :

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL.

His Excellency, under the authority conferred upon him by Chapter 37 of the Revised Statutes, and by and with the advice of the Queen's Privy Council for Canada, is pleased to order that the provisions of the Order in Council of the 6th June, 1892, reducing by one-half the usual passenger tolls on the Lachine Canal (such reduction applying to cases where excursion parties are conveyed in steamers specially chartered for that purpose, going and returning the same day), shall be, and the same are hereby extended to the Beauharnois Canal for the present season of navigation only.

(Signed) JOSEPH POPE,
Asst. Clerk, Privy Council.

AT THE GOVERNMENT HOUSE AT OTTAWA.

FRIDAY, the 14th day of October, 1892.

PRESENT :

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL.

His Excellency, in virtue of the provisions of Chapter 37 of the Revised Statutes, intituled : " An Act respecting the Department of Railways and Canals," and by and with the advice of the Queen's Privy Council for Canada, is pleased to prescribe the following scale of charges 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.....	4 00
Grenville Canal, Steamers, for season.....	8 00
Barges.....	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.

(Signed)

JOHN J. MCGEE,
Clerk of the Privy Council.

CERTIFIED COPY of a Report of a Committee of the Honourable the Privy Council, approved by His Excellency the Governor General in Council, on the 2nd November, 1892.

On a memorandum dated 28th October, 1892, from the Minister of Railways and Canals, representing that he is in receipt of a letter from the manager of the Collins' Bay Rafting and Forwarding Co., of which the following is a copy:—

“COLLINS' BAY, 19th September, 1892.

“To the Minister of Railways and Canals,
“Ottawa, Ont.

“DEAR SIR,—I am in receipt of a communication from Robert Rae, Esq., Commodore of 'The Yacht Club of Chicago,' with reference to the bringing of a large number of yachts through the canals next season to attend the World's Fair in Chicago, and he suggests that your Government should make the canals for all yachts from abroad free for the round trip, and asks me to lay the matter before your department with that end in view. It is understood that 'The Ocean Racing Yacht Club,' 'The International Yacht Club of England' will attend, provided their way is made easy to Chicago. The Danish, Russian, German, French, Italian and Greek Yacht Clubs have been invited, but before accepting will require information on the subject of the way of getting from Montreal to Chicago and the cost thereof. It is proposed by the Royal Yacht Club that there be an Ocean race across to Montreal, and afterwards for the fleet to rendezvous at Mackinac to meet the Canadian and American yachts from there to race to Chicago for a prize to be given by the American Yacht Clubs.

“If your Government should decide to accede to this proposition and give public notice to that effect or advise me I will forward same to the President of the Yacht Club of Chicago.

“Yours truly,

“Collins' Bay Rafting and Forwarding Co. (Ltd.)

(Signed)

“Per A. LEGER, JUN.,
“*Manager.*”

The Minister in view of the interests attaching to the projected scheme, recommends that the courtesy of free passage through the Dominion canals to be extended to all pleasure yachts attending the Chicago Exhibition in 1893, and that he be authorized to inform the company accordingly in reply to their letter.

The committee submit the above recommendation for Your Excellency's approval.

(Signed)

JOHN J. MCGEE,
Clerk of the Privy Council.

The Honourable
The Minister of Railways and Canals.

Department of Railways and Canals.

APPENDIX No. 24.

Railway Statistics of the Dominion of Canada, for the year ended 30th June, 1893, compiled by Mr. Thomas Ridout, C.E., from sworn Returns furnished by the several Railway Companies.

COLLINGWOOD SCHREIBER,
Chief Engineer Railways and Canals.

TABLE showing the growth of Railways in Canada, from year to year, since the opening of the first line in 1837.

Year.	Miles in Operation.	Year.	Miles in Operation.
1836..	0	1865..	2,145
1837..	16	1866..	2,150
1838..	16	1867..	2,258
1839..	16	1868..	2,269
1840..	16	1869..	2,497
1841..	16	1870..	2,497
1842..	16	1871..	2,497
1843..	16	1872..	2,508
1844..	16	1873..	2,638
1845..		1874..	2,642
1846..		1875..	4,826
1847..	59	1876..	5,157
1848..	59	1877..	5,574
1849..	59	1878..	6,143
1850..	71	1879..	6,484
1851..	93	1880..	6,891
1852..	212	1881..	7,260
1853..	423	1882..	7,530
1854..	657	1883..	8,806
1855..	855	1884..	9,576
1856..	1,296	1885..	10,149
1857..	1,428	1886..	10,697
1858..	1,654	1887..	11,691
1859..	1,997	1888..	12,162
1860..	2,087	1889..	12,628
1861..	2,087	1890..	13,256
1862..	2,110	1891..	14,009
1863..	2,110	1892..	14,588
1864..	2,145	1893..	15,020

Summary for the year ended 30th June, 1893:—

Miles of railway completed (track laid).....	15,320
do sidings.....	2,012
do iron rails in main line	437
do steel do	14,883
Capital paid (including the four following items).....	\$872,156,475
Government bonuses paid.....	153,523,816
do loans paid.....	21,619,149
do subscriptions to shares paid....	300,000
Municipal aid paid.....	14,017,957
Miles in operation	15,020
Earnings	\$52,042,397
Working expenses	36,616,033
Net earnings	15,426,364
Passengers carried	13,618,027
Freight carried (tons).....	22,003,599
Train mileage.....	44,385,953
Passengers killed.....	11
Number of elevators	53
do guarded level crossings.....	139
do unguarded do	9,552
do overhead bridges.....	401
do level crossings of other railways.....	208
do junctions do	304
do do branch lines.....	216
do engines owned.....	1,937
do do hired	17
do sleepers and parlour cars owned.....	155
do do do hired.....	6
do first class cars owned.....	94 ⁰
do do hired.....	28
do second class and immigrant cars owned.....	662
do do do hired.....	2
do baggage mail and express cars owned.....	601
do do do hired.....	9
do cattle and box cars owned	33,795
do do do hired	1,946
do platform cars owned.....	15,545
do do hired.....	174
do coal and dump cars owned	3,330
do do do hired.....	125

Department of Railways and Canals.

NOMINAL CAPITAL PAID.

	Miles constructed.	Amount.	Per Mile.
		\$ cts.	\$ cts.
Ordinary share capital	15,320	253,029,728 41	16,516 30
Preference do	15,320	118,847,558 72	7,757 57
Bonded debt.....	15,320	307,225,888 03	20,053 91
Aid from Dominion Government	15,320	147,212,609 70	9,609 18
do Ontario do	6,210	6,391,932 74	1,029 30
do Quebec do	2,916	12,630,409 62	4,331 42
do New Brunswick Government.....	1,378	4,425,281 81	3,211 38
do Nova Scotia Government.....	831	2,121,944 55	2,553 48
do Prince Edward Island Government	211	.....	.....
do Manitoba Government	1,470	2,623,286 77	1,784 55
do British Columbia Government	749	37,500 00	50 07
do North-west Territories Government.....	1,555	.....	.....
do Municipalities in Ontario.....	6,210	10,266,453 37	1,653 21
do do Quebec.....	2,916	2,544,218 62	872 50
do do New Brunswick.....	1,378	296,500 00	215 16
do do Nova Scotia.....	831	277,685 00	334 16
do do Prince Edward Island	211	.....	.....
do do Manitoba.....	1,470	595,600 00	405 17
do do British Columbia.....	749	37,500 00	50 07
do do North-west Territories.....	1,555	.....	.....
Capital from other sources.....	15,320	3,592,378 13	234 49
Total paid Capital.....	15,320	872,156,475 47	56,929 27

Equal to an average of \$1,842 71
 per mile on total mileage.

GOVERNMENT and Municipal Loans, Bonuses, &c., promised to Railways completed and under construction:—

	Amount.
Dominion Government.....	\$150,955,008 37
Ontario do	6,925,432 74
Quebec do	15,880,051 61
New Brunswick Government.....	4,633,281 81
Nova Scotia do	2,363,744 55
Manitoba do	2,624,336 77
British Columbia do	37,500 00
Municipalities in Ontario.....	10,450,750 78
do Quebec.....	4,323,174 00
do New Brunswick.....	316,500 00
do Nova Scotia.....	289,685 00
do Manitoba	595,600 00
do British Columbia.....	37,500 00
do North-west Territories.....	25,000 00
	\$199,457,565 63

FATAL ACCIDENTS.

	Passengers Killed.	Employees Killed.	Others Killed.	Total Killed.
Falling from cars or engines	2	21	5	28
Getting on, or off, trains in motion	5	6	15	26
At work making up trains		3		3
Putting arms or heads out of windows				
Coupling cars		9		9
Collisions or derailments	3	8	3	14
Walking or being on track		12	87	99
Explosions				
Striking bridges				
Other causes	1	13	23	37
Totals	11	72	133	216

LAND GRANTS made by Governments to Railways, completed and under construction.

Name of Railway.	Government.	Acres Granted.	Acres Sold.	Amount Realized.
				\$
Alberta Railway and Coal Co	Dominion	1,409,180	835,248	1,101,733
Calgary and Edmonton	do	2,176,000	1,481,046 *	
Canadian Pacific	do	26,568,000	3,796,489	11,758,517
do	do		Town sites	
			net proceeds	1,328,951
Esquimalt and Nanaimo	do	1,900,000	243,450	758,098
Great North-west Central	do	2,880,000		
Manitoba and North-western	do	3,046,400	584,412	954,733
Manitoba and South-eastern	do	704,000		
Manitoba and South-western Colonization	do	1,396,800	295,196	1,251,436
Qu'Appelle, Long Lake and Saskatchewan	do	2,220,800	1,126,230 *	
Winnipeg and Hudson Bay	do	8,580,000		
Wood Mountain and Qu'Appelle	do	1,536,000		
Great Northern	Quebec	330,000		
Lake Temiscamingue Colonization	do	250,000		
Lower Laurentian	do	480,000		
Montfort Colonization	do	210,000		
Montreal and Western	do	350,000		
Ottawa and Gatineau Valley	do	658,000		
Quebec and Lake St. John	do	1,840,000		
Western Counties, now Yarmouth and Annapolis	Nova Scotia	150,000		
Columbia and Kootenay	British Columbia	200,000	Town sites	57,212

* After repeated efforts to obtain a statement of the amounts realized from the sale of these lands, up to date of going to press (12th March, 1894), the companies have failed to give the information—the Return, therefore, in this respect is incomplete.

Department of Railways and Canals.

TABLE showing Locations of the Railways of the Dominion of Canada, 30th June, 1893.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Alberta Railway and Coal Co.	Late North-western Coal and Navigation Co—From Dunmore, on C.P.R., westerly to colliery at Lethbridge, and from Lethbridge to Coumts, on International boundary		174 12
Albert Southern	Harvey Branch Junction to Alma		16 00
Baie des Chaleurs	Metapedia to Paspébiac (80 miles completed)		100 00
Bay of Quinté and Navigation Co	Deseronto, on Bay of Quinté, Lake Ontario to Deseronto Junction, Grand Trunk Railway		4 00
Brantford, Waterloo and Lake Erie (now Toronto, Hamilton and Buffalo)	Brantford, Ont., to Waterford, Ont.		17 00
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	104 10	
			295 07
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		138 00
Central Counties	From Glen Robertson, on Canada Atlantic to Hawkesbury, Ont		21 00
Canada Southern	Main Line—Windsor to Suspension Bridge	226 18	
	Amherstburg Branch—Essex Centre to Amherstburg	15 70	
	St. Clair Branch—St. Clair Junction to Courtright	62 63	
	Fort Erie Branch—Fort Erie to Welland Junction	17 50	
	Erie and Niagara Branch—Fort Erie to Niagara	30 60	
	Oil Springs Branch—Oil Springs to Oil City	5 50	
	Sarnia, Chatham and Erie—Oil City to Petrolia	7 00	
	Leamington and St. Clair—Comber to Leamington	13 80	
			378 91
Canada Eastern	Late Northern and Western of New Brunswick—Gibson to Chatham Junction, I.C.R.	107 00	
	Blackville to Indiantown	9 00	
	Chatham to Chatham Junction	11 00	
			127 00
Canadian Pacific : Owned	Main Line—Montreal to Vancouver	2,904 80	
	do Quebec to St. Martin's Junction	159 80	
	Branch—Grand Piles Junction to Grand Piles	26 90	
	do Berthier Junction to Berthier	2 00	
	do Joliette do St. Felix	16 80	
	do Ste. Thérèse Junction to St. Jérôme	13 60	
	do do do 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	
	do Carleton Junction to Brockville	45 00	
	do Sudbury to Copper Mines	5 00	
	do do Sault Ste. Marie	182 50	
	do Winnipeg Junction to Emerson	64 50	
	do Winnipeg to Manitou	100 10	
	do Rosenfeldt to Gretna	13 70	
	do Winnipeg to West Selkirk	22 50	
	do do Stonewall	18 00	
	do Kenmay to Estevan	156 20	
	do Glenboro' to Souris	45 70	
	do Deloraine to Napinka	18 60	
	do Monteth Junction to Reston	31 30	
	do New Westminster Junct'n to New Westm'tr	8 20	
	do Mission Junction to Mission	10 10	
	do Vancouver to Coal Harbour	1 20	
			3,879 20
	Total mileage owned		3,879 20

TABLE showing Location of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Canadian Pacific—Continued.			
Leased lines.....	Atlantic and North-west (in Canada)— South end Lachine Bridge to Maine boundary, Que.....	182 50	
	Renfrew to Eganville, Ont.....	22 50	
			205 00
	St. Lawrence and Ottawa— Ottawa to Prescott, Ont.....	51 80	
	Chaudiere Junction to Sussex st., Ottawa..	6 60	
			58 40
	Ontario and Quebec— 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	
			463 80
	Credit Valley— Toronto Junction to St. Thomas.....	116 10	
	Streetsville Junction to Melville Junction..	31 50	
	Cataract to Elora.....	27 30	
			175 10
	West Ontario Pacific—London to Woodstock.....		26 60
	Toronto, Grey and Bruce— Toronto Junction to Owen Sound.....	116 90	
	Orangeville Junction to Teeswater.....	69 40	
	Glenannan to Wingham.....	5 00	
			191 30
	Guelph Junction— Guelph Junction on Credit Valley Ry. to Guelph..		15 00
	Montreal and Ottawa— Vaudreuil to Point Fortune, Que.....		23 60
	Montreal and Western— St. Jérôme to Ste. Agathe.....		30 40
	Montreal and Lake Maskinongé— St. Félix to St. Gabriel de Brandon.....		13 00
	St. John and Maine— Carleton, N. B., to Vanceboro'.....		91 80
	New Brunswick Railway (in Canada)— Gibson to Woodstock.....	62 90	
	Newbury Junction to Edmundston.....	105 50	
	Aroostook Junction to Boundary.....	5 00	
	Fairville to St. John.....	2 30	
			175 70
	New Brunswick and Canada Ry. (in Canada)— McAdam Junction to St. Stephen.....	33 90	
	Watt do St. Andrew's.....	27 50	
	McAdam do Woodstock.....	50 80	
	Debec do Maine boundary.....	5 00	
			117 20
	Fredericton Railway— Fredericton Junction to Fredericton.....		22 10
	Manitoba South-western Colonization— Manitou to Deloraine.....	101 00	
	Winnipeg to Glenboro'.....	104 20	
	Elm Creek to Barnsley.....	12 60	
			217 80
	Columbia and Kootenay—Robson to Nelson— Kootenay Lake to Columbia River.....		27 70
	Shuswap and Okanagon— From Junction with C.P.R. at Sicamous to Lake Okanagon.....		51 00
	Total mileage leased.....		1,905 50
	do owned.....		3,879 20
	do operated.....		5,784 70
	432		

Department of Railways and Canals.

TABLE showing Locations of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Canadian Government Railways.	Intercolonial—		
	Halifax to Lévis	675 00	
	Moncton to St. John	89 00	
	Truro to Stellarton	44 00	
	Stellarton to Mulgrave	82 00	
	Stellarton to Pictou	14 00	
	Pt. Tupper to Sydney	91 00	
	New Glasgow to Pictou Landing	8 00	
	Painsec to Pte. du Chêne	11 00	
	Branch to North Sydney	5 00	
	do Dalhousie	7 00	
	do St. Charles	25 00	
	do Dartmouth	4 00	
	do Indiantown	14 00	
	do Oxford Junction to Brown's Pt.	67 00	
do Pugwash	5 00		
		1,141 00	
	Prince Edward Island—		
	Main Line—Alberton to Georgetown	147 00	
	Branch—Mount Stewart to Souris	38 40	
	do Alberton to Tignish	13 10	
	do County Line to Cape Traverse	12 10	
			210 60
			1,351 60
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 Picton, 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 Railways of New Brunswick	From Norton Station, on the Intercolonial Railway, to Chipman	44 66	
	From Hampton to Quaco (formerly St. Martin's and Upham Railway)	30 00	
			74 66
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
Drummond County	Ste. Rosalie, Que., junction with Grand Trunk Railway, to Ball's Wharf on River St. Lawrence, connects with Canadian Pacific Railway at Drummondville		62 81
Elgin, Petitecodiac and Havelock	From Elgin, County of Albert, N.B., to Petitecodiac Junction with Intercolonial Railway; thence to Havelock, in County of King's		27 50
Erie and Huron	Rondeau, Lake Erie, Ont., to Sarnia, passing through the Town of Chatham, Ont., connects with Canada Southern and Great Western and Lake Erie and Detroit River Railways		76 75

TABLE showing Location of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
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		2 10
Grand Trunk (owned)—			
Main Line.	From Point Edward to Point Lévis and Boundary Line, Vermont.	719 75	
	From Niagara Falls to Windsor.	229 50	
			949 25
Branches.	Connections at Toronto with G. W. and N., and N. W.	4 75	
	Montreal to Dorval.	10 25	
	Sarnia Extension—Point Edward to Sarnia.	3 00	
	Montreal Landing to Wharves.	0 75	
	Arthabaska to Doucet's Landing.	35 25	
	Kingston—Main Line to Kingston City	2 25	
	Waterloo and Berlin to Galt	14 50	
	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	
	Brosscaus to Dundee and Valleyfield.	81 25	
	Jacques Cartier to Canadian Pacific Junction	6 50	
	Waterloo to Elmira	10 00	
	Belleville to Midland	164 00	
	Lindsay to Scarborough Junction.	60 25	
	do Haliburton.	54 25	
	Whitby to Manilla.	33 75	
	Lakefield Junction to Lakefield	11 75	
	North Hastings Junction to Eldorado.	22 25	
	Blackwater to Coboconk	36 25	
	Madoc to Bridgewater	8 75	
	Port Hope to Omemee.	32 00	
	Millbrook to Peterboro'.	12 25	
	Stouffville to Lake Simcoe	26 50	
	Peterboro' to Chemong Lake.	8 25	
	Coldwater to Parker's Hill	9 00	
	Connection, Merriton	0 17	
	do Stoney Creek.	2 08	
	Loop Gauges (N. and N. W).	0 48	
	Hamilton to Toronto	36 64	
	Loop—Junction Cut—Toronto Branch	0 36	
	Connection, Burlington do East	0 13	
	do 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	
	Port 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 Kinscourt Junction.	21 04	
	Guelph to Southampton	101 26	
	Palmerstone to Kincardine.	66 67	
	do connection.	0 20	
	Hyde Park to Wingham Junction.	68 88	

Department of Railways and Canals.

TABLE showing location of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Grand Trunk— Branches— <i>Con.</i>	Connection, Clinton Junction.....	0 13	
	Brantford Loop Line.....	34 78	
	Toronto Belt, Swansea to Carleton.....	4 37	
	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	
	Cobourg to Harwood.....	15 00	
	Blairton to Junction with Canadian Pacific Ry.....	3 00	
	2055 50		
	Total owned.....		3004 75
	Leased and partly owned—		
	Buffalo and Lake Huron, Fort Erie to Goderich.....		162 00
	Leased or rented—		
	Wharf Branch, Montreal.....		1 75
	Total miles operated.....		3168 50
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.....		2 23
	Length of tunnels between portals 6,000 ft., cylindrical in section with clear inside diameter of 19 ft. 10 inches.		
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
Montreal and Sorel.....	From junction with Grand Trunk Railway at St. Lambert to Armstrong opposite to Sorel.....		44 67
Great Northern.....	Constructed from St. Jérôme to Ste. Julienne.....		18 00
Great North-west Central.....	Constructed from junction with C. P. R. at Chater, westward to Hamiota.....		50 93
Hereford.....	From International Boundary to Dudswell, County Wolfe, connects with Canadian Pacific Railway at Cookshire, and with Quebec Central at Dudswell.....	48 20	
	Dudswell to Lime Quarries (Dominion Lime Company)	4 80	
			53 00
Irondale, Bancroft and Ottawa.	Constructed from junction with Grand Trunk Railway near Kinnmount Station towards Bancroft.....		15 00
Joggins, now Canada Coals and Railway Co.....	Maccan Station, I. C. R., to Joggins Mine.....		12 00
Kent Northern.....	Richibucto, N. B., to Intercolonial Railway.....	27 00	
	Richibucto to St. Louis.....	7 00	
			34 00
Kingston and Pembroke.....	Main Line—Kingston to Pembroke.....	103 00	
	Glendon Branch—Bedford to Zanesville.....	4 00	
	Robertsville Branch—To Robertsville Mines.....	1 00	
	Branches—To Doran's Mills, Charcoal Works, McLaren's Mills, Bethune's Mines, Lavant Mills, Clyde Forks Mills and Francis Mills.....	4 75	
			112 75
	(Connects with Grand Trunk at Kingston, Canadian Pacific at Sharbot Lake and at Renfrew.)		

TABLE showing Locations of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Kingston, Napanee and Western.	Late Napanee, Tamworth and Quebec :—		
	Napanee to Tamworth.....	28 50	
	Yarker to Harrowsmith.....	7 00	
	Tamworth to Tweed.....	20 95	56 45
Lotbinière and Megantic.....	Lyster Station, Grand Trunk, towards St. Jean Des-Chaillons.....		15 00
L'Assomption.....	11 miles constructed.....		
Lake Erie, Essex and Detroit River.....	L'Epiphanie Station, C.P.R., to L'Assomption.....		3 00
Lake Temiscamingue Colonization Railway.....	From Walkerton, Ont., on G.T.R., to Ridgetown.....	84 05	
	Branch—Foster's to Decew's Mills.....	4 00	88 05
London and Port Stanley.....	Between Mattawa and head of Lake Kippewa, in several sections.....		15 50
	London to Port Stanley, on Lake Erie.....		23 84
Lower Laurentian (formerly St. Lawrence, Lower Laurentian and Saguenay).....	From St. Tite, on C.P.R., to Rivière à Pierre, on Quebec and Lake St. John Railway.....		39 50
Manitoba and North-western.....	Portage la Prairie to Yorkton.....	223 05	
	Shell River Branch.....	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.....		110 00
Montfort Colonization.....	From junction with Montreal and Western near St. Sauveur to Montfort, 10 miles under construction.....		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, 2½ miles east of St. John, 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.....	Junction with Grand Trunk at St. Lambert to Farnham.....	32 00	
	Marieville to St. Césaire.....	8 60	40 60
New Glasgow Iron, Coal and Railway Company.....	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.....		11 85
Northern Pacific and Manitoba.....	Winnipeg to International boundary.....	65 30	
	Winnipeg to Portage la Prairie.....	52 50	
	Morris to Brandon.....	145 50	
	Connection with C.P.R. at Winnipeg.....	1 20	264 50
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
Orford Mountain.....	Eastman, on C.P.R., to Kingsbury, Que.....		26 50
Ottawa and Gatineau Valley.....	Canadian Pacific Railway Station at Hull, Que., to Venosta.....		40 00
Ottawa, Arnprior and Parry Sound.....	Ottawa to Arnprior.....		35 00

Department of Railways and Canals.

TABLE showing Locations of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
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 Eginton.....		30 00
Pontiac and Renfrew.....	From Wyman's Station, on Pontiac Pacific Junction Railway, to Bristol Mines, County Pontiac, Que.....		4 25
Pontiac Pacific Junction.....	From Junction with Canadian Pacific Railway at Aylmer, Que., to Pembroke, Ont. (Rails laid on 71 miles from Aylmer and 61 miles in operation.).....		85 00
Port Arthur, Duluth and Western.....	Port Arthur to International boundary (Connects with 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.....		254 00
Quebec and Lake St. John.....	Quebec to Roberval.....	191 00	
	Chambord Junction to Chicoutimi.....	51 00	
Quebec Central.....	Main Line—Sherbrooke to Harlaka Junction, Intercolonial Railway, 5 miles from Lévis, Que. Chaudière Branch—Beauce Junction to St. Francis. Angus Branch—East Angus to Angus Mills.....	137 50 15 00 1 00	
	(Connects with Grand Trunk, Passumpsic and C. P. R. at Sherbrooke.).....		153 50
Quebec, Montmorency and Charlevoix.....	Hedleyville, Parish of St. Roch, Quebec, to Ste. Anne de Beupré.....		21 00
Stanstead, Shefford and Chambly.....	From Junction with Montreal and Vermont Junction Railway, near St. John, 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).....		37 00
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	
	Lake Champlain and St. Lawrence Junction—Stanbridge to St. Guillaume.....	61 40	
	(Connects with Connecticut and Passumpsic Railway, Grand Trunk and Stanstead, Shefford and Chambly.).....		201 50
St. Catharines and Niagara Central.....	St. Catharines, Ont., to Niagara Falls.....		12 35
St. John Bridge and Railway Extension.....	From St. John to Fairville, crossing St. John River at the Falls by a cantilever steel bridge, and connects Intercolonial Railway with New Brunswick Railway, C. P. R.....		1 75
St. John Valley and Rivière du Loup.....	From Fredericton, N. B., to Woodstock, N. B. (6 miles under construction).....		66 00
Salisbury and Harvey (formerly Albert Railway).....	Salisbury to Albert, N. B.....	45 00	
	Branches to Mills.....	1 75	
	Hillsboro' to Gray's Island.....	1 00	
	Albert to Prescott.....	1 00	
	Stony Creek to Manganese Mine.....	1 25	
Harvey Branch.....	Albert to Harvey Bank, N. B.....		50 00
St. Lawrence and Adirondack.....	From Junction with Canada Atlantic near Valleyfield to International Boundary.....		3 00
Thousand Islands.....	Gananoque to Gananoque Station, G. T. R.....		20 31
			4 08

TABLE showing Locations of Railways, &c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Témiscouata.....	Rivière du Loup, Que., on Intercolonial, to Edmunds- ton, N.B., on the New Brunswick Railway	81'00	
	Branch—Edmundston to Connors, on St. John River.....	32'00	113'00
Tobique Valley.....	From Perth Centre on C.P.R. to Plaster Rock, N.B.		28'00
United Counties.....	St. Hyacinthe to St. Angèle, Que.		20'00
Western Counties (now Yarmouth and Annapolis).....	Yarmouth to Annapolis, N.S.		87'00
Windsor and Annapolis.....	Windsor to Annapolis, N.S.	84'00	
	Branches— Wilmot to Forbrook.....	3'50	
	From Kentville to Kingsport, on Basin of Minas (formerly Cornwallis Valley Railway).....	14'00	
Leased Line.....	Windsor Branch—Windsor to Windsor Junction, Intercolonial Railway, 14 miles from Halifax.....	32'00	133'50
Wood Mountain and Qu'Appelle.....	From Canadian Pacific Railway, near Qu'Appelle Station, to Fort Qu'Appelle, thence north-eastely (17 miles under construction).....		110'00
Winnipeg and Hudson Bay	Winnipeg to Port Nelson on Hudson Bay.....		650'00
	(Constructed 40 miles, Winnipeg to St. Laurent on Lake Manitoba.)		

Department of Railways and Canals.

SUMMARY STATEMENTS

**RELATING TO CHARACTERISTICS OF ROADS, ROLLING STOCK,
MILEAGE, FREIGHT CARRIED, EARNINGS
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	174 12			174 12	12 31		28 to 35
2	Albert Southern	16 00			16 00	38		56
3	Baie des Chaleurs..	80 00			80 00	7 00		56
4	Bay of Quinté Railway and Nav- igation Co. 4 00	60 45	4 56		60 45	7 00		56
	Kingston, Napanee & Western 56 45							
5	Brockville, Westport and Sault Ste. Marie	45 00			45 00	1 80		56
6	Buctouche and Moncton	32 00			32 00	2 00		56
7	Calgary and Edmonton	295 07			295 07	9 38		56
8	Canada Atlantic 138 00	159 00			159 00	45 00		56 & 72
	Central Counties 21 00							56
9	Canada Eastern	127 00			127 00	6 00		56 & 60
10	*Canada Southern	378 91			378 91	150 29		60 to 80
11	Canadian Government Railways— † Intercolonial	1141 00			1141 00	148 00		56, 57 1/2, 67
	Prince Edward Island	210 60		118 60	92 00	15 71	38	50 to 52
12	† Canadian Pacific Railway 3879 20							
	Leased lines—							
	Atlantic and North-west	205 00						
	Ontario and Quebec	463 80						
	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	30 40	5784 70	39 60	48 00	5736 70	675 13	56
	Montreal and Lake Maskin- ongé	13 00						52 to 72
	New Brunswick	175 70						
	New Brunswick and Canada	117 20						
	St. John and Maine	91 80						
	Fredericton	22 10						
	Manitoba and South-west- ern Colonization	217 80						
	Columbia and Kootenay	27 70						
	Shuswap and Okanagan	51 00						
13	Caracquet	68 00			68 00	3 25		50
14	Carillon and Grenville	13 00		13 00		25	65	
15	Central Ontario	104 00			104 00	11 00		42 & 56
16	Central of New Brunswick	74 66			74 66	2 50		52 & 56
17	Cumberland Railway and Coal Co.	46 00			46 00	10 00		56 & 67
18	Drummond County	62 81			62 81	3 20		56 & 60
19	Elgin, Petitecodiac and Havelock	27 50			27 50	2 00		56
20	Erie and Huron	76 75			76 75	4 70		54 & 56
21	Esquimalt and Nanaimo	78 00			78 00	2 00		50 & 54
22	Fredericton and St. Mary's Railway and Bridge Co	2 10			2 10	12		56
23	§ 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							

* 95 21 miles of double track.

† 1 1/2 miles of double track.

‡ 13 10 miles of double track.

Department of Railways and Canals.

Roads, &c., for the year ending 30th June, 1893.

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.									
2640	Plain fishplates		10					1	2		573	53 3 0	1	
2640	do		11								955	120 4 8 $\frac{1}{2}$	3	
2600	do		27	3	22			1		2	717	67 4 8 $\frac{1}{2}$	2	
3000	do		50	1				1	4		955	90 4 8 $\frac{1}{2}$	4	
2640	Fisher bridge joint		35	1					2		717	58 4 8 $\frac{1}{2}$	5	
2640	Plain fishplates		18					1	1		955	73 4 8 $\frac{1}{2}$	6	
2600	do and angle bars		148					2			1146	53 4 8 $\frac{1}{2}$	7	
3000	do	6	85	3	22	6	4	1			2865	40 4 8 $\frac{1}{2}$	8	
2640	do		20						1		955	53 4 8 $\frac{1}{2}$		
2640	do and angle bars	1	30			1	4	1			955	80 4 8 $\frac{1}{2}$	9	
2800	Joint splice, 4 and 6 bolts nut locks	7	379	16		19	17	16	6		913	75 4 8 $\frac{1}{2}$	10	
2640	Angle and plain fishplate	1	9	429	29	18 $\frac{1}{2}$ to 35		6	24	20	694	65 4 8 $\frac{1}{2}$	11	
2640	do			960	2	17 $\frac{1}{4}$					396	90 3 6		
2640 to 3168	Angle and plain fishplates	8	31	2625	74	20 to 24	48	62	51		500	*237 4 8 $\frac{1}{2}$	12	
2600	Plain fishplates		12					1			1000	60 4 8 $\frac{1}{2}$	13	
1760	Chairs	1	8	1		17					1910	100 5 6	14	
2640	Plain fishplates		94					3	4		955	105 4 8 $\frac{1}{2}$	15	
2640	do		40					2			955	74 4 8 $\frac{1}{2}$	16	
2600	do		13					1			820	160 4 8 $\frac{1}{2}$	17	
2640	do and angle bars		37					1	2	1	717	66 4 8 $\frac{1}{2}$	18	
2000	do		24					1	1		717	90 4 8 $\frac{1}{2}$	19	
2640	do		108					5	6		661	52 4 8 $\frac{1}{2}$	20	
2992	Angle bars		15	2	23						528	80 4 8 $\frac{1}{2}$	21	
.....	Angle and plain fishplates		6						2		1433	50 4 8 $\frac{1}{2}$	22	

§ 404 $\frac{1}{2}$ miles of double track.

*Temporary.

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 Rail- s.
		Miles.	Miles.	Miles.	Miles.	Miles.	Lbs.	Lbs.
	Grand Trunk— <i>Con.</i>							
	London, Huron and Bruce... 69 01							
	Waterloo Junction..... 10 25							
	Wellington, Grey and Bruce 168 13							
	Northern..... 172 10							
	North Simcoe..... 33 34							
	Hamilton & North-western. 173 90							
	Northern & Pacific Junction. 111 37	3168 50		101 50	3067 00	661 75	40 to 65	56 to 97
	Midland..... 182 72							
	Grand Junction..... 85 40							
	Toronto and Nipissing..... 85 00							
	Lake Simcoe Junction..... 26 50							
	Victoria..... 53 25							
	Whitby, Pt. Perry & Lindsay 46 50							
	Cobourg, Blaiton & Marnora 18 00							
	Jacques Cartier Union..... 6 50							
	Montreal and Champlain Junction..... 61 75							
	Beauharnois Junction..... 19 50							
	South Norfolk..... 17 00							
	Toronto Belt Line..... 12 70							
24	Great Eastern.....	13 00	15 00		13 00	1 00	56	
25	Great Northern.....	18 00			18 00	1 00		56
26	Great North-west Central.....	50 93			50 93	1 99		56
27	Hereford.....	53 00			53 00	5 51		56
28	Irondale, Bancroft and Ottawa.....	15 00	5 00		15 00	50		56
29	Joggins (now Canada Coals & Ry. Co.)..	12 00			12 00			56
30	Kent Northern.....	34 00		3 50	30 50	3 00	67	56
31	Kingston and Pembroke.....	112 75		9 75	103 00	21 00	50 to 84	56
32	L'Assomption.....	3 00			3 00	25		56
33	Lake Erie and Detroit River.....	88 05			88 05	10 00		56
34	Lake Temiscamingue Colonization.....	15 50			15 50			30 & 16
35	Lotbinière and Megantic.....		11 00					56
36	Lower Laurentian.....	39 50			39 50	2 50		56
37	London and Port Stanley.....	23 84			23 84	2 47		56
38	Manitoba and North-western.. 234 50) Saskatchewan and western.. 15 47)	249 97			249 97	23 42		56
39	Manitoba and South-Eastern.....		8 00					
40	Massawippi Valley.....	34 00			34 00	2 50		50 & 60
41	Montfort Colonization.....		10 00					
42	Montreal and Sorel.....	44 67			44 67	3 33		56
43	Montreal and Vermont Junction.....	23 60			23 60	2 00		72 & 60
44	Montreal, Portland and Boston.....	40 60			40 60	1 40		56
45	New Brunswick & Prince Edward Island	36 00			36 00	1 50		56
46	New Glasgow Iron, Coal & Railway Co.	12 50			12 50	2 50		56
47	Niagara Falls Park and River (Electric Railway).....	11 85			11 85	2 12		56
48	Northern Pacific and Manitoba.....	264 50			264 50	28 50		56
49	Nosbonsing and Nipissing.....	5 50			5 50	1 25		56
50	Nova Scotia Central.....	74 00			74 00	2 75		56
51	Orford Mountain.....	26 50			26 50	1 00		56
52	Ottawa and Gatineau Valley.....	40 00	14 00		40 00	1 50		56
53	Ottawa, Arnprior and Parry Sound.....	35 00			35 00			72
54	Ottawa Valley.....	7 00			7 00	20		56
55	Parry Sound Colonization.....	30 00			30 00	1 00		56 & 72
56	Pontiac and Renfrew.....	4 25			4 25	75		56
57	Pontiac Pacific Junction.....	61 00	10 00		61 00	3 00		56

Department of Railways and Canals.

Roads, &c., for the year ended 30th June, 1893—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 fishplates and angle bars.	12	76 2685	237	15 to 28	62	65	102	1100 *600	53 4 84	23		
2640	Plain fishplates		6				3		2865	26 4 84	24		
2640	do		12				1	2	2292	53 4 84	25		
2640	do	2	24					1	955	60 4 84	26		
2800	do		28				2	3	955	66 4 84	27		
2640	do		4				1	1	1000	60 4 84	28		
3000	do		4				1	1	955	79 4 84	29		
2432	do		8				1	1	1000	60 4 84	30		
2640	Plain and angle fishplates.		55	3 16½ to 21½		4	4	13	955	79 4 84	31		
2500	Plain fishplates.		1				1	1	955	20 4 84	32		
2700	Angle bars.		1 88	1	19½	5	4		1433	53 4 84	33		
2600	Plain fishplates.		1				1			3 0	34		
2640	do		1				2	1	819	50 4 84	35		
2640	do		25				2	2	917	105 4 84	36		
2700	do		1 30	4	20	2	2		955	53 4 84	37		
2700	Plain fishplates and angle bars.	17	180				2	2	955	105 4 84	38		
2800	Plain fishplates.		1 19	1	19	1	2	1	478	76 4 84	39		
2640	Plain fishplates.		12				1		573	175 3 0	41		
3000	do		51				2		2292	53 4 84	42		
3000	do and chairs		7				1			52 4 84	43		
2400	do		26				1		1000	4 84	44		
2640	do		5				1	1	955	66 4 84	45		
2640	Angle bars.		10	2 14 & 22			2		115	300 4 84	47		
2640	Plain fishplates and angle bars.	12	265				6	2	573	63 4 84	48		
2600	Plain fishplates.		1				1		955	132 4 84	49		
2640	Angle bars		23	1	21		1		819	80 4 84	50		
2640	Plain fishplates.		17				1		955	74 4 84	51		
2640	Angle and plain plates.		34						573	106 4 84	52		
2640	Angle bars.		26				1		1432	40 4 84	53		
2600	Plain fishplates		3				1		1146	60 4 84	54		
2640	do		8				1		955	55 4 84	55		
2640	do						1		717	106 4 84	56		
2640	Angle bars.		47				1	2	1146	53 4 84	57		

* On Branch lines.

No. 2.—SUMMARY STATEMENT of Characteristics of

Number.	Name of Railway.	Length of Line.					Weight per Yard.	
		Completed (Rails laid.)	Under Construc- tion.	Iron Rails.	Steel Rails.	Length of Siding.	Iron Rails.	Steel Rails.
58	Port Arthur, Duluth and Western.....	85 50			85 50	4 00		56
59	Qu'Appelle, Long Lake & Saskatchewan	254 00			254 00	6 86		56
60	Quebec and Lake St. John.	242 00			242 00	14 00		56 & 60
61	Quebec Central	153 50		1 00	152 50	10 75		56 & 70
62	Quebec, Montmorency and Charlevoix..	21 00			21 00	1 50		56
63	Salisbury and Harvey.....	50 00		43 00	7 00	1 25	60	56
	Harvey Branch.....	3 00			3 00	20		56
64	Shore Line.....	82 50			82 50	2 50		50
65	Stanstead, Shefford and Chambly	43 00		29 00	14 00	5 50	60	60
66	St. Catharines and Niagara Central.....	12 35			12 35	65		56
67	*St. Clair Tunnel, Yard and Approach..	2 23			2 23	10 00		100
68	St. John Bridge & Railway Extension Co.	1 75			1 75			60
69	St. John Valley and Rivière du Loup..		6 00					
70	St. Lawrence and Adirondack.....	20 31			20 31	90		72
71	South eastern.....	140 10						
	Lake Champlain and St. Lawrence Junction.....	61 40						
		201 50		53 00	148 50	25 50		56 & 72
72	Stewiacke Valley and Lansdowne.....		10 00					
73	Temiscouata.....	113 00			113 00	5 00		56
74	Thousand Islands.....	4 08			4 08	1 00		56
75	Tobique Valley..	28 00			28 00	0 75		56
76	Toronto, Hamilton and Buffalo.....	17 00			17 00	75		56
77	United Counties.....	20 00			20 00	25		56
78	Windsor and Annapolis.....	87 50						
	Cornwallis Valley.....	14 00						
	Windsor Branch.....	32 00		3 50	130 00	6 00		56 & 60
79	Winnipeg and Hudson Bay.....	40 00			40 00	2 00		56
80	Wood Mountain and Qu'Appelle.....		17 00					
81	Yarmouth and Annapolis, formerly Western Counties.....	87 00		13 00	74 00	4 50	56	56 & 60
	Total.....	15319 90	150 10	436 85	14883 05	2012 57		

* Length of tunnel, 6,000 feet; inside diameter, 19 feet 10 inches.

Department of Railways and Canals.

Roads, &c., for the year ended 30th June, 1893—*Concluded.*

Number of Ties per Mile.	Nature of Rail Fastenings.	Number of Grain Elevators.		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 Sharpe t Curve.	Number of Feet per Mile of heaviest gradient.	Gauge of Railway.		
		Guarded.	Not guarded.								Feet.	Number.	
2640	Plain fishplates		5			3	1		573	95	4	8½	58
2600	Angle bars		25			1	1		1146	65	4	8½	59
2640	Plain fishplates	1	26	3			3	2	717	105	4	8½	60
2640	do		26			2	5	1	882	76	4	8½	61
2640	do		5	1	22		1		1433	42	4	8½	62
2600	do		31			2	2			80	4	8½	63
2640	do		2			2	2		716	53	4	8½	
2992	do		15	5	23	3	3		573	85	4	8½	64
2400	do		42			3	4		717	60	4	8½	65
2640	do		17	3	22	1	2		717	79	4	8½	66
2600	Angle bars						2		1146	106	4	8½	67
2640	Angle bars		1	3			2			80	4	8½	68
2640	Plain fishplates			15			1	2	1433	52	4	8½	69
2640 and 3000	Fishplates and angle bars			194	3	19½	8	9	410	86	4	8½	71
2640	Plain fishplates		38			1	2		819	79	4	8½	72
3000	do		8			1	1		660	84	4	8½	73
2600	do		19			2	1		717	78	4	8½	74
2700	do		18	1		2	2		955	40	4	8½	75
2640	do		11			2	3		955	52	4	8½	76
2640	do			90	1	32	3	2	955	75	4	8½	78
2600	do			6				1	2865	31	4	8½	79
2600	Plain fishplates and angle bars		1	67	3	24	1		600	84	4	8½	81
		53	139	9552	401	208	304	216					

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.						
1	Alberta Railway and Coal Co.....	174 12		18					
2	Albert Southern.....	16 00		1					
3	Baie des Chaleurs.....	80 00		4					
4	Bay of Quinté Railway and Navigation Co. 4 00 | Kingston, Napanee and Western..... 56 45 |	60 45	4 50	9					
5	Brockville, Westport and Sault Ste. Marie.....	45 00		2					
6	Buctouche and Moncton.....	32 00		2					
7	Calgary and Edmonton.....	295 07							
8	Canada Atlantic..... 138 00 | Central Counties..... 21 00 |	159 00		21					
9	Canada Eastern.....	127 00		8					
10	Canada Southern.....	378 91		117					
11	Canadian Government Railways:— Intercolonial.....	1,141 00		202		15		5	
	Prince Edward Island.....	210 60		21					
12	Canadian Pacific..... 3,879 20 | <i>Leased lines:—</i>								
	Atlantic and North-west..... 205 00								
	Ontario and Quebec..... 463 80								
	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	5,784 70		*593		+122		In fore- going.	
	Montreal and Western..... 30 40		39 60						
	Montreal and Lake Maskinongé..... 13 00								
	New Brunswick..... 175 70								
	New Brunswick and Canada..... 117 20								
	St. John and Maine..... 91 80								
	Fredericton..... 22 10								
	Manitoba and South-western Colonization..... 217 80								
	Columbia and Kootenay..... 27 70								
	Shuswap and Okanagan..... 51 00								
13	Caraquet.....	68 00		3					
14	Carillon and Grenville.....	13 00		2					
15	Central Ontario.....	104 00		9					
16	Central of New Brunswick.....	74 66		1	2				
17	Cumberland Railway and Coal Co.....	46 00		8					
18	Drummond County.....	62 81		4					
19	Elgin, Petitecodiac and Havelock.....	27 50		2					
20	Erie and Huron.....	76 75		5					
21	Esquimalt and Nanaimo.....	78 00		5					
22	Fredericton and St. Mary's Railway and Bridge Co.....	2 10							
23	Grand Trunk..... 884 25 | Great Western..... 561 80 Brantford, Norfolk and Port Burwell..... 34 78 Buffalo and Lake Huron..... 162 00 G. T., Georgian Bay and Lake Erie..... 172 75 London Huron and Bruce..... 69 01 Waterloo Junction..... 10 25 Wellington, Grey and Bruce..... 168 13 Northern..... 172 10 North Simcoe..... 33 34 Hamilton and North-western..... 173 90 Northern and Pacific Junction..... 111 37 Midland..... 182 72 Grand Junction..... 85 40	3,168 50		722		*5		6	

Department of Railways and Canals.

Rolling Stock, for the Year ended 30th June, 1893.

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.	
4		3				26		4		310		1
1		1				1		7				2
10		2		2		6		45				3
1	1			3		20		92		33		4
1		1		1		20		10	14			5
1		1				1		19				6
6		5		5		650	1300	337		6		8
5		2		2		12		78	4			9
42		21		30		2027		293		48	*123	10
92		*101		63		†2273		2142		2252		11
17		15		4		*178		125				
†220		175		187		\$11742		3513		361		12
1		1		2		4		16				13
2		3		1		3		3				14
2		3		3		34		94				15
1	2					6		22				2
2				2		2		29		186		17
1		2		2		2		29				17
1		1		1		9		20				18
9		1		1		1		8				19
11				3		29		12				20
				3		12		72		10		21
												22
390		225		214		16014		6568				23

Not in operation.

Rolling stock furnished by Can. Pac. Ry.

*Cars owned but not specified.

†Including 6 immigrant sleepers. †Including 99 vans.

*Including 3 conductors' vans, 8 snow ploughs and 7 flangers.

*Including 15 engines. Special trust.
 † do 6 sleeping and parlour cars. Special trust.
 †Including 5 1st class cars. Special trust.
 do 1,100 box cars. do
 Also 842 vans, tool cars, snow ploughs, &c., owned by company.

*Colonist sleeping cars.

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.						
<i>Grand Trunk—Continued.</i>									
	Toronto and Nipissing	85 00							
	Lake Simcoe Junction	26 50							
	Victoria	53 25							
	Whitby, Port Perry and Lindsay	46 50							
	Cobourg, Blairton and Marmora	18 00							
	Jacques Cartier Union	6 50							
	Montreal and Champlain Junction	61 75							
	Beauharnois Junction	19 50							
	South Norfolk	17 00							
	Toronto Belt Line	12 70							
24	Great Eastern	13 00	15 00	1	3				
25	Great Northern	18 00			1				
26	Great North-west Central	50 93			2				
27	Hereford	53 00							
28	Irondale, Bancroft and Ottawa	15 00	5 00	1					
29	Joggins, now Canada Coals and Railway Co	12 00		2					
30	Kent Northern	34 00		2	1				
31	Kingston and Pembroke	112 75		9					
32	L'Assomption	3 00		1					
33	Lake Erie and Detroit River	88 05		7					
34	Lake Temiscamingue Colonization	15 50		2					
35	Lotbinière and Megantic		11 00	1					
36	Lower Laurentian	39 50		2					
37	London and Port Stanley	23 84		2					
38	Manitoba and North-western	234 50							
	Saskatchewan and Western	15 47							
39	Manitoba and South-eastern	249 97		4	5				
40	Massawippi Valley	34 00	8 00						
41	Montfort Colonization		10 00						
42	Montreal and Sorel	44 67		1					
43	Montreal and Vermont Junction	23 60							
44	Montreal, Portland and Boston	40 60							
45	New Brunswick and Prince Edward Island	36 00		3					
46	New Glasgow Iron, Coal and Railway Co	12 50		2					
47	Niagara Falls Park and River (electric railway)	11 85		1					
48	Northern Pacific and Manitoba	264 50		9					
49	Nosbonsing and Nipissing	5 50		1					
50	Nova Scotia Central	74 00		5					
51	Orford Mountain	26 50			2				
52	Ottawa and Gatineau Valley	40 00	14 00	2					
53	Ottawa, Arnprior and Parry Sound	35 00							
54	Ottawa Valley	7 00			1				
55	Parry Sound Colonization	30 00		3					
56	Pontiac and Renfrew	4 25		1					
57	Pontiac Pacific Junction	61 00	10 00	4					
58	Port Arthur, Duluth and Western	85 50		4					
59	Qu'Appelle, Long Lake and Saskatchewan	254 00							
60	Qu'bec and Lake St. John	242 00		14			4		
61	Quebec Central	153 50		12					
62	Quebec, Montmorency and Charlevoix	21 00		4					
63	Salisbury and Harvey	50 00		4					
	Harvey Branch	3 00	53 00	2					
64	Shore Line	82 50		5					
65	Stanstead, Shefford and Chambly	43 00		6					
66	St. Catharines and Niagara Central	12 35		2					
67	St. Clair Tunnel, yard and approaches	2 23		4					

Department of Railways and Canals.

Rolling Stock, for the Year ended 30th June, 1893—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.
Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	Owued.	Hired.	
	2							6				24
	1					1						25
	2					2						26
		2					12		12			27
1												28
1		1				*		14				29
1		1		1				4				30
5		5		5		22		164				31
1						22		195				32
5		6		3		1		17				33
		2						30				34
1				1								35
												36
3	2	3		3	1	59	112	42	20			37
												38
												39
												40
1												41
												42
												43
1												44
1		1				2		33				45
*1						2		10		†27		46
*40												47
4		5		3		143	150	179				48
								35				49
3		2		2		13		49				50
	1				1	2		2				51
1		7		1		6		28				52
												53
2	1						1		5			54
												55
				2				29				56
2												57
2		1		2		5		50				58
		4		2		10		85				59
6												60
8		9		9		57		213				61
4		11		10		153		225				62
2		18				5		23				63
												64
5				2		8		20				65
4				3		7		61				66
2	1			1				5	4			67
										25		

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.						
68	St. John Bridge and Railway Extension Co.	1 75							
69	St. John Valley and Rivière du Loup		6 00						
70	St. Lawrence and Adirondack	20 31							
71	South-eastern 140 10) Lake Champlain and St. Lawrence Junction 61 40)	201 50		30				2	
72	Stewiacke Valley and Lansdowne		10 00						
73	Temiscouata	113 00		5					
74	Thousand Islands	4 08		1					
75	Tobique Valley	28 00							
76	Toronto, Hamilton and Buffalo	17 00		2					
77	United Counties	20 00		1					
78	Windsor and Annapolis 87 50) Cornwallis Valley 14 00) Windsor Branch 32 00)	133 50		14				2	
79	Winnipeg and Hudson Bay	40 00							
80	Wood Mountain and Qu'Appelle		17 00						
81	Yarmouth and Annapolis, formerly Western Counties	87 00		8					
	Tota!	15,319 90	150 10	1937	17	142	4	13	2

Department of Railways and Canals.

Rolling Stock, for the Year ended 30th June, 1893—*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 Hooper and Dumping Cars.		Remarks.	
Owned.	Hired.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.		Number.
												68	Operated by Can. Pac. Ry.
												69	Not in operation.
												70	Operated by equipment of Central Vermont and Adirondack and St. Lawrence Rys.
9	15	8		6	4	61	371	248	100	50		71	
3		4		2		40		54				72	Not in operation.
		1						1				73	
1		1		2		2		6				74	
								10	15			75	do
												76	
7		8		8		88		137		22		77	do
												78	
												79	do
4				4		16		61				80	do
												81	
949	28	662	2	601	9	33795	1946	15545	174	3330	125		

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	174 12		65,365	92,044	157,409
2	Albert Southern	16 00		2,250	4,250	6,500
3	Bay of Quinté Navigation Co. 4 00 Kingston, Napanee & Western. 56 45	60 45	53,270		82,932	136,202
4	Brockville, Westport & Sault Ste. Marie. . .	45 00	712	992	27,675	29,379
5	Buctouche and Moncton	32 00			20,214	20,214
6	Calgary and Edmonton	295 07			54,071	54,071
7	Canada Atlantic	138 00				
	Central Counties	21 00	200,074	247,850	21,306	469,230
8	Canada Eastern	127 00	48,860	14,287	72,866	136,013
9	Canada Southern	378 91	1,388,307	2,020,383	163,977	3,572,667
10	Canadian Government Railways--					
	Intercolonial	1,141 00	1,258,980	3,141,812		4,400,792
	Prince Edward Island	210 60	81,830	145,019		226,849
11	Canadian Pacific	3,879 20				
	Leased Lines--					
	Atlantic and North-west.	205 00				
	Ontario and Quebec	463 80				
	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	30 40	5,784 70	5,421,693	7,416,221	997,948
	Montreal and Lake Maskin- ongé	13 00				13,835,862
	New Brunswick	175 70				
	New Brunswick & Canada.	117 20				
	St. John and Maine	91 80				
	Fredericton	22 10				
	Manitoba & South-western Colonization	217 80				
	Columbia and Kootenay	27 70				
	Shuswap and Okanagan	51 00				
12	Caraquet	68 00			28,000	28,000
13	Carillon and Grenville	13 00	9,000	550		9,550
14	Central Ontario	104 00		12,000	95,732	107,732
15	Central of New Brunswick	74 66			50,600	50,600
16	Cumberland Railway and Coal Co.	46 00			55,945	55,945
17	Drummond County	62 81	40,264		41,424	81,688
18	Elgin, Petitediac and Havelock.	27 50			16,956	16,956
19	Erie and Huron	76 75	48,234	38,032	57,860	144,126
20	Esquimalt and Nanaimo	78 00	122,496			122,496
21	Fredericton & St. Mary's Ry. & Bridge Co.	2 10				
22	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				
	London, Huron and Bruce	69 01				
	Waterloo Junction	10 25				
	Wellington, Grey and Bruce	168 13				
	Northern	172 10				
	North Simcoe	33 34				
	Hamilton and North-western	173 90				
	Northern and Pacific Junc.	111 37	3,168 50	5,790,571	9,291,593	2,206,329
	Midland	182 72				17,288,493
	Grand Junction	85 40				
	Toronto and Nipissing	85 00				
	Lake Simcoe Junction	26 50				
	Victoria	53 25				
	Whitby, Port Perry & Lindsay	46 50				

Department of Railways and Canals.

and Mileage, for the year ended 30th June, 1893.

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.
258,873	3,394	118,497		14	1	Running powers on Grand Trunk Ry., Nap- anee to Deseronto Junc., 5 miles. Running powers on Kingston and Pembroke Ry., Harrowsmith to Kingston, 19 miles.
6,500	757	5,239	19		2	
136,442	58,060	202,832	23	18	3	
29,573	24,901	10,497			4	
20,214	7,591	11,449	17	17	5	
54,071	9,711	16,761			6	
566,481	144,523	561,675	35	15	7	
139,278	38,364	58,922	30	16	8	
4,611,384	633,851	3,027,548	24 to 37	16 to 22	9	
5,323,279	1,292,878	1,388,080	25	15	10	
296,643	132,111	56,718	20	14		
18,606,299	3,335,598	4,266,348	27	15	11	
29,100	7,188	11,833	18	18	12	
10,000	9,100	175	25	20	13	
107,732	54,150	58,854	20	15	14	
50,600	11,472	11,392	17	17	15	
120,077	21,382	451,644	20	20	16	
81,688	21,494	52,094	25	20	17	
16,956	5,492	12,830	16	16	18	
170,461	103,828	106,546	25	18	19	
122,496	30,528	51,092	20	12	20	
	5,679	20,089			21	Trains run by Canada Eastern.
22,902,596	5,705,364	7,351,342	30	18	22	Running powers on Chaudière Branch, I.C. R., 6 miles. Including London and Port Stanley Ry. to termination of lease, 28th Feb., 1893.

No. 4.—SUMMARY STATEMENT of the Operations

Number.	Name of Railway.	Mileage.	TRAIN MILEAGE.			
			Passenger Trains	Freight Trains.	Mixed Trains.	Total Train Mileage.
	Grand Trunk— <i>Con.</i>					
	Cobourg, Blairton & Marmora. 18 00					
	Jacques Cartier Union 6 50					
	Montreal and Champlain Junc. 61 75					
	Beauharnois Junction 19 50					
	South Norfolk 17 00					
	Toronto Belt Line. 12 70					
23	St. Clair Tunnel	2 23				
24	Great Northern	18 00			5,580	5,580
25	Great North-west Central	50 93	352	4,700	8,639	13,691
26	Hereford	53 00	35,518	7,500	42,796	85,812
27	Joggins (now Canada Coals and Ry. Co.)	12 00	1,000	500	12,000	13,500
28	Kent Northern	34 00			18,366	18,366
29	Kingston and Pembroke	112 75	95,000		125,000	220,000
30	L'Assomption	3 00			4,122	4,122
31	Lake Erie and Detroit	88 05	86,402	3,928	63,104	153,434
32	Lake Temiscamingue Colonization	15 50				
33	London and Port Stanley	23 84	18,000	11,000	3,000	32,000
34	Lower Laurentian	39 50		2,259	24,716	26,975
35	Manitoba and North-western. 234 50					
	Saskatchewan and Western. 15 40	249 97	71,806	38,776	19,338	129,920
36	Massawippi Valley.	34 00	73,862	113,820	14,613	202,295
37	Montreal and Sorel	44 67			14,580	14,580
38	Montreal, Portland and Boston	40 60	34,076	18,403	9,938	62,417
39	Montreal and Vermont Junction	23 60	76,602	105,492	1,473	183,567
40	New Brunswick & Prince Edward Island.	36 00	4,419	3,538	22,608	30,565
41	New Glasgow Iron, Coal and Ry. Co.	12 50			15,700	15,700
42	Northern Pacific and Manitoba.	264 50	113,320	101,537	25,637	240,494
43	Nosbonsing and Nipissing.	5 50		7,800		7,800
44	Nova Scotia Central	74 00			56,234	56,234
45	Ottawa and Gatineau Valley	40 00			25,780	25,780
46	Ottawa Valley	7 00			7,280	7,280
47	Pontiac and Renfrew	4 25				
48	Pontiac Pacific Junction	61 00		4,784	36,934	41,718
49	Port Arthur, Duluth and Western	85 50			19,678	19,678
50	Qu'Appelle, Long Lake & Saskatchewan.	254 00			46,877	46,877
51	Quebec and Lake St. John	242 00	90,100		99,067	189,167
52	Quebec Central	153 50	125,943	112,764	23,017	261,724
53	Quebec, Montmorency and Charlevoix.	21 00	47,557	2,277		49,834
54	Salisbury and Harvey, including Harvey Branch	53 00			29,632	29,632
55	Shore Line.	82 50			60,544	60,544
56	Stanstead, Shefford and Chambly.	43 00	35,804	37,924	18,028	91,756
57	St. Catharines and Niagara Central	12 35	12,000		6,000	18,000
58	St. John Bridge and Ry. Extension	1 75				
59	St. Lawrence and Adirondack.	20 31	68,370	16,828	7,298	92,496
60	South-eastern 140 10					
	Lake Champlain and St. Lawrence Junction 61 40	201 50	189,464	228,504	32,406	450,374
61	Temiscouata	113 00	12,680		67,520	80,200
62	Thousand Islands.	4 08	11,963		10,955	22,918
63	Toronto, Hamilton and Buffalo.	17 00			22,168	22,168
64	Windsor and Annapolis. 87 50					
	Cornwallis Valley. 14 00	133 50	137,062		174,290	311,352
	Windsor Branch 32 00				1,372	1,372
65	Yarmouth and Annapolis, formerly Western Counties.	87 00	54,389	2,073	38,795	95,257
	Totals	15,020 55	15,859,978	23,220,761	5,305,214	44,385,953

Department of Railways and Canals.

of the year and Mileage, &c.—*Concluded.*

Engine Mileage.	Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs. Handled.	Average Rate of Speed of Passengers—Miles per Hour.	Average Rate of Speed of Freight Trains—Miles per Hour.	Number.	Remarks.
					23	
5,580	2,523	2,556	15	15	24	
15,974	3,591	14,994	20	17	25	
86,800	14,879	78,676	23	12	26	
14,000	9,566	63,102	12	12	27	
18,366	4,110	12,457	18		28	
160,000	45,295	87,864	25	18	29	
4,122	5,632	989	15	15	30	
220,932	75,317	133,267	35	25	31	
	4,950	2,779			32	
33,000	21,000	219,000	25	15	33	Approximate for the 4 months ended 30th
26,975	9,887	18,770	20	20	34	June, 1893; operations of previous 8 months
						included in Grand Trunk.
156,618	26,825	71,936	27	15	35	
202,295	78,402	156,676	25	12	36	Running power on Grand Trunk, Lennoxville
14,580	8,306	6,257	25	20	37	to Sherbrooke, 3 miles.
62,417	57,582	29,365	23	12	38	
183,567	120,402	744,858	30	12	39	
33,020	16,256	18,796	20	18	40	
37,500	10,600	121,576	15	15	41	
292,808	47,420	132,206	25	13	42	
9,300		82,670		25	43	
56,899	42,375	14,638	20	20	44	
26,980	34,298	15,075	30		45	
7,280	6,160	467	20	20	46	
		5,451		12	47	
46,290	17,919	21,434	30	20	48	
20,103	4,232	39,286	15	15	49	
46,877	5,062	11,873			50	
243,678	98,425	133,458	22	12	51	
279,152	117,801	158,873	25	15	52	Running powers on I.C.R., Harlaka Junc. to
51,167	219,698	6,545	20	20	53	Lévis, 5 miles.
35,300	10,462	26,328	18	18	54	
62,209	18,484	11,470	24	24	55	
91,756	130,142	754,969	23	12	56	
18,000	30,886	54,295	25	20	57	
	140,296	150,042			58	Operated by Can. Pac. Ry.
92,755	28,670	17,916	30	15	59	
631,671	195,263	518,685	28	18	60	
81,550	18,455	25,107	20	17	61	
22,918	20,283	19,002	15	15	62	
22,168	26,436	17,926	20	20	63	
311,352	160,051	120,156	22	14	64	Running powers on Intercolonial, Windsor
1,372	915	293	*		64	Junction to Halifax, 14 miles.
						*Operations by Cornwallis Valley Co., 1st
						to 26th July, 1892.
109,308	71,755	29,059	27	20	65	
57,587,382	13,618,027	22,003,599				

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.	174 12	5,350	535	27,000	472	141
2	Albert Southern.	16 00	40	4	100	1	71
3	Bay of Quinté Navigation Co. 4 00) Kingston, Napanee and West- ern 56 45)	60 45	35,180	3,518	205,236	5,644	2,170
4	Brockville, Westport and Sault Ste. Marie	45 00	12,910	1,291	67,009	1,922	6,000
5	Buctouche and Moncton	32 00					
6	Calgary and Edmonton.	295 07	15,662	1,566	31,325	556	6,748
7	Canada Atlantic 138 00) Central Counties 21 00)	159 00		7,222		33,543	
8	Canada Eastern	127 00	57,373	5,757	76,134	1,322	541
9	Canadian Southern.	378 91		149,122		382,610	
10	Canadian Government Rys.— Intercolonial	1,141 00	856,913	85,691	1,514,619	31,934	93,369
	Prince Edward Island	210 60	22,853	2,285	375,747	6,535	10,250
11	Canadian Pacific. 3,879 20) <i>Leased Lines—</i> Atlantic and North-west. 205 00 Ontario and Quebec. 463 80 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. 30 40 Montreal and Lake Mas- kinonge. 13 00 New Brunswick. 175 70 New Brunswick & Canada 117 20 St. John and Maine. 91 80 Fredericton 22 10 Manitoba South-western Colonization 217 80 Columbia and Kootenay. . 27 70 Shuswap and Okanagan. . 51 00)	5,784 70	2,639,779	263,978	26,157,022	659,434	392,945
12	Caraquet	68 00	5,500	550	5,000	88	60
13	Carillon and Grenville.	13 00					
14	Central Ontario.	104 00	7,968	781	290,520	7,263	1,820
15	Central of New Brunswick.	74 66					
16	Cumberland Railway and Coal Co.	46 00	14,519	1,451	16,000	267	42
17	Drummond County.	62 81		145			
18	Elgin, Petibodiad and Havelock.	27 50	6,950	695	6,585	112	747
19	Erie and Huron.	76 75	191,772	19,064	380,371	10,673	8,269
20	Esquimalt and Nanaimo.	78 00	3,695	370	17,077	470	4,241
21	Fredericton and St. Mary's Railway and Bridge Co.	2 10					
22	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) London, Huron and Bruce. . 69 01) Waterloo Junction. 10 25) Wellington, Grey and Bruce. 168 13) Northern 172 10) North Simcoe. 33 34) Hamilton and North-western 173 90) Northern and Pacific Junction 111 37) Midland 182 72)	3,168 50	5,084,000	508,460	44,950,000	1,123,759	2,035,180

Department of Railways and Canals.

Freight Carried for the Year ended 30th June, 1893.

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.		
92	1,141,877	2,040			1,788	113,570	118,497	1	
13	3,285,100	4,649	351	450	26	96	5,239	2	
867	63,964,666	95,947	24,484	36,727	35,487	24,642	202,832	3	
1,026	422,535	679			4,441	1,138	10,497	4	
		4,420		3,380		3,649	11,449	5	
3,097	3,363,497	3,954	7	10	4,852	2,726	16,761	6	
3,502		277,045		75,900	2,671	161,792	561,675	7	
206	15,948,550	21,251	3,024	4,536	9,993	15,857	58,922	8	
167,500		297,527		55,095	477,046	1,498,648	3,027,548	9	
12,757	181,211,013	226,514	5,737	15,039	342,400	673,745	1,388,080	10	*Including tanbark.
1,071	3,422,143	5,358	2,550	*4,950	36,519	in forego- ing.	56,718		
101,140	690,209,867	910,689	151,374	277,267	1,088,507	965,333	4,266,348	11	
30	5,400,000	8,100	700	1,050	500	1,515	11,833	12	
75					25	75	175	13	
911	5,234,000	6,543	9,767	17,093	21,448	4,815	58,854	14	
		7,647				*3,745	11,392	15	*Including 831 tons [of coal.]
20	11,352,000	14,190			4,931	*430,785	451,644	16	
104	12,216,000	15,260	9,171	15,285	21,300	in forego- ing.	52,094	17	
140	5,817,600	9,696	427	640	674	873	12,830	18	
1,439	27,477,966	36,366	502	822	5,294	33,888	106,546	19	
839	3,476,357	9,584	8,083	10,104	620	29,105	51,092	20	
						20,089	20,089	21	Not classified.
430,287	434,577,500	869,155	231,606	347,859	728,598	3,343,724	7,351,342	22	(Including London and Port Stanley Ry. up. to ter- mination of lease, 28th Feb., 1893.

No. 5.—SUMMARY STATEMENT of description

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live Number.	
			Barrels.	Tons.	Bushels.	Tons.		
	Grand Trunk—Con.							
	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 & Marmora	18 00						
	Jacques Cartier Union.....	6 50						
	Montreal and Champlain Junction.....	61 75						
	Beauharnois Junction.....	19 50						
	South Norfolk.....	17 00						
	Toronto Belt Line.....	12 70						
23	St. Clair Tunnel.....	2 23						
24	Great Northern.....	18 00	1,200	120	1,500	30		
25	Great North-west Central.....	50 93		148		10,720	408	
26	Hereford.....	53 00	6,210	621	11,350	229		
27	Joggins, now Canada Coals and Railway Co.....	12 00	1,325	131	4,645	81	23	
28	Kent Northern.....	34 00	7,046	704	2,706	49	36	
29	Kingston and Pembroke.....	112 75	7,050	705	50,000	1,500	150	
30	L'Assomption.....	3 00	997	105				
31	Lake Erie and Detroit River.....	88 05	8,014	866	207,563	5,666	4,121	
32	Lake Temiscamingue Colonization.....	15 50	3,839	384	42,041	716	44	
33	London and Port Stanley.....	23 84						
34	Lower Laurentian.....	39 50	1,568	140		30		
35	Manitoba and North-western.....	234 50						
	Saskatchewan and Western.....	15 47	249 97	35,790	3,579	1,884,845	48,345	6,518
36	Massawippi Valley.....	34 00	6,500	650	249,000	5,355	2,200	
37	Montreal and Sorel.....	44 67						
38	Montreal, Portland and Boston.....	40 60						
39	Montreal and Vermont Junction.....	23 60	4,394,660	439,466	2,482,833	74,485		
40	New Brunswick and Prince Edward Island	36 00	18,150	1,815	18,427	313	1,906	
41	New Glasgow Iron, Coal and Railway Co.	12 50	1,136	112				
42	Northern Pacific and Manitoba.....	264 50	6,730	673	1,746,617	50,601	2,140	
43	Nosbonsing and Nipissing.....	5 50						
44	Nova Scotia Central.....	74 00	1,386	138			58	
45	Ottawa and Gatineau Valley.....	40 00	9,531	953	15,089	387	725	
46	Ottawa Valley.....	7 00						
47	Pontiac and Renfrew.....	4 25						
48	Pontiac Pacific Junction.....	61 00	6,126	613	173,752	3,304	2,381	
49	Port Arthur, Duluth and Western.....	85 50						
50	Qu'Appelle, Long Lake & Saskatchewan.	254 00	5,686	569	58,004	1,659	2,403	
51	Quebec and Lake St. John.....	242 00	17,242	1,724	20,334	407	1,030	
52	Quebec Central.....	153 50		9,936		1,354		
53	Quebec, Montmorency and Charlevoix.....	21 00	1,246	135	3,183	66	52	
54	Salisbury and Harvey, including Harvey Branch.....	53 00	1,200	120	1,200	20	500	
55	Shore Line.....	82 50	34,300	3,430	5,980	104	222	
56	Stanstead, Shefford and Chambly.....	43 00	377,490	37,749	4,529,833	135,895		
57	St. Catharines and Niagara Central.....	12 35	4,130	413	3,090	94	58	
58	St. John Bridge and Railway Extension.	1 75						
59	St. Lawrence and Adirondack.....	20 31	380	38	7,056	196	72	
60	South-eastern.....	140 10						
	Lake Champlain and St. Lawrence Junction.....	61 40	201 50	245,113	24,512	2,662,128	64,027	13,693
61	Temiscouata.....	113 00	19,290	1,929	21,300	426	404	

Department of Railways and Canals

of Freight Carried, &c.—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.		
		24,000	36	850	1,530		840	23	
136			1,203		24	1,751	1,012	25	
415	19,361,265		29,041	4,108	7,133	494	40,743	24	
8	129,000		193			204	*62,485	27	*Including coal.
17			1,617		1,770	5,500	2,800	28	
75	22,040,000		33,060	11,887	21,945	30,477	102	29	
			436			138	310	30	
3,216	291,000		41,145	4,902	8,088	7,873	66,413	31	(Approximate for 4 months ended 30th June, 1893; previous 8 months included in Grand Trunk.
23	385,543		292	6	11	546	807	32	
20	6,590,000		6,590	7,530	7,530	370	4,090	33	
2,958	3,067,000		4,152	1,163	1,700	8,184	3,018	34	
1,325	20,000,000		39,575			715	*109,056	35	*Including 66,210 tons of ore and copper matte.
							6,257	37	*Not classified.
							*29,365	38	*Consisting of 24,960 tons of hay and 4,405 tons of other agricultural products.
148,972	24,828,666		37,243				*44,692	39	*Including 14,898 tons of hay.
114	6,666,400		10,032	1,002	1,503	1,043	3,976	40	
			983			1,984	*118,497	41	*Iron ore, limestone, coal and pig iron.
803	3,030,666		4,546	28,945	36,181	3,461	35,941	42	
							*82,670	43	*Saw-logs and lumber.
34	7,745,000		11,560	1,657	2,906			44	
120	1,006,460		1,521	568	1,030	5,684	5,380	45	
							467	46	Not classified.
							*5,451	47	*Iron ore.
433	972,073		1,520	3,424	5,098	2,218	8,248	48	
			29,156		930	803	8,397	49	
832	1,423,064		1,795	2,764	4,146	1,808	1,064	50	
127	40,944,000		51,660	26,920	48,456	8,595	22,496	51	
2,041			81,093		3,071	3,682	*57,696	52	*Including coal, lime, asbestos, pulp-wood, &c.
34	824,263		1,212	334	372	1,381	3,345	53	
75	6,500,000		9,750	3,000	6,000	120	10,243	54	
74	268,540		4,630	158	310	1,775	1,147	55	
203,842	20,132,666		30,199				*347,284	56	*Including 30,198 tons of hay.
28	325,000		3,153	35	66	7,916	42,625	57	
							150,042	58	Not classified.
36	8,446,212		12,682	276	138	831	*3,995	59	*Including 1,236 tons of hay.
3,075	77,928,374		102,431	12,689	22,431	123,188	179,021	60	
202	4,095,500		6,142	5,746	10,563	865	4,980	61	

No. 5.—SUMMARY STATEMENT of description

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live Number.
			Barrels.	Tons.	Bushels.	Tons.	
62	Thousand Islands.....	4.08	2,520	252	5,200	156	900
63	Toronto, Hamilton and Buffalo.....	17.00	669	67	76,535	2,266	128
64	Windsor and Annapolis.....	87.50					
	Cornwallis Valley.....	14.00	58,236	5,810			
	Windsor Branch.....	32.00					
65	Yarmouth and Annapolis, formerly Western Counties.....	87.00	16,451	1,645	3,985	85	536
	Total.....	15,020.55		1,592,737		2,675,171	

Department of Railways and Canals.

of Freight Carried, &c.—*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.		
360	1,919,000	2,878			12,664	2,692	19,002	62	
60	773,376	1,318	1,212	1,535	3,376	9,304	17,926	63	
2,444	26,899,476	13,449	1,123	2,348	21,145	*74,960 293	120,156 +293	64	*Including hay, pota- toes and minerals.
172	12,058,000	15,539	1,515	2,290	7,891	1,437	29,059	65	+ By operation of Cornwallis Co., 1st to 26th July, 1892.
1,097,180		3,417,446		1,064,812	3,053,802	9,102,451	22,003,599		

No. 6.—SUMMARY STATEMENT of Earnings

Number.	Name of Railway.	Mileage.	Passenger Traffic.			Freight Traffic.			Mails and Express Freight.		
					\$ cts.			\$ cts.			\$ cts.
1	Alberta Railway and Coal Co	174 12			10,602 56			161,832 04			3,559 51
2	Albert Southern	16 00			306 00			2,291 16			
3	Bay of Quinté Ry. and Navigation Co.	4 00									
	Kingston, Napanee and Western	56 45			22,196 42			108,276 15			7,880 32
4	Brockville, Westport and Sault St. Marie	45 00			11,140 88			13,087 22			234 67
5	Buctouche and Moncton	32 00			3,183 44			7,731 25			
6	Calgary and Edmonton	295 07			35,733 21			59,225 20			2,711 30
7	Canada Atlantic	138 00									
	Central Counties	21 00			159 00			117,029 17			378,003 23
8	Canada Eastern	127 00			26,981 99			55,968 17			3,835 31
9	Canada Southern	378 91			1,361,070 83			3,347,123 47			181,849 31
10	Canadian Government Railways—										
	Intercolonial		1,141 00		1,002,912 74			1,868,823 84			193,762 51
	Prince Edward Island		210 60		67,445 41			76,347 51			18,497 50
11	Canadian Pacific	3,879 20									
	<i>Leased lines—</i>										
	Atlantic and North-west	205 00									
	Ontario and Quebec	463 80									
	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	5,784 70		5,548,649 85			12,866,293 63			776,090 84
	Montreal and Western	30 40									
	Montreal and Lake Maskinongé	13 00									
	New Brunswick	175 70									
	New Brunswick and Canada	117 20									
	St. John and Maine	91 80									
	Fredericton	22 10									
	Manitoba & South-western Col'n.	217 80									
	Columbia and Kootenay	27 70									
	Shuswap and Okanagan	51 00									
12	Caraguet	68 00			5,210 36			12,913 30			1,946 00
13	Carillon and Grenville	13 00			2,030 80			148 04			
14	Central Ontario	104 00			27,996 60			49,861 08			7,643 22
15	Central of New Brunswick	74 66			6,975 17			6,274 82			
16	Cumberland Ry. and Coal Co.	46 00			8,640 64			15,509 70			2,021 86
17	Drummond County	62 81			12,640 03			45,626 02			429 51
18	Elgin, Petitecodiac and Havelock	27 50			1,622 25			6,352 86			676 08
19	Erie and Huron	76 75			46,917 73			61,112 55			5,850 70
20	Esquimalt and Nanaimo	78 00			62,504 60			66,030 31			2,929 68
21	Fredericton and St. Mary's Ry. and Bridge Co.	2 10			567 90			2,443 38			
22	Grand Trunk	884 25									
	Great Western	561 80									
	Brantford, Norfolk and Pt. Burwell	34 78									
	Buffalo and Lake Huron	162 00									
	Grand Trunk, Georgian Bay and Lake										
	Erie	172 75									
	London, Huron and Bruce	69 01									
	Waterloo Junction	10 25									
	Wellington, Grey and Bruce	168 13									
	Northern	172 10									
	North Simcoe	33 34									
	Hamilton and North-western	173 90	3,168 50		5,538,544 96			11,550,823 52			775,683 30
	Northern and Pacific Junction	111 37									
	Midland	182 72									
	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	18 00									

Department of Railways and Canals.

for the year ended 30th June, 1893.

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.	cents.		
	175,994 11	36,294 05	126	111 80	1	
228 79	2,825 95	-363 98	88	43 47	2	
2,836 12	141,189 01	44,361 47	146	103 66	3	
	24,462 77	3,638 12	117	83 23	4	
298 58	11,213 27	-1,139 31	91	55 47	5	
	97,669 71	41,998 23	175	180 63	6	
44,917 88	571,371 82	201,322 05	154	121 76	7	
1,398 44	88,183 91	24,495 56	133	64 83	8	
6,592 33	4,896,635 94	1,191,398 92	132	137 06	9	
	3,065,499 09	20,181 59	100	69 66	10	
400 00	162,690 42	-63,731 75	72	71 72		
1,604,270 34	20,795,304 66	8,129,717 54	164	150 30	11	
	20,069 66	-2,025 52	91	71 67	12	
	2,178 84	-1,443 26	60	22 81	13	
2,700 59	88,201 49	9,015 73	111	81 87	14	
315 03	13,565 02	-11,292 92	55	26 81	15	
*91,189 20	117,361 40	57,048 58	194	209 69	16	*Freight on coal from mines.
1,934 28	60,629 84	12,644 30	126	74 22	17	
	8,651 19	-2,119 20	80	51 02	18	
	113,880 98	34,679 19	144	79 01	19	
8,230 92	139,695 51	-14,491 25	91	114 04	20	
	3,011 28	1,611 28			21	
	17,865,051 78	5,078,606 81	140	103 34	22	Including London and Port Stanley, up to termination of lease, viz., 23th February, 1893.

No. 6.—SUMMARY STATEMENT of Earnings

Number.	Name of Railway.	Mileage.	Passenger Traffic.	Freight Traffic.	Mails and Express Freight.
	Grand Trunk— <i>Continued</i> —		\$ cts.	\$ cts.	\$ cts.
	Jacques Cartier Union 6 50				
	Montreal and Champlain Junction 61 75				
	Beauharnois Junction 19 50				
	South Norfolk 17 00				
	Toronto Belt Line 12 70				
23	St. Clair Tunnel	2 23	42,114 00	154,120 01	
24	Great Northern	18 00	589 47	940 82	25 44
25	Great North-west Central	50 93	4,338 53	19,367 46	
26	Hereford	52 00	9,257 80	33,068 78	1,295 34
27	Joggins (now Canada Coals and Railway Co.)	12 00	3,004 68	19,555 63	465 62
28	Kent Northern	34 00	3,224 13	7,526 41	880 26
29	King-ston and Pembroke	112 75	33,959 67	92,545 42	8,568 49
30	L'Assomption	3 00	924 95	335 04	286 39
31	Lake Erie and Detroit River	88 05	32,791 54	69,827 79	2,864 95
32	Lake Temiscamingue Colonization	15 50	10,722 38	21,543 68	
33	London and Port Stanley	23 84	6,000 00	8,000 00	700 00
34	Lower Laurentian	39 50	2,639 41	9,486 63	732 42
35	Manitoba and North-western 234 50				
	Saskatchewan and Western 15 47	249 97	55,690 80	142,513 15	10,731 74
36	Massawippi Valley	34 00	62,741 30	104,556 02	1,971 90
37	Montreal and Sorel	44 67	8,573 29	5,348 69	398 76
38	Montreal, Portland and Boston	40 60	21,293 23	28,148 51	1,699 75
39	Montreal and Vermont Junction	23 60	53,396 55	112,523 12	7,592 66
40	New Brunswick and Prince Edward Island	36 00	5,747 45	10,543 98	1,425 25
41	New Glasgow Iron, Coal and Railway Co.	12 50	2,650 83	14,623 70	
42	North Pacific and Manitoba	264 50	67,218 18	184,068 19	11,034 20
43	Nosbonsing and Nipissing	5 50		20,150 00	
44	Nova Scotia Central	74 00	22,456 79	17,555 34	2,152 48
45	Ottawa and Gatineau Valley	40 00	17,535 40	18,346 73	886 50
46	Ottawa Valley	7 00	1,540 54	425 03	
47	Pontiac and Renfrew	4 25		545 10	
48	Pontiac Pacific Junction	61 00	12,431 41	19,920 50	2,173 56
49	Port Arthur, Duluth and Western	85 50	2,792 40	23,949 96	
50	Qu'Appelle, Long Lake and Saskatchewan	254 00	15,400 53	37,247 78	2,384 98
51	Quebec and Lake St. John	242 00	43,859 21	112,433 56	8,223 30
52	Quebec Central	153 50	117,814 47	173,025 56	9,969 35
53	Quebec, Montmorency and Charlevoix	21 00	41,554 85	5,951 93	
54	Salisbury and Harvey, including Harvey Branch	53 00	5,862 38	13,162 64	2,472 21
55	Shore Line	82 50	13,685 34	14,977 35	2,937 99
56	Stanstead, Shefford and Chambly	43 00	15,167 47	34,222 38	4,317 99
57	St. Catharines and Niagara Central	12 35	6,345 01	16,844 54	190 77
58	St. John Bridge and Railway Extension	1 75	27,970 13	39,182 12	1,420 50
59	St. Lawrence and Adirondack	20 31	15,669 45	7,693 09	9 07
60	South-eastern 140 10				
	Lake Champlain and St. Lawrence Junction 61 40	201 50	137,134 54	328,954 39	13,319 55
61	Temiscouata	113 00	16,431 42	31,321 46	8,776 58
62	Thousand Islands	4 08	4,126 01	11,675 28	1,796 82
63	Toronto, Hamilton and Buffalo	17 00	6,387 43	9,899 38	131 79
64	Windsor and Annapolis 87 50				
	Cornwallis Valley 14 00	133 50	143,243 62	168,210 91	14,874 86
	Windsor Branch 32 00		256 28	198 06	
65	Yarmouth and Annapolis, formerly Western Counties	87 00	71,803 50	27,894 38	8,034 88
	Totals	15,020 55	15,087,299 91	32,935,028 95	2,151,769 51

Department of Railways and Canals

for the year ended 30th June, 1893—*Concluded.*

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.	cents.		
	196,234 01	93,794 01	192		23	Tolls on passenger and freight cars and locomotives. { For six months ended 30th June, 1893. Closed 1st July to 31st Dec., 1892.
73 18	1,628 91	— 1,668 18	49	29 19	24	
527 42	24,233 41	— 8,289 16	74	177 00	25	
	43,621 92	— 15,697 80	74	50 83	26	
102 25	23,128 18	10,917 52	190	171 32	27	
	11,630 80	4,414 80	161	63 32	28	
9,050 33	144,123 91	24,950 28	121	65 51	29	
	1,546 38	—666 36	70	37 54	30	
1,569 36	107,053 64	36,193 49	151	69 77	31	
	32,266 06	8,175 73	134		32	
2,000 00	16,700 00	1,300 00			33	Approximate for the 4 months ended 30th June, 1893; previous 8 months included in Grand Trunk.
	12,858 46	575 41	105	47 66	34	
10,249 61	219,185 36	28,293 12	115	168 71	35	
3,918 12	173,187 34	43,064 40	133	85 61	36	
	14,320 74	— 11,274 61	56	98 22	37	
185 88	51,327 37	3,384 33	107	82 23	38	
75 00	173,587 33	52,148 82	143	94 56	39	
2 80	17,719 48	2,999 72	120	57 97	40	
4,500 00	21,774 53	12,787 70	242	138 60	41	
1,310 93	263,631 50	— 23,247 54	92	109 62	42	
	20,150 00	1,011 67	105	258 33	43	
682 19	42,846 80	6,874 80	119	76 19	44	
241 73	37,010 36	8,209 93	128	143 56	45	
	1,965 57	— 710 00	73	27 00	46	
	545 10	— 786 18	41		47	
9,127 32	43,702 79	5,055 21	113	104 75	48	
	26,742 36	— 22,035 08	55	135 90	49	
	55,033 29	— 4,633 28	92	117 40	50	
15,846 49	180,862 56	21,018 96	113	95 55	51	
2,484 91	303,294 29	99,283 53	148	115 88	52	
4,637 35	52,144 13	20,917 30	167	104 63	53	
934 32	22,431 55	648 65	103	75 70	54	
	31,600 68	1,256 12	104	52 20	55	
2,608 54	56,316 38	— 2,373 52	96	61 38	56	
341 51	23,721 83	1,157 26	105	131 78	57	
	68,572 75	45,230 19	294		58	
8,550 85	31,922 46	— 13,481 83	70	34 51	59	
17,087 79	496,496 27	48,966 88	111	110 24	60	
in foregoing.	56,529 46	9,412 07	120	70 48	61	
1,885 80	19,483 91	6,355 02	148	85 02	62	
	16,418 60	141 91	101	74 06	63	
4,632 38	330,961 77	113,184 83*	152	106 30	64	
	454 34	— 130 82*			65	*Operations by Cornwallis Valley Co., 1s to 26th July, 1892.
359 82	108,092 58	29,218 22	137	113 48		
1,868,298 38	52,042,396 75	15,426,363 75				

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 Railway and Coal Co.	174 12					
2	Albert Southern	16 00	30,971	52	48,139	58	
3	Baie of Quinté Navigation Co.	4 00	245	16	2,025	09	
	Kingston, Napanee and Western	56 45	20,569	19	31,914	48	
4	Brockville, Westport and Sault Ste. Marie	45 00	6,908	68	6,383	91	
5	Buctouche and Moncton	32 00	2,399	60	4,805	67	
6	Calgary and Edmonton	295 07	20,637	10	18,357	01	
7	Canada Atlantic	138 00					
	Central Counties	21 00	159 00	54,318	32	141,016	76
8	Canada Eastern	127 00	19,146	93	24,981	85	
9	Canada Southern	378 91	733,961	96	987,985	62	
10	Canadian Government Railways—						
	Intercolonial	1,141 00	763,147	96	1,054,488	19	
	Prince Edward Island	210 60	96,312	92	59,195	34	
11	Canadian Pacific	3,879 20					
	<i>Leased lines—</i>						
	Atlantic and North-west	205 00					
	Ontario and Quebec	463 80					
	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	5,784 70	2,580,851	50	4,168,868	44
	Montreal and Western	30 40					
	Montreal and Lake Maskinonge	13 00					
	New Brunswick	175 70					
	New Brunswick and Canada	117 20					
	St. John and Maine	91 80					
	Fredericton	22 10					
	Manitoba and South-western Colonization	217 80					
	Columbia and Kootenay	27 70					
	Shuswap and Okanagan	51 00					
12	Caraqueet	68 00	7,336	85	6,750	00	
13	Carillon and Grenville	13 00	1,105	00	1,482	00	
14	Central Ontario	104 00	29,242	07	18,856	72	
15	Central of New Brunswick	74 66	8,450	22	4,572	14	
16	Cumberland Railway and Coal Co.	46 00	23,986	10	17,686	39	
17	Drummond County	62 81	14,685	55	11,988	62	
18	Elgin, Petitecodiac and Havelock	27 50	3,317	43	3,931	43	
19	Erie and Huron	76 75	15,612	94	25,993	04	
20	Esquimalt and Nanaimo	78 00	60,393	97	33,680	93	
21	Fredericton and St. Mary's Railway and Bridge Co.	2 10					
22	Grand Trunk	884 25					
	Great Western	561 30					
	Brantford, Norfolk and Port Burwell	34 78					
	Buffalo and Lake Huron	162 00					
	Grand Trunk, Georgian Bay and Lake Erie	172 75					
	London, Huron and Bruce	69 01					
	Waterloo Junction	10 25					
	Wellington, Grey and Bruce	168 13					
	Northern	172 10					
	North Simcoe	33 34					
	Hamilton and North-western	173 90					
	Northern and Pacific Junction	111 37					
	Midland	182 72	3,168 50	2,306,135	77	4,511,249	11
	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	18 00					
	Jacques Cartier Union	6 50					
	Montreal and Champlain Junction	61 75					
	Beauharnois Junction	19 50					

Department of Railways and Canals.

Expenses for the year ended 30th June, 1893.

Working and Repairs of Cars.	General Operating Expenses.	Total.	Cost of Operating per train mile.	Number.	Remarks.
\$ cts.	\$ cts.	\$ cts.	Cents.		
7,624 12	52,964 84	139,700 06	88 74	1	
188 49	731 19	3,189 93	49 07	2	
10,062 32	34,281 55	96,827 54	71 09	3	
231 16	7,300 90	20,824 65	70 91	4	
391 17	4,756 14	12,352 58	61 11	5	
4,078 13	12,599 24	55,671 48	102 96	6	
32,485 49	142,229 20	370,049 77	78 86	7	
3,787 56	15,772 01	63,688 35	46 82	8	
432,140 57	1,551,148 87	3,705,237 02	103 71	9	
423,685 60	803,995 75	3,045,317 50	69 20	10	
18,455 10	52,458 81	226,422 17	99 81		
855,200 64	5,060,666 54	12,665,587 12	91 54	11	
761 20	7,247 13	22,095 18	78 91	12	
60 00	975 10	3,622 10	37 92	13	
4,806 31	26,280 66	79,185 76	73 50	14	
1,347 69	10,487 89	24,857 94	49 12	15	
4,080 56	14,559 77	60,312 82	107 80	16	
1,068 84	20,242 53	47,985 54	58 74	17	
138 25	3,383 28	10,770 39	63 52	18	
5,910 66	31,685 15	79,201 79	54 96	19	
12,902 43	47,209 43	154,186 76	125 87	20	
.....	1,400 00	1,400 00	.....	21	
1,386,658 09	4,582,402 00	12,786,444 97	73 96	22	Including London and Port Stanley Ry. up to termination of lease, 28th Feb., 1893.

No. 7.—SUMMARY STATEMENT of Operating Expenses

Number.	Name of Railway.	Mileage.	Maintenance of Line, Buildings, &c.		Working and Repairs of Engines.	
			\$	cts.	\$	cts.
	Grand Trunk—Continued.					
	South Norfolk	17 00				
	Toronto Belt Line	12 70				
23	St. Clair Tunnel	2 23	18,215	35	50,298	79
24	Great Northern	18 00	656	75	1,463	67
25	Great North-west Central	50 93	8,996	16	8,923	86
26	Hereford	53 00	21,600	22	24,515	57
27	Joggins, now Canada Coals and Railway Co	12 00	3,726	01	4,216	51
28	Kent Northern	34 00	1,330	25	2,910	00
29	Kingston and Pembroke	112 75	36,591	06	42,088	41
30	L'Assomption	3 00	462	09	992	98
31	Lake Erie and Detroit River	88 05	12,409	26	23,326	93
32	Lake Temiscamingue Colonization	15 50				
33	London and Port Stanley	23 84	3,000	00	6,400	00
34	Lower Laurentian	39 50	5,455	39	3,391	47
35	Manitoba and North-western	234 50				
	Saskatchewan and Western	15 47	249 97	57,581 67	49,833 19	
36	Massawippi Valley	34 00	30,780	15	49,377	21
37	Montreal and Sorel	44 67	883	81	5,688	12
38	Montreal, Portland and Boston	40 60	12,023	23	12,694	94
39	Montreal and Vermont Junction	23 60	9,876	90	51,106	28
40	New Brunswick and Prince Edward Island	36 00	6,215	84	5,507	84
41	New Glasgow Iron, Coal and Railway Co	12 50	881	35	3,889	66
42	Northern Pacific and Manitoba	264 50	104,036	90	76,943	50
43	Nosbonsing and Nipissing	5 50	3,182	50	7,574	25
44	Nova Scotia Central	74 00	16,807	20	9,514	63
45	Ottawa and Gatineau Valley	40 00	7,558	74	7,630	48
46	Ottawa Valley	7 00				
47	Pontiac and Renfrew	4 25	657	20	674	08
48	Pontiac Pacific Junction	61 00	18,473	35	9,621	29
49	Port Arthur, Duluth and Western	85 50	19,753	46	15,306	01
50	Qu'Appelle, Long Lake and Saskatchewan	254 00	27,437	19	20,232	22
51	Quebec and Lake St. John	242 00	44,481	04	59,513	55
52	Quebec Central	153 50	54,505	65	54,305	47
53	Quebec, Montmorency and Charlevoix	21 00	7,083	94	9,726	24
54	Salisbury and Harvey, including Harvey Branch	53 00	8,116	15	6,531	99
55	Shore Line	82 50	9,838	48	8,101	15
56	Stanstead, Shefford and Chambly	43 00	18,298	77	19,637	58
57	St. Catharines and Niagara Central	12 35	4,119	81	7,171	84
58	St. John Bridge and Railway Extension	1 75	681	84		
59	St. Lawrence and Adirondack	20 31	9,647	36	18,447	16
60	South-eastern	140 10				
	Lake Champlain and St. Lawrence Junction	61 40	201 50	87,480 21	160,246 05	
61	Temiscouata	113 00	12,311	86	15,418	83
62	Thousand Islands	4 08	1,903	95	5,184	35
63	Toronto, Hamilton and Buffalo	17 00	3,577	36	5,510	50
64	Windsor and Annapolis	87 50				
	Cornwallis Valley	14 00	133 50	92,595 17	52,328 72	
	Windsor Branch	32 00		111 00	199 90	
65	Yarmouth and Annapolis, formerly Western Countries	87 00	33,652	28	20,671	49
		15,020 55	7,616,733 64	12,121,469 03		

Department of Railways and Canals.

for the year ended 30th June, 1893—*Concluded.*

Working and Repairs of Cars.	General Operating Expenses.	Total.	Cost of Operating per train mile.	Number.	Remarks.
\$ cts.	\$ cts.	\$ cts.	Cents.		
In foregoing.	33,925 86	102,440 00	23	For 6 months ended 30th June, 1893.
27 61	1,176 67	3,297 09	59 08	24	
2,175 57	14,574 94	32,522 57	237 54	25	
966 13	11,028 36	59,319 72	69 12	26	
250 00	3,302 01	12,210 66	90 45	27	
7,653 97	2,725 75	7,216 00	39 29	28	
3 25	32,840 19	119,173 63	54 17	29	
5,775 45	754 42	2,212 74	53 68	30	
1,000 00	29,348 51	70,860 15	46 18	31	
	24,090 33	24,090 33	.....	32
	5,000 00	15,400 00	33	Approximate for the 4 months ended 30th June, 1893; previous 8 months included in Grand Trunk.
	3,436 19	12,283 05	45 53	34	
13,285 81	70,191 51	190,892 18	146 93	35	
10,129 96	39,835 62	130,122 94	64 32	36	
730 93	19,023 42	25,595 35	175 55	37	
662 77	22,493 94	47,943 04	76 81	38	
449 29	59,792 56	121,438 51	66 15	39	
514 45	2,546 79	14,719 76	48 15	40	
16,094 20	3,701 37	8,986 83	57 24	41	
1,270 75	89,804 44	286,879 04	119 28	42	
150 00	7,110 83	19,138 33	245 36	43	
1,212 90	9,500 17	35,972 00	63 97	44	
	12,398 31	28,800 43	111 71	45	
	2,675 57	2,675 57	36 75	46	
	1,331 28	1,331 28	.....	47
2,366 45	8,186 49	38,647 58	92 64	48	
7,830 22	5,887 75	48,777 44	247 87	49	
2,295 21	9,701 95	59,666 57	127 28	50	
10,935 20	44,913 81	159,843 60	84 49	51	
16,242 95	78,956 69	204,010 76	77 95	52	
4,092 18	10,324 47	31,226 83	62 66	53	
1,626 93	5,507 83	21,782 90	73 51	54	
1,134 92	11,260 01	30,334 56	50 10	55	
2,037 06	18,716 49	58,689 90	63 92	56	
617 14	10,655 78	22,564 57	125 36	57	
	22,660 72*	23,342 56	58	Including \$21,125, charges of C.P.R. for operating traffic.
625 06	16,684 71	45,404 29	49 08	59	
70,258 82	129,544 31	447,529 39	99 36	60	
2,007 02	17,379 68	47,117 39	58 75	61	
103 22	5,937 37	13,128 89	57 28	62	
125 90	7,062 93	16,276 69	73 42	63	
13,552 05	59,301 00	217,776 94	69 94	64	
5 00	269 26	585 16*	.....	65
6,091 15	18,459 44	78,874 36	82 80	65	
3,410,363 90	13,467,466 43	36,616,033 00		Operation by Cornwallis Valley Railway Co., 1st to 26th July, 1892.

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.	174 12					
2	Albert Southern	16 00	Others			1	
3	Bay of Quinté Railway and Navigation Co. 4 00	60 45	{ Passenger Employees		1		
	Kingston, Napanee and Western 56 45 }						
4	Brockville, Westport and Sault Ste. Marie	45 00	Employee				
5	Buctouche and Moncton	32 00					
6	Calgary and Edmonton	295 07					
7	Canada Atlantic 138 00	159 00	Others				2
	Central Counties 21 00 }						
8	Canada Eastern	127 00					
9	Canada Southern	378 91	{ Passengers	2	1	1	1
			Employees				
			Others				
10	Canadian Government Railways— Intercolonial	1141 00	{ Passengers	2	3	1	3
	Prince Edward Island		210 60					Employees . . . . .
			Others	1	2	1	1
11	Canadian Pacific 3879 20						
	<i>Leased Lines—</i>						
	Atlantic and North-west 205 00						
	Ontario and Quebec 463 80						
	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	5784 70	{ Passengers	2	7	3	6
	Montreal and Ottawa 23 60						
	Montreal and Western 30 40						
	Montreal and Lake Maskinongé 13 00						
	New Brunswick 175 70						
	New Brunswick and Canada 117 20						
	St. John and Maine 91 80						
	Fredericton 22 10						
	Manitoba and South-western Colonizat'n 217 80						
	Columbia and Kootenay 27 70						
	Shuswap and Okanagan 51 00						
			Employees	6	22	3	6
			Others	2	3	3	6
12	Caraguet	68 00					
13	Carillon and Grenville	13 00					
14	Central Ontario	104 00					
15	Central of New Brunswick	74 66					
16	Cumberland Railway and Coal Co.	46 00					
17	Drummond County	62 81					
18	Elgin, Petitoodiac and Havelock	27 50					
19	Erie and Huron	76 75	{ Employees				
			Others				
20	Esquimalt and Nanaimo	78 00					
21	Fredericton and St. Mary's Railway and Bridge Co.	2 10					
22	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						
	London, Huron and Bruce 69 01						
	Waterloo Junction 10 25						
	Wellington, Grey and Bruce 168 13						
	Northern 172 10						
	North Simcoe 33 34						

Department of Railways and Canals.

for the year ended 30th June, 1893.

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.		Explosions.		Striking Bridges.		Other Causes.		Totals.		Number.	
																			Killed.
																			1
																	1		2
																	2	5	3
																	1	6	4
																	1		5
																			6
																			7
																			8
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																			20
																			21

No. 8.—SUMMARY OF ACCIDENTS FOR

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.		
Grand Trunk—Continued.									
	Hamilton and North-western	173 90							
	Northern and Pacific Junction.....	111 37							
	Midland	182 72	3168 50	Passengers.....	10	30	3	12	
	Grand Junction.....	85 40			Employees.....	3	7	8	15
	Toronto and Nipissing.....	85 00			Others.....				11
	Lake Simcoe Junction.....	26 50							
	Victoria.....	53 25							
	Whitby, Port Perry and Lindsay.....	46 50							
	Cobourg, Blairton and Marmora.....	18 00							
	Jacques Cartier Union.....	6 50							
	Montreal and Champlain Junction.....	61 75							
	Beauharnois Junction.....	19 50							
	South Norfolk.....	17 00							
	Toronto Belt Line.....	12 70							
23	St. Clair Tunnel.....	2 23							
24	Great Northern.....	18 00							
25	Great North-west Central.....	50 93							
26	Hereford.....	53 00							
27	Joggins, now Canada Coals and Railway Co.....	12 00							
28	Kent Northern.....	34 00							
29	Kingston and Pembroke.....	112 75							
30	L'Assomption.....	3 00							
31	Lake Erie and Detroit River.....	88 05		Employees.....					
32	Lake Temiscamingue Colonization.....	15 50							
33	London and Port Stanley.....	23 84							
34	Lower Laurentian.....	39 50							
35	Manitoba and North-western.....	234 50	249 97						
	Saskatchewan and Western.....	15 47							
36	Massawippi Valley.....	34 00		Passengers.....			1		
37	Montreal and Sorel.....	44 67		Employees.....					
38	Montreal, Portland and Boston.....	40 60							
39	Montreal and Vermont Junction.....	23 60		Employees.....					
40	New Brunswick and Prince Edward Island.....	36 00		Others.....					
41	New Glasgow Iron, Coal and Railway Co.....	12 50							
42	Northern Pacific and Manitoba.....	264 50		Employees.....	1		1		
43	Nosbonsing and Nipissing.....	5 50							
44	Nova Scotia Central.....	74 00							
45	Ottawa and Gatineau Valley.....	40 00		Employees.....					
46	Ottawa Valley.....	7 00							
47	Pontiac and Renfrew.....	4 25							
48	Pontiac Pacific Junction.....	61 00							
49	Port Arthur, Duluth and Western.....	85 50							
50	Qu'Appelle, Long Lake and Saskatchewan.....	254 00							
51	Quebec and Lake St. John.....	242 00		Employees.....	1				
52	Quebec Central.....	153 50		Passengers.....		1			
53	Quebec, Montmorency and Charlevoix.....	21 00		Others.....					
54	Salisbury and Harvey including Harvey Branch.....	53 00							
55	Shore Line.....	82 50							
56	Stanstead, Shefford and Chambly.....	43 00		Employees.....					
57	St. Catharines and Niagara Central.....	12 35							
58	St. John Bridge and Railway Extension.....	1 75							
59	St. Lawrence and Adirondack.....	20 31		Others.....			1		
60	South-eastern.....	140 10	201 50	Passengers.....			1		
	Lake Champlain and St. Lawrence Junction.....	61 40		Employees.....	2		3		
				Others.....					

Department of Railways and Canals.

the year ended 30th June, 1893—Continued.

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.
1	8	1	4	147	1	20	4	12			2	1	4	1	25	19	22	
				1		5	34	30				16	11	61	65			
																	23	
																	24	
																	25	
																	26	
																	27	
																	28	
																	29	
																	30	
																1	31	
																	32	
																	33	
																	34	
																	35	
																1	36	
																1	37	
																	38	
					1			1								1	39	
																1	40	
													1			3	41	
																	42	
																	43	
					2												44	
																2	45	
																	46	
																	47	
																	48	
																	49	
														1		1	50	
															1	1	51	
																3	52	
									3								53	
																	54	
					1												55	
																1	56	
																	57	
						1									1	1	58	
																1	59	
					7			3								4	60	
													2	1	2	1		

No. 8.—SUMMARY OF ACCIDENTS for

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.
61	Temiscouata.....	113 00					
62	Thousands Islands.....	4 08	Employees.....				
63	Toronto, Hamilton and Buffalo.....	17 00	Others.....				
64	Windsor and Annapolis.....	87 50					
	Cornwallis Valley.....	14 00					
	Windsor Branch.....	32 00					
65	Yarmouth and Annapolis, formerly Western Counties.....	87 00					
		15,020 55		28	81	26	80

Department of Railways and Canals.

the year ended 30th June, 1893—*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.
.....	
.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	61
.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	62
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	63
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	64
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	65
3	14	.....	3	9	277	14	67	99	86	.....	5	.....	2	37	93	216	708	.....	.....

No. 9.—LINES OF RAILWAY owned by Coal and Iron Mines, for the Year ended 30th June, 1893.

Name.	Length of Rail-way.	Gauge.	No. of Engines.	No. of Waggon.	Remarks.
NOVA SCOTIA.					
	Miles.	Feet.			
Intercolonial Coal Mining Co.	8 00	4 8½	3	168	Drummond Colliery, Westville, N.S.
Acadia Coal Co. at Stellarton.	3 00	4 8½	2	20	Known as the Albion Mines Railway.
	3 50	4 8½	2	30	From Acadia Mines to Londonderry Station, I. C. R.
	4 00	4 8½	.....	.....	Operated by I. C. R. from East Mines to East Mines Station, I. C. R.
Londonderry Iron Co.	3 00	4 8½	1	.....	From Chignecto Colliery, Maccan Station, I. C. R.
	2 00	4 8½	.....	.....	Operated by I. C. R. from Lime Quarry to Graham Siding, I. C. R.
	3 00	3 00	2	40	From West Mines to Acadia Mines (works).
	26 50		10	258	
CAPE BRETON.					
Old Bridgeport.	0 50	4 8½	.....	.....	Coal carried by "International" cars and engines, property of Dominion Coal Co.
General Mining Association— Sydney Mines.	4 80	4 8½	3	219	This railroad is used for colliery purposes only.
Victoria Mines.	5 00	4 8½	2	125	do do
Sidney and Louisburg Coal & Ry. Co.	32 00	3 00	4	260	{ 10 miles to mines. 22 do Louisburg.
Gowrie Coal Mining Co.	1 50	3 6	2	140	
Dominion Coal Co., late International.	13 00	4 8½	5	260	The Dominion Coal Co. have acquired the International Ry., and it is now operated under the name of the Dominion Coal Co.'s Railway; 38 miles under construction.
Caledonia.	1 00	4 8½	2	120	
	57 80		18	1,124	

Department of Railways and Canals.

No. 10.—STATEMENT of Aid granted to Railways—Constructed and under Construction—by Governments,—by Governments,—for the year ended 30th June, 1893.

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).....	* 29,665 45					
Albert Southern.....			51,200 00			
Bas de Chaleurs.....			620,000 00			
Belleville and North Hastings—Grand Junction.....			21,888 00			
Beauharnois Junction.....			62,400 00			
Brantford, Waterloo and Lake Erie (now Toronto, Hamilton and Buffalo).....			52,810 00			
Brockville, Westport and Sault Ste. Marie.....			192,000 00			
Bucktonche and Moncton.....			102,400 00			
Canada Atlantic.....			282,856 20			
Canada Central.....			1,626,260 00			
Canadian Pacific.....			55,818,414 14			
Caraquet.....			224,000 00			
Central of New Brunswick.....			* 226,012 54			
Chatham Branch (now in Canada Eastern).....			24,439 84			
Columbia and Kootenay.....			112,000 00			
Cornwallis Valley (now in Windsor and Annapolis).....			44,800 00			
Cumberland Railway and Coal Company.....			39,850 00			
Drummond County.....			201,920 00			
Dominion Lime Company (now in Hereford Ry).....			15,360 00			
Elgin, Petitecodiac and Havelock.....			82,652 82			
Erie and Huron.....			96,000 00			
Esquimalt and Nanaimo.....			750,000 00			
Fredericton and St. Mary's Railway Bridge Company.....	300,000 00					
Grand Trunk.....	15,142,633 33					
do Georgian Bay and Lake Erie.....			48,000 00			
Great Eastern.....			229,500 00			
Great Northern.....			137,600 00			
Guelph Junction.....			46,000 00			
Harvey Branch.....			5,653 57			
Hereford.....			155,200 00			
Interoceanic.....			54,246,850 23			
International (Atlantic and North-west) C.P.R.....			166,800 00			
Irondale, Bancroft, and Ottawa.....			160,000 00			
Joggins (now Canada Coals and Railway Co.).....			37,500 00			
Kent Northern.....	† 58,934 27					

† Rails. * \$14,665.45 rails. † Including \$83,612.54 rails to St. Martin's and Upham Ry.

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.												
Kingston, Napanee and Western.	268,400	00										
Kingston and Pembroke.	48,000	00										
L'Assomption.	11,200	00										
Lake Erie and Detroit River.	342,400	00										
Lake Temiscamingue Colonization.	240,200	00										
Leamington and St. Clair (now in Canada Southern).	51,200	00										
Lotbinière and Mégantic.	48,000	00										
Lower Laurentian.	217,500	00										
Massawippi Valley.	80,000	00										
Montfort Colonization.	67,200	00										
Montreal and Lake Maskinongé.	41,280	00										
Montreal and Champlain Junction.	103,600	00										
Montreal and Ottawa.	192,000	00										
Montreal and Sorel.	112,000	00										
Montreal and Western.	361,270	00										
New Brunswick and Prince Edward Island.	113,440	00										
New Glasgow Iron and Coal Co.	40,000	00										
Northern and Western of New Brunswick (now Canada Eastern).	312,000	00										
Northern and Pacific Junction.	1,320,000	00										
Nova Scotia Central.	230,700	00										
Ontario and Quebec.	196,000	00										
Orford Mountain.	99,200	00										
Ottawa, Arnprior and Parry Sound.	430,400	00										
Ottawa and Gatineau Valley.	320,000	00										
Ottawa Valley.	22,400	00										
Parry Sound Colonization.	128,000	00										
Pontiac Pacific Junction.	337,100	00										
Pontiac and Renfrew.	13,600	00										
Port Arthur, Duluth and Western.	271,200	00										
Prince Edward Island.	3,750,565	38										
Quebec and Lake St. John.	1,003,495	00										
Quebec Central.	348,342	00										
Quebec, Montmorency and Charlevoix.	96,000	00										
Quebec, Montreal, Ottawa and Occidental, North Shore, Montreal to Quebec.	†954,000	00										
do do	1,500,000	00										
do do	†1,440,000	00										
do do												
Montreal to Ottawa.												

† Dominion Government pays to Quebec Government 5 per cent interest per annum on these two amounts.

Department of Railways and Canals.

St. Catharines and Niagara Central.....				146,400 00
St. Louis and Richibouctou.....				22,400 00
St. John Bridge and Railway extension.....	500,000 00			188,800 00
St. John Valley and Rivière du Loup.....				65,001 60
St. Lawrence and Adirondack.....				375,000 00
St. Clair Tunnel Company.....				163,200 00
Shuswap and Okanagan.....				54,400 00
South Norfolk.....				286,800 00
Stewiacke Valley and Lansdowne.....				670,800 00
Tenimacouta.....				54,400 00
Thousand Islands.....				134,400 00
Tobique Valley.....				14,656 00
Toronto, Grey and Bruce.....				102,400 00
United Counties.....				32,800 00
Waterloo Junction.....				60,000 00
West Ontario Pacific.....				500,000 00
Western Counties (now Yarmouth and Annapolis).....				1,193,369 00
Windsor and Annapolis.....				
	16,030,633 05			134,924,375 32
ONTARIO GOVERNMENT.				
Brantford, Norfolk, Norfolk and Port Burwell, in Grand Trunk.....				129,354 50
Canada Atlantic.....				270,000 00
Canada Central.....				1,479,000 00
Canada Southern.....				147,858 65
Central Ontario.....				126,500 00
Cobourgh, Blairton and Marmora.....	26,000 00			18,740 00
Credit Valley.....				531,000 00
Erie and Huron.....				83,000 00
Grand Junction.....				182,500 00
Grand Trunk, Georgian Bay and Lake Erie.....				336,000 00
Hamilton and North-western.....				565,020 00
Irondale, Bancroft and Ottawa.....				75,000 00
Kingston and Pembroke.....				466,493 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
Ottawa, Arnprior and Parry Sound.....				180,000 00
Parry Sound Colonization.....				148,500 00
Port Arthur, Duluth and Western.....				265,571 00
Toronto and Nipissing.....				105,212 00
Lake Simcoe Junction.....				53,000 00
Toronto, Grey and Bruce.....				375,282 00
Victoria.....				312,000 00
Wellington, Grey and Bruce.....				241,276 00
Whitby, Port Perry and Lindsay.....				94,957 59
	26,000 00			
				6,809,432 74

Department of Railways and Canals

NEW BRUNSWICK GOVERNMENT.			
Albert (now Salisbury and Harvey)		455,000 00	
Albert Southern		52,500 00	
Buctouche and Moncton		96,000 00	
Carsquet		180,000 00	
Central of New Brunswick		130,000 00	
Chatham Branch (now part of Canada Eastern)		56,000 00	
Fredericton		230,000 00	
Grand Southern (now Shore Line)		413,000 00	
Harvey Branch		9,000 00	
Kent Northern		135,000 00	
New Brunswick and Canada		76,000 00	
New Brunswick and Prince Edward Island		575,000 00	
Northern and Western (now Canada Eastern)		105,000 00	
Edgin, Petitodisc and Havelock		321,500 00	
St. Martin's and Upham (now Central of New Brunswick)		107,500 00	
St. John Bridge and Railway Extension		145,600 00	
St. John and Maine		5,181 81	
St. John Valley and Rivière du Loup		880,000 00	
St. Louis and Richibucto		195,000 00	
Temisconata		66,000 00	
Tobique Valley		70,000 00	
			300,000 00
			4,333,281 81
NOVA SCOTIA GOVERNMENT.			
Cornwallis Valley (now in Windsor and Annapolis)		44,800 00	
Halifax and Cape Breton Ry. and Coal Cr. (Eastern Extension in I. C. R.)		671,836 02	
Joggins (now Canada Coals and Railway Co.)		35,200 00	
New Glasgow Iron, Coal and Railway Co.		40,000 00	
Nova Scotia Central		432,261 08	
Springhill and Parrsboro' (Cumberland Railway and Coal Co.)		173,650 00	
Stewiacke Valley and Lansdowne		236,800 00	
Western Counties (now Yarmouth and Annapolis)		679,197 45	
	50,000 00		2,313,744 55
		235,102 50	
		538,300 00	
			768,402 50
	1,855,934 27		
		37,500 00	
			37,500 00
			161,433,832 53
BRITISH COLUMBIA GOVERNMENT.			
Canadian Pacific			
Manitoba and North-western			
Manitoba South-western Colonization	650,234 27		
Northern Pacific and Manitoba	900,000 00		
Saskatchewan and Western	49,640 00		
Winnipeg and Hudson Bay	256,000 00		
			21,685,523 32
			161,433,832 53
			300,000 00
			300,000 00

No. 10.—STATEMENT of Aid granted to Railways by Municipalities, 30th June, 1893.

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscrip- tions to Shares or bonds.	Total.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
ONTARIO.							
Deseronto	Bay of Quinté and Navigation Co.						
City of Brantford	Brantford, Waterloo, & Lake Erie.			25,000 00	5,000 00		25,000 00
Township of Oakland	(now Toronto, Hamilton & Buffalo)			9,000 00			
Village of Waterford	do			5,000 00			
Town of Brockville	Brockville, Westport and Sault Ste.						
	Marie			36,000 00			
Elizabethtown	do			7,000 00			
Rear of Yonge and Escott	do			15,000 00			
Rear of Leeds and Lansdowne	do			5,000 00			
Bastard and Burgess	do			28,000 00			
South Crosby	do			6,000 00			
Village of Newboro'	do			4,000 00			
North Crosby	do			15,000 00			
Various Municipalities	Buffalo and Lake Huron			966,000 00			116,000 00
Renfrew	Canada Central, now Can. Pacific.					30,000 00	966,000 00
Horton	do					7,500 00	
Admaston	do					5,000 00	
County of Elgin	Canada Southern			200,000 00			
Township of Townsend	do			30,000 00			
do Durhern	do			15,000 00			
do Anderson	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			7,500 00			
Sault Ste. Marie	Canadian Pacific						322,500 00
Northumberland and Durham	Cobourg, Blairton and Marmora.			113,500 00			20,000 00
West Hawkesbury	Central Counties			15,000 00			113,500 00
Vankleek Hill	do			1,200 00			
Dalkeith	do			800 00			17,000 00

Department of Railways and Canals.

Trenton Village.....	Central Ontario		10,000 00
Wellington Village.....	do		2,500 00
Town of Picton.....	do		21,000 00
County of Prince Edward	do		60,000 00
			93,500 00
do Oxford.....	Credit Valley..		200,000 00
do Wellington.....	do		135,000 00
do Waterloo.....	do		110,000 00
do Peel.....	do		75,000 00
do Halton.....	do		70,000 00
City of Toronto.....	do		350,000 00
do St. Thomas.....	do		50,000 00
Town of Milton.....	do		30,000 00
do Brampton.....	do		20,000 00
do Ingersoll.....	do		10,000 00
do Orangeville.....	do		15,000 00
Village of Streetsville.....	do		20,000 00
			1,085,000 00
County of Kent.....	Erie and Huron.....		155,000 00
Town of Chatham.....	do		30,000 00
do Dresden.....	do		20,500 00
do Blenheim.....	do		11,000 00
Village of Wallaceburg.....	do		11,000 00
Township of Sombra.....	do		14,000 00
do Sarnia.....	do		16,000 00
do Woodhouse.....	Grand Trunk, Georgian Bay and Lake Erie		15,000 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		120,000 00
do Stratford.....	do		40,000 00
County of Perth.....	do		10,000 00
Township of Mornington.....	do		15,000 00
do Elma.....	do		10,000 00
Town of Listowel.....	do		30,000 00
Township of Wallace.....	do		25,000 00
Town of Palmerston.....	do		20,000 00
Township of Minto.....	do		80,000 00
Town of Harriston.....	do		65,000 00
Township of Normanby.....	do		20,000 00
do Bentinck.....	do		45,000 00
do Brant.....	do		
do Elderslie.....	do		
			237,500 00

No. 10.—STATEMENT of Aid granted to Railways by Municipalities—Continued.

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscriptions to Share or Bonds.	Total.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
ONTARIO—Continued.							
Township of Arran	Grand Trunk, Georgian Bay and Lake Erie.						
do Anabel	do			45,000 00			
do Keppel	do			43,000 00			
do Albemarle	do			32,000 00			
Town of Mount Forest	do			10,000 00			
Township of Egremont	do			22,000 00			
Township of Glenelg	do			60,000 00			
Town of Durham	do			20,000 00			
			929,000 00	32,000 00			
City of Belleville	Grand Junction			150,000 00			
4 Village of Sterling	do			5,000 00			
56 Township of Rawdon	do			15,000 00			
do Seymour	do			35,000 00			
do Percy	do					50,000 00	
do Asphodel	do						
City of Guelph	Guelph Junction			8,000 00			
			213,000 00			193,000 00	
County of Frontenac	Kingston and Pembroke			170,000 00			
City of Kingston	do			318,000 00			
Village of Renfrew	do			3,000 00			
			491,000 00				
City of Hamilton	Hamilton and North-western			99,733 00			
Village of Georgetown	do			11,289 00			
County of Peel	do			30,974 00			
do Simcoe	do			354,007 00			
Town of Collingwood	do			12,084 00			
Township of Innisfil	do			22,592 00			
do Woodhouse	do			20,740 00			
do Adjala	do			2,500 00			
do Essa	do			2,500 00			
do Tossoronto	do			10,000 00			
do Mulmur	do			5,000 00			
Village of Alliston	do			8,000 00			
Township of Nottawasaga	do			20,386 00			
			599,805 00				
						50,000 00	
						193,000 00	

Department of Railways and Canals.

do	South Colchester.....	Lake Erie and Detroit River.....	20,000 00
do	Garfield.....	do do	15,000 00
Village of Kingsville.....	do do	do do	10,000 00
Township of Romney.....	do do	do do	10,000 00
do	East Tilbury.....	do do	5,000 00
do	Raleigh.....	do do	10,000 00
Village of Blenheim.....	do do	do do	5,000 00
do	Ridgetown.....	do do	12,500 00
Township of East Gwillimbury.....			
do	North do	Lake Simcoe Junction.....	45,000 00
do	Georgina.....	do do	20,000 00
do	Whitechurch.....	do do	20,000 00
		do do	15,000 00
Village of Leamington.....			
		Leamington and St. Clair, in Can-	
Township of Morven.....	do do	ada Southern.....	12,000 00
Village of Comber.....	do do	do do	15,000 00
		do do	6,000 00
Township of London.....			
do	Stephen do	London, Huron and Bruce.....	15,000 00
do	Osborne do	do do	17,500 00
do	Hay do	do do	25,000 00
do	Goderich.....	do do	15,000 00
do	E. Wawanosh.....	do do	15,000 00
do	Hallet.....	do do	25,000 00
do	Tuckersmith.....	do do	25,000 00
do	Turnberry.....	do do	10,000 00
do	Morris.....	do do	5,000 00
do	Stanley.....	do do	10,000 00
Village of Clinton.....	do do	do do	10,000 00
do	Exeter.....	do do	20,000 00
do	Kincardine and Wigan.....	do do	10,000 00
City of London.....	do do	do do	9,000 00
		do do	100,000 00
Township of Thorah.....			
Town of Port Hope.....	do do	Midland.....	50,000 00
Townships of Orillia and Marchedash.....	do do	do do	30,000 00
Town of Orillia.....	do do	do do	12,500 00
Township of Tay.....	do do	do do	12,500 00
Village of Omamee.....	do do	do do	21,370 85
Township of Mara.....	do do	do do	2,000 00
Town of Peterborough.....	do do	do do	12,500 00
		do do	4,000 00
do	Napanee.....	*Napanee, Tamworth and Quebec.....	30,000 00
Village of Newburgh.....	do do	do do	7,500 00
		do do	144,870 85
		do do	311,500 00
		do do	87,500 00
		do do	100,000 00
		do do	33,000 00

* Now Kingston, Napanee and Western.

No. 10.—STATEMENT of Aid granted to Railways by Municipalities—Continued.

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscrip- tions to Shares or Bonds.	Total.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
ONTARIO—Continued.							
Township of Camden.....	Napanee, Tainworth and Quebec.....			30,000 00			
do Sheffield.....	do do.....			15,000 00			
City of Kingston.....	do do.....			75,000 00	157,500 00		
do Toronto.....	Northern.....			100,000 00		190,000 00	
County of Simcoe.....	do do.....			30,000 00		200,000 00	
Town of Barrie.....	do do.....			12,500 00			
do Orillia.....	do do.....						
Townships of Collingwood, Euphrasia and St. Vincent.....	do do.....			99,480 00	241,980 00		300,000 00
Town of Smith's Falls.....	Ontario and Quebec.....			25,000 00			
do Merrickville.....	do do.....			10,000 00			
Township of West Wickham.....	do do.....			15,000 00			
do Thamesford.....	do do.....			2,500 00			
City of Ottawa.....	Ottawa, Arnprior and Parry Sound.....						
Town of Arnprior.....	do do.....			25,000 00			
do Port Arthur.....	do do.....			15,000 00			
Municipality of Neebing.....	do do.....						
Town of Simcoe.....	South Norfolk.....			5,000 00			
Township of Charlotteville.....	do do.....			20,000 00			
do South Walsingham.....	do do.....			40,000 00			
City of St. Catharines.....	St. Catharines and Niagara Central.....	80,000 00	80,000 00			80,000 00	
Town of Thorold.....	do do.....					20,000 00	
City of Ottawa.....	St. Lawrence and Ottawa.....	200,000 00				60,000 00	
Town of Prescott.....	do do.....	100,000 00	300,000 00			30,000 00	
do Gananoque.....	Thousand Islands.....						
City of Toronto.....	Toronto and Nipissing.....			150,000 00			
Township of Scarborough.....	do do.....			10,000 00			
do Markham.....	do do.....			30,000 00	10,000 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—Concluded.							
Elma.....	Whitby, Port Perry and Lindsay			30,000 00			
Morris.....	do			30,000 00			
W. Wawanosh.....	do			18,000 00			
Ashfield.....	do			10,000 00			
Turnbury.....	do			28,000 00			
Kincardine.....	do			8,000 00			682,000 00
London.....	West Ontario Pacific			70,000 00			25,000 00
Town of Whitby.....	Whitby, Port Perry and Lindsay.			15,000 00			
Township of Whitby.....	do			30,000 00			
do Resch.....	do			2,000 00			
do Scugog.....	do			85,000 00			
County of Victoria.....	do			20,000 00			
Village of Port Perry.....	do			94 93			
Manufacturing Co.....	do						222,094 93
			380,000 00				9,150,250 78
QUEBEC.							
Caplin.....	Baie des Chaleurs			5,000 00			
New Richmond.....	do			6,000 00			
Maris.....	do			6,000 00			
Carleton.....	do			6,000 00			
Novelle and Shoobred.....	do			6,000 00			
New Carlisle.....	do			6,000 00			
Paspébiac.....	do			3,000 00			
Hamilton.....	do			2,500 00			
Farnham.....	Canadian Pacific			10,000 00			40,500 00
Town of Nicolet.....	Drummond County			5,000 00			20,000 00
Municipality of St. Leonard.....	do						
Parish of St. Antoine.....	Great Eastern			10,000 00			15,000 00
do St. Denis.....	do			10,000 00			20,000 00

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Parish of Ste. Sophie.....	Great Northern	4,000 00			
Village of New Glasgow.....	do	2,000 00			
County of Compton	International, now in Atlantic and North-west, C.P.R.		6,000 00	225,000 00	225,000 00
St. Pie	Lake Champlain & St. Lawrence	20,000 00			
L'Ange Gardien	do	10,000 00			
St. Paul	do	6,000 00			
Philipsburg	do	15,000 00			
Town of L'Assomption.....	L'Assomption		51,000 00		
City of Three Rivers	Lower Laurentian		1,500 00		
Ascot	Massawippi Valley			40,000 00	25,000 00
Hatley	do				
Township of Melbourne and Bromp- ton Gore	Missisquoi & Black River Valley, now in Atlantic & North-west, C.P.R.				
Township of Ely	do				
do North Stukelley	do				
do Bolton	do				
Ormiston, &c.	Montreal & Champlain Junction		21,774 00		
Municipality of Rigaud	Montreal and Ottawa	2,000 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			
Town of Sorel	Montreal and Sorel	12,000 00	25,000 00		
Village of Boucherville	do	600 00			
do Varennes	do	1,000 00			
Parish of St. Roch	do	500 00			
County of Pontiac	Pontiac Pacific Junction	100,000 00	14,100 00		
Village of Shawville	do	1,000 00			
Village of St. Andrews	Ottawa Valley		101,000 00		
Parish of Sherbrooke	Quebec Central	10,000 00			
do Dudswell	do	50,000 00			
do Weedon	do	25,000 00			
Garthby	do	3,000 00			
City of Quebec	Quebec and Lake St. John		103,000 00		
Town of Chicoutimi	do				
City of Montreal	Quebec, Montreal, Ottawa and Oc- cidental		12,000 00	450,000 00	
do Quebec	do	1,000,000 00			
do Three Rivers	do	1,000,000 00			
County of Ottawa	do	100,000 00			
		200,000 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.
<i>QUEBEC—Continued.</i>							
St. Sauveur de Québec	do	25,000 00				50,000 00	
Côte St. Louis	do	25,000 00				50,000 00	
Village of Ste. Therese	do	12,000 00				63,000 00	
Parish of do	do	12,000 00				25,000 00	
do St. Jérôme	do	10,000 00				20,000 00	
Village of do	do	15,000 00				5,000 00	
Ste. Scholastique	do	10,000 00				5,000 00	
St. Andrews	do	25,000 00		25,000 00	25,000 00	30,000 00	
St. Jérusalem d'Argenteuil	do		2,434,000 00			15,000 00	
County of Brome	South Eastern					90,000 00	
Township of Bromé	do					10,000 00	
do Sutton	do					15,000 00	
do Potton	do					10,000 00	
do Farnham	do					15,000 00	
Village of West Farnham	do					40,000 00	
do East do	do					15,000 00	
do Waterloo	do					20,000 00	
do Drummondville	do					10,000 00	
County of Drummond	do					15,000 00	
Township of Wickham	do					10,000 00	
do St. Germain	do					15,000 00	
do Sorel	do					40,000 00	
Village of Actonvale	do					15,000 00	
do Roxton Falls	do					15,000 00	
Township of Roxton	do					20,000 00	
do Shefford	do					50,000 00	
do West Wickham	do					10,000 00	
Fraserville	Temiscouata				25,000 00		528,00 00
Municipality of Magog	Waterloo and Magog, now Atlantic and North-west, C.P.R.					15,000 00	15,000 00
			2,444,000 00		486,174 00		1,388,000 00

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NEW BRUNSWICK.					
Hillsboro', Hopewell and Harvey Parishes	Albert (Salisbury and Harvey)		40,000 00		
Coverdale, Hillsboro', Hopewell and Harvey Parishes	do		30,000 00	70,000 00	
City of Fredericton	Fredericton		50,000 00		
County of York	do		30,000 00		
Parish of St. George	Grand Southern, now Shore Line	2,000 00			
do Pennfield	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		12,000 00	23,000 00	
do Houlton	do		11,000 00		
do St. Stephen	do		12,500 00		
Town of Chatham	do		22,000 00		
Parish of Elgin	Northern and Western of New Brunswick, Canada Eastern	20,000 00	13,000 00	47,500 00	
City of St. John	Elgin, Petitcodiac and Havelock				
	St. John and Maine		13,000 00	13,000 00	60,000 00
					60,000 00
NOVA SCOTIA.					
County of King's	Cornwallis Valley	23,000 00		27,685 00	
Township of Yarmouth	Western Counties, now Yarmouth and Annapolis				
Counties of Yarmouth, Digby and Annapolis	do				100,000 00
County of Pictou	New Glasgow Iron, Coal and Railway Co.		150,000 00	150,000 00	
do Pictou	Stewiacke Valley and Lansdowne			4,000 00	
				8,000 00	
				189,685 00	100,000 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		
					370,000 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.
<i>MANITOBA—Concluded.</i>							
County of Westborne.....	Manitoba and North-western.....			75,000 00	215,600 00		
Town of Portage la Prairie.....	.....			50,000 00	10,000 00		
do Minnedosa.....	.....			30,000 00	595,600 00		
Municipality of Shoal Lake.....	.....			20,000 00	37,500 00		
do Birle.....	.....			40,000 00			
do Strathclair.....	.....			600 00			
Rapid City.....	Saskatchewan and Western.....			10,000 00			
<i>BRITISH COLUMBIA.</i>							
City of New Westminster.....	Canadian Pacific.....						
<i>NORTH-WEST TERRITORIES.</i>							
Qu'Appelle.....	Wood Mountain and Qu'Appelle.....				25,000 00		

Department of Railways and Canals.

No. 10.—STATEMENT of Aid granted to Railways, constructed and under construction, by Governments and Municipalities, 30th June, 1893.

SUMMARY.

	Loan.		Total.		Bonus.		Total.		Subscription to Shares or Bonds.		Total.		Grand Total.		
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
<i>Governments.</i>															
Dominion	16,080,633	05			134,924,375	32							150,955,008	37	
Ontario	26,000	00			6,809,432	74							6,825,432	74	
Quebec	3,722,956	00			12,157,095	61							15,880,051	61	
New Brunswick					4,333,281	81			300,000	00			4,633,281	81	
Nova Scotia	50,000	00			2,313,744	56							2,363,744	55	
Manitoba	1,855,934	27			768,402	50							2,624,336	77	
British Columbia					37,500	00							37,500	00	
					21,685,523	32			161,433,832	53			300,000	00	
														183,419,355	85
<i>Municipalities.</i>															
Ontario	380,000	00			9,150,250	78							10,450,250	78	
Quebec	2,444,000	00			486,174	00			920,500	00			4,328,174	00	
New Brunswick	23,000	00			233,500	00			1,393,000	00			316,500	00	
Nova Scotia					189,685	00			60,000	00			249,685	00	
Manitoba					595,600	00			100,000	00			695,600	00	
British Columbia					37,500	00							37,500	00	
North-west Territories					25,000	00							25,000	00	
					2,847,000	00			10,717,709	78			2,473,500	00	
					24,532,523	32			172,151,542	31			2,773,500	00	
														199,457,565	63