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# SESSIONAL PAPERS

VOLUME 8.

FOURTH SESSION OF THE NINTH PARLIAMENT

OF THE

DOMINION OF CANADA

SESSION 1904

66351  
49105





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### CONTENTS OF VOLUME 1.

(This volume is bound in two parts.)

1. Report of the Auditor General, for the fiscal year ended 30th June, 1903. Presented 22nd March, 1904 by Hon. W. S. Fielding. . . . . *Printed for both distribution and sessional papers.*

### CONTENTS OF VOLUME 2.

2. Public Accounts of Canada, for the fiscal year ended 30th June, 1903. Presented 16th March, 1904 by Hon. W. S. Fielding. . . . . *Printed for both distribution and sessional papers.*
3. Estimates for the sums required for the services of Canada, for the year ended 30th June, 1905. Presented 16th March, 1904, by Hon. W. S. Fielding. . . . . *Printed for both distribution and sessional papers.*
4. Supplementary Estimates for the year ending 30th June, 1904. Presented 22nd April, 1904, by Hon. W. S. Fielding. . . . . *Printed for both distribution and sessional papers.*
5. Further Supplementary Estimates for the year ending 30th June, 1904. Presented 30th May, 1904, by Hon. W. S. Fielding. . . . . *Printed for both distribution and sessional papers.*
- 5*a*. Further Supplementary Estimates for the year ending 30th June, 1904. Presented 28th June, 1904 by Hon. W. S. Fielding. . . . . *Printed for both distribution and sessional papers.*
- 5*b*. Supplementary Estimates for the year ending 30th June, 1905. Presented 25th July, 1904, by Hon. W. S. Fielding. . . . . *Printed for both distribution and sessional papers.*
- 5*c*. Further Supplementary Estimates for the year ending 30th June, 1904. Presented 3rd August, 1904, by Hon. W. S. Fielding. . . . . *Printed for both distribution and sessional papers.*
- 5*d*. Further Supplementary Estimates for the year ending 30th June, 1905. Presented 3rd August, 1904, by Hon. W. S. Fielding. . . . . *Printed for both distribution and sessional papers.*
6. List of Shareholders in the Chartered Banks of Canada, as on 31st December, 1903. Presented 17th May, 1904, by Hon. W. S. Fielding. . . . . *Printed for both distribution and sessional papers.*

### CONTENTS OF VOLUME 3.

7. Report of dividends remaining unpaid, unclaimed balances and unpaid drafts and bills of exchange in Chartered Banks of Canada, for five years and upwards, prior to December 31, 1903. Presented 26th May, 1904, by Hon. W. S. Fielding. . . . . *Printed for both distribution and sessional papers.*
8. Report of the Superintendent of Insurance, for the year ended 31st December, 1903. . . . . *Printed for both distribution and sessional papers.*
9. Abstract of Statements of Insurance Companies in Canada, for the year ended 31st December, 1903. Presented 13th April, 1904, by Hon. W. S. Fielding. . . . . *Printed for both distribution and sessional papers.*

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### CONTENTS OF VOLUME 4.

10. Report of the Department of Trade and Commerce, for the fiscal year ended 30th June, 1903. Presented 16th March, 1904, by Hon. J. Sutherland. . . . . *Printed for both distribution and sessional papers.*

### CONTENTS OF VOLUME 5.

11. Tables of the Trade and Navigation of Canada, for the fiscal year ended 30th June, 1903. Presented 16th March, 1904, by Hon. W. Paterson. . . . . *Printed for both distribution and sessional papers.*

### CONTENTS OF VOLUME 6.

12. Inland Revenues of Canada. Excise, etc., for the fiscal year ended 30th June, 1903. Presented 16th March, 1904, by Hon. L. P. Brodeur. . . . . *Printed for both distribution and sessional papers.*
13. Inspection of Weights, Measures, Gas and Electric Light, for the fiscal year ended 30th June, 1903. Presented 16th March, 1904, by Hon. L. P. Brodeur. . . . . *Printed for both distribution and sessional papers.*
14. Report on Adulteration of Food, for the fiscal year ended 30th June, 1903. Presented 7th April, 1904, by Hon. L. P. Brodeur. . . . . *Printed for both distribution and sessional papers.*
15. Report of the Minister of Agriculture, for the year ended 31st October, 1903. Presented 22nd March, 1904, by Hon. W. S. Fielding. . . . . *Printed for both distribution and sessional papers.*
16. Report of the Director and Officers of the Experimental Farms, for the year 1903. Presented 27th May, 1904, by Hon. S. A. Fisher. . . . . *Printed for both distribution and sessional papers.*

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17. Criminal Statistics for the year ended 30th September, 1903. . . . . *Printed for both distribution and sessional papers.*
18. Report on Canadian Archives, 1903. . . . . *Printed for both distribution and sessional papers.*
19. Report of the Minister of Public Works, for the fiscal year ended 30th June, 1903. Presented 16th March, 1904, by Hon. J. Sutherland. . . . . *Printed for both distribution and sessional papers.*
- 19a. Special Report of the Government Telegraph Service, compiled by the Department of Public Works. Presented 16th June, 1904, by Sir Wilfrid Laurier. . . . . *Printed for both distribution and sessional papers.*

### CONTENTS OF VOLUME 8.

20. Annual Report of the Department of Railways and Canals, for the fiscal year ended 30th June, 1903. Presented 12th April, 1904, by Hon. H. R. Emmerson. . . . . *Printed for both distribution and sessional papers.*
21. Report of the Department of Marine and Fisheries (Marine), for the fiscal year ended 30th June, 1903. Presented 24th March, 1904, by Hon. J. R. Préfontaine. . . . . *Printed for both distribution and sessional papers.*
- 21a. Fourth Annual Report of the Geographic Board of Canada, 1903. . . . . *Printed for both distribution and sessional papers.*

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- 21b. List of Shipping issued by the Department of Marine and Fisheries, being a List of Vessels on the registry books of Canada, on the 31st December, 1903. . . . . *Printed for both distribution and sessional papers.*
22. Report of the Department of Marine and Fisheries (Fisheries), for the fiscal year ended 30th June, 1903. Presented 6th April, 1904, by Hon. J. R. Préfontaine. . . . . *Printed for both distribution and sessional papers.*
23. Report of the Harbour Commissioners, etc., 1903. . . . . *Printed for both distribution and sessional papers.*

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24. Report of the Postmaster General, for the year ended 30th June, 1903. Presented 16th March, 1904, by Sir William Mulock. . . . . *Printed for both distribution and sessional papers.*
25. Annual Report of the Department of the Interior, for the fiscal year ended 30th June, 1903. Presented 16th March, 1904, by Hon. C. Sifton. . . . . *Printed for both distribution and sessional papers.*

## CONTENTS OF VOLUME 11.

26. Summary Report of the Geological Survey Department for the calendar year 1903. Presented 5th July, 1904, by Sir Richard Cartwright. . . . . *Printed for both distribution and sessional papers.*
27. Annual Report of the Department of Indian Affairs, for the fiscal year ended 30th June, 1903. Presented 8th July, 1904, by Hon. C. Sifton. . . . . *Printed for both distribution and sessional papers.*
28. Report of the North-West Mounted Police, 1903. Presented 18th April, 1904, by Sir Wilfrid Laurier. . . . . *Printed for both distribution and sessional papers.*

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29. Report of the Secretary of State of Canada, for the year ended 31st December, 1903. Presented 16th March, 1904, by Hon. J. Sutherland. . . . . *Printed for both distribution and sessional papers.*
30. Civil Service List of Canada, 1903. Presented 16th March, 1904, by Sir Wilfrid Laurier. . . . . *Printed for both distribution and sessional papers.*
31. Report of the Board of Civil Service Examiners, for the year ended 31st December, 1903. Presented 28th April, 1904, by Sir Wilfrid Laurier. . . . . *Printed for both distribution and sessional papers.*
32. Annual Report of the Department of Public Printing and Stationery, for the year ended 30th June, 1903. Presented 28th April, 1904, by Sir Wilfrid Laurier. . . . . *Printed for both distribution and sessional papers.*
33. Report of the Joint Librarians of Parliament for the year 1903. Presented 11th March, 1904, by the Hon. The Speaker. . . . . *Printed for sessional papers.*
34. Report of the Minister of Justice as to Penitentiaries of Canada, for the year ended 30th June, 1903. Presented 11th April, 1904, by Hon. C. Fitzpatrick. . . . . *Printed for both distribution and sessional papers.*
35. Report of the Department of Militia and Defence of Canada, for the year ended 31st December, 1903. Presented 10th May, 1904, by Sir Frederick Borden. . . . . *Printed for both distribution and sessional papers.*

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36. Report of the Department of Labour, for the year ended 30th June, 1903. Presented 16th March, 1904, by Sir William Mulock. . . . . *Printed for both distribution and sessional papers.*
- 36*a*. Evidence taken before the Royal Commission to inquire into Industrial Disputes in the province of British Columbia. Presented 15th July, 1904, by Sir William Mulock. . . . . *Printed for both distribution and sessional papers.*
37. An agreement made between His Majesty the King and the Grand Trunk Pacific Railway Company, dated March 8th, 1904, varying in some respects the provisions of the agreement between His Majesty and Sir Charles Rivers Wilson and others representing the said company, a copy of which forms the Schedule to the Act, 3 Edward VII. chapter 71. Presented 11th March, 1904, by Sir Wilfrid Laurier. . . . . *Printed for both distribution and sessional papers.*
- 37*a*. Proposed alterations to contract *re* Grand Trunk Pacific Railway Company, and correspondence in connection therewith. Presented 28th March, 1904, by Sir Wilfrid Laurier. . . . . *Printed for both distribution and sessional papers.*
38. Statement of superannuations and retiring allowances in the civil service during the year ended 31st December, 1903, showing name, rank, salary, service, allowance and cause of retirement of each person superannuated or retired, and also whether vacancy filled by promotion or by new appointment, and salary of any new appointee. Presented 16th March, 1904, by Hon. W. S. Fielding. . . . . *Not printed.*

CONTENTS OF VOLUME 13—*Continued.*

39. Return of over-rulings by the treasury board of the auditor general's decisions between the commencement of the session of 1903 and that of 1904. Presented 16th March, 1904, by Hon. W. S. Fielding. . . . . *Not printed.*
40. Statement of Governor General's Warrants issued since the last session of parliament, on account of the fiscal year 1903-1904. Presented 16th March, 1904, by Hon. W. S. Fielding. . . . . *Not printed.*
41. Statement in pursuance of section 17 of the Civil Service Insurance Act, for the fiscal year ending 30th June, 1903. Presented 16th March, by Hon. W. S. Fielding . . . . . *Not printed.*
42. Statement of receipts and expenditures of the Ottawa Improvement Commission, for the fiscal year ended 30th June, 1903. Presented 16th March, 1904, by Hon. W. S. Fielding. . . . . *Not printed.*
43. Return showing the expenditure on account of unforeseen expenses from the 1st July, 1903, to the 10th March, 1904. Presented 16th March, 1904, by Hon. W. S. Fielding. . . . . *Not printed.*
44. Ordinances of the Yukon Territory, passed by the Yukon Council in the year 1903. Presented 17th March, 1904, by Sir Wilfrid Laurier. . . . . *Not printed.*
45. Report of the Commissioner, Dominion Police Force, for the year 1903. Presented 17th March, 1904, by Hon. W. S. Fielding . . . . . *Not printed.*
46. The Award of the Alaska Boundary Tribunal. Presented 22nd March, 1904, by Sir Wilfrid Laurier. . . . . *Printed for sessional papers.*
- Note.—This is included in 46a.
- 46a. Correspondence respecting the Alaska boundary, together with the award of the Alaska Boundary Tribunal. Presented 8th July, 1904, by Sir Wilfrid Laurier. . . . . *Printed for both distribution and sessional papers.*
47. Detailed statement of all bonds and securities registered in the Department of the Secretary of State of Canada, since last Return, 24th March, 1903, submitted to the parliament of Canada under section 23, chapter 19 of the Revised Statutes of Canada. Presented 23rd March, 1904, by Sir Wilfrid Laurier. . . . . *Not printed.*
48. Statement of the affairs of the British Canadian Loan and Investment Company, as on 31st December, 1903. Presented 21st March, 1904, by the Hon. The Speaker. . . . . *Not printed.*
49. Return to an order of the House of Commons, dated 17th March, 1904, for a copy of the Report of Mr. McLeod, C.E., upon the continuation of the Trent Valley Canal between Rice Lake and Lake Ontario. Presented 28th March, 1904.—*Mr. Blain*. . . . . *Printed for sessional papers.*
- 49a. Return to an order of the House of Commons, dated 28th March, 1904, for copies of all engineers' reports with plans and profiles, and other particulars, showing the surveys for the southern section of the Trent Valley Canal, between Rice Lake and Lake Ontario, by the two routes, via Trenton and Port Hope; and the comparative cost by each route. Presented 2nd May, 1904.—*Mr. Blain*. . . . . *Not printed.*
50. Return of orders in council which have been published in the *Canada Gazette* between 1st January and 31st December, 1903, in accordance with the provisions of section 52 of the North-West Irrigation Act, chapter 35 of 61 Victoria. Presented 30th March, 1904, by Hon. C. Sifton. . . . . *Not printed.*
51. Return of orders in council which have been published in the *Canada Gazette* and in the *British Columbia Gazette*, between 1st January and 31st December, 1903, in accordance with the provisions of 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 30th March, 1904, by Hon. C. Sifton . . . . . *Not printed.*
52. Return of orders in council which have been published in the *Canada Gazette* between 1st January and 31st December, 1903, in accordance with the provisions of clause 91 of the Dominion Lands Act, chapter 54 of the Revised Statutes of Canada, and its amendments. Presented 30th March, 1904, by Hon. C. Sifton . . . . . *Not printed.*
53. Return (in so far as the Department of the Interior is concerned) of copies of all orders in council, plans, papers and correspondence which are required to be presented to the House of Commons, under a resolution passed on 20th February, 1882, since the date of the last return under such resolution. Presented 30th March, 1904, by Hon. C. Sifton . . . . . *Not printed.*
54. Return to an order of the House of Commons, dated 28th March, 1904, showing amount of rebates of duties paid on agricultural implements from June 30th, 1901, to June 30th, 1903, to each firm exporting such machinery for the respective years. Presented 11th April, 1904.—*Mr. Roche (Marquette)* . . . . . *Not printed.*

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55. Return showing remissions of interest made under section 141, as added to the Indian Act by section 8, chapter 35, 58-59 Victoria, for the year ended 30th June, 1903. Presented 11th April, 1904, by Hon. C. Sifton ..... *Not printed.*
56. Return of all lands sold by the Canadian Pacific Railway Company, from the 1st of October, 1902, to the 1st October, 1903. Presented 11th April, 1904, by Hon. C. Sifton ..... *Not printed.*
57. Return to an order of the House of Commons, dated 28th March, 1904, for copies of all correspondence since January 1st, 1904, between the postmaster general and the mayor of the town of Walkerton, relating to the irregularity of the mail service to the Town of Walkerton. Presented 11th April, 1904.—*Mr. Donnelly*..... *Not printed.*
58. Return of the names and salaries of all persons appointed to or promoted in the several departments of the civil service, during the calendar year 1903. Presented 13th April, 1904, by Hon. W. S. Fielding..... *Not printed.*
59. Orders of the Exchequer Court, under provisions of section 55 of 50-51 Victoria, as amended by 52 Victoria, chapter 8. Presented 13th April, 1904, by Hon. C. Fitzpatrick..... *Not printed.*
60. Return to an order of the House of Commons, dated 28th March, 1904, for copies of all correspondence, petitions and papers, between any settlers in township 27, ranges 31 and 32, and township 28, ranges 31 and 32, and any department of the government, in reference to adding of those townships to the Doukhobor reserve. Presented 14th April, 1904.—*Mr. Roche (Marquette)*..... *Not printed.*
61. Return to an order of the House of Commons, dated 17th March, 1904, for copies of all correspondence in connection with the cutting of any timber on Hope Island, in the Georgian Bay, by any person or persons during the years 1903-4. Presented 14th April, 1904.—*Mr. Bennett*..... *Not printed.*
- 61*a*. Supplementary return to 61. Presented 28th April, 1904..... *Not printed.*
62. Copy of order in council respecting shipment of Canadian goods in United States vessels via St. Michaels, with regulations and instructions issued in 1898 and subsequent years, and also correspondence respecting the issue of orders and instructions for the season of 1904. Presented 19th April, 1904, by Hon. W. Paterson..... *Printed for sessional papers.*
63. Extract from a report of the committee of the honourable the privy council, approved by the governor general on the 11th March, 1904, respecting the management and control of public and other works (3 Edward VII., c. 53), provides for the transfer by the governor in council of the management, charge and direction of any public works, or any power, duty or function with respect to any work or class of works, whether public or private, which is assigned to or vested by statute in any minister or department, to any other minister or department. Presented 20th April, 1904, by Sir Wilfrid Laurier..... *Printed for sessional papers.*
64. Return to an order of the House of Commons, dated 17th March, 1904, showing the names and number of the officials in the employ of government in Canada in connection with immigration; the salaries of each; the amount of money spent in Canada in connection with immigration; the total expenditure in connection with immigration, for the fiscal year ending 30th June, 1903; the expenditure for advertising; and the amount of expenditure on buildings, with names of places. Presented 20th April, 1904.—*Mr. Wilson*..... *Printed for sessional papers.*
- 64*a*. Return to an order of the House of Commons, dated 17th March, 1904, showing the names and number of all the immigration agents employed on commission by the Dominion government in Great Britain and Ireland, and in Europe, specifying the countries; also the United States. Also how much commission is paid for each immigrant to each agent; how many immigrants have been sent to Canada by each agent; how much money has been paid to each agent as commission; and how much has been allowed to each agent for expenses from 30th June, 1902, to 1st January, 1904. Presented 20th April, 1904.—*Mr. Wilson*..... *Printed for sessional papers.*
- 64*b*. Return to an order of the House of Commons, dated 17th March, 1904, showing the names and number of all immigration agents employed on salary by the Dominion government from the 30th June, 1902, to 1st January, 1904, in Great Britain and Ireland, the United States of America and Europe; the salary paid to each agent, the amount allowed for expenses to each. Also the number of immigrants sent to Canada by each of the said agents. Presented 22nd April, 1904.—*Mr. Wilson*..... *Printed for sessional papers.*

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65. Return to an Order of the House of Commons, dated 17th March, 1904, for copies of all thermograph records of temperature taken on board Atlantic steamships since January 1st, 1903, stating:—1. Name of steamship. 2. Date when thermograph was put in chamber. 3. Date when steamer left the port. 4. Whether chamber was (a) cold storage; (b) cool air; (c) mechanically ventilated; (d) ordinary or whether the record was taken on deck, or other place where the natural temperature of the air would be registered, unexposed to the sun's rays. 5. Where practicable, in what part of the chamber the thermograph was placed. Presented 20th April, 1904.—*Mr. Smith (Wentworth)*.  
*Not printed.*
- 65*a*. Return to an order of the House of Commons, dated 17th March, 1904, for copies of all correspondence to date between the department of agriculture and the steamship companies, in regard to mechanical ventilation of ships' holds. Presented 22nd April, 1904.—*Mr. Smith (Wentworth)*.  
*Not printed.*
66. Return to an order of the House of Commons, dated 28th March, 1904, showing:—1. The number of timber limits, and where located, that have been disposed of by the government since March 15, 1902, in the province of Manitoba and the North-west Territories. 2. The names of the purchasers in each case, and the price paid for each limit. 3. Copies of tender for each limit, and the names of the newspapers in which the advertisements appeared. Presented 22nd April, 1904.—*Mr. Roche (Marquette)*.  
*Not printed.*
- 66*a*. Return to an order of the House of Commons, dated 17th March, 1904, showing the number of timber limits granted in Manitoba and the North-west Territories, between the years 1878 and 1896, inclusive; and the mileage covered by said limits, together with the amount of money per mile received by the government for said timber limits. Also the number of limits that have been granted since the present government came into power, and the amount received per mile for the same. Presented 22nd April, 1904.—*Mr. McCreary*.  
*Not printed.*
67. Return to an address of the House of Commons, dated 17th March, 1904, for copies of all petitions, memorials and correspondence respecting the half-breed allotment of scrip in Manitoba and the Territories up to date. Also copies of all reports and orders in council in connection therewith. Presented 22nd April, 1904.—*Mr. LaRivière*.  
*Not printed.*
- 67*a*. Return to an order of the House of Commons, dated 25th April, 1904, of all petitions, letters and other correspondence between the half-breeds of the Saskatchewan district and the Dominion government, relating in any way to the grievances of the said half-breeds, for the years 1883, 1884 and 1885. Also all correspondence between the Dominion government and their officials and others in the district of Saskatchewan, previous to the rebellion of 1885, relating in any way to the grievances of the said half-breeds. Presented 31st May, 1904.—*Mr. McCreary*.  
*Not printed.*
- 67*b*. Supplementary return to 67. Presented 31st May, 1904. . . . .  
*Not printed.*
- 67*c*. Return to an order of the House of Commons, dated 25th April, 1904, of all letters, petitions and correspondence between D. H. McDowel, Esq., M.P., and the government, relating to the payment of rebellion claims and the issue of half-breed scrip in the Saskatchewan district. Presented 10th June, 1904.—*Mr. McCreary*. . . . .  
*Not Printed.*
- 67*d*. Return to an order of the House of Commons, dated 25th April, 1904, showing: 1. The number of allotments of 240 acres of land made to half-breeds in Manitoba, and the total acreage covered by the same. 2. The number of scrip to half-breed children in Manitoba, and the total face value of the same. 3. The number of scrip to heads of half-breed families in Manitoba, and the total face value of the same. 4. The number of scrip to original white settlers in Manitoba, and the total face value of the same. 5. The number of scrip issued in commutation of hay privileges in Manitoba, and the total face value of the same. 6. Scrip and land warrants issued for military services. 7. Scrip issued to the North-west Mounted Police. 8. Scrip issued to colonization companies; names of companies, and the face value of such scrip. 9. All other scrip issued by the department of interior; to whom, for what purpose; and respective face value of the same. 10. Number of each cash and land scrip issued to the North-west half-breeds. 11. Number and face value of all the above-described scrip outstanding on the 31st December, 1903. Presented 13th July, 1904.—*Mr. LaRivière*.  
*Not Printed.*



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68. Return to an order of the House of Commons, dated 28th March, 1904, for copies of all correspondence and agreements to date, between the government of Canada and any railway companies, in regard to ventilation of railway cars. Presented 22nd April, 1904.—*Mr. Smith (Wentworth).*  
*Not Printed.*
69. Return to an address of the Senate, dated 14th April, 1904, showing for the years 1891 to 1904, both inclusive, in detail, drawn off under separate headings: 1. Income in Canada. 2. Expenditure or disbursements in Canada, in detail. 3. Premium note account in Canada, in detail. 4. Miscellaneous in Canada, in detail. 5. Exhibit of policies in Canada, in detail. 6. Details of termination in Canada, in detail. 7. General business statement for years 1891 to 1904, both inclusive. A. Income in detail. B. Disbursements, in detail. C. Ledger assets, in detail. D. Non-ledger assets, in detail. E. Liabilities, in detail. F. Exhibits of policies. These to be drawn on under different headings as to the detail of each statement, and additions to be made, as far as it applies, to figures for the years named. Company—Mutual Reserve Life Association, formerly known as the Mutual Reserve Fund Life Association. Also for the last return made by this company to the insurance department at Ottawa in the year 1904. Presented (Senate) 21st April, 1904.—*Hon. Mr. Donville.*  
*Not Printed.*
70. Return to an address of the House of Commons, dated 28th March, 1904, for copies of all correspondence had with the government of Canada respecting the amalgamation of the South Shore, United Counties, and East Richelieu Valley Railways, or any of them; of any orders in council relating to the said amalgamation, and of all correspondence referring to the appointment of a receiver to the South Shore Railway Company. Presented 25th April, 1904.—*Mr. Monk.* . . . . . *Not Printed.*
71. Return to an order of the House of Commons, dated 17th March, 1904, for copies of all agreements made since January the first, 1903, between the government of Canada and any transatlantic steamship companies receiving a bonus or subsidy from the government of Canada. Presented 26th April, 1904.—*Mr. Smith (Wentworth).* . . . . . *Not Printed.*
72. Return to an order of the House of Commons, dated 17th March, 1904, for copies of all correspondence, petitions and other documents in possession of the government, with reference to the charges against and the dismissal of L. L. Gallagher, postmaster at Wilton, in the riding of Lennox, in the province of Ontario. Presented 29th April, 1904.—*Mr. Wilson.* . . . . . *Not printed.*
73. Return to an address of the Senate, dated 6th October, 1903, for all communications between the government of Canada, or any member thereof, and the Anglo-American Telegraph Company, any other telegraph company, the Provincial Government of Prince Edward Island, any Board of Trade in Prince Edward Island or any other province, and any representative of Prince Edward Island in the House of Commons, respecting the improvement of the telegraph service between Prince Edward Island and the mainland of the Dominion. Presented (Senate) 27th April, 1904.—*Hon. Mr. Ferguson.* . . . . . *Not printed.*
- 73a. Supplementary return to an address of the Senate, dated 6th October, 1903, for all communications, between the government of Canada, or any member thereof, and the Anglo American Telegraph Company, any other telegraph company, the Provincial Government of Prince Edward Island, any Board of Trade in Prince Edward Island, or any other province, and any representative of Prince Edward Island in the House of Commons, respecting the improvement of the telegraph service between Prince Edward Island and the mainland of the Dominion; and also a copy of any contract existing between the Prince Edward Island Railway and the Anglo-American Telegraph Company, regarding the use of the lines and offices of the said railway for telegraphic purposes. Presented (Senate) 31st May, 1904.—*Hon. Mr. Ferguson.* . . . . . *Not printed.*
74. Copy of an Indenture made the 29th day of July, 1903; between the Canadian Northern Railway Company and His Majesty the King, represented by the Honourable the Minister of Finance and Receiver General of Canada. Presented 2nd May, 1904, by Hon. W. S. Fielding. . . . . *Not printed.*
75. Return to an order of the House of Commons, dated 25th April, 1904, for a copy of the contract between the government of Canada and the Manchester liners, in force during the season of 1903. Presented 2nd May, 1904.—*Mr. Lancaster.* . . . . . *Not printed.*
76. Return to an order of the House of Commons, dated 25th April, 1904, for copies of all petitions, memorials, letters and other correspondence, between the Maritime Board of Trade, the Charlottetown Board of Trade, the Alberton and West Prince Board of Trade, and the Government, with regard to a subsidy for a line of steamships to ply between Chatham, New Brunswick; Alberton and New London, on the north shore of Prince Edward Island; Sydney, Nova Scotia; the Magdalen Islands, and St. John's, Newfoundland. Presented 2nd May, 1904.—*Mr. Hackett.* *Not printed.*

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77. Return to an order of the House of Commons, dated 17th March, 1904, for copies of all correspondence, petitions, claims, and other documents, in the possession of the government, relating to the damages sustained by the farmers of the counties of St. John and Iberville and Missisquoi, by the floods in Richelieu River. Presented 3rd May, 1904.—*Mr. Demers (St. John and Iberville)* . . . . . *Not printed.*
78. Return to an order of the House of Commons, dated 17th March, 1904, showing the amount of money expended by the Dominion government on improving the navigation on the Saskatchewan River, in the North-west Territories. Presented 3rd May, 1904.—*Mr. McCreary* . . . . . *Not printed.*
79. Return to an order of the House of Commons, dated 17th March, 1904, for copies of all correspondence since the first of March, 1903, including, reports, letters, telegrams, etc., between the government of Canada and any of its officers, or engineers, or other persons, respecting the damage being done to the island at Toronto by the waters of Lake Ontario; also copies of any orders or instructions which have been issued respecting the works necessary or to be undertaken for the protection of the said island, and the preservation of Toronto harbour. Presented 3rd May, 1904.—*Mr. Osler* . . . . . *Not printed.*
80. Return to an order of the House of Commons, dated 23rd March, 1904, showing the names of all persons employed on the Bronte harbour improvements, in connection with the construction or repair of the pier, during the year ending 30th June, 1901, as foreman, timekeeper, labourers, or workmen of any kind. Also the several amounts paid as wages to each of such persons. And a similar return giving the like information for each of the years ending 30th June, 1902 and 1903; and for the six months ending January 1st, 1904, respectively. Presented 3rd May, 1904.—*Mr. Henderson* . . . . . *Not printed.*
81. Return to an order of the House of Commons, dated 25th April, 1904, for copies of all letters, telegrams, correspondence, petitions, memorials, documents and papers, relating to the recent appointment of Mr. Boyd to be postmaster at the village of Huntington, in the province of Quebec; or relating to the filling of the vacancy occasioned by the death of the late postmaster. Presented 3rd May, 1904.—*Mr. Borden (Halifax)* . . . . . *Not printed.*
82. Return to an order of the House of Commons, dated 25th April, 1904, for copies of all documents, memorials, petitions, reports and correspondence, in relation to the removal of the post office at Ossekeag, or Hampton Station, in King's County, N. B., from the railway station to the store of R. H. Smith. Presented 3rd May, 1904.—*Mr. Hughes (Victoria)* . . . . . *Not printed.*
83. Return to an order of the House of Commons, dated 28th March, 1904, showing the present indebtedness of the Montreal Turnpike Trust to the Dominion government; and the sums received by the latter as interest on bonds of said trust since 1895. Presented 3rd May, 1904.—*Mr. Monk* . . . . . *Not printed.*
84. Return to an order of the House of Commons, dated 25th April, 1904, showing: 1. The quantity and value of raw cotton imported into Canada during each of the past six years; also exports of same, if any, during same term. 2. From what countries it was imported, and the amount and value from each country. 3. The quantity and quality of manufactured cotton imported into Canada during each of the past six years. 4. From what countries it was imported, and the amount in value from each country. 5. The quantity and value of manufactured cotton exported from Canada during each of the past six years. 6. To what countries it was exported. Presented 4th May, 1904.—*Mr. Thompson (Haldimand and Monk)* . . . . . *Not printed.*
85. Return to an order of the House of Commons, dated 30th March, 1904, for: 1. Copies of the investigation held in February last, in Quebec, by the special tribunal appointed to inquire into the complaint laid by Lt.-Colonel Evanturel, commander of the 9th regiment of the active militia, against Major Ouellet, of the said regiment. 2. Of the recommendation of the commandant of the 7th military district, to the effect that the said Lt.-Colonel Evanturel be continued for a second term in the command of the said 9th regiment. 3. Of all correspondence relating to the said second prolongation of the said Lt.-Colonel Evanturel's term of command or relating to the said investigation. Presented 4th May, 1904.—*Mr. Casgrain* . . . . . *Not printed.*
- 85*a*. Supplementary return to No. 85. Presented 15th June, 1904 . . . . . *Not printed.*
86. Return to an address of the House of Commons, dated 28th March, 1904, for copies of all letters, telegrams, communications in writing and correspondence, between the government, or any department of the government, or any minister, deputy ministers, officers or other persons acting for the government, and the Vancouver Engineering Works, Limited, or any official or other person acting for the

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- said company, respecting the enlargement of dry dock facilities on the Pacific coast. 2. All letters, telegrams, communications in writing, and correspondence between the government, or any department of the government, especially the department of public works, and the department of marine and fisheries, and N. Thompson & Company, or any member of that firm, D. G. McDonnell, F. Burnett, R. Kelly, R. G. McPherson, and C. G. Johnson, or either of them, respecting the enlargement of dry dock facilities on the Pacific coast. 3. All letters, telegrams, communications in writing, and correspondence between the government, or any department of the government, or any officer acting or purporting to act for the government, and any persons whomsoever, respecting the enlargement of the dry dock facilities on the Pacific coast, or the establishment of a dry dock, or dry docks, on that coast. 4. All orders in council and other documents whatsoever respecting the matters aforesaid, or any of them. Presented 4th May, 1904. *Mr. Haggart* ..... *Not printed.*
87. (1). Return to an order of the House of Commons, dated 28th March, 1904, for copies of all reports, opinion, letters, and correspondence, written, sent, given or transmitted to the government, or any department or any minister, by P. V. Savard, Esq., from the date of his appointment, 14th May, 1903. (See *Hansard*, unrevised, 1904, page 235) to the 10th March, 1904, in relation to the investigation held or made by the said P. V. Savard, Esq., into the question as to how the local government of Quebec acquired the Mingan Seigniory, and what title to the property existed in the province prior to its conveyance to the Labrador Company (See *Hansard*, 1904, unrevised, page 230). Presented 5th May, 1904.—*Mr. Casgrain*..... *Not printed.*
87. (2). Return to an address of the House of Commons, dated 17th March, 1904, for copies of all orders in council, ministerial orders, or other documents appointing Mr. P. V. Savard, advocate, formerly a member of this house, to a position under the government, during the course of the years 1902, 1903, or 1904; of all correspondence relating to such appointment; and of all detailed accounts, memoranda, etc., for salary and fees as well for travelling expenses and all other expenses presented by the said P. V. Savard; and statements showing how much has been claimed by the said P. V. Savard, for such salary and expenses, and how much has been paid to him. Presented 5th May, 1904.—*Mr. Taylor*..... *Not printed.*
88. Return to an order of the House of Commons, dated 25th April, 1904, giving names of all delegates sent by the government from Canada to Great Britain and Ireland, or any European country, during the year 1903; with the amount paid to each delegate by way of salary and expenses; and the nature of the duties performed by each delegate; giving districts where those duties were performed. Presented 6th May, 1904.—*Mr. Roche (Marquette)*..... *Not printed.*
89. Return to address of the House of Commons, dated 24th March, 1904, for copies of all contracts entered into between the government of Canada and any corporation, company or person, during the past five years for the carriage of mails between any port or ports on the St. Lawrence and the United Kingdom; and copies of all such contracts for the carriage of mails, during the period aforesaid, between any port or ports in Nova Scotia or New Brunswick and the United Kingdom. Presented 9th May, 1904.—*Mr. Haggart*..... *Not printed.*
90. Return to an address of the House of Commons, dated 25th April, 1904, for copies of orders in council, departmental orders, or letters, defining the respective duties of the chief engineer of the department of marine and fisheries, and of the Commissioner of Lights. Presented 10th May, 1904.—*Mr. Lamater*..... *Not printed.*
91. Return to an address of the House of Commons, dated 9th May, 1904, for copies of all orders in council, patents, deeds, documents, correspondence and papers, passed, executed, signed, delivered, sent unexecuted, since the first of July, 1903, in connection with the grant of any land in the city of Quebec to the Ross Rifle Factory Company, or Sir Charles Ross, or any person or persons on behalf of or acting for the said Sir Charles Ross or the said company. Presented 26th May, 1904.—*Mr. Bell*..... *Not printed.*
92. Return to an order of the House of Commons, dated 9th May, 1904, for a statement showing in detail the quantity of vegetables and fruits imported from the United States and entered at the ports of Montreal and Toronto, during the years 1902 and 1903, respectively; as well as of the amount of duties collected by the government during the said two years at each one of said ports, and indicating separately the quantities and amounts for the first six months in each year. Presented 26th May, 1904.—*Mr. Monk*..... *Not printed.*

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93. Return to an order of the House of Commons, dated 9th May, 1904, for copies of all correspondence, letters, telegrams, petitions or other documents, from January 1st, 1901, to the present time, in connection with or in relation to the dismissal of E. A. Nash, formerly Dominion lands agent at Kamloops, B.C.; and all correspondence, letters, telegrams or other documents in relation to his application for superannuation. Presented 26th May, 1904.—*Mr. Taylor*..... *Not printed.*
94. Return to an order of the House of Commons, dated 9th May, 1904, for a copy of the report of Blaise Dugas, who was sent to Belgium in connection with increasing the facilities of the tobacco trade with that country, during the year 1902. Presented 27th May, 1904.—*Mr. Monk*.....*Not printed.*
95. Return to an order of the House of Commons, dated 9th May, 1904, showing: 1. The total expenditure in connection with the cheese-cooling rooms at Brockville and Woodstock, Ontario, up to the first of March, 1904, detailed as follows: 2. The cost of site for curing room. 3. The cost of construction of buildings. 4. The cost of machinery, fittings, etc. 5. The cost of cheese purchased. 6. The cost of hauling cheese. 7. The salaries of officials, labour, travelling expenses, etc. 8. The cost of cheese boxes, chemicals, light, telephone, cold storage, freight, and all other incidentals. 9. The amount received for sale of cheese. 10. The amount received for curing cheese. Presented 27th May, 1904.—*Mr. Taylor*..... *Not printed.*
- 95a. Return to an order of the House of Commons, dated 9th May, 1904, showing: 1. The total expenditure in connection with the cheese-cooling room at St. Hyacinthe, Quebec, up to the first of March, 1904, detailed as follows: 2. The cost of site for curing room. 3. The cost of construction of buildings. 4. The cost of machinery, fittings, etc. 5. The cost of cheese purchased. 6. The cost of hauling cheese. 7. The salaries of officials, labour, travelling expenses, etc. 8. The cost of cheese boxes, chemicals, light, telephone, cold storage, freight, and all other incidentals. 9. The amount received for sale of cheese. 10. The amount received for curing cheese. Presented 27th May, 1904.—*Mr. Taylor*..... *Not printed.*
- 95b. Return to an order of the House of Commons, dated 9th May, 1904, showing: 1. The total expenditure in connection with the cheese-cooling room in Cowansville, Quebec, up to the first of March, 1904, detailed as follows: 2. The cost of site of curing-room. 3. The cost of construction of buildings. 4. The cost of machinery, fittings, etc. 5. The cost of cheese purchased. 6. The cost of hauling cheese. 7. The salaries of officials, labour, travelling expenses, etc. 8. The cost of cheese boxes, chemicals, light, telephone, cold storage, freight, and all other incidentals. 9. The amount received for sale of cheese. 10. The amount received for curing cheese. Presented 27th May, 1904.—*Mr. Taylor*..... *Not printed.*
96. Return to an address of the House of Commons, dated 17th March, 1904, for copies of all correspondence respecting the sale, lease or rental of the Garrison Common to the city of Toronto, or to any private parties; and also as to the acquirement of the land to be used by the permanent military forces; together with all orders in council disposing of said Garrison Common, and acquiring the lands to be used for military purposes. Presented 30th May, 1904.—*Mr. Clarke*..... *Not printed.*
97. Return to an address of the House of Commons, dated 28th March, 1904, for copies of all orders of council, and of all other documents and correspondence relating to the appointment of a commissioner to investigate the condition of the lobster and other Atlantic coast fisheries; likewise of the instructions given regarding that subject; also the reports that may have been made thereon. Presented 30th May, 1904.—*Mr. Gauvreau*..... *Not printed.*
98. Return to an address of the House of Commons, dated 9th May, 1904, for copies of all correspondence—representations, minutes, or orders in council, appointments, instructions, papers and writings, in reference to, or in connection with, railway cattle-guards; or in reference to, or in connection with, the selection or appointment of the cattle-guard commission, and the members thereof; and their actions and proceedings, including the retirement of Mr. Robertson, and the appointment of Mr. F. W. Holt, C.E., as sole commissioner; and his instructions and subsequent proceedings; and including all interim, partial and final reports by the original or subsequent commission, between the date of the report of railway committee of the session of 1902 on the Lancaster Bill No. 3 of that session, and this date. Presented 30th May, 1904.—*Mr. Clark*..... *Not printed.*
99. Return to an order of the House of Commons, dated 28th March, 1904, of the judgment and decision of the board of railway commissioners in the application of the towns of Port Arthur and Fort William for telephonic communication with stations and premises of the Canadian Pacific Railway. Presented 30th May, 1904.—*Mr. Sprague*..... *Not printed.*

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- 100.** Return to an order of the House of Commons, dated 9th May, 1904, for copies of all letters, correspondence, memorials, petitions and documents, in the possession of the Government, relating to the employment, or requesting the employment, by the Grand Trunk Railway Company, or by the Grand Trunk Pacific Railway Company, of British subjects as engineers in the surveying and construction of the proposed National Transcontinental Railway; and generally, all correspondence and documents in the possession of the government, in any way complaining of, or protesting against, the employment of aliens as engineers in railway surveying or construction on the line of the proposed National Transcontinental Railway. Presented 30th May, 1904.—*Mr. Taylor* ..... *Not printed.*
- 101.** Return to an order of the House of Commons dated 9th May, 1904, for copies of all correspondence between the post office department any person, or persons, referring to the change in post-masters in charge of the post office at Irena, in the township of Matilda, in the county of Dundas. Presented 31st May, 1904.—*Mr. Taylor*..... *Not printed.*
- 102.** Copy of the order in council appointing His Honour Judge Winchester, commissioner, to ascertain the names, nationality, nature and time of employment, remuneration and actual *bona fide* residence at the time of employment, of each person heretofore or at present employed in connection with the surveys of the proposed Grand Trunk Pacific Railway; and also to the names of all the Canadians or *bona fide* residents of Canada, who have made application for such employment, the nature of the employment applied for, and the result of such application, etc. Presented 31st May, 1904, by Sir William Mulock..... *Not printed.*
- 103.** Return of application for registration, under the provisions of chapter 131 (R.S.C.) intituled: "An Act respecting Trade Unions." Presented 1st June, 1904, by Hon. W. S. Fielding. *Not printed.*
- 104.** Return to an order of the House of Commons, dated 25th April, 1904, giving details with regard to the actual cost of construction of the Belfast and Murray Harbour branches of the Prince Edward Island Railway between Southport and Murray River, as follows: Miles clearing, and cost per mile, miles close cutting, and cost per mile; miles grubbing, and cost per mile; cubic yards solid rock excavated, rate per yard, and cost per mile; ditching rate per yard, and cost per mile; cubic yards borrowed, rate per yard and cost per mile; public crossings, cost per mile; farm crossings, cost per mile; ballast, cost per mile; fencing, cost per mile; rail fastenings, cost per mile; beam culverts, cost per mile; length of sidings in feet, and cost of same; stations, where placed, and cost of each; miles of track-laying, and cost per mile; three-foot iron pipes, how many, and cost per mile; eighteen-inch vitrified clay pipes, and cost per mile; steel trestles, length of same, and cost per mile; total cost of work to date; description and size of engine-house and turn-table; also capacity of water-tank, and where situated. Presented 6th June, 1904.—*Mr. Hackett*... *Not printed.*
- 104a.** Return to an address of the Senate, dated 31st May, 1904, giving statements in detail of the expenditures on Hillsborough Bridge and Murray Harbour Branch Railway, Prince Edward Island, contained in an amount of \$1,492,525.47 stated by the minister of finance in the House of Commons on the 30th of September, 1903, to have been expended on these two works up to the 30th June, 1903. And also similar statements regarding any other expenditures, if any, up to the last mentioned date, on these works, not included in the amount so stated by the Finance Minister: 1 Expenditure on Murray Harbour Branch Railway for—(a) Surveys. (b) Legal expenses, names of persons to whom paid, and amount of each. (c) Land damages, names of persons to whom paid, and amount of each. (d) Grading and blasting. (e) Track-laying. (f) Fencing. (g) Equipment. (h) Any other expenditure, if any, not included in these headings, to make up the total expenditure up to June 30, 1903. 2. Expenditure on Hillsborough Bridge for—(a) Surveys. (b) Legal expenses, to whom paid, and amount to each. (c) Approaches, including land damages, to whom paid, and amount to each. (d) Substructures. (e) Superstructures. (f) Track-laying for railway and general traffic. (g) Any other expenditures, if any, for the same period, not included under above headings. 3. A detailed statement, as above, showing the expenditure, up to the date of the passing of this address, of the whole or part of the amount of \$1,230,000 voted for the said bridge and railway for the current year. 4. A detailed statement, as in Nos. 1 and 2, showing the estimated application of any part of the said \$1,230,000, voted last session for the said railway and bridge and unexpended at the date of the passing of this address. Statements regarding railway and bridge to be given separately. Presented 26th July, 1904.—*Hon. Sir Mackenzie Bowell*..... *Not printed.*

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- 104b.** Return to an order of the House of Commons, dated 30th May, 1904, giving a statement in detail of the expenditures on Hillsborough Bridge, Prince Edward Island, and Murray Harbour Branch Railway, Prince Edward Island, contained in an amount of \$1,492,525.47, stated by the minister of finance, in *Hansard* of 1903, page 12829, to have been expended on these two works up to 30th June, 1903: Expenditure on Murray Harbour Branch: (a) surveys; (b) legal expenses, names of persons to whom paid, and amount to each; (c) land damages, names of persons to whom paid, and amount to each; (d) grading and ballasting; (e) track-laying; (f) fencing; (g) equipment; and any other expenditure under other headings to make up the total expenditure to June 30th, 1903. Expenditure on Hillsborough Bridge: (a) surveys; (b) cost of approaches, giving land damages, and to whom paid; (c) cost of substructures; (d) cost of superstructures; (e) legal expenses, to whom paid and amount to each. And also a detailed statement as above, showing the application of the sum of \$1,230,000, mentioned by the minister of finance in *Hansard*, 1903, page 12829, to be expended: statements on railway and bridge separately. Presented 4th August, 1904. *Mr. Lefurgey.*  
*Not printed.*
- 105.** Return to an address of the House of Commons, dated 9th May, 1904, for copies of all orders in council, documents, correspondence exchanged between the government, or any of the ministers, and any persons, regarding the Indian reserve established by 14 and 15 Victoria, chapter 106, in favour of the Iroquois Indians of Sault St. Louis and of the Lake of Two Mountains, and the exchange of that reserve for any other one or for any sum of money in favour of the said Indians. Presented 16th June, 1904.—*Mr. Leonard* ..... *Not printed.*
- 106.** Return to an address of the Senate, dated 25th April, 1904, showing the earnings and expenses of operating the Pacific cable since its opening for business: 1. The number of words transmitted each way, distinguishing ordinary messages from government and press messages. 2. The gross earnings each month. 3. The total expenses incurred each month—(a) in repairs; (b) in maintenance; (c) in interest; (d) in sinking fund; (e) in salaries. Together with copies of all correspondence relating to any difficulties which may have arisen in Australia in connection with the working and operation of said Pacific cable. Presented (Senate) 20th May, 1904.—*Hon. Sir Mackenzie Bowell.*  
*Not printed.*
- 107.** Return to an address of the Senate, dated 21st April, 1904, for copies of all correspondence and recommendations which led to the appointment of J. B. Jackson to the position of commercial agent to Leeds and Hull, England, at a salary of three thousand dollars per annum, and office and contingent expenses. Presented (Senate) 20th May, 1904.—*Hon. Sir Mackenzie Bowell.*  
*Not printed.*
- 107a.** Return to an address of the Senate, dated 1st June, 1904, for a copy of the recommendation made to the executive council upon which an order was passed appointing J. B. Jackson a commercial agent in England, together with a copy of said order authorizing said appointment. Presented (Senate) 7th June, 1904.—*Hon. Sir Mackenzie Bowell* ..... *Not printed.*
- 108.** Return to an address of the Senate, dated 20th April, 1904, of copies of geological or other reports in the hands of the government, bearing upon the question of coal or other fuel supply in the provinces of Quebec, Ontario, or Manitoba, with the view of devising some measure of relief from our present position. Presented (Senate) 20th May, 1904.—*Hon. Mr. McMullen* ..... *Not printed.*
- 109.** Return to an address of the Senate, dated 14th April, 1904, showing: 1. Imports of aluminum in pigs or ingots into Canada. 2. Aluminum metal manufactured in any form. 3. Oxide of aluminum. 4. Alumina. 5. Quantities by weight values. 6. Countries imported from, and ports of entry in Canada, and what countries the production of. 7. Exports of aluminum in pigs or ingots. 8. Aluminum metal manufactured in any form. 9. What countries exported to, and ports of shipment in Canada. 10. Quantities by weight values. 11. For the years 1901, 1902, and 1903. Presented (Senate) 20th May, 1904.—*Hon. Mr. Donville* ..... *Not printed.*
- 110.** Return to an address of the Senate, dated 8th October, 1903, for a statement showing the amount of premiums of insurance against fire which have been paid each year in the city of Montreal during the last ten years, up to the 1st of July last, and also showing the amounts paid each year at Montreal during the same period by insurance companies to holders of policies, and also the names of these companies. Presented (Senate) 22nd April, 1904.—*Hon. Mr. David.*  
*Not printed.*

CONTENTS OF VOLUME 13—*Continued.*

111. Return to an order of the House of Commons, dated 25th April, 1904, showing the number of liquor permits issued for the Yukon Territory since the date of the last return; the names of parties to whom said permits were issued; the quantities of liquor covered by each permit; the names of all parties to whom said permits were assigned (if assigned) by the original permit-holder. Presented 9th June, 1904.—*Mr. Lancaster*..... *Not printed.*
112. Return to an order of the House of Commons, dated 30th May, 1904, for copies of the letters of resignation of the following officers of the 9th regiment of the active militia, addressed to Lt.-Colonel Evanturel: Majors Routhier and Ouellet; Captains Chabot, Belleau, Matte, Dessaint, P. T. Trudel and J. R. Trudel; Lieutenants Edm. Trudel, J. A. Beaulieu, F. H. Hallé and A. Grenier; and all correspondence between these officers and the department of militia regarding the said resignations. Presented 15th June, 1904.—*Mr. Cosgrain*..... *Not printed.*
113. Copies of the order in council appointing Major General, the Earl Dundonald, to the command of the Canadian militia, 20th May, 1902, and the order in council relieving from the command of the Canadian militia, 14th June, 1904, and also correspondence and other papers connected therewith. Presented 15th June, 1904, by Sir Wilfrid Laurier. Further correspondence presented 16th June, 1904, by Hon. W. S. Fielding. Also on 22nd June, 1904, by Hon. S. A. Fisher.  
*Printed for both distribution and sessional papers.*
- 113*a*. Further papers in connection with the removal of Major General the Earl of Dundonald from the command of the Canadian militia. Presented 29th June, 1904, by Sir Frederick Borden.  
*Printed for both distribution and sessional papers.*
114. Return to an order of the House of Commons, dated 1st June, 1904, for a copy of all statements, documents and papers showing how much the government has received annually from the Quebec Central Railway Company from 1896 to 31st December, 1903: (a) for the passage of its trains over the Intercolonial from Harlaka to Lévis; (b) for the storage of its freight; (c) for water supplies; (d) for any other services. Presented 16th June, 1904.—*Mr. Morin*..... *Not printed.*
115. Return to an order of the House of Commons, dated 1st June, 1904, for copies of all correspondence exchanged between the department of finance and the town of Westmount, concerning the purchase of debentures of the Montreal Turnpike Trust. Presented 17th June, 1904.—*Mr. Rivet*.  
*Not printed.*
116. Return to an order of the House of Commons, dated 1st June, 1904, for a copy of all correspondence between the post office authorities and Henry Goodrick, of Mount Royal Vale, in reference to his resignation as a post office employee. Presented 17th June, 1904.—*Mr. Monk*..... *Not printed.*
117. Report from the office of the geographer of the department of the interior, relating to surveys made on the Grand Trunk Pacific Railway line. Presented (Senate) 17th June, 1904, by Hon. R. W. Scott..... *Not printed.*
118. Return to an address of the Senate dated 31st May, 1904, of all geological and other expert reports in the hands of the government showing the existence of petroleum at Athabaska Landing and adjoining districts; also, the names of the districts in which crude oil has been discovered, with quantities produced in 1902 and 1903 by districts, together with the total quantity for Canada. Presented (Senate) 17th June, 1904.—*Hon. Mr. Poirier*..... *Not printed.*
119. Return to an order of the House of Commons, dated 6th June, 1904, for copies of the evidence taken at an investigation held into the conduct of the postmaster at Matane, P.Q., in June, 1903; of the report of the investigating officer, and all correspondence, documents and papers, in relation to the said investigation. Presented 20th June, 1904.—*Mr. Cosgrain*..... *Not printed.*
120. Return to an order of the House of Commons, dated 30th May, 1904, of the correspondence between Dr. Rutherford, chief veterinary inspector, and Dr. Gerrow, and between the latter and John Campbell, Esq., of Fairview Farm, Mariposa, Woodville P.O., in relation to the shipment of sheep to the United States, and the quarantine therein; as well as in relation to the claim made by Mr. Campbell for repayment of express charges connected therewith. Presented 22d June, 1904.  
*Mr. Hughes (Victoria)*..... *Not printed.*
121. Return to an order of the House of Commons, dated 30th May, 1904, for copies of all correspondence between the government and any of its officials and the secretary of the provincial board of health of Manitoba, relating to matters of quarantine, or to restrict the spread of infectious diseases, since January the 1st, 1902. Presented 22nd June, 1904.—*Mr. Roche (Marquette)*..... *Not printed.*

CONTENTS OF VOLUME 13—*Continued.*

122. Return to an order of the House of Commons, dated 13th June, 1904, for copies of all deeds, papers, documents, correspondence, etc., now existing in any department, and filed since the 15th of September, 1903, in relation to the contract executed in the course of last session, for the establishment of a line of steamers between Canada and France, and to the subsidy payable for the said purpose, or to any matter or subject connected with the said contract and the said subsidy; and also a copy of contract between the government and Mr. Colombier. Presented 28th June, 1904.—*Mr. Casgrain.*  
*Not printed.*
123. Return of an order of the House of Commons, dated 30th May, 1904, for copies of all petitions, memorials, letters and other correspondence, between certain fishermen and any other party or parties, relating to any of the subject-matters contained in an official letter of the honourable minister of marine and fisheries, dated the 22nd of April, 1904, with regard to the authorization of the new lobster-canning licenses on the eastern coast of Prince Edward Island. Presented 28th June, 1904.—*Mr. Lafargue.*..... *Not printed.*
- 124 (1.) Return to an order of the House of Commons, dated 13th June, 1904, for copies of all correspondence with and by the government, or any department thereof, or with the officials of any department of the government, relating to applications for employment on the surveys of the proposed railway company of Canada, or the Grand Trunk Pacific Railway Company, in relation to such applications, since the 30th May ult., up to date. Presented 28th June, 1904.—*Mr. Clarke.*  
*Not printed.*
- 124 (2.) Return to an order of the House of Commons, dated 15th June, 1904, for copies of additional correspondence since the last order of the house, in the matter of the employment of engineers in railway surveying or construction on the line of the proposed National Transcontinental Railway. Presented 28th June, 1904.—*Mr. Borden (Halifax).*..... *Not printed.*
125. Protocol of the conference at Washington in May, 1898, preliminary to the appointment of a joint commission for the adjustment of questions at issue between the United States and Great Britain in respect to the relations of the former with the Dominion of Canada. Presented 29th June, 1904, by *Sir Wilfrid Laurier.*..... *Printed for sessional papers.*
126. Copy of a report of the committee of the honourable the privy council, approved by His Excellency the Governor General on the 22nd of June, 1904, rescinding the order in council of the 21st April, 1902, granting certain powers and privileges to Malcolm H. Orr-Ewing, A. N. C. Treadgold and Walter Barwick. Presented 30th June, 1904, by Hon. C. Sifton..... *Not printed.*
127. Cases in the Privy Council on Appeal from the Supreme Court of Canada *re* representation in the House of Commons of certain Provinces of the Dominion: Between the Attorney General for the Province of New Brunswick, Appellant, and Attorney General for the Dominion of Canada, Respondent; and between the Attorney General for the Province of Prince Edward Island, Appellant, and Attorney General for the Dominion of Canada, Respondent. Presented 4th July, 1904, by Hon. C. Fitzpatrick..... *Printed for sessional papers.*
128. Partial return to an order of the House of Commons dated 20th June, 1904, for copies of (a) all reports, correspondence, statements, accounts and papers, relating to seizures of binder twine since the 1st of January, 1902, and to prosecutions in respect of the charges; (b) the correspondence and papers between the several departments relating to all and every such seizure and to the prosecution; of the charges; (c) all instructions given to any person or persons in relation to such seizures or prosecutions; (d) the names, occupations and places of residence of all persons employed by or acting on behalf of the government, in relation to each of such seizures, or to the prosecution of the charges; (e) a statement of all expenses, charges or fees paid to or claimed by any person or persons, in connection with such seizures or prosecutions; and the papers connected with such payments and claims. Presented 6th July, 1904.—*Mr. Clancy.*..... *Not printed.*
- 128a. Supplementary return to No. 128. Presented 15th July, 1904..... *Not printed.*
129. Extracts from two reports of a committee of the honourable the privy council respecting a lease, etc., to Mr. Michael P. Davis, of Ottawa, of a certain lot of land at the Lower Sheiks Island Dam on the the Cornwall Canal. Presented 11th July, 1904, by Sir Wilfrid Laurier..... *Not printed.*
130. Return to an order of the House of Commons, dated 12th July, 1904, for copies of correspondence and other papers respecting the extension of the command of Lieutenant-Colonel R. W. Gregory, commanding officer of the 2nd Dragoons, his subsequent resignation, &c. Presented 12th July, 1904, Sir Frederick Borden..... *Not printed.*



CONTENTS OF VOLUME 13—*Continued.*

- 130*a*. Supplementary return to No. 130. Presented 2nd August, 1904. . . . . *Not printed.*
131. Orders in council passed since last session, submitted for the approval of parliament, in accordance with the provisions of section 5 of chapter 34 of the Statutes of Canada, 1902, intitled: "An Act further to amend the Yukon Territory Act." Presented 12th July, 1904, by Hon. C. Sifton. . . . . *Not printed.*
132. Return to an address of the Senate, dated 14th June, 1904, for a copy of all reports made since the opening of navigation to the department of the interior on the subject of the French steamer *Le Malou*, and more particularly a copy of the report of Doctor Potvin concerning this vessel. Presented (Senate) 12th July, 1904.—*Hon. Mr. Landry*. . . . . *Not printed.*
133. Return to an order of the House of Commons, dated 20th June, 1904, for copies of all correspondence between any department of the government of Manitoba and any department of the government of the Dominion, relating to the acquisition, selection or survey of 256,000 acres of land, earned by the former Winnipeg and Hudson's Bay Railway Company, now the Canadian Northern Railway Company, and to which the government of the province of Manitoba is entitled. Presented 13th July, 1904.—*Mr. Stewart*. . . . . *Not printed.*
134. Return to an order of the House of Commons, dated 30th May, 1904, for copies of all correspondence, accounts and statements showing the cost of the buildings at Mabou, and at other points, which are used in connection with the creamery at Mabou, C.B.; the cost of the machinery, and the rental paid by the government; the salaries paid by the government; the price paid for milk and cream by the government; the quantity of butter manufactured in each year; the cost per pound of butter in each year; the price at which such butter has been sold each year; the government charge for manufacturing and marketing. Presented 13th July, 1904.—*Mr. Bell*. . . . . *Not printed.*
135. Return to an order of the House of Commons, dated 30th May, 1904, showing the number of pounds of butter and cheese which have been manufactured at the Dominion Dairy Station at Nappan, N.S., in each of the last three years. Also for a statement showing the cost of such cheese and butter in each year; giving the items which enter into such total cost, and also showing the cost of manufacture and the cost of marketing per pound, by years. Presented 13th July, 1904.—*Mr. Bell*. . . . . *Not printed.*
136. Return of an order of the House of Commons, dated 30th May, 1904, giving the number of chicken-fattening stations in operation in Prince Edward Island in the years, 1900, 1901, 1902, 1903, respectively, giving the locations of each, and the names of manager of each, for the respective years; the expenditure in each of these stations for the years named, and the refunds made from the sale of poultry, &c., stating separately the refund from each for the different years. Presented 13th July, 1904.—*Mr. LeFargey*. . . . . *Not printed.*
137. Return to an order of the House of Commons, dated 25th April, 1904, for copies of all letters and other correspondence, between the board of trade of Alberton, Prince County, Prince Edward Island, and any other party or parties, and the government, relative to the importing of a fishing population, the construction of patent driers, and the general encouragement of the deep-sea fisheries on the north shore of Prince Edward Island. Presented 14th July, 1904.—*Mr. Hackett*. . . . . *Not printed.*
138. Return to an order of the House of Commons, dated 19th July, 1904, of copies of papers respecting the Canadian School of Musketry, Rockcliffe, Ontario. Presented 19th July, 1904.—*Sir Frederick Borden*. . . . . *Not printed.*
139. Return to an order of the House of Commons, dated 13th June, 1904, for a copy of all correspondence between the government and any person, or persons, in reference to the granting of pensions to those of the Canadian South African contingents who were wounded or suffered any disability in such service. Presented 22nd July, 1904.—*Mr. Broder*. . . . . *Not printed.*
140. Return to an order of the House of Commons, dated 20th June, 1904, for copies of all contracts for public works entered into by the government, which required the contractors to pay their workmen fair wages, in accordance with the fair-wage resolution agreed upon by parliament in the session of 1900; also the amounts of money covered by these contracts. Presented 27th July, 1904.—*Mr. Smith (Vancouver)*. . . . . *Not printed.*
- 140*a*. Supplementary return to No. 140. Presented 3rd August, 1904. . . . . *Not printed.*
141. Correspondence and papers respecting the Canada Eastern Railway Company. Presented 29th July, 1904, by Hon. H. R. Emmerson. . . . . *Not printed.*

CONTENTS OF VOLUME 13—*Concluded.*

142. Return to an address of the House of Commons, dated 17th March, 1904, for copies of the commission appointing Mr. Justice Britton and other commissioners to inquire into the Treadgold and other concessions in the Yukon Territory; and of all the evidence, exhibits, papers and documents produced at the investigation held by the said commissioners, and of any report or reports made by the said commissioners. Presented 1st August, 1904.—*Mr. Casgrain.*  
*Printed for both distribution and sessional papers.*
143. Return to an order of the House of Commons, dated 30th May, 1904, for copies of all correspondence, documents and reports, between the government and any party or parties, relative to the question of weighing dairy products at the port of Montreal, or elsewhere in the Dominion of Canada; as well as all documents, papers and letters connected with the commission appointed to investigate the same. Presented 4th August, 1904.—*Mr. Pope.*..... *Not printed.*
144. Return to an address of the House of Commons, dated 9th May, 1904, for copies of all correspondence between the government of British Columbia, the canners' association, or any other person, and the minister of marine and fisheries, or any official of the government, relating to the granting of fish-trap licenses in British Columbia; also any order in council relating to the same. Presented 6th August, 1904.—*Mr. Earle.*..... *Not printed.*
145. Return to an address of the Senate, dated 14th July, 1904, for a statement indicating, year by year, from the year 1901, inclusive, up to this day, the detail of the expenses incurred in the construction of the wharf at St. Alphonse of Ha! Ha! Bay. Presented (Senate) 8th August, 1904.—*Hon. Mr. Landry.*..... *Not printed.*
146. Return to an address of the Senate, dated 21st June, 1904, for: 1. A statement showing, in so many distinct columns, the names, surnames, ages, occupations of each of the sailors, from the commander down to the lowest cabin boy, who went to Germany, or who in Germany took service, on board of the *Gauss*, and who have come back to this country. 2. The number of years, months or days previously devoted to sea service by each of the sailors of the *Gauss*. 3. The names of all the signers of an alleged complaint supposed to have been addressed to the minister of marine. 4. A copy of such complaint and of every answer thereto, as well as of all correspondence relating thereto. 5. A copy of all correspondence relating to the purchase of the *Gauss*, and of the instructions given to Captain Bernier. 6. A copy of the log kept on board since the vessel has been placed under the command of Captain Bernier. Presented (Senate) 8th August, 1904.—*Hon. Mr. Landry.* *Not printed.*
147. Return to an address of the Senate, dated 27th June, 1904, for copies of all correspondence relating to the purchase or building of ice-breakers for use on the St. Lawrence or other Canadian waters. Presented (Senate) 8th August, 1904.—*Hon. Sir Mackenzie Bowell.*..... *Not printed.*

DOMINION OF CANADA

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ANNUAL REPORT

OF THE

DEPARTMENT OF RAILWAYS AND CANALS

FOR THE FISCAL YEAR

FROM JULY 1, 1902, TO JUNE 30, 1903

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 KING'S MOST  
EXCELLENT MAJESTY

1904



*To His Excellency the Right Honourable Sir Gilbert John Elliot, Earl of Minto,  
G.C.M.G., &c., &c., Governor General of Canada.*

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 July 1, 1902, to June 30, 1903.

All of which is respectfully submitted.

H. R. EMMERSON,  
*Minister of Railways and Canals.*



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3. Manitoba and Assiniboia and part of Saskatchewan.
4. Ontario and Manitoba.
5. Ontario and Quebec.
6. Nova Scotia, New Brunswick, Prince Edward Island and part of Quebec.

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7. Canadian Ship Canal, and also St. Mary's Falls Canal, Mich., U.S.A.
8. Line of Welland Canal between Lakes Erie and Ontario.
9. Trent Navigation and Murray Canal.
10. St. Lawrence, Ottawa, Rideau and Richelieu Canals.



# REPORT OF THE DEPUTY MINISTER.

To the Honourable

H. R. EMMERSON,

Minister of Railways and Canals.

SIR,—I have the honour to submit the annual report of the Department of Railways and Canals for the fiscal year ended June 30, 1903.

The annual reports of the engineers, together with general and special reports from superintendents, both of railways and canals, and from other officers in the department, are given in appendices.

In Part II. will be found statements showing the amounts expended during the past fiscal year in construction, repair and maintenance of the several works under the department; also statements showing total expenditure on each canal since its construction, and on each of the government railways; also a statement showing the payments made, year by year, to subsidized railways, with the aggregates of such payments.

## GENERAL SUMMARY.

The expenditures of the department for the fiscal year 1902-3 on its works of construction, operation and maintenance, both railway and canal, and in furtherance, by subsidy under authority of Parliament, of outside railway enterprises, are as follows:—

On government railways, a total of \$11,036,607.83, of which \$3,083,680.86 was chargeable to capital account, \$1,478,792.77 to income and \$6,474,134.20 to revenue. There was paid out from the consolidated fund as subsidies to railways other than the government roads a total of \$1,463,222.34.

On canals, a total of \$2,848,439.96, of which \$1,823,273.61 was chargeable to capital, \$277,595.42 to income, and, out of revenue \$443,190.08 for staff, and \$304,380.55 for repairs.

Adding to the above the further sum of \$35,398 for miscellaneous expenditures, the total departmental expenditure for railways and canals for the past fiscal year amounted to \$13,920,445.79.

The total revenue derived from the government works for the past fiscal year was as follows:—

From railways, \$6,584,598.77, and from canals, \$230,213.15, of which the sum of \$153,538.20 was derived from tolls and \$70,253.94 from hydraulic rents.

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By Orders in Council of April 27, and May 19, 1903, tolls for passage through any of the government canals were abolished, the exemption, which was by way of experiment, to continue in force for the two seasons of navigation of 1903 and 1904, only. The tolls collected as above stated, apply, therefore, to the portion of the fiscal year ending with the close of navigation in 1902.

The total government expenditure on railway construction prior to and since Confederation (July 1, 1867) up to July 1, 1903, amounts, on capital account, to \$140,030,269.54, which includes the sum of \$25,000,000 granted (from capital) to the Canadian Pacific Railway Company for its main line. In addition there has been expended from the consolidated fund a total of \$129,823,243.65, including \$29,295,052.71 paid as subsidies to railways other than the Canadian Pacific Railway, and \$99,465,757.39 for working expenses of the government railways, making a total expenditure of \$269,853,513.19. Of this amount the sum of \$13,881,460.65 was expended on construction works prior to Confederation, on portions of what is now the Intercolonial Railway.

The total revenue received from the government railways from July 1, 1867 to July 1, 1903, amounts to \$90,942,352.60.

The government expenditure on canals from July 1, 1867, to July 1, 1903, amounts, on capital account, to \$85,342,377.47, and from the consolidated fund to \$19,990,608.25, making a total of \$105,332,985.72.

The total revenue derived from canals during the same period is \$13,247,969.84.

The total expenditure on railways and canals up to July 1, 1903, is, as above, \$375,186,498.91, to which must be added for miscellaneous expenditures, embracing both, \$593,032.27; making a grand total of \$375,779,531.18.

The total revenue derived from railways and canals from July 1, 1867, to July 1, 1903, is \$104,190,322.44.

Details of the above will be found in the statements of the accountant of the department, Part II., pages 3 to 47, inclusive.

### 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 granted or authorized.

In an appendix will be found a special statistical report, embodying returns for the fiscal year ended June 30, 1903, made by Canadian railway companies, as required by statute. This report gives detailed information as to railroad operations in Canada, including the government roads, of which the following is a summary:—

#### *Steam Railways.*

The number of steam railways in actual operation, including the two government roads, the Intercolonial and the Prince Edward Island Railways, at the close of the

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fiscal year, June 30, 1903, was 167; some of these, however, are amalgamated or leased, making the total number of controlling companies 79, not including the government railways. The number of companies absorbed by amalgamation was 51, and the number of leased lines was 36.

At that date the number of miles of completed railway was 19,077, an increase of 210 miles, besides 2,953 miles of sidings. The number of miles laid with steel rails was 18,976, of which 695 miles was double track. The number of miles in operation was 18,988.

The paid-up capital amounted to \$1,146,550,769, an increase of \$47,698,562. The gross earnings amounted to \$96,064,527, an increase of \$12,398,024, and the working expenses aggregated \$67,481,524, an increase of \$10,137,932, compared with those of the previous year; leaving the net earnings \$28,583,003, an increase of \$2,260,092. The number of passengers carried was 22,148,742, an increase of 1,468,768, and the freight traffic amounted to 47,373,417 tons, an increase of 4,996,890 tons. The total number of miles run by trains was 60,382,920, an increase of 4,653,064.

The rolling stock comprised: For passenger service, 2,042 cars; for freight service, 81,070, including 53,107 box and cattle cars, an increase of 4,317; and for operation and maintenance service, 2,963; making a total of 86,075 cars. Of these, 68,136 were equipped with air-brakes, and 76,536 were fitted with automatic couplers, an increase of 19,679 over the previous year. The locomotives numbered 2,587.

The accident returns show a total of 1,453 persons injured during the year. Of these 258 were passengers, 946 employees, and 249 others. In addition, 420 persons were killed, 53 being passengers, 186 employees, and 181 others; 185 passengers, 164 employees and 4 others were injured, and 35 passengers, 55 employees and 2 others were killed in train collisions and derailments; 27 passengers, 81 employees, and 33 other persons were injured, and 4 passengers, 7 employees, and 5 others were killed, through jumping on or off the trains or engines when in motion; 43 employees, 73 others and 1 passenger were injured, and 42 employees, 112 others and 4 passengers were killed, through walking or being on the track; 13 passengers, 147 employees and 15 others were injured, and 8 passengers, 35 employees and 5 others were killed, through falling from cars or engines; 3 employees and 69 other persons were injured, and 1 employee and 52 other persons were killed, by being struck by engines or cars at highway crossings. The accidents due to the work of coupling cars numbered 211 (19 being fatal), against 241, 290, 363 and 355 in the four preceding years, respectively. This steady reduction in the numbers of coupling casualties is a gratifying evidence of the efficiency of the automatic car coupler, and should lead to the universal adoption of such appliances.

*Electric Railways (including Street Railways and Tramways)*

At the close of the fiscal year ended June 30, 1903, there were 759 miles completed, of which 752 miles were laid with steel rails, 185 miles being double tracked. The paid up capital amounted to \$47,274,853, of which the municipal aid amounted to \$173,000 (including \$100,000 subscription to shares, and \$40,000 loan). The number

of miles in operation was 759. The gross earnings aggregated 7,233,677, an increase of \$747,239, and the working expenses \$4,472,858, an increase of \$670,003, leaving the net earnings \$2,760,819, an increase of \$77,236. The number of passengers carried was 155,662,812, an increase of 17,951,410, and the freight carried amounted to 371,286 tons, an increase of 105,104 tons. The car mileage was 38,028,529, an increase of 2,194,688 miles. The accident returns show a total of 778 persons injured during the year. Of these 504 were passengers, 62 employees and 212 others. In addition 39 persons were killed, 10 being passengers, 7 employees and 22 others; 37 passengers, 21 employees and 26 others were injured, and 1 passenger, 1 employee and 1 other person killed in collisions and derailments; 318 passengers and 2 other persons were injured and 5 passengers were killed, through jumping on or off the cars when in motion; 18 passengers, 1 employee and 57 other persons were injured and 13 other persons were killed through walking or being on the track; 71 passengers and 18 employees were injured and 2 employees killed through falling from cars; 42 passengers and 117 other persons were injured and 3 passengers, 1 employee and 8 others were killed by being struck by engines or cars at highway crossings. There were 6 employees injured by the work of coupling cars, and 3 employees injured while at work near track making up trains. Power was supplied in 15 cases by water, and in 30 cases by steam. Ontario has 412 miles, Quebec 242, New Brunswick 12, Nova Scotia 24, Manitoba 20, and British Columbia 49 miles. Returns were received from 45 companies. One company was absorbed by amalgamation.

*All Railways, Steam and Electric.*

At the close of the fiscal year ended June 30, 1903, the conjoined statistics of steam and electric roads (including street railways), show the following results:—The number of companies making returns was 146. There were 19,836 miles of railway completed, 19,747 miles being in operation. The paid up capital amounted to \$1,193,647,222. The gross earnings were \$103,298,404, and the total working expenses \$71,954,381, making the net earnings \$31,343,822; 177,811,554 passengers, and 47,744,703 tons of freight were carried; 63 passengers were killed.

GOVERNMENT RAILWAYS IN OPERATION.

The government railways are:—The Intercolonial, the Windsor Branch (maintained only), and the Prince Edward Island railways.

Details respecting these railways and their operations will be found in the appendices, Part I., containing reports from the chief engineer of the department, the general manager of government railways, and the officials of these roads.

The gross earnings of all the government roads for the past fiscal year, 1902-3, amounted to \$6,584,598.77, and compared with those of the preceding year, show an increase of \$665,608.30. The gross working expenses amounted to \$6,474,134.20, an increase of \$593,034.66.

The net gain on the operations of the year was \$110,464.57.

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The Intercolonial produced a profit of \$127,670.53; the Windsor Branch (one-third of total earnings), a profit of \$24,717.62, and the Prince Edward Island a loss of \$41,923.58.

The above figures include rental, \$140,000, paid for the extension of the Intercolonial into Montreal.

## INTERCOLONIAL RAILWAY.

On March 1, 1898, the operations of the Intercolonial were extended to Montreal by means of leases obtained from the Grand Trunk and Drummond County Railway Companies, making an addition of 169.81 miles to the operation of the government line; its length being now 1,314.67 miles.

The leasing agreement with the Grand Trunk Railway Company, dated February 1, 1898, was confirmed by the Act 62-63 Vic., chap. 5 (1899). Its term extends for a period of ninety-nine years from March 1, 1898; the annual rental being fixed at \$140,000.

Under authority of the Act 62-63 Vic., chap. 6 (1899), the Drummond County Railway from Chaudière to Ste. Rosalie, together with the branch from St. Léonard to Nicolet was acquired by the Dominion; conveyance being made by a deed dated November 7, 1899.

The accountant of the railway has dealt with the rental paid under the Grand Trunk Railway lease (the only one now remaining) as an addition to the ordinary working expenses, and, in his comparative statement of averages for each year, both with the rental included, and also with the rental omitted. The statements of the general manager, however, are based on figures from which the rental is omitted. This explanation will cover any seeming discrepancy of statement in the matter. The accountant of the department, in his statements (Part II.), includes the rental, and it is also included in my present report.

## CAPITAL ACCOUNT.

During the fiscal year there was an addition of \$2,254,266.68 to the capital account expenditure, making the total expenditure chargeable to capital on the whole road as amalgamated under the Acts 54-55 Vic., chap. 50 (1891) and 62-63 Vic., chap. 5 and 6 (1899) up to July 1, 1903, \$70,856,369.51.

It has to be noted that the general manager, in his present report, sets down the total cost to July 1, 1903, as \$70,521,136.48, whereas the total cost is set down by the accountant of the department (Part II., p. 32) as \$70,856,369.51, as above stated. This agrees with the public accounts. The difference, \$335,233.03, is made up of two items, viz.: expenditure on the old Montreal and European Short Line Railway between the years 1885 and 1894, \$333,942.72, and expenditure on the Governor General's car in the year 1896, \$1,290.31.

The additions made during the past year included—for increased accommodation at Halifax, \$75,040; at St. John, \$94,491; at Sydney, \$40,609; at North Sydney,

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\$29,293; at Stellarton, \$29,887; at Moncton, \$105,372; at Point Tupper, \$29,520; and at Lévis, \$55,922; for additional sidings and facilities on the line, \$163,090; for a spur from Rivière Ouelle to the River St. Lawrence, \$72,970; for strengthening bridges, \$149,744; for new bridge superstructures over the Miramichi, the North-west and the Restigouche, \$262,089; for additional rolling stock, \$254,694; for steel rails and fastenings, \$597,590; for air brakes to freight cars, \$19,925; changing drawbars of freight cars to improved couplers, \$60,000. Details will be found in the reports of the general manager and other officers. Part I.

## REVENUE ACCOUNT.

The gross earnings of the year amounted to \$6,324,323.72, an increase of \$652,937.81, and the working expenses to \$6,196,653.19 (including \$140,000 paid for the extension into Montreal) being an increase of \$622,089.89 in comparison with the previous year (when the same rental was paid). The earnings exceeded the expenditure by \$127,670.53. There was an increased expenditure of \$145,232.36 for locomotive power; of \$219,396.82 for car expenses; of \$230,458.63 for maintenance of way and works, and \$89,549.02 for station expenses.

Comparing the earnings with those of the previous year, the passenger traffic produced \$1,927,916.92, or 30.48 per cent of the gross earnings, an increase of \$156,075.84; the freight traffic amounted to \$4,128,255, or 65.28 per cent of the gross earnings, an increase of \$483,741.58, while the carriage of mail and express freight produced \$268,151.75, or 4.24 per cent, an increase of \$12,220.39. The earnings per mile of railway were \$4,810.58, an increase of \$496.64, and per train mile 99.66 cents against 93.46 cents the previous year. The working expenses per mile of railway amounted to \$4,713.46, an increase of \$473.20, and per train mile 97.65 cents, an increase of 5.78 cents. These figures include the rental of the leased extension to Montreal. The mileage of the railway was the same as in the previous year, namely, 1,314.67 miles.

## GENERAL OBSERVATIONS.

The following represents the traffic of the road in respect of certain of its principal items, in comparison with the traffic of the previous year:—

The number of passengers carried was 2,404,230, an increase of 218,004, namely, 193,817 local, and 24,187 through passengers; of freight 2,790,737 tons were carried, an increase of 404,921 tons; the local freight increased by 325,442 tons, and the through freight, 79,479 tons.

Of flour and meal 1,521,540 barrels were carried, an increase of 209,833, and of grain 3,392,252 bushels, an increase of 432,491. Lumber showed an increase of 31,180,560 superficial feet, the quantity amounting to 459,231,589. Of live stock 127,060 head, an increase of 28,565 were carried: 750,076 tons of coal, an increase of 178,862 tons were carried, but cordwood decreased by 5,590 cords, the quantity being 55,002 cords. Of manufactured goods 590,526 tons, an increase of 59,346 tons, were carried. Of raw sugar 17,331 tons were carried, an increase of 5,688 tons, and 31,111 tons of refined sugar, an increase of 1,479 tons. Fresh fish showed a decrease of



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2,793 tons, the quantity being 10,289 tons; 11,495 tons of salt fish were carried, an increase of 1,453 tons.

Of ocean borne goods, other than deals, to and from Europe via Halifax, the aggregate was 138,631 tons, a decrease of 44,516 tons; of this 124,695 tons was local traffic.

The cost of removing snow and ice was \$89,480.70, an increase of \$8,498.23.

The train mileage (or number of miles run by trains) of the year amounted to 6,345,500 miles, an increase of 247,553 miles. The expenditure amounted to 97.65 cents per train mile, an increase of 5.78 cents over the previous year. In both years the rental for the extension into Montreal is included.

An additional number of 205 freight cars were fitted with Westinghouse air brakes during the year, bringing the total so fitted up to 4,314.

The work of double-tracking the road between Windsor Junction and Halifax is progressing.

The new Rivière Ouelle Branch, 6½ miles long, extending from Rivière Ouelle Station to St. Denis Wharf on the south shore of the River St. Lawrence, was opened for traffic on June 22, 1903, thus facilitating, in conjunction with a steam ferry, communication with Murray Bay and other summer resorts on the north side of the river.

The permanent way and all structures and works, together with the rolling stock of the road, have been maintained in good and efficient condition.

The value of stores on hand at the close of the fiscal year, including fuel, rails, and old material, was \$917,941.73.

The various and detailed reports of the officers of the road, including statistical, comparative and general information as to its operations, furnish particulars of interest. They will be found in the appendices hereto.

#### WINDSOR BRANCH.

The road is 32 miles in length. It extends from Windsor Junction, on the Intercolonial Railway, to Windsor.

The railway is operated by the Dominion Atlantic Railway Company, formerly the Windsor and Annapolis Railway Company. The Company pay all charges in connection with the working of the traffic, two-thirds of the gross earnings being allowed them, the government taking the remaining one-third, and assuming all costs of maintenance of the road and works. This arrangement is carried out under an agreement dated December 13, 1892, which extends, for a further term of 21 years, arrangements similar to those made in 1871.

All charges for superintendence and supervision of maintenance of works are borne by the government; the duty of supervision is performed by the chief officers of the Intercolonial Railway.

The gross earnings of the government (one-third of gross receipts) credited to this branch, amounted to \$42,560.81, a decrease of \$7,043.78. The expenses of maintenance amounted to \$17,843, an increase of \$1,466.92, leaving a profit to the government of \$24,717.62.

The road has been maintained in good order. Details will be found in the appendices.

#### PRINCE EDWARD ISLAND RAILWAY.

The mileage of this railway in operation was the same as in the previous year, namely, 209 miles.

#### CAPITAL ACCOUNT.

The total cost of the road and equipment chargeable to capital account at the close of the past fiscal year was \$5,429,239.33; there being an addition during the year of \$829,414.18; the principal items being an expenditure of \$304,852.46, on the branch to Murray Harbour, and \$459,139.28 for a combined railway and carriage bridge over the River Hillsborough, Charlottetown; \$6,198.35 was expended on a new station at Georgetown, \$5,129.41 for increased accommodation at Charlottetown, and \$13,400 for steel rails.

#### REVENUE ACCOUNT.

The gross earnings amounted to \$217,714.24, and the working expenses to \$259,637.82, the expenditure in excess being \$41,923.58.

Compared with the previous year, the gross earnings show an increase of \$19,714.31, and the working expenses a decrease of \$10,522.15. The railway carried 205,265 passengers, an increase of 20,517, producing \$95,237.12, an increase of \$10,150.69. Of freight, there were carried 80,582 tons, an increase of 5,201 tons, producing \$106,519.72, an increase of \$10,941.93. The earnings from mails and sundries amounted to \$15,957.40, a decrease of \$378.30.

The train mileage (the number of miles run by trains) was 291,263, an increase of 17,431 miles.

The cost per train mile was 89.14 cents, a decrease of 8.51 cents; and the cost per mile of railway \$1,242.19, a decrease of 50.34.

The value of stores on hand at the close of the fiscal year, including fuel and rails, was \$107,999.15.

The road, with its buildings and rolling stock, has been efficiently maintained.

Details of operation will be found in the appendices (Part I), including the reports of the superintendent and other officers.

#### SURVEY FOR A RAILWAY TO GIVE ACCESS TO THE YUKON DISTRICT.

In the annual report for the fiscal year 1900-1, will be found a full report from the engineer in charge on this subject, and also (on p. xv) a summary of the work

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done, and the conclusions arrived at. Previous reports were printed in the annual reports for the years 1898-99 and 1899-1900.

### RAILWAY SUBSIDIES.

The following pages show, in alphabetical sequence, the position of those companies whose dealings with the government in respect of subsidies are not yet closed. Reports of previous years give information as to companies whose subsidies have been fully earned and paid prior to July 1, 1902.

A tabulated statement of payments will be found in Part II., and a list of subsidy agreements entered into during the fiscal year in Part IV.

The several subsidy Acts passed in each year from 1882 will be found in Part III. No subsidies were authorized in the session of 1895, 1896, 1898 and 1902.

Information has been brought down to the end of the fiscal year 1902-1903 only, but, in supplement, the following list shows also the additional contracts entered into, and the payments made, between that date and December 31, 1903.

#### SUBSIDY CONTRACTS DURING 1902-1903 TO JUNE 30, 1903.

Algoma Central and Hudson Bay Railway Company.—From Sault Ste. Marie to a point on the Canadian Pacific Railway, at or near White River, Algoma District; contract dated October 15, 1902.

Bay of Quinte Railway Company.—For railway connecting Deseronto lines with Tweed lines of Company; contract dated December 30, 1902.

Bay of Quinte Railway Company.—Extension of line at Tweed, north; contract dated December 31, 1902.

Bay of Quinte Railway Company.—Extension from point at or near Richmond Boundary Road near Deseronto, Ont.; contract dated December 31, 1902.

Bracebridge and Trading Lake Railway Company.—From Bracebridge, in Muskoka, to a point near Baysville, Ont.; contract dated December 30, 1902.

La Compagnie de chemin de fer de Colonisation du Nord.—From Labelle, Que. to Nomingue; contract dated July 8, 1902.

Canadian Pacific Railway Company.—From Dyment, on the Canadian Pacific Railway, to New Klondyke Mining District, Ont.; contract dated August 28, 1902.

Halifax and Yarmouth Railway Company.—From Pubnico to Port Clyde or Clyde River, N.S.; contract dated March 1, 1903.

Montfort and Gatineau Colonization Railway Company.—From Arundel to a point in townships of Preston and Hartwell, Que.; contract dated July 30, 1902.

Manitoulin and North Shore Railway Company.—From Victoria Mines to Sudbury, &c.; contract dated May 15, 1902.

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Maganetawan River Railway Company.—From a point on the Grand Trunk Railway, at or near Burk's Falls, Ont., to Maganetawan River; contract dated March 19, 1903.

Nova Scotia Eastern Railway Company.—From New Glasgow to Country Harbour and to Guysboro', &c.; contract dated February 19, 1903.

New Brunswick Coal and Railway Company.—From Chipman Station, N.B., to Gibson; contract dated June 30, 1902.

Quebec and New Brunswick Railway Company.—Extension of St. Francis Branch of Temiscouata Railway to mouth of St. Francis River; contract dated August 25, 1902.

Schomberg and Aurora Railway Company.—Extension from its easterly terminus to a point at or near Bond's Lake, Ont.; contract dated July 30, 1902.

Trans-Canada Railway Company.—From Roberval, Que., westward towards James Bay; contract dated January 19, 1903.

ADDITIONAL SUBSIDY CONTRACTS FROM JUNE 30, 1903, TO DECEMBER 31, 1903.

Canadian Northern Railway Company.—From Grandview to Edmonton, 620 miles; and Prince Albert Branch, 100 miles east from Prince Albert; contract dated July 29, 1903.

Canadian Northern Railway Company.—From point on line of Winnipeg Great Northern Railway north of Swan River to Prince Albert, N.W.T., 100 miles; contract dated December 7, 1903.

Canadian Northern Railway.—In further extension north of Swan River towards Prince Albert, 100 miles; contract dated December 7, 1903.

Chateaugay and Northern Railway Company.—From point on main line near l'Epiphanie to village of Rawdon, 16 miles; contract dated December 12, 1903.

Canadian Bridge Company *et al.*—St. Francis river bridge; contract dated December 21, 1903.

Canadian Bridge Company *et al.*—For completion of foundation and approaches of St. Francis river bridge; contract dated December 21, 1903.

Central Counties Railway Company.—From Hawkesbury, Ont., to South Indian, 35 miles; contract dated December 26, 1903.

Grand Trunk Pacific Railway Company.—From Winnipeg to Port Simpson (W. Division) &c.; contract dated July 29, 1903.

Halifax and South-Western Railway Company.—From Halifax to Mahone Bay, 68 miles; contract dated November 9, 1903.

Halifax and South-Western Railway Company.—From Bridgewater towards Barrington Passage; also a line to Barrington Passage, in addition, 77 and 35 miles; contract dated November 9, 1903.

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Halifax and South-Western Railway Company.—From New Germany to Caledonia, 22 miles; contract dated November 9, 1903.

Halifax and South-Western Railway Company.—From Caledonia to Liverpool, 29 miles; contract dated November 9, 1903.

Inverness Railway and Coal Company.—From Cheticamp to point between Broad Cove and Point Tupper, 37 miles; contract dated November 9, 1903.

Inverness Railway and Coal Company.—From Point Tupper to Broad Cove, 8 miles; contract dated November 9, 1903.

Ottawa Northern and Western Railway Company.—From Aylmer to Hull, Que., 9 miles; contract dated July 10, 1903.

Ottawa Northern and Western Railway Company.—From end of 62nd mile towards Desert, 20 miles; contract dated August 25, 1903.

Ottawa Northern and Western Railway Company.—Unearned balance of subsidy upon the 62 miles from Hull towards Desert; contract dated August 25, 1903.

Quebec Bridge and Railway Company.—Quebec Bridge, approaches and terminals; contract dated October 19, 1903.

## SUBSIDIES PAID DURING THE FISCAL YEAR ENDED JUNE 30, 1903.

Algoma Central and Hudson Bay Railway, Ontario....	\$202,912 00
Atlantic and Lake Superior Railway, Quebec....	52,353 98
Atlantic and North-western Railway.....	186,600 00
Bay of Quinte Railway, Ontario....	19,200 00
Bruce Mines and Algoma Railway, Ontario....	28,800 00
Canadian Northern Railway Company, Ontario....	57,485 00
Canadian Pacific Railway Company B.C., (Crow's Nest Pass)....	60,000 00
Canadian Pacific Railway Company (Kootenay and Arrowhead Branch)....	42,771 00
Canadian Pacific Railway Company (W. Selkirk, Lake Winnipeg Branch)....	83,200 00
Canadian Pacific Railway Company (Dyment Branch)..	22,336 00
Canadian Pacific Railway Company (Waskada Branch)..	50,480 00
Cape Breton Extension Railway, N.S.....	65,280 00
Coast Line of Nova Scotia, now Halifax and Yarmouth Railway.....	60,000 00
Great Northern Railway, Quebec....	37,777 20
Inverness and Richmond Company, N.S.....	91,775 53
Maganetawan River Railway Company, Ontario....	3,552 00
Manitoulin and North Shore Railway Company, Ontario	32,000 00
Midland Railway Company, N.S.....	190,186 30
Quebec Bridge Company, Quebec....	132,353 33
Tilsonburg, Lake Erie and Pacific Railway, Ontario....	44,160 00
	<hr/>
	\$1,463,222 34

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ADDITIONAL SUBSIDY PAYMENTS, FROM JULY 1, 1903, TO DECEMBER 31, 1903.

Bay of Quinte Railway.....	\$ 6,400
Cape Breton Railway.....	117,120
Ottawa, Northern and Western Railway.....	57,568
Halifax and Yarmouth Railway.....	9,600
Chateauguay and Northern Railway.....	191,595
Canadian Northern Railway.....	270,010
	\$652,293

## GOVERNMENT ACTION AS TO SUBSIDIZED RAILWAYS.

(The numbers within brackets after the title of the Company refer to the lists of railways for which subsidies have been authorized by Parliament, year by year, from the commencement of the system of railway subsidy in 1882, in the appendices hereto.)

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.

The following shows the aggregate of the payments made on subsidy account:—

For the fiscal year 1883-84, ended on June 30, 1884	\$ 208,000 00
“ 1884-85 “ 1885	403,245 00
“ 1885-86 “ 1886	2,171,249 00
“ 1886-87 “ 1887	1,406,533 00
“ 1887-88 “ 1888	1,027,041 92
“ 1888-89 “ 1889	846,721 83
“ 1889-90 “ 1890	1,678,195 72*
“ 1890-91 “ 1891	1,265,705 87*
“ 1891-92 “ 1892	1,248,215 93*
“ 1892-93 “ 1893	811,394 07*
“ 1893-94 “ 1894	1,229,885 10*
“ 1894-95 “ 1895	1,310,549 10*
“ 1895-96 “ 1896	834,745 49*
“ 1896-97 “ 1897	416,955 30*
“ 1897-98 “ 1898	1,414,934 78*
“ 1898-99 “ 1899	3,201,220 05*
“ 1899-1900 “ 1900	725,720 35*
“ 1900-01 “ 1901	2,512,328 86*
“ 1901-02 “ 1902	2,093,939 00*
“ 1902-03 “ 1903	1,463,222 34
	\$29,295,052 71

\* In these amounts the subsidy of \$186,600 a year payable to the Atlantic and North-west Railway Company, for 20 years from July 1, 1889, is included. Payment is made by the Finance Department.

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To the above there have to be added the following exceptional subsidies:—

The Canada Central Railway, paid between 1878-83...\$ 1,525,250 00  
 The Canadian Pacific Railway extension from St.

Martin's Junction to Quebec, paid in 1885..... 1,500,000 00

Total subsidies paid from 'Consolidated Fund' up  
 to June 30, 1902.... . \$32,310,302 71

The main line subsidy to the Canadian Pacific Rail-  
 way was paid from 'Capital,' amounting to. . . . 25,000,000 00

Total paid as subsidies..... \$57,310,302.71

The above does not include the amount \$2,394,000, due to the province of Quebec for the railway between Ottawa and Quebec, which has been transferred to the public debt, and on which interest at 5 per cent is paid, amounting to \$119,700 a year. (See note on page 46 of the accountant's statement, Part II.)

#### Albert Southern Railway Company.

(See Annual Report of 1891-92.)

#### Algoma Central and Hudson Bay Railway Company.

(See Nos. 437 and 479.)

This company was incorporated as 'The Algoma Central Railway Company' by the Act 62-63 Vic., chap. 50 (1899), with powers to construct a line of railway from the town of Sault Ste. Marie to a point on the Canadian Pacific Railway at or near Dalton Station, and thence south-westerly to Michipicoten Harbour, Lake Superior.

These powers were amended by the Act 63-64 Vic., chap. 49 (1900), and the company were empowered to build a railway from Sault Ste. Marie to a point between the rivers Magpie and Michipicoten, and thence to the main line of the Canadian Pacific Railway, and southerly to Michipicoten Harbour.

By the Act 1 Ed. VII., chap. 46 (1901), the name of the company was changed as above, and they were empowered to build an extension of their railway from a point on the Canadian Pacific Railway northerly to some point on James Bay, not further north than Equam river.

By the Railway Subsidy Act of 1899, 62-63 Vic., chap. 7, item 23, the grant of a subsidy of \$3,200 a mile, with a further subsidy of 50 per cent on expenditure in excess of \$15,000 a mile, the whole subsidy not to exceed \$6,400 a mile, was authorized for 40 miles of a railway from Sault Ste. Marie towards Michipicoten river and harbour, and towards the Canadian Pacific Railway.

The company having applied for this subsidy, a contract was entered into with them, accordingly, on September 28, 1901, under authority of orders in council dated May 30 and August 10, 1901.

By the Railway Subsidy Act of 1900, 63-64 Vic., chap. 8, item 4, the grant of a similar subsidy to the company was authorized for an extension of 25 miles from the end of the 40 miles section above mentioned, and also for 25 miles from Michipicoten harbour towards the main line of the Canadian Pacific Railway.

Under authority of an order in council, dated January 6, 1902, a contract was entered into with the company on February 5, 1902, for the work so subsidized.

By the Railway Subsidy Act of 1901, chap. 7, item 20, the grant of a similar subsidy was authorized for a further distance, not exceeding 135 miles, to a point on the Canadian Pacific Railway at or near White River, and a contract was entered into with the company accordingly on October 15, 1902.

During the past fiscal year there has been paid to the company the sum of \$202,912, making the total payments \$583,536, up to June 30, 1903.

### Atlantic and Lake Superior Railway Company.

(See No. 524.)

This company was incorporated by the Act 56 Vic., chap. 39 (1893), with powers to construct or acquire a line of railway from a point at or near Gaspé bay in the province of Quebec, to a point at or near the St. Mary river in the district of Algoma, in the province of Ontario, and was authorized to enter into agreement with certain companies named for the purchase or lease of their railways, in whole or in part, and their franchises, between the points named.

Agreements were made by the company, and were confirmed by Parliament by the Act 57-58 Vic., chap. 63 (1894), as follows:—

(1) For the purchase of the Baie des Chaleurs Railway Company's railway and appurtenances and their franchises. (2) For the use of a bridge to be constructed across the River St. Lawrence, opposite the city of Montreal, to be built by the Montreal Bridge Company. (3) For the purchase of the Great Eastern Railway between Yamaska and St. Gregoire, in the province of Quebec. (4) For the purchase from the Ottawa Valley Railway Company of their railway between Lachute and St. Andrew's in the province of Quebec, and their franchises. The Act provided that the railways named should be completed within three years, and the bridge within five years.

Difficulties, however, arose; the property of the Atlantic and Lake Superior Railway Company was ultimately vested in trustees of the bondholders, who, by the Act 1 Ed. VII., chap. 48, 1901, were authorized, notwithstanding anything contained in any Act of Parliament, to repair and renew the roadbed and bridges of the railway between Metapedia and Caplin, and to construct the railway from Caplin to a point near Paspebiac; such powers of construction to be exercised before December 31, 1902; also to operate the railway between Metapedia and Paspebiac, the Baie des Chaleurs division.

By the Subsidy Act of 1901, 1 Ed. VII., chap. 7, item 9, the grant of a subsidy was authorized for the 30 miles between Caplin and Paspebiac, namely, of \$3,200 a mile, with a further subsidy of 50 per cent of cost in excess of \$15,000 a mile; in all,



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not exceeding \$6,400 a mile; the subsidy contract to be made 'with the trustees or receivers under mortgage from the Atlantic and Lake Superior Railway Company.' The Act provided for payment out of the subsidy, 1st, for certain bridge superstructures, the amount being limited to \$35,000; 2nd, for the completion of the road-bed; 3rd, towards payment of claims for labour, materials, and supplies in that connection.

Under date July 25, 1901, a subsidy contract was entered into accordingly, and during the fiscal year 1901-02, payment was made to the extent of \$14,800, namely for one of the bridge structures, in accordance with the provisions of the Act.

During the past fiscal year payments were made to the extent of \$52,353.98, making a total of \$67,153.98 up to June 30, 1903. Of this total, \$32,153.98 was for bridge superstructures and \$35,000 for roadbed completion.

It has to be observed that, as stated in the annual report of the department for the year 1894-95, subsidy has been paid to the Baie des Chaleurs Railway Company for this railway, namely, from Metapedia eastwardly towards Paspebiac, 70 miles, to the extent of \$620,000.

#### **Atlantic and North-west Railway Company.**

(See Annual Report of 1889-1890.)

The full history of this subsidy was shown in the annual report for 1889-90. The company receives an annual subsidy of \$186,600 for 20 years. The first payment having been made in 1889-90. The total paid up to June 30, 1903, is \$2,612,400. Payment is made by the Department of Finance direct.

#### **Baie des Chaleurs Railway Company.**

(See Annual Report of 1895-96.)

(See also Atlantic and Lake Superior Railway Company.)

#### **The Bay of Quinté Railway Company.**

(See Nos. 434 and 581.)

This company was incorporated by the Dominion Act of 1881, chap. 46, under the name 'The Bay of Quinte Railway and Navigation Company,' with powers to construct a line of railway from Mill Point, county of Hastings, on the Bay of Quinte, to a point of junction with the Grand Trunk Railway.

By the Act of 1896 it was empowered to amalgamate with the Kingston, Napanee and Western Railway Company under the name of the Bay of Quinte Railway Company. Its powers were extended to cover the construction of branch lines, not exceeding 20 miles in length, each to connect with mines and mineral lands, and by the Act of 1900, chap. 50, extensive powers were conferred for development of electrical power, and for mining and timber industries. Their powers of construction were extended to June 14, 1905.

By the Subsidy Act of 1899, chap. 7, item 20, as amended by clause 9 of the Subsidy Act of 1900, chap. 8, the grant of aid was authorized to the extent of \$3,200 per

mile for 10 miles, for extensions, branches and additions to connect their lines of railway or to connect the said lines or connecting lines with iron or other mines or mineral or wood lands in certain counties named. This was in lieu of part of the balance of subsidy granted to the Kingston, Napanee and Western Railway in 1892.

Under date of December 30, 1902, a subsidy contract was entered into with them accordingly.

By the Subsidy Act of 1899, cap. 7, item 45, the grant of aid to the extent of \$3,200 per mile with an addition of 50 per cent on average expenditure in excess of \$15,000 per mile, the whole not exceeding \$6,400 per mile, was authorized for an extension, not exceeding 2 miles, of the company's line, westerly, from a point at or near Richmond Boundary Road, near Deseronto, and also for an extension from the end of the said two miles, northerly, for a distance not exceeding 3 miles.

Under date of December 30, 1903, a separate contract was entered into with the company for each of these two sections.

During the past fiscal year payment has been made of \$19,200 for the six miles between Deseronto and Napanee, under the Subsidy granted by item 20 of the Act of 1899. This represents the total paid up to June 30, 1903, to this company, but there had been previously paid to the Kingston, Napanee and Western Railway Company a total of \$208,732.80.

#### **Beauharnois Junction Railway Company.**

(See Annual Report of 1895-96.)

#### **Belleville and North Hastings Railway Company.**

(See Annual Report of 1888-89.)

#### **Boston and Nova Scotia Coal Company.**

(See Annual Report of 1895-96.)

#### **Bracebridge and Trading Lake Railway Company.**

This company was incorporated by the Act 63 Vic., chap. 109 (Ontario), with powers to construct a line of railway to be operated by steam or electricity, or partly by steam and partly by electricity, from a point in the town of Bracebridge to some point in the township of McLean, a distance of about fourteen miles, and to construct, extend and operate a continuation or branch of such railway from Bracebridge to some point on Muskoka Lake at or near Beaumaris, in the township of Monck, a distance of about ten miles, all in the district of Muskoka.

By the Railway Subsidy Act of 1900, 63-64 Vic., chap. 8, item 7, the grant of a subsidy of \$3,200 a mile, with a further subsidy of 50 per cent on average expenditure in excess of \$15,000 a mile, the whole subsidy not to exceed \$6,400, was authorized for a railway from Bracebridge, in Muskoka, to a point at or near Baysville, Ont., not exceeding 15 miles.

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The company having applied for this subsidy, a contract was entered into with them, accordingly, on December 30, 1902, under authority of Order in Council, dated April 6, 1903.

No payments have been made to June 30, 1903.

**Brockville, Westport and Sault Ste. Marie Railway Company.**

(See Annual Report of 1896-97.)

**Brantford, Waterloo and Lake Erie Railway Company.**

(See Annual Report of 1895-96.)

**Bruce Mines and Algoma Railway Company.**

(See No. 539.)

This company was incorporated by the Act of Ontario 62 Vic. (2) chap. 93 (1899), with power to construct a railway, to be operated either by steam or electricity, from a point in or near the village of Bruce Mines, in the district of Algoma; thence across the Algoma branch of the Canadian Pacific Railway to the Rock Lake Copper Mines, in the townships of Plummer and Coffin; thence northerly a distance of 30 miles, passing through the townships of McMahon and Gillmor.

By the Subsidy Act of 1901, chap. 7, item 24, a subsidy was authorized for 9 miles of railway from a point on the Algoma branch of the Canadian Pacific Railway at or near Bruce Lake Station, northerly to a point at or near Rock Lake, \$3,200 a mile, with a further subsidy of 50 per cent on cost in excess of \$15,000 a mile, not exceeding in all \$6,400 a mile.

Under authority of an order in council of November 5, 1901, a contract was entered into with the company for the work, accordingly.

The railway is completed and during the past fiscal year the subsidy, \$28,800, has been paid.

**Buctouche and Moncton Railway Company.**

(See Annual Report of 1893-94.)

**Canada Atlantic Railway Company.**

(See Annual Report of 1888-89; also see in present report under head of Ottawa, Annprior and Parry Sound Railway Company.)

**Canada Eastern Railway Co. (formerly Northern and Western Railway Company of New Brunswick).**

(See Annual Reports of 1894-95 and 1899-1900.)

**Canadian Northern Railway Company.**

(See Ontario and Rainy River Railway Company.)

**Canadian Pacific Railway Company.**

Revelstoke to Arrow Lake.

(See Annual Report of 1896-97.)

**Canadian Pacific Railway Company.**

West Selkirk—Lake Winnipeg Branch.

(See No. 541.)

By the Railway Subsidy Act of 1901, 1 Ed. VII., chap. 7, item 26, the grant of a subsidy of \$3,200 a mile, with an addition of 50 per cent on cost in excess of \$15,000 a mile, but not exceeding in all \$6,400 a mile, was authorized for a railway from a point on the Stonewall branch or the Selkirk branch of the Canadian Pacific Railway to Icelandic river, by way of Gimli, not exceeding 35 miles.

That company having applied, a contract was entered into with them on February 8, 1902, under authority of orders in council of November 30, 1901, and January 25, 1902.

During the past fiscal year, subsidy was paid for this work to the extent of \$83,200, the total paid up to June 30, 1903.

**Canadian Pacific Railway Company.**

(Dyment Branch.)

(See No. 487.)

By the Railway Subsidy Act, 63-64 Vic., chap. 8 (1900), item 12, the grant of a subsidy of \$3,200 a mile, with a further subsidy of 50 per cent on the average expenditure in excess of \$15,000 a mile, the whole subsidy not to exceed \$6,400 a mile, was authorized for a railway from Dyment, on the Canadian Pacific Railway, to the New Klondike Mining district, Ontario, not exceeding 7 miles.

The Canadian Pacific Railway Company having applied for this subsidy, a contract was entered into with them, accordingly, on August 28, 1902.

During the past fiscal year payment was made to the extent of \$22,336, the total up to June 30, 1903.

**Canadian Pacific Railway Company.**

(Waskada Branch.)

(See No. 494.)

By the Railway Subsidy Act of 1900, 62-64 Vic., chap. 8, item 19, the grant of a subsidy of \$3,200 a mile, with an addition of 50 per cent on cost in excess of \$15,000 a mile, but not exceeding in all \$6,400 a mile, was authorized for a railway from the westerly end of the Waskada branch of the Canadian Pacific Railway, Manitoba, for 20 miles further.

That company having applied for the said subsidy, a contract was entered into with them for the work on December 28, 1901, under authority of orders in council,

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dated July 6, September 11, October 3, and November 30, 1901. No portion of the subsidy was paid up to June 30, 1902.

During the fiscal year payment was made to the extent of \$50,480, the total up to June 30, 1903.

**Canadian Pacific Railway Company.**

(Pipestone Branch—Antler Station to Moose Mountain.)

(See Annual Report for 1901-02.)

**Canadian Pacific Railway Company.**

(Crow's Nest Pass Railway.)

(See No. 415.)

By the Special Act 60-61 Vic., chap. 5 (1897), authority was given for the grant to the Canadian Pacific Railway Company, of a subsidy towards the construction of a railway from Lethbridge, through the Crow's Nest Pass, to Nelson, such subsidy being to the extent of \$11,000 a mile, not exceeding in the whole \$3,630,000. A contract for this work was entered into with the company on September 6, 1897. The total distance is 342.75 miles. The road has been built and is in operation from Lethbridge to the south end of Lake Kootenay, a distance of 288.75 miles, except that at one point a temporary way will be replaced by a permanent straightened line. Of the remaining 54 miles to Nelson, the 20 miles between Nelson and Proctor are completed. During the past fiscal year the further sum of \$60,000 was paid from the subsidy, making the total payments up to June 30, 1903, \$3,404,720.

**Cap de la Madeleine Railway Company.**

(See Annual Report of 1896-97.)

**Cape Breton Railway Extension Company, Limited.**

(See Annual Report of 1895-96.)

(See No. 420.)

This company was incorporated by 62 Vic., chap. 126 (1899), of the Acts of Nova Scotia, with powers to construct a railway between Canso and Louisbourg and to construct a bridge or tunnel over or under the Straits of Canso, or to operate a ferry.

By the Nova Scotia Act of 1902, chap. 190, it was further empowered to build branches from any point on its main line or branches to any other point in the county of Cape Breton.

By the Subsidy Act of 1899, 62-63 Vic., chap. 7, the grant of a subsidy of \$3,200 a mile, with an addition of 50 per cent on the average cost in excess of \$15,000 a mile, in all not exceeding \$6,400 a mile, was authorized in aid of a railway from Port Hawkesbury, on the Strait of Canso, N.S., to St. Peter's, 30 miles.

The above company, having applied, were admitted to contract for work on September 15, 1900. During the past fiscal year payments have been made to the extent of \$65,280; the total paid up to June 30, 1903.

### **Caraquet Railway Company.**

(See Annual Report of 1888-89.)

### **Central Railway Company of New Brunswick.**

(See Nos. 40, 143, 156, 205, 353, 382 and 445.)

By the Act of 1884, 47 Vic., chap. 8, a subsidy not exceeding \$128,000 was granted in aid of the construction of about 40 miles of the Central Railway, from the head of the Grand Lake to a point on the Intercolonial Railway between Sussex and St. John, N.B.

Under the authority of an order in council of June 5, 1886, a contract was made with the Central Railway Company, on July 7, 1886, for a line from Salmon river, at the head of Grand lake, to Norton, on the Intercolonial Railway; work to be completed by July 1, 1888. Certain work has been executed, but the contract obligations had not been carried out, and no portion of the subsidy was paid. The subsidy lapsed, but was revived by the Subsidy Act, 52 Vic., chap. 3 (1889).

On December 1, 1890, a new contract was made with the company for this work under the Subsidy Act of 1899, the limit of subsidy being \$128,000; this contract covered also a subsidy for 4½ miles, the limit of which was \$14,400, authorized by the Act 53 Vic., chap. 2, making a total subsidy of \$142,400; the total length of road subsidized being 44½ miles. The date for completion was fixed as December 1, 1891.

By the Act 51 Vic., chap. 3, a grant as a subsidy to this company was authorized of used iron rails to the value \$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 November 15, 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 October 18, 1889, authorized the transfer of the rails to the company.

By the Subsidy Act of 1894, 57-58 Vic., chap. 4, the grant of a subsidy not exceeding \$48,000 to this company was authorized for 15 miles of their railway from Chipman station to the Newcastle coal fields, and a contract for the work was made with the company on September 7, 1895.

By the Subsidy Act 60-61 Vic., chap. 4 (1897), the subsidy of 1894 for the said 15 miles was, in effect, revoked, with addition of 50 per cent of cost over \$15,000 a mile, the total subsidy not to exceed \$6,400 a mile.

The Subsidy Act 62-63 Vic., chap. 7 (1899), authorized the grant of a subsidy of \$3,200 a mile, with an addition of 50 per cent of cost over \$15,000 a mile, the total subsidy not to exceed \$6,400 a mile, for an extension from Newcastle coal fields to Gib-

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son, 30 miles. An agreement was entered into with the company for this work on February 8, 1900.

Up to the end of the fiscal year 1898-99 there had been paid, including the value of the said rails, the sum of \$226,012.54. No further payments have been made up to June 30, 1903.

**Central Ontario Railway Company.**

(See Annual Report for 1900-01.)

**Chateaugay and Northern Railway Company.**

(See Nos. 507, 508, 509.)

This company was incorporated by the Quebec Act of 1895 (1), chap. 64, its powers of construction being modified by the Act chap. 75 of 1896.

By the Dominion Subsidy Act of 1900, 63-64 Vic., chap. 8, the grant to this company of a subsidy of \$3,200 a mile, with an addition of 50 per cent on the cost in excess of \$15,000 a mile, not exceeding in all \$6,400 a mile, was authorized for 42 miles of a railway from a point in Hochelaga ward, Montreal, to a point on the Great Northern Railway in or near the town of Joliette, with a spur into the town.

The company were admitted to contract for this work on January 19, 1901.

On the same date they were admitted to contract for two other works, specially subsidized by the same Act, viz., for a railway, vehicular, and foot-passenger bridge from Bout de L'Isle to Charlemagne, at the junction of the Rivers Ottawa and St. Lawrence, \$150,000, and for a bridge across the Lac Ouarean river, \$15,000. No portion of these three subsidies has been paid up to June 30, 1903.

**Chatham Branch Railway Company.**

(See Annual Report of 1893-94.)

**Chignecto Marine Transport Company.**

(See Annual Report for 1894-95.)

**Coast Railway Company of Nova Scotia.**

(Now the Halifax and Yarmouth Railway Company.)

(See No. 403.)

This company was incorporated by the Provincial Act of Nova Scotia, 56 Vic., chap. 154 (1893), to build a line of railway from Yarmouth to Lockeport; a subsequent Act, 59 Vic., chap. 103 (1896), extending its powers.

By the Dominion Subsidy Act, 60-61 Vic., chap. 4 (1897), the grant of a subsidy to this company for 61 miles of their railway from Yarmouth to Port Clyde was authorized, the amount being \$3,200 a mile, with an addition of 50 per cent on the cost in excess of \$15,000 a mile, the whole subsidy not to exceed \$6,400 a mile.

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The company were admitted to contract on August 26, 1897, the road to be completed by September 1, 1899.

During the year 1897-98 they were paid the sum of \$90,400.

**Compagnie du Chemin de fer de Colonisation du Nord.**

(See No. 451.)

This company was incorporated by the Dominion Act 62-63 Vic., chap. 62 (1899), with powers to construct and operate a railway from a point in or near Labelle, in the County of Labelle, Quebec, and passing within a mile of the parish church of L'Annonciation, in the township of Marchand, in the said county, and within a mile of the parish church in the village of Nominingue, in the township of Loranger, and within a mile of the village of Rapide de L'Original, in the townships of Robertson and Campbell, and thence in a westerly direction to a point at or near Lake Temiscamingue in the county of Pontiac.

By the Railway Subsidy Act 62-63 Vic., chap. 7 (1899), item 37, the grant of a subsidy of \$3,200 a mile, with a further subsidy of 50 per cent on the average expenditure in excess of \$15,000 a mile, the whole subsidy not to exceed \$6,400 a mile, was authorized for a railway for a distance not exceeding 22 miles from Labelle in a north-westerly direction, to Nominingue, via Notre Dame de l'Annonciation.

The company having applied for this subsidy, a contract was entered into with them, accordingly, on July 8, 1902.

No payments have been made up to June 30, 1903.

**Cobourg, Northumberland and Pacific Railway Company.**

(See Annual Report for 1900-01.)

**Columbia and Kootenay Railway and Navigation Company.**

*(Leased to the Canadian Pacific Railway Company.)*

(See Annual Report for 1891-92.)

**Cornwallis Valley Railway Company.**

(See Annual Report for 1891-92.)

**Cumberland Railway and Coal Company.**

(See Annual Report for 1894-95.)

**Dominion Atlantic Railway Company.**

(See Western Counties Railway Company.)

**Dominion Eastern Railway Company.**

(See Annual Report for 1900-01.)

**Dominion Lime Company.**

(See Annual Report for 1888-89.)



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**Dominion Coal Company.**

(See Annual Report for 1895-96.)

**Drummond County Railway Company.**

(See Annual Report of 1900-01.)

**East Richelieu Valley Railway Company.**

(See Annual Report of 1888-89.)

**Elgin, Petitediac and Havelock Railway Company.**

(See Annual Reports for 1885-86 and 1890-91.)

**Erie and Huron Railway Company.**

(See Annual Report for 1886-87.)

**Esquimalt and Nanaimo Railway Company.**

(See Annual Report for 1886-87.)

**Fredericton and St. Mary's Bridge Company.**

(See Annual Report of 1888-89.)

**Grand Trunk, Georgian Bay and Lake Erie Railway Company.**

(See Annual Report for 1893-94.)

**Grand Trunk Railway Company.**

(See Annual Report of 1900-01.)

**Great Eastern Railway Company.**

(See Annual Report for 1896-97.)

**Great Northern Railway of Canada (formerly the Great Northern Railway Company).**

(Name changed by the Act 62-63 Vic., chap. 67, 1899.)

(See Nos. 33, 37, 72, 79, 154, 215, 231, 305, 309, 346, 371, 380, 405, 407, 413, 416.)

By the Act 47 Vic., chap. 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 ten miles.

Under the authority of an Order in Council of February 3, 1885, a contract for the work was entered into with the company on the 14th of that month, the road to be completed by July 1, 1885.

The line was duly completed and inspected. Under an Order in Council of March 2, 1885, payment was made therefor, namely, 7'84 miles, \$25,088.

By the Act 49 Vic., chap. 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 July 18, 1887, which also approved of the location. The contract was made on August 19, 1887, the road to be completed by August 1, 1890.

By the Act 49 Vic., chap. 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., chap. 3, and under date October 8, 1890, a contract was entered into with them for the work, calling for completion by August 1, 1891. The road was built and allowed to be opened for public traffic in January, 1892.

By the Act 53 Vic., chap. 2 (1890), the grant of a subsidy was authorized, limited to \$48,000, for a line from, at or near Montcalm to the Canadian Pacific Railway, between Joliette and St. Félix de Valois, 15 miles.

By the Act 54-55 Vic., chap. 2 (1891), the unpaid balance, \$28,100 of the subsidy granted in 1886, was revoked.

By the Act 56 Vic., chap. 8 (1893), the unpaid balance, \$25,600 of the subsidy granted in 1891, was revoked, and a new contract for this work was entered into with the company on June 16, 1894.

Also, by the same Act, the subsidy, not exceeding \$48,000, granted to the company for 15 miles of their railway from Montcalm to the Canadian Pacific Railway, between Joliette and St. Félix de Valois, by 53 Vic., chap. 2, was revoked, and a contract for this work was entered into with them on June 16, 1894.

By the Subsidy Act, 57-58 Vic., chap. 4 (1894), the grant to this company of a subsidy, limited to \$96,000, was authorized for 30 miles of railway from a junction with the Lower Laurentian Railway near St. Tite, westwards, in lieu of a subsidy previously granted to the Maskinongé and Nipissing Railway Company. A contract was entered into with the company for this work on September 16, 1895, the railway to be completed by November 30, 1896.

By the Subsidy Act, 60-61 Vic., chap. 4 (1897), payment was authorized of unpaid balances for 67 miles of railway, between Montcalm and the junction with the Lower Laurentian Railway near St. Tite, not exceeding \$182,400; also a subsidy of 15 per cent, not exceeding \$52,500, of the cost of a bridge over the River Ottawa at Hawkesbury. Also, for 9 miles shortage in distance between Montcalm and St. Tite; also, for 35 miles from St. Jérôme to Hawkesbury; the last two being subsidies of \$3,200 per mile with 50 per cent of expenditure in excess of \$15,000 per mile, the total not to exceed \$6,400 per mile. Under this Act, an agreement was entered into with the company on September 5, 1898, for the construction of the 67 miles and the 9 miles mentioned, and an agreement under the same Act was made with them on October 12, 1899, for the construction of the 35 miles from St. Jérôme to Hawkesbury.

By the Subsidy Act, 62-63 Vic., chap. 7 (1899), the grant of a subsidy for 53½ miles of the company's railway between Montcalm and St. Tite Junction was author-

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ized; also for a branch from their main line to Shawenegan Falls, 6½ miles, such subsidies being of \$3,200 a mile with an addition of 50 per cent of cost in excess of \$15,000 a mile, the whole subsidy not to exceed \$6,400 a mile.

The company were admitted to contract for the above by two separate agreements, that for the branch being dated July 4, 1900, and that for the railway between Montcalm and St. Tite Junction on the 26th of that month.

By the Subsidy Act, 62-63 Vic., chap. 7 (1899), authority was given for the grant of aid to this company towards the construction of three bridges to the extent of 15 per cent of the amount expended; such subsidies being limited as follows:—

For the bridge across River St. Maurice.....	\$16,425
“                  “          du Loup.....	15,000
“                  “          Maskinongé.....	15,000

Contracts in respect of all three bridges were made with the company under date December 21, 1899.

Under date February 28, 1900, a subsidy contract was made with the company for the construction of a bridge across the River Ottawa at Hawkesbury, the subsidy, limited to \$52,500, being that authorized by the Act 60-61 Vic., chap. 4 (1897). The line as subsidized and either built or under construction extends from Hawkesbury to St. Tite Junction with the Lower Laurentian Railway, a distance of 225 miles, passing through Grenville, Lachute, St. Jérôme, New Glasgow, Montcalm, Joliette and St. Boniface. The section between St. Jérôme and Montcalm, 27.84 miles, and 20 miles westward from St. Tite to St. Boniface, on all of which the subsidy was \$3,200 a mile, making a total of \$153,088, have been built and paid for; also a short line, 6.75 miles from Lachute to St. Andrews, the subsidy for which amounted to \$21,600.

During the past fiscal year, subsidy was paid for this work to the extent of \$37,777.20, making the total payments up to June 30, 1903, \$557,788.31.

#### **Gulf Shore Railway Company of New Brunswick.**

(See Annual Report for 1899-1900.)

#### **Guelph Junction Railway Company.**

(See Annual Report of 1888-89.)

#### **Halifax and Yarmouth Railway Company.**

(Formerly the Coast Railway Company of Nova Scotia, which see.)

(Name changed by Nova Scotia Statute of 1899, Chap. 125.)

(See No. 520.)

By the Subsidy Act of 1901, chap. 7, item 5, the grant of aid was authorized for a line of railway from Pubnico, N.S., to Port Clyde or Clyde river, \$3,200 per mile, not exceeding 31 miles with an addition of 50 per cent on an average expenditure in excess of \$15,000 per mile, the subsidy not exceeding in the whole \$6,400 per mile.

This was in lieu of the unexpended balance of the subsidy granted in 1897 (see Coast Railway Company of Nova Scotia.)

The company having applied were admitted to contract on March 1, 1903.

During the past fiscal year payment of subsidy was made to the extent of \$60,000, making with subsidy previously paid, a total of \$150,400.

**Harvey Branch Railway Company.**

(See Annual Report of 1889-90.)

**Hereford Railway Company (formerly Hereford Branch Railway Company).**

(See Annual Report of 1891-92.)

**International Railway Company.**

(See Annual Reports of 1887-88 and 1889-90.)

**Inverness and Richmond Railway Company.**

(See Nos. 208, 357 and 400.)

This company was incorporated by the Act of the province of Nova Scotia, 50 Vic., chap. 60 (1887), with powers for the construction of a line of railway between Hawkesbury and a point in the district of Margaree. By the Act of 1888, chap. 79, the location of the line was authorized as from Port Hawkesbury, through Port Hastings, Judique, Port Hood, Mabou and Margaree, to a point at Eastern Harbour, Cheticamp.

By the Subsidy Act, 57-58 Vic., chap. 4 (1894), assistance to the extent of \$80,000 was authorized for 25 miles of railway from Port Hawkesbury towards Cheticamp, and the above company was admitted to contract for the work on November 23, 1894.

By the Subsidy Act of 1897, 60-61 Vic., chap. 4, in lieu of the subsidy granted in 1894, a subsidy of \$3,200 a mile with an addition of 50 per cent on expenditure in excess of \$15,000 a mile, such subsidy in all not to exceed \$6,400 a mile, was authorized for a railway from Port Hawkesbury to Port Hood and Broad Cove, 53 miles, and the company was admitted to contract thereunder on April 29, 1898.

The sum of \$91,775.53 was paid during the past fiscal year, making the total payments \$311,375.53 up to June 30, 1903.

**Irondale, Bancroft and Ottawa Railway Company.**

(See Annual Report for 1900-01.)

**Joggins Railway Company.**

(See Annual Report for 1891-92.)

**Kingston, Napanee and Western Railway Company.**

(See Napanee, Tamworth and Quebec Railway.)

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**Kingston and Pembroke Railway Company.**

(See Annual Report for 1884-85.)

**Kootenay and Arrowhead Railway Company.**

(See No. 543.)

This company was incorporated by the Act 1 Ed. VII., chap. 70 (1901), with powers to construct a railway from a point at or near Lardo, near the head of Kootenay lake, to a point at or near Duncan; thence north-westerly to Arrowhead on Arrow lake, B.C., together with such branch lines, none to exceed 30 miles, as may be authorized by the Governor in Council. The company were empowered to lease or sell their works to certain companies named, including the Canadian Pacific Railway Company.

On August 15, 1901, this railway was leased to the Canadian Pacific Railway Company for a term of 999 years. The leasing was approved by an Order in Council of June 29, 1903.

By the Subsidy Act of 1901, chap 7, item 28, the grant of a subsidy of \$3,200 a mile, with an addition of 50 per cent on cost in excess of \$15,000 a mile, limited to \$6,400 in all, was authorized for a railway from Duncan lake towards Lardo or Arrow lake, B.C., or from Lardo to Arrow lake, not exceeding 30 miles.

The company having applied for this subsidy, a contract was entered into with them for the work on August 26, 1901, under authority of Orders in Council of June 8 and July 6, 1901; the time for completion being fixed as August 1, 1903. The road was built from Lardo to Trout lake, 33 miles, and was inspected in June, 1902, with a view to its being opened for public traffic.

During the past fiscal year payments have been made to the extent of \$42,771, this being the total paid up to June 30, 1903.

**Lake Erie and Detroit River Railway Company.**

Formerly 'the Lake Erie, Essex and Detroit Railway Company.' Name changed by Dominion Act, 54-55 Vic., chap. 88 (1891).

(See Annual Report for 1901-02.)

**L'Assomption Railway Company.**

(See Annual Report of 1886-87.)

**Leamington and St. Clair Railway Company.**

(See Annual Report of 1888-9.)

**Lake Temiscamingue Colonization Railway Company.**

(See Annual Report of 1896-7.)

**Laurentian Railway Company.**

(See St. Lawrence, Lower Laurentian and Saguenay Railway Company.)

**Lotbinière and Megantic Railway Company.**

(See Annual Report of 1896-7.)

**Massawippi Valley Railway Company.**

(See Annual Report for 1900-01.)

**Maganetawan River Railway Company.**

This company was incorporated by the Act 1 Edward VII. (Ontario), chap. 83 (1901), with powers to construct a railway between a point in or near the village of Burk's Falls, in the district of Parry Sound, and a point on the Maganetawan river, in the said district of Parry Sound, where the said river is navigable for vessels.

By the Railway Subsidy Act, 1 Edward VII., chap. 7 (1901), item 22, the grant of a subsidy of \$3,200 a mile, with a further subsidy of 50 per cent on an average expenditure in excess of \$15,000 a mile, the whole subsidy not to exceed \$6,400, was authorized for a line of railway from a point on the Grand Trunk Railway at or near Burk's Falls, Ontario, to the Maganetawan river, not exceeding two miles.

The company having applied for this subsidy, a contract was entered into with them, accordingly, on March 19, 1903.

During the past fiscal year there was paid the sum of \$3,552, the total payments up to June 30, 1903.

**Manitoulin and North Shore Railway Company.**

(See No. 481.)

This company was incorporated by the Dominion Act of 1900, chap. 64, 63-64 Vic., with powers to construct a line of railway from Little Current, Manitoulin Island, to a point 100 miles northerly, crossing the Canadian Pacific Railway at or near Onaping or Cartier stations; also from a point in or near the township of Drury or Hyman, on its said line, easterly to Sudbory, also from a point at or near Little Current, south-easterly to the south shore of Manitoulin Island, or Fitzwilliam Island, and from a point near Tobermoray to Meaford, passing through Warton and Owen Sound; also with powers for dock construction, ferry operation, and electric power production.

By the Subsidy Act of 1900, chap. 8, item 6, aid was authorized towards the construction of 66 miles of the company's railway from Little Current to Sudbory; the company to construct a bridge between Little Current and the main land, with free provision for vehicular and passenger traffic.

By the Act of 1901, section 5, work under the foregoing subsidy was allowed to be carried on in two sections, the first beginning at Victoria Mines and extending to Sudbory and thence to Lake Wahnapiatae, not exceeding 33 miles, the second beginning at Little Current and extending to and connecting with the Canadian Pacific Railway at or near Stanley, not exceeding 31 miles.

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Under date of May 15, 1902, a contract was entered into with the company under the above subsidy for a railway from Victoria Mines to Sudbury and thence to Lake Wahnapiatae.

During the past fiscal year there was paid the sum of \$32,000, the total payments up to June 30, 1903.

**Middleton and Victoria Beach Railway Company.**

(See Nos. 503 and 536.)

This company was incorporated by the statute of Nova Scotia, 60 Vic., chap. 82 (1897), as 'the Granville and Victoria Beach Railway and Development Company,' with powers to build a line of railway from some point on the Dominion and Atlantic Railway at or near Bridgetown, through Granville, to some point at or near Victoria Beach on the Annapolis Basin, with approved branches, &c. This Act was revived by the Act of 1899, chap. 129. It was further revived by the Act of 1901, chap. 160, and extended for six years; the name being changed to the 'Middleton and Victoria Beach Company.'

By the Railway Subsidy Act of Canada, 63-64 Vic., chap. 8, item 28, the grant of a subsidy of \$3,200 a mile, with a further subsidy of 50 per cent on cost in excess of \$15,000 a mile, not exceeding in all \$6,400 a mile, was authorized for 30 miles of a railway from Bridgetown to Victoria Beach, Nova Scotia.

The above company having applied, they were admitted to contract for the work on May 5, 1902, under authority of an Order in Council of April 1, the railway to be completed by December 1, 1903.

By the Subsidy Act of 1901, chap. 7, item 21, a similar subsidy was authorized to be granted for an extension from Bridgetown to Middleton, not exceeding 11 miles, and the company having applied for it, a contract was made with them, accordingly, on May 5, 1902, under authority of an order in council of April 1, the work to be completed by December 1, 1903.

No portion of these subsidies has been paid up to June 30, 1903.

**Midland Railway Company.**

(See Nos. 336, 421, 427.)

This company was incorporated by the Act of the province of Nova Scotia, 59 Vic., chap. 85 (1896), with powers to build a railway from Windsor to a point at or near Maitland, then, via Clifton, to a point between Truro and Stewiacke, on the Intercolonial; thence to Eastville; with extensions and branches to coal and iron fields, and shipping ports.

By the Dominion Subsidy Act, 57-58 Vic., chap. 4 (1894), authority was given for the grant of a subsidy of \$3,200 per mile for 90 miles of railway from Newport or Windsor to Truro, or to a point between Truro and Stewiacke, and from a point on the said railway to a point at or near Eastville, and from Eastville, through the valley of Musquodoboit river, towards a point on the Dartmouth branch of the Intercolonial,

in lieu of a subsidy authorized in 1892; also for a railway bridge over the River Shubenacadie, a subsidy of 15 per cent on the value of the structure; the total of the subsidies not to exceed \$300,000.

The Midland Railway Company having applied, were admitted to contract for these works on July 30, 1896.

By the Subsidy Act, 62-63 Vic., chap. 7 (1899), in lieu of the foregoing, there was authorized a grant of \$3,200 per mile, with a further grant of 50 per cent on cost in excess of \$15,000 per mile, up to a limit of \$6,400 per mile, for a railway from Windsor, N.S., to Truro via Clifton; and the Midland Railway Company having applied for it they were admitted to contract on December 7, 1899.

The sum of \$190,186.30 was paid during the past fiscal year, making the total payments \$360,450.30 up to June 30, 1903.

#### **Montfort and Gatineau Colonization Railway Company.**

(See No. 506.)

This company was incorporated under the name of 'Montfort Colonization Railway Company,' by the Act 53 Vic., chap. 107 (Quebec) (1890); the name was changed by the Dominion Act 61 Vic., chap. 75 (1898), which declared the undertaking to be a work for the general advantage of Canada, and gave powers for an extension of the railway from Rivière Rouge to some point on the Ottawa and Gatineau Railway (now the Ottawa Northern and Western) in the county of Wright.

By the Railway Subsidy Act of 1900, 63-64 Vic., chap. 8, item 31, the grant of a subsidy of \$3,200 a mile, with a further subsidy of 50 per cent on average expenditure in excess of \$15,000 a mile, the whole subsidy not to exceed \$6,400 was authorized for a railway from Arundel to a point in the municipality of the united townships of Preston and Hartwell, Quebec, not exceeding 30 miles.

The company having applied for this subsidy, a contract was entered into with them, accordingly, on July 30, 1902.

No payments have been made on this subsidy up to June 30, 1903, but payments were made to the Montfort Colonization Railway Company up to June 30, 1899, to the extent of \$167,440, under previous subsidies granted.

#### **Montfort Colonization Railway Company.**

(See Annual Report of 1900-01.)

#### **Montreal and Champlain Junction Railway Company.**

(See Annual Report for 1892-93.)

#### **Montreal and Lake Maskinongé Railway Company.**

(See Annual Report for 1890-91.)

#### **Montreal and Sorel Railway Company.**

(See Annual Report for 1892-93.)



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**Montreal and Western Railway Company.**

(See Annual Report for 1893-94.)

**Montreal and Ottawa Railway Company.***(Formerly the Vaudreuil and Prescott Railway Company. Name changed by 53 Vic., ch. 58.)*

(See Annual Report for 1898-99.)

**Montreal and Province Line Railway Company.**

(See Annual Report for 1901-02.)

**Napanee, Tamworth and Quebec Railway Company.***(Name changed to the Kingston, Napanee and Western Railway Company by the Act 53 Vic., ch. 62.)*

(See Annual Report for 1895-96.)

**Nakusp and Slocan Railway Company.**

(See Annual Report for 1894-95.)

**New Brunswick and Prince Edward Island Railway Company.**

(See Annual Report for 1888-89.)

**New Brunswick Coal and Railway Company.**

(See No. 522.)

This company was incorporated by the Act 1 Edward VII., chap. 77 (New Brunswick), with powers to construct a line of railway from Chipman to Gibson, with the right to build branches thereto and connecting with any railway or railways in New Brunswick.

By the Subsidy Act of 1901, 1 Edward VII., chap. 7, item 7, the grant of a subsidy of \$3,200 a mile, with a further subsidy of 50 per cent on average expenditure in excess of \$15,000 a mile, the whole subsidy not to exceed \$6,400, was authorized for a line of railway from Chipman station, New Brunswick, to Gibson, in lieu of the subsidies granted by 1897, chap. 4, and 1899, chap. 7, sec. 2, item 31, not exceeding 45 miles.

The company having applied for this subsidy, a contract was entered into with them, accordingly, on June 30, 1902.

No payments have been made up to June 30, 1903.

**New Glasgow Iron, Coal and Railway Company.**

(See Annual Report of 1895-96.)

**Northern and Pacific Junction Railway Company.**

(See Annual Report of 1890-91.)

**Northern and Western Railway Company.**

(See Annual Report of 1889-90.)

(Also under the head 'Canada Eastern Railway' in Annual Report of 1894-95.)

**Nova Scotia Central Railway Company.**

(See Annual Report for 1898-99.)

**Nova Scotia Eastern Railway Company.**

This company was incorporated by the Act 1 Edward VII., chap. 130 (Nova Scotia), with powers to construct a line of railway from a point on the Intercolonial Railway at or near New Glasgow, in the county of Pictou, and passing through the counties of Pictou and Guysborough, to the deep waters of Country Harbour, in the county of Guysborough, and from the Cross Roads, Country Harbour, in the said county of Guysborough, to a point at or near the town of Guysborough, and thence to a point on the Strait of Canso, in the said county of Guysborough, and such other lines as may become feeders for the main trunk line above described.

By the Subsidy Act of 1901, 1 Edward VII., chap. 7, item 1, the grant of a subsidy of \$3,200 a mile, with a further subsidy of 50 per cent on average expenditure in excess of \$15,000 a mile, the whole subsidy not to exceed \$6,400, was authorized for a line of railway from a point on the Intercolonial Railway, at or near New Glasgow to Country Harbour, and from a point at or near Country Harbour Cross Roads to Guysborough, in lieu of the subsidies granted by 1897, chap. 4, and 1899, chap. 7, sec. 2, item 34, not exceeding 80 miles.

The company having applied for this subsidy, a contract was entered into with them, accordingly, on February 19, 1903.

No payments have been made up to June 30, 1903.

**Nova Scotia Southern Railway Company.**

(See Annual Report for 1896-97.)

(See No. 431 and 432.)

No payments were made to this company under the subsidies previously granted, which lapsed; and in 1899, by the Subsidy Act of that year, 62-63 Vic., chap. 7, the grants of the following were authorized, viz.: For a railway from a point on the Central Railway in the county of Lunenburg, N.S., to the town of Liverpool, via the village of Caledonia, or to the village of Caledonia via Liverpool, or for any part thereof, the whole distance not exceeding 62 miles; also for a railway from Indian Gardens, Queen's County, N.S., to Shelburne, 35 miles. In each case the subsidy was \$3,200 a mile, with an addition of 50 per cent of cost in excess of \$15,000 a mile, but not exceeding in all \$6,400 a mile.

The above company having applied, were admitted to contract under both subsidies, the two agreements being dated January 27, 1900.

No payments have been made up to June 30, 1903.

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**Ontario and Pacific Railway Company.**

(Name changed to **Ottawa and New York Railway Company**, by 60-61 Vic., ch. 57, 1897.)

(See Annual Report for 1901-02.)

**Ontario and Quebec Railway Company.**

(See West Ontario Pacific Railway Company, and Annual Report for 1891-92.)

**Ontario and Rainy River Railway Company.**

(Amalgamated with and under the name of the **Canadian Northern Railway Company** under the Act 62-63 Vic., ch. 80.)

(See Nos. 390, 433, 444 and 466.)

This company (incorporated by the Ontario Act, 49 Vic., chap. 75, with powers to construct a railway from the town of Port Arthur to Rainy river and certain branches, was declared to be a work for the general advantage of Canada by the Dominion Act, 54-55 Vic., chap 82 (1891), which also extended the time for completion to August, 1898, and ratified agreements made by the company for running powers over the line of the Port Arthur, Duluth and Western Railway Company; it further gave powers for the construction of a bridge across Rainy river. By the Act 61 Vic., chap. 81, the company were empowered to construct their railway either from Port Arthur or from a point on the Port Arthur, Duluth and Western Railway to a point on the boundary between the provinces of Ontario and Manitoba, and the time for completion of their works was extended.

By the Subsidy Act, 60-61 Vic., chap. 4 (1897), a subsidy to this company was authorized towards the construction of 80 miles of their railway from the Port Arthur, Duluth and Western Railway to Rainy lake, namely, \$3,200 a mile, with an addition of 50 per cent, limited to \$3,200 a mile, on the cost in excess of \$15,000 a mile. This subsidy was definitely increased to \$6,400 a mile by the Subsidy Act, 62-63 Vic., chap. 7 (1899).

The company were admitted to contract under these two subsidies by agreements dated July 29, 1899, and April 21, 1900, respectively.

By the Subsidy Act, 62-63 Vic., chap 7 (1899), authority was given for the grant to this company of a subsidy of \$6,400 a mile, for 140 miles of railway from a point 80 miles west of Stanley station, on the Port Arthur, Duluth and Western Railway, to Fort Frances. The company were admitted to contract thereunder on February 14, 1900.

By the same Act the grant of a subsidy was authorized for 70 miles of railway from Fort Frances to or near the mouth of Rainy river. This company applied and were admitted to contract thereunder on February 14, 1900. By a special covenant in this contract they waived claim to any subsidy for this 70 miles in excess of \$3,200 a mile.

Under authority of the Act 62-63 Vic., chap 80 (1899), the company was amalgamated with, and under the name of, the Canadian Northern Railway Company, the

agreement in this regard being approved by an order in council of May 4, 1900. The Canadian Northern Railway Company was formed by the amalgamation of the Winnipeg Great Northern Railway Company and the Lake Manitoba Railway and Canal Company under the Act 61 Vic., chap. 70 (1898), the agreement for that purpose being approved by an order in council of January 13, 1899. With the same company there is also amalgamated the Manitoba and South Eastern Railway Company under the Act 62-63 Vic., chap. 75 (1899), the agreement to that effect being approved by an order in council of May 2, 1900. The above railways are comprised in the Canadian Northern Railway system and under the name of that company.

During the past fiscal year payments of subsidies have been made to the extent of \$57,485, making the total amount paid up to June 30, 1903, \$1,534,976.

#### **Ontario, Belmont and Northern Railway Company.**

(See Annual Report for 1896-97.)

#### **Orford Mountain Railway Company.**

(See Annual Reports for 1893-94 and 1894-95.)

#### **Ottawa and New York Railway Company.**

(See Ontario and Pacific Railway Companies.)

#### **Ottawa, Arnprior and Parry Sound Railway Company.**

(Now the **Canada Atlantic Railway Company**, by amalgamation, under the Act 62-63 Vic., ch. 81, 1899.)

(See Annual Report for 1898-99.)

#### **Ottawa and Gatineau Valley Railway Company.**

(Name changed to the **Ottawa and Gatineau Railway Company**, by the Act 57-58 Vic., ch. 87, which consolidated and amended Acts relating to the company.

(Name further changed to the **Ottawa Northern and Western Railway Company**, by the Act 1 Edw. VII., ch. 80.)

(See Nos. 8, 26, 58, 151, 305, 349, 379, 409, 414, 492 and 453.)

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 year), 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., chap. 3 (1889).

Under authority of an order in council of July 10, 1889, a contract with the company for the work in question, 62 miles, was signed on August 19, 1889.

By the Subsidy Act, 56 Vic., chap. 2 (1893), the unpaid balance, \$89,248, was revoked.

By the Subsidy Act, 57-58 Vic., chap. 6 (1894), authority was given for subsidizing, to the extent of \$64,000, a further distance of 20 miles from the end of the 62 miles already subsidized, and a contract for the work was entered into with the company on October 7, 1895.

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By the Subsidy Act, 60-61 Vic., chap. 4 (1897), in lieu of this subsidy, the said 20 miles was subsidized to the extent of \$3,200 per mile, with a further subsidy of 50 per cent of the expenditure in excess of \$15,000 a mile; the total subsidy not to exceed \$6,400 a mile.

The company were admitted to contract under this subsidy on July 29, 1899.

By the Subsidy Act, 60-61 Vic., chap. 4 (1897), the unpaid balance, \$35,872, of the vote of 1893 was revoked, and a contract was made with the company thereunder on July 29, 1899.

The total payments up to June 30, 1894, amounted to \$284,128.

Under dates September 21, 1899, and November 26, 1900, contracts were entered into for the construction, under subsidy, of a bridge across the River Ottawa at Ottawa, being made with this company conjointly with the Pontiac Pacific Junction Railway Company. This bridge was completed, and payment of the full amount of the subsidy was made during the fiscal year 1900-01. (See Pontiac Pacific Junction Railway in Annual Report for 1900-01.)

By the Subsidy Act of 1899, chap. 7, item 39, the grant of aid to the extent of \$3,200 a mile, with 50 per cent additional on excess cost over \$15,000 a mile, was authorized for the company's railway through Hull, not exceeding 4 miles.

A contract for the work was made on February 15, 1902, and the road being built the subsidy for the actual distance, 1.28 miles, connecting the old Gatineau Valley Railway with the approach to the bridge across the River Ottawa, was paid during that fiscal year, namely, \$8,192, making the total payments to this company on subsidy account, \$292,320, up to June 30, 1902.

No further payments have been made during the past fiscal year.

#### **Ottawa Northern and Western Railway Company.**

(See Ottawa and Gatineau Valley Railway Company, and Pontiac Pacific Junction Railway Company.)

#### **Oshawa Railway and Navigation Company.**

(Name changed to the **Oshawa Railway Company**, by 54-55 Vic., ch. 91.)  
(See Annual Report for 1895-96.)

#### **Parry Sound Colonization Railway Company.**

(See Annual Report for 1895-96.)

#### **Pembroke Southern Railway Company.**

(See Annual Report for 1899-1900.)

#### **Philipsburg Junction Railway and Quarry Company.**

(See Annual Report for 1894-95.)

(Now the **Philipsburg Railway and Quarry Company**. Name changed by 58 Vic., ch. 65, 1895.)

(See Annual Report for 1899-1900.)

**Port Arthur, Duluth and Western Railway Company.**  
*(Formerly the Thunder Bay Colonization Railway Company.)*

(See Annual Report for 1892-93.)

**Pontiac and Renfrew Railway Company.**

(See Annual Report for 1899-1900.)

**Pontiac Pacific Junction Railway Company.**

(See Annual Report for 1900-01.)

**Quebec Bridge Company.**

(See No. 467.)

This company was incorporated by the Dominion Act, 50-51 Vic., chap. 98 (1887), with powers to construct a railway bridge over the River St. Lawrence near Quebec and to arrange the same for the use of foot passengers and vehicles, and to construct and operate lines of railway to connect with existing or future lines of railway on each side of the river.

By the Act 60-61 Vic., chap. 69 (1897), the powers of the company were revived, and the time for construction was extended to June 29, 1902.

By the Act 63-64 Vic., chap. 115 (1900), the time for completion was extended to June 14, 1905, and the company were further empowered to arrange for the placing of electric wires on the bridge and connecting railways, and for the passage of electric street railway or tram cars.

By the Railway Subsidy Act, 62-63 Vic., chap. 7 (1899), the grant of a subsidy to this company of \$1,000,000 was authorized for a railway bridge over the River St. Lawrence at Chaudière basin, and by the Act of 1900, chap. 8, clause 10, it was made applicable, one-third to the substructure and approaches, and two-thirds to the superstructure.

On November 12, 1900, the company were admitted to contract for this subsidy work.

The site and plans of the bridge were approved by the Railway Committee of the Privy Council, and by an order in council dated May 16, 1898.

The structure is to be a cantilever bridge, composed of two approach spans of 220 feet each, two anchor spans of 500 feet each, and a centre span of 1,800 feet from centre to centre of the piers. The under side of the bridge will give a height of 150 feet above high water. The pneumatic system is adopted in the construction of the piers. When completed, it will comprise a double track railroad, two lines for electric tramways, and two ordinary roads for vehicles and foot passengers.

During the past fiscal year subsidy to the extent of \$132,353.33 was paid, making a total of \$374,353.33 up to June 30, 1902.

**Quebec and New Brunswick Railway Company.**

This company was incorporated by the Act (1900) 63-64 Vic., chap. 75, with powers to construct a railway from Connor station on the St. Francis Branch of the

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Temiscouata Railway (New Brunswick) to a point on the Intercolonial Railway at or near St. Charles Junction, or a point on the Quebec Central Railway at or near St. Anselme, or a point on the Grand Trunk Railway at or near Chaudière Junction (Quebec) a distance of about one hundred and thirty miles.

By the Railway Subsidy Act of 1901, 1 Edward VII., chap. 7, item 2, the grant of a subsidy of \$3,200 a mile, with a further subsidy of 50 per cent on an average expenditure in excess of \$15,000 a mile, the whole subsidy not to exceed \$6,400, was authorized for a railway from a point at or near St. Charles or at or near Chaudière Junction or a point on the Quebec Central Railway, near St. Anselme, towards the present terminus of the St. Francis Branch of the Temiscouata Railway, not exceeding 45 miles, and for a line of railway from the mouth of the St. Francis river, New Brunswick, westerly towards Chaudière Junction, not exceeding 15 miles, in lieu of the subsidy granted by 1900, chap. 8, sec. 2, item 23; also for a line of railway in extension of the St. Francis Branch of the Temiscouata Railway to the mouth of the St. Francis river, New Brunswick, in lieu of the subsidy granted by 1899, chap. 7, sec. 2, item 43, not exceeding 3 miles; in all not exceeding 65 miles.

The company having applied for this subsidy, a contract was entered into with them, accordingly, on August 25, 1902.

No payments have been made up to June 30, 1903.

**Quebec Central Railway Company.**

(See Annual Report of 1895-96.)

**Quebec and Lake St. John Railway Company.**

(See Annual Report of 1895-96.)

**Quebec, Montmorency and Charlevoix Railway Company.**

(See Annual Report for 1894-95.)

**Red Deer Valley Railway and Coal Company.**

(See Land Subsidies No. 26.)

This company was incorporated by the Act 52 Vic., chap 52 (1889), with powers to build a railway from a point near the town of Calgary, in the district of Alberta, N.W.T., in a north-easterly direction to a point on Red Deer river in township 32, range 21 west of the 4th principal meridian; also from, at or near Cheadle station, on the Canadian Pacific Railway, in a northerly direction to a point of junction with the line from Calgary, in or near township 26, range 25, west of the 4th principal meridian, together with certain branches. By the Company's Act of 1897, chap. 60, time was extended, and they were permitted to build from a point on the Calgary and Edmonton Railway in place of from Cheadle. By their Act of 1900, chap. 77, the company were allowed till January 1, 1902, to build the first 50 miles from Calgary, and to July 1, 1903, to complete their railway, and were empowered, on such completion, to build an extension from Red Deer river to the River Saskatchewan, at a point between Fort Pitt and Battleford; this extension to be commenced within two, and com-

pleted within seven years from the date of the completion of the railway to Red Deer river in township 32, range 21, west of the 4th principal meridian.

By the Land Subsidy Act of 1891, chap. 9, a subsidy of 6,400 acres of land had been authorized to be granted to this company for a railway from the town of Calgary to a point in or near township 29, range 23, west of the 4th meridian, a distance of about 55 miles, and a contract was made with them on June 17, 1893, accordingly; the work to be completed by November 1, 1894.

By an order in council, dated June 29, 1901, authority was given for admission of the company to a new contract under this subsidy; and such contract was entered into on July 30, 1901; the 55 miles in question to be completed by July 1, 1903. The same order also approved the location of the road, namely, from a point on the Calgary and Edmonton Railway to the Kneehill mines.

### **Restigouche and Western Railway Company.**

(See No. 384.)

This company was incorporated by the Act of the province of New Brunswick, 60 Vic., chap. 82 (1897), with powers to construct a railway from Campbellton, to a point on the River Saint John between Grand Falls and Edmundston.

By the Subsidy Act 60-61 Vic., chap 4 (1897), there was authorized a subsidy for a railway from Campbellton, on the Intercolonial Railway, towards Grand Falls, N.B., 20 miles, \$3,200 a mile, with an addition of 50 per cent on the cost in excess of \$15,000 a mile; the whole not to exceed \$6,400 a mile. This was in lieu of a previous subsidy to a specified company.

The Restigouche and Western Railway Company having applied, were admitted to contract for the work on December 24, 1897. The total payment up to June 30, 1900, amounted to \$46,930; no further payment has been made up to June 30, 1903.

### **Schomberg and Aurora Railway Company.**

(See No. 386.)

This company was incorporated by the Dominion Act, 59 Vic., chap. 34 (1896), with powers to build a line of railway from a point on the Grand Trunk Railway between King and Newmarket to the village of Schomberg.

By the Subsidy Act, 60-61 Vic., chap. 4 (1897), the grant of a subsidy of \$3,200 a mile for 15 miles between the points named above, with addition of 50 per cent of the cost in excess of \$15,000 a mile, but not exceeding in all \$6,400 a mile was authorized.

A subsidy agreement was entered into with the company accordingly on July 29, 1899.

By the Subsidy Act 1 Edward VII., chap. 7, item 10 (1901), this subsidy was, in effect, revoked, and a new contract was made with this company on February 3, 1902; the road to be completed by October 31, 1903.

By the Subsidy Act, 63-64 Vic., chap. 8, item 13 (1901), the grant of a subsidy of \$3,200 a mile with a further subsidy of 50 per cent on average expenditure in excess



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of \$15,000 a mile, the whole subsidy not to exceed \$6,400, was authorized for the extension of the company's line from its easterly terminus to a point at or near Bond's lake, Ontario, not exceeding 4 miles.

The company having applied for this subsidy, a contract was entered into with them, accordingly, on July 30, 1902.

No payments have been made on either of these subsidies up to June 30, 1903.

**Shuswap and Okanagan Railway Company.**

(See Annual Report of 1894-95.)

**South Norfolk Railway Company.**

(See Annual Report of 1888-89.)

**South Shore Railway Company.**

(See Annual Report of 1896-97.)

**South Shore Railway Company, Quebec.**

(See Nos. 441, 468, 469 and 513.)

This company was incorporated by the Quebec Act of 1894, chap. 72, and the undertaking was declared to be a work for the general advantage of Canada by the Dominion Act, 60 Vic., chap. 10 (1896), which authorized the construction of a line of railway from a point in the town of Levis to a point on the Canada Atlantic Railway at or near Valleyfield.

By the Subsidy Act, 62-63 Vic., chap. 7 (1899), the grant of a subsidy to this company for 82 miles of a railway from Sorel Junction to Lotbinière was authorized, \$3,200 a mile, with an addition of 50 per cent of cost in excess of \$15,000 a mile, but not exceeding in the whole \$6,400 a mile. The company were admitted to contract for this work on May 9, 1900.

By the same Act the grant of a subsidy was authorized towards the construction of a bridge over the River Richelieu at Sorel, not exceeding \$35,000. The company were admitted to contract for this work on December 23, 1899.

By the same Act the grant of a subsidy to this company was authorized towards the renewal of the railway bridge over the River Yamaska at Yamaska, the amount being \$50,000. They were admitted to contract for the work on May 9, 1900.

By the Subsidy Act, 63-64 Vic., chap. 8 (1900), the grant of subsidy to the extent of \$50,000 was authorized for a railway bridge over the River St. Francis, such bridge to be free to foot passengers and vehicles. A contract was entered into with the company for the work on June 29, 1901.

The total of payments up to June 30, 1901, was \$419,290.19. This includes the sum of \$16,164.63 for completing the Montreal and Sorel Railway (see report of 1899-1900.) No further payments have been made up to June 30, 1903.

**St. Catharines and Niagara Central Railway Company.**

(See Annual Report for 1895-96.)

**St. Clair Frontier Tunnel Company.**

(See Annual Reports of 1890-91 and 1891-92.)

**St. Gabriel de Brandon and Ste. Emélie de l'Énergie Railway Company.**

(See No. 381.)

By the Subsidy Act, 60-61 Vic., chap. 4 (1897), in lieu of a previous subsidy authorized in 1894, a subsidy of \$3,200 a mile, with an addition, not exceeding \$3,200 a mile, of 50 per cent of cost in excess of \$15,000 a mile, was authorized to be granted to this company for 15 miles of railway from St. Gabriel to Ste. Emélie de l'Énergie, and for 5 miles from a point on the main line to St. Jean de Matha.

A subsidy agreement for this work was entered into with the company on July 29, 1899.

No portion of the subsidy has been paid up to June 30, 1903.

**St. John Valley and Rivière du Loup Railway Company.**

(See Annual Report for 1893-94.)

**St. Stephen and Milltown Railway Company.**

(See Annual Reports for 1895-96 and 1900-01.)

**Stewiacke Valley and Lansdowne Railway Company.**

(See Annual Report for 1895-96.)

**St. Lawrence and Adirondack Railway Company.**

(See Annual Reports for 1893-94 and 1900-01.)

**St. Lawrence, Lower Laurentian and Saguenay Railway Company.**

(Name changed to **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 for 1884-85.)

**St. Mary's River Railway Company.**

(See Annual Report of 1900-01.)

**Témiscouata Railway Company—Rivière du Loup to Edmundston.**

(See Annual Report for 1892-93.)

**Thousand Islands Railway Company.**

(See Annual Reports for 1895-96 and 1901-02.)

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**Tilsonburg, Lake Erie and Pacific Railway Company.**

(See Annual Report for 1895-96.)

(No. 387.)

A further subsidy to this company was authorized by the Act 60-61 Vic., chap. 4 (1897), namely, for 3.50 miles from the then terminus, through Tilsonburg to the Michigan Central Railway, \$3,200 a mile, with an addition of 50 per cent of the cost in excess of \$15,000 a mile, the whole not to exceed \$6,400 a mile.

Under date December 4, 1897, the company were admitted to contract. During the fiscal year 1898-99 the sum of \$10,912 was paid, and in the fiscal year 1900-01 the sum of \$7,159.48 was paid from this subsidy, making, with their previous subsidy of \$51,200, paid in 1895-96, a total of \$69,271.48.

By the Subsidy Act, 62-63 Vic., chap. 7, item 26 (1899), a subsidy of \$3,200 per miles, with a further subsidy of 50 per cent on cost in excess of \$15,000 a mile, not exceeding in all \$6,400 a mile, was authorized for an extension from Tilsonburg to Ingersoll or Woodstock, not exceeding 28 miles.

Under authority of an order in council of September 11, 1901, a contract was made with the company, accordingly, on October 15, 1901; the road to be completed by October 1, 1902.

During the past fiscal year payment of subsidy was made to the extent of \$44,160, making the total payments \$113,431.48 up to June 30, 1903.

**Trans-Canada Railway Company.**

(See No. 540.)

This company was incorporated under the name of 'The Trans-Canadian Railway Company' by the Act 53-59 Vic., chap. 28 (1895), with powers to construct a railway from a point at or near the city of Quebec; thence westerly and as nearly as practicable in a straight line to a point north of Lake Winnipeg; thence westerly by way of the Yellow Head or other convenient and practicable pass in the Rocky mountains; and thence by the Skeena river to Port Simpson or Port Essington, with the option of adopting any other more feasible route west of the Rocky mountains to reach a point on the Pacific coast between fifty-two and fifty-five degrees north latitude.

Powers were also given for operation of vessels in connection with their railway: for wharf, dock, elevator and warehouse construction, and for production and use of electric power; also for telegraph and telephone lines to any point on James' Bay, Hudson Bay and Hudson Straits.

Additional powers were given by the Act of 1894, chap. 65, for the construction of a branch from the main line at the St. Maurice river, Quebec, thence southerly to the village of Montcalm in the parish of St. Liguori, and thence in a direct line to the city of Montreal; the construction of such a branch not to be commenced until after two hundred miles of the main line beginning at the city of Quebec has been constructed and put into operation. This Act also changed the name of the company.

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By the Act of 2 Edward VII., chap. 108 (1902), the time for the construction of the railway authorized by the above Acts, was extended to May 15, 1912, their powers of construction were also extended as follows:—To enable the company to ‘continue the construction of its main line, which was commenced at Roberval on the Quebec and Lake St. John Railway, from that point in a westerly or north-westerly direction,’ and to build ‘a branch line from the nearest point on its main line to deep water near the mouth of the Nottaway river,’ (which empties into James’ bay), and also ‘a branch line from Chicoutimi to the mouth of the Saguenay river at or near St. Catharine’s bay’; also, with the sanction of the Governor in Council, to enter into an agreement with the Great Northern Railway of Canada, the Quebec and Lake St. John Railway Company, or the Canadian Northern Railway Company, for conveying or leasing its railway, or for an amalgamation with such company.

By the Railway Subsidy Act of 1901, 1 Edward VII., chap. 71, item 25, the grant of a subsidy of \$3,200 a mile, with a further subsidy of 50 per cent on average expenditure in excess of \$15,000 a mile, the whole subsidy not to exceed \$6,400, was authorized ‘for a line of railway from Roberval, Quebec, westward towards James’ bay, not exceeding 60 miles.’

The company having applied for this subsidy, a contract was entered into with them, accordingly, on January 19, 1903.

No payments have been made up to June 30, 1903.

**Tobique Valley Railway Company.**

(See Annual Report for 1893-94.)

**Toronto, Grey and Bruce Railway Company.**

(See Annual Report for 1887-88.)

**United Counties Railway Company.**

(See Annual Report for 1900-01.)

**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.*)

(Name further changed to **The Dominion Atlantic Railway Company**, by 57-58 Vic.,  
*ch. 69.*)

(See Annual Report for 1894-95.)

**West Ontario Pacific Railway Company.**

(Leased to **Ontario and Quebec Railway Company—C.P.R.**)

(See Annual Report of 1890-91.)

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**Woodstock and Centreville Railway Company.**

(See Annual Report for 1895-96.)

**Yarmouth and Annapolis Railway Company.**

(See *Western Counties Railway Company.*)

**York and Carleton Railway Company.**

(See Annual Report for 1901-02.)

CANALS.

The total expenditure charged to capital account on the original construction and the enlargement of the several canals of the Dominion, up to June 30, 1903, was \$85342,377.47. A further sum of \$19,990,608.25 has been expended from the consolidated fund, including the repairs, renewals, maintenance and operation of these works, making a total of \$105,332,985.72. The total revenue derived, including tolls and rentals of lands and water powers, amounted to \$13,247,969.84. (See the Accountant's statements, Part II., p. 27, 28, 45 and 46.)

The total expenditure on canals for the fiscal year ended on June 30, 1903, was as follows:—

On construction and enlargement, a total of \$1,823,273.61, and a further sum of \$1,025,166.35 for repairs, renewals, operation, and revenue collection, making a total for the year of \$2,848,439.96.

The total net revenue collected for the fiscal year was \$230,213.15, a decrease compared with the net revenue of the previous year of \$70,200.53. The net canal tolls paid amounted to \$159,959.21, a decrease of \$73,078.61\*. On July 1, 1902, the balance of rents unpaid was \$75,887.56. The rents accrued during the year amounted to \$80,224.58, and the rents received to \$70,401.05, an increase of \$13,025.19, leaving a balance of rents uncollected on June 30, 1903, amounting to \$83,536.93.

The total expenditure on canal staff and maintenance, repairs and renewals amounting, for the year, to \$1,025,166.35, an increase of \$161,085.68, and a total net receipts amounting as above, to \$230,213.15, the amount of such expenditure in excess of receipts was \$794,953.20.

The above figures relate to the *fiscal year* 1902-03, but very voluminous statistics relating to the canal traffic, and various commercial statistics for the *season of navigation* of the year 1902, will be found in Part V., 'Canal Statistics.'

The total traffic through the several canals of the Dominion for the *season* of 1902 amounted to 7,513,197 tons, an increase of 1,847,938 tons compared with the previous year. This includes 4,729,268 tons passing through the Sault Ste. Marie Canal, against 2,820,349 tons in 1901.

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\* Tolls were collected only for the portion of the fiscal year from July 1, 1902, to the close of navigation: all tolls having, by Orders in Council of April 27 and May 19, been abolished for the seasons of 1903 and 1904.

The following features of the principal canal traffic during the season of 1902, will be of interest:—

On the Welland Canal, 665,387 tons of freight were moved, an increase of 45,178 tons, of which 355,872 tons were agricultural products, an increase of 54,522 tons, and 141,041 tons produce of the forest; of coal, 64,013 tons were carried; 550,633 tons passed eastward, and 84,754 tons westward; 646,097 tons were through freight, of which 567,286 tons passed eastward.

Of this through freight, Canadian vessels carried 327,107 tons, an increase of 36,574 tons, and United States vessels 318,990 tons, an increase of 4,573 tons.

The total freight passed eastward and westward through this canal from United States ports to United States ports was 269,029 tons, a decrease of 4,990 tons compared with the year 1901.

The quantity of grain passed down the Welland and St. Lawrence Canals to Montreal was 208,215 tons, an increase of 56,649 tons, compared with the previous year; of this, 34,060 tons were transhipped at Ogdensburg as against 17,387 tons transhipped in 1901. The further quantity of 34,116 tons of grain passed down the St. Lawrence Canals only, to Montreal, making the total 242,331 tons.

On the St. Lawrence canals, 1,039,133 tons of freight were moved, a decrease of 115,163; of which 481,822 were eastbound through freight, and 93,051 tons westbound through freight; 580,670 tons were agricultural products, 292,808 tons merchandise, 212,650 tons coal, and 102,430 tons forest products.

Thirty-six cargoes of grain, aggregating 35,253 tons, were taken down direct to Montreal through the Welland and St. Lawrence canals, as against twenty-two cargoes, aggregating 17,303 tons in 1901, and fifteen cargoes aggregating 7,924 tons in 1900.

On the Ottawa river canals the total quantity of freight moved was 444,682 tons, decrease of 1,180, of which 433,245 tons were produce of the forest.

On the Chambly canal, 379,442 tons were moved, an increase of 19,644, of which 25,084 tons were produce of the forest, and 23,768 tons of coal.

On the Rideau canal 50,879 tons were carried, a decrease of 5,497; 27,296 tons being the product of the forest and 4,534 tons of coal.

On the St. Peter's canal 73,538 tons were carried, a decrease of 14,719, of which 40,874 tons were merchandise, and 31,659 tons coal.

On the Murray canal 35,178 tons passed, an increase of 5,643, and 10,523 tons of this were the product of the forest.

On the Trent Valley canal, 41,690 tons were moved, of which 39,293 tons were the product of the forest.

On the Sault Ste. Marie canal, the total movement of freight was 4,729,268 tons, being an increase of 1,908,874 tons, carried in 5,043 vessels, the number of lockages being 3,418. Of wheat, 27,911,287 bushels, and of other grain 3,661,904 bushels were

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carried; 2,843,860 barrels of flour, 2,504,452 tons of iron ore, 563,835 tons of coal, and 49,084,942 feet, board measure, of lumber; all these items show a very considerable increase. The total traffic at this point, accommodated by the canals, the American and Canadian, amounted to 35,962,063 tons, an increase of 7,559,631 tons, carried in 22,631 vessels, an increase of 2,590. The total quantity of wheat carried was 76,746,349 bushels, an increase of 23,889,618, and of other grain 25,312,513 bushels, an increase of 546,755. Of lumber, the total was 1,077,932,942 feet, board measure, an increase of 4,498,994.\*

In connection with the question of canal versus railway transport of grain from the west, it may be noted that whereas grain and pease passed down to Montreal through the Welland and St. Lawrence canals to the extent of 208,215 tons, an increase of 56,649 tons, compared with the previous year, the quantity carried to Montreal via the Canadian Pacific and Grand Trunk Railways amounted to 263,861 tons, an increase of 36,161 tons. Over the route from Depot Harbour, on Georgian Bay, Lake

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\*NOTE.—The following items of information respecting the traffic during the season of 1902, through the two canals, the United States and the Canadian, at the Sault Ste. Marie, will be found of much interest in view of the enormous proportions and rapid growth of lake commerce. They are taken from 'Statistics of Lake Commerce', compiled, under the direction of Major W. H. Bixby, Corps of Engineers, U.S.A., from the official records.

The season of navigation lasted for eight months and 20 days; the Canadian canal being open from April 1 to December 20, the United States canal from April 5 to December 16.

The total freight passed aggregated 35,961,146 net tons (2,000 lbs.), an increase over the preceding season of 7,558,081 tons. 59,377 passengers were carried; of this the Canadian canal passed 4,728,351 tons of freight, and 36,599 passengers.

It is interesting to note that in 1861 the tariff at this point was \$8,000 net tons valued at \$6,000,000; in 1891, 8,888,759 tons, valued at \$128,178,208, and in 1902, 35,961,146 tons, valued at \$358,306,300.

45 new vessels were put in commission for the Lake Superior trade, all large steam freighters, ranging from 225 to 436 feet in length. 935 registered vessels used the canals, making 22,659 passages; of these 851 were United States vessels; 589 being steamers and 262 sailing vessels; their total value was \$67,205,000. Of Canadian vessels there were 84, namely, 67 steamers and 17 sailing vessels, their total value being \$3,792,400. United States vessels carried 96 per 100 of the total freight and 28 per 100 of the total passengers; 64,848 tons of freight were carried by unregistered craft.

There were 337 vessels between 200 and 300 feet long, 179 between 300 and 400 feet, and 87 between 400 and 500 feet in length, and of from 45 to 53 feet beam. There were 133 steamers and 26 sailing vessels whose capacity was between 3,000 and 4,000 tons; 27 steamers and 11 sailing vessels between 4,000 and 5,000; 32 steamers and 7 sailing vessels between 5,000 and 6,000 tons, and 37 steamers and 17 sailing vessels between 6,000 and 7,000; 43 steamers and 2 sailing vessels between 7,000 and 8,000, and 5 steamers and 6 sailing vessels of over 8,000 tons capacity. The largest single cargo carried by a steamer was 8,441 net tons, and by a barge 8,485 net tons.

The total amount paid for freight transportation was \$26,566,189.40. The average distance to which freight was carried was 827.4 miles, and the average cost per ton per mile was '89 of a mill.

The east-bound freight aggregated 33,275,989 tons, of which 3,334,952 tons went to Lake Michigan ports, 1,412,434 tons to Lake Huron ports, 25,247,132 tons to Lake Erie ports, and 281,471 tons to Lake Ontario ports. The West bound freight aggregated 5,685,157 tons, of which 5,346,410 tons were from Lake Erie ports.

The principal items of traffic were as follows: bituminous coal, 4,502,530 tons; flour, 8,910,005 barrels; wheat, 76,730,965 bushels; grain other than wheat, 27,740,822 bushels; of this, 16,301,130 bushels was flax. Iron ore, 24,277,555 net tons; copper, 120,612 tons; lumber, 1,091,471 M. ft., B.M. Of silver ore, one ton only was carried.

The freight charges per unit were as follows:—On coal, \$0.45 per ton; flour, \$0.12 per barrel; wheat and grain, \$0.019 per bushel; pig iron, \$1.50 per ton; iron ore, \$0.68 per ton; lumber per M., \$2.45; general merchandise, \$2.00 per ton.

Huron via the Canada Atlantic Railway to Coteau Landing, at the head of the Soulanges canal, thence by barge to Montreal, in the season of 1901, 321,016 tons were carried, of which 291,834 tons were grain, 207,403 tons being wheat, 71,459 tons corn. In 1902 the total freight so carried to Montreal was 273,145 tons; of this quantity 11,732 tons were corn, 216,305 wheat.

The quantity of grain carried to tidewater on the New York State canals was 318,677 tons, a decrease of 37,083 tons, while the quantity carried by the railways of the State to tidewater amounted to 4,558,536 tons, a decrease of 71,943.

Of the total east and westbound freight carried by the canals of the State of New York (the Erie, the Champlain, the Black river, the Cayuga and Seneca, and the Oswego) and the competing railways (the New York Central and the Erie Railway) respectively (amounting in 1902 to 72,075,774 tons—greater by 6,434,937 tons than in 1901), the proportion carried by the canals has fallen steadily from 68.9 per cent in 1859 and 47.0 per cent in 1869, to 6.8 per cent in 1898, 7.2 per cent in 1899, 5.2 in 1900, and 5.1 in 1901, and 5.5 in 1902. These canals carried, in 1902, 3,274,610 tons, a decrease of 146,003 tons.

The enlarged Erie canal, between Buffalo and Albany, is 350½ miles long; comprises 72 locks, 110 x 18 feet, with a depth of 7 feet of water, accommodating, as a maximum, vessels of 240 tons burden. The original canal was completed in 1836, and the enlargement in 1862. The total cost of construction was \$51,609,200.

By means of the enlarged Canadian canal system and the intermediate waterways, a minimum depth of fourteen feet of water from Lake Superior to the head of ocean navigation at Montreal is afforded; the smallest locks being 270 feet in length and 45 feet in width, intended, for purposes of ordinary traffic, to accommodate vessels 255 feet long and 44 feet beam.\* As an index to the carrying power of the new canal works, it may be observed that a typical vessel, the propeller *Aragon*, whose length is 247 feet and width 42.6 feet, has passed through the enlarged Welland canal, drawing 14 feet of water and carrying 2,212 tons of corn.

The through route between Montreal and Port Arthur, on the west shore of Lake Superior, now open as a 14-foot navigation, comprises 73 miles of canal, with 48 locks, and 1,150 miles of river and lake waters, or a total of 1,223 miles. From Montreal to Duluth, at the south-west of Lake Superior, the total distance is 1,357 miles, and to Chicago, 1,286 miles. A summary of this route will be found in the Chief Engineer's report, Part I., and further details of the several works in the pages immediately following. At Port Arthur and Fort William (about six miles south), the Canadian Pacific Railway gives communication to and from the west.

The approaches to the canals and the channels through the intermediate river reaches are well defined, and are lighted with gas buoys under the control of the De-

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\* In exceptional cases, and in cases of emergency, this length can with certain manoeuvring, be somewhat increased; being governed, of course, by the form of the vessel. As a matter of fact, there are vessels now using the canals whose length, over all, is 265 feet, and width of beam 37 feet.



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partment of Marine and Fisheries, admitting of safe navigation, if in the hands of competent pilots, both by day and night. In the case of the Sault Ste. Marie, the Cornwall, the Soulanges, and the Lachine canals, they are well lighted throughout, by electricity, and at the beginning of the season of 1902 the electrical operation of the Soulanges canal works was inaugurated. The Sault Ste. Marie lock has from the first been operated by electricity.

Electrical installation for operation purposes on the Cornwall canal is now completed and is satisfactorily worked.

A similar installation on the Lachine canal is in progress and will, it is expected, be ready for use at the opening of navigation next spring.

The improvement works being carried on at Port Colborne, the Lake Erie entrance of the Welland canal, comprise the deepening of the approach to the canal to 22 feet, and the construction of two docks, with piers, 200 feet wide, upon which grain elevators will be erected for the transference of grain to vessels adapted to the canal navigation, when required. In addition to the works undertaken by this department, a breakwater, about a mile in length, is being constructed across the entrance to the harbour by the Department of Public Works, who will also dredge out the area so contained; thus greatly increasing the accommodation, and ensuring safety at this important point. The removal of the centre pier bridges on the canal, which obstructed navigation, is in progress, and new bridges spanning the entire channel are being erected.

The deepening of the approaches to the Sault Ste. Marie canal is progressing. At the lower entrance the work has now been completed; a channel way, 315 feet wide and 21.5 feet deep (one foot below the mitre sill at the lower main gates), has been formed, and steps are being taken for the similar improvement of the upper entrance.

The construction of the new works for the improvement and extension of the Trent canal system is proceeding. When the present contracts are completed, a six feet navigation will be afforded from Lake Simcoe to Heely's Falls, a distance of about 160 miles, leaving the portion between Heely's Falls and Lake Ontario, and the portion from the head of Lake Simcoe to Georgian Bay, Lake Huron, still to be dealt with. The total distance between the Bay of Quinte, Lake Ontario, and Georgian Bay is about 192 miles.

During the years 1899 and 1900, under special appropriations voted by parliament, surveys were conducted on the Upper River Ottawa, with a view to ascertaining the feasibility and probable cost of constructing a canal system to give a navigation from Georgian Bay down the river to Montreal, a scheme proposed many years ago and lately revived by private parties with considerable energy. The results of these surveys will be found in a special report from the engineer in charge, Mr. H. A. F. Macleod, attached to an appendix to the annual report for the year 1900-01.

His conclusions are that the canal can be constructed at an estimated cost, for a 14 feet navigation of \$23,898,000, and for a 20 feet navigation of \$72,627,000. The distance from Georgian Bay to Montreal is set down at 430 miles.

In the report of the Chief Engineer, and in the reports of the superintending engineers, will be found full details as to the operation of the various canals, and as to the progress and position of the works of enlargement and construction now being carried on.

I have the honour to be, sir,

Your obedient servant,

COLLINGWOOD SCHREIBER,  
*Deputy Minister of Railways and Canals.*

**PART I**

SKETCH MAPS OF DOMINION RAILWAYS AND CANALS

ALSO INFORMATION AS TO

TRANSCONTINENTAL RAILWAY COMMUNICATION AND AS TO  
ROUTES OF CANAL NAVIGATION

AND

**REPORT OF THE CHIEF ENGINEER**

COMPRISING REPORTS OF

GENERAL MANAGER OF GOVERNMENT RAILWAYS AND SUPERINTENDENT OF CANALS

ALSO

DECISIONS OF THE RAILWAY COMMITTEE OF THE PRIVY COUNCIL



## 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:—

*Halifax to Montreal.*

	Miles.
1. Intercolonial Railway, via Lévis, to Montreal.... .	837
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2. Intercolonial Railway to St. John.... .	275
Canadian Pacific Railway, from St. John to Montreal. . .	480
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Total. . . . .	755
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3. Intercolonial Railway to St. John.... .	275
Canadian Pacific Railway, from St. John to Vanceboro'..	90
Maine Central Railway, from Vanceboro' to Danville Junction.... .	224
Grand Trunk Railway, from Danville Junction to Montreal	270
<hr/>	
Total.... .	859
<hr/>	
4. Intercolonial Railway to St. John.... .	275
Canadian Pacific Railway from St. John to Edmundston	170
Temiscouata Railway, from Edmundston to Rivière du Loup	81
Intercolonial Railway, from Rivière du Loup to Montreal	278
<hr/>	
Total.....	804
<hr/>	

*St. John to Montreal.*

1. Intercolonial Railway, via Lévis, to Montreal.. . . .	740
<hr/>	
2. Canadian Pacific Railway to Montreal.....	480
<hr/>	
3. Canadian Pacific Railway to Edmundston.....	170
Temiscouata Railway, from Edmundston to Rivière du Loup.... .	81
Intercolonial Railway, from Rivière du Loup to Montreal	278
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Total.... .	529
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## MONTREAL, OR QUEBEC, TO THE PACIFIC COAST.

*Montreal to Vancouver.*

	Miles.
1. Canadian Pacific Railway to Vancouver.....	2,906
2. Grand Trunk Railway to North Bay.....	560
Canadian Pacific Railway from North Bay to Vancouver..	2,546
Total.....	3,102

*Quebec to Vancouver.*

1. Canadian Pacific Railway to Vancouver.....	3,052
2. Grand Trunk Railway to Montreal.....	172
Canadian Pacific Railway from Montreal to Vancouver..	2,906
Total.....	3,078
3. Grand Trunk Railway to North Bay.....	732
Canadian Pacific Railway from North Bay to Vancouver..	2,542
Total.....	3,274

The Canadian Pacific Railway was opened for through traffic on June 28, 1886.

## INTERCOLONIAL RAILWAY.

The Intercolonial Railway touches six Atlantic Ocean ports, namely, Point du Chene, Pictou, Halifax, St. John, Sydney and North Sydney, as well as the ports of Quebec and Montreal on the River St. Lawrence.

The total length of the road operated during the year ended June 30, 1903, was 1,315 miles, and for freight branches 1250 miles, making a total of 1,328 miles.

The following are the through distances:—

	Miles.
Halifax to Montreal, via Lévis.....	837
St. John to Montreal, via Lévis.....	740
Sydney to Montreal, via Lévis.....	990
North Sydney to Montreal, via Lévis.....	983

Freight is carried direct via St. Henri to Montreal, which would reduce each of the above distances by 6 miles.

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## WINDSOR BRANCH.

This road extends from Windsor Junction, on the Intercolonial Railway, to Windsor, a distance of 32 miles.

## PRINCE EDWARD ISLAND RAILWAY.

## LENGTH OF LINE.

	Miles.
Souris to Tignish.....	166
Mount Stewart to Georgetown.....	24
Charlottetown to Royalty Junction.....	5
Emerald Junction to Cape Traverse.....	13
Alberton to Casumpec wharf.....	1
	<hr/>
	209
	<hr/> <hr/>

Communication between the Prince Edward Island Railway and the Intercolonial Railway is afforded in summer by steamer between Summerside and Point du Chene, between Charlottetown and Pictou and between Georgetown and Pictou, and in winter by specially built steamers between Georgetown and Pictou and between Charlottetown and Pictou. There is also further provision made for communication by ice boats between Cape Traverse on Prince Edward Island and Cape Tormentine on the mainland, a distance of about 9 miles, at which latter place connection is made with the New Brunswick and Prince Edward Railway about 40 miles in length, connecting with the Intercolonial Railway at Sackville. This winter service across the Straits of Northumberland is efficiently worked by the Marine and Fisheries Department.

## CANALS

The canal systems of the Dominion, under government control in connection with lakes and navigable rivers, are as follows :—

*First.—The through route between Montreal and the head of Lake Superior (14 feet minimum depth of water.)*

	Miles.
1. Lachine Canal.....	8½
Lake St. Louis and River St. Lawrence.....	16
2. Soulanges Canal.....	14
Lake St. Francis and River St. Lawrence.....	33
3. Cornwall Canal.....	11
River St. Lawrence.....	5
4. Farran's Point Canal.....	1
River St. Lawrence.....	10

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	Miles.
5. Rapide Plat Canal.....	3½
River St. Lawrence.....	4
6. Galops Canal.....	7¼
River St. Lawrence and Lake Ontario....	236
7. Welland Canal.....	26¾
Lake Erie, Detroit River, Lake St. Clair, Lake Huron, &c.	550
8. Sault Ste. Marie Canal.....	1¼
Lake Superior to Port Arthur.....	266
	<hr/>
Total.....	1,223¼
	<hr/> <hr/>
To Duluth.....	1,357
Chicago.....	1,286
	<hr/> <hr/>

*Second.—Ottawa to Lake Champlain.*

1. Grenville. 2. Carillon. 3. St. Anne's. 4. Chambly. 5. St. Ours Canals.

*Third.—Ottawa to Kingston and Perth.*

1. Rideau Canal.

*Fourth.—Lake Ontario at Trenton to Lake Huron at mouth of River Severn.*

1. Trent Canal (not completed).

*Fifth.—Ocean to the Bras d'Or Lakes.*

1. St. Peter's Canal.

## RIVER ST. LAWRENCE AND LAKES.

The River St. Lawrence, with the system of canals established on its course above Montreal, and the Lakes Ontario, Erie, St. Clair, Huron and Superior, with connecting canals, afford a course of water communication extending from the Straits of Belle Isle to Port Arthur, at the head of Lake Superior, a distance of 2,200 statute miles. The distance to Duluth is 2,343 miles. The distance to Chicago 2,272 miles.

From the Straits of Belle Isle, at the mouth of the St. Lawrence, to Montreal, the distance is 986 miles. From Quebec to Montreal, the distance is 160 miles. Owing to the shallowness of the waters on a portion of the river between these two places, particularly through Lake St. Peter, vessels drawing more than from ten to twelve feet were formerly barred from passage for the greater part of the season of navigation. In 1826, the question of deepening the channel was first definitely mooted, but it was not until 1844 that any dredging operations were begun. In that year, the deepening of a new straight channel was commenced, but the scheme was abandoned in 1847. In 1851 the deepening of the present channel was begun. At that time the depth of the channel at low water was 19 feet 6 inches. By the year 1869, this depth had been increased to 20 feet, by 1882 to 25 feet, and by the close of 1888 the depth of 27½ feet, at





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The canal extends from the city of Montreal to the town of Lachine, overcoming the St. Louis rapids, the first of the series of rapids which bars the ascent of the River St. Lawrence. They are 986 miles distant from the Straits of Belle Isle.

## SOULANGES CANAL.

Length of canal.....	14 statute miles.
Number of locks	{ lift..... 4
	{ guard..... 1
Dimensions of locks.....	280 feet by 45 feet.
Total rise or lockage.....	84 feet.
Depth of water on sills.....	15 "
Breadth of canal at bottom.....	100 "
Breadth of canal at water surface.....	164 "
Number of arc lights.....	219 of 2,000 e.p. each.

The canal extends from Cascade Point to Coteau Landing, overcoming the Cascade Rapids, Cedar Rapids and Coteau Rapids.

From the head of the Lachine to the foot of the Soulanges the distance is sixteen miles.

## CORNWALL CANAL.

Length of canal.....	11 statute miles.
Number of locks.....	6
Total rise of lockage.....	270 feet by 45 feet.
Total rise or lockage.....	48 feet.
Depth of water on sills.....	14 "
Breadth of canal at bottom.....	100 "
Breadth of canal at water surface.....	164 "

The old lift locks, 200 feet by 45 feet, are also available, with nine feet of water on mitre sills.

From the head of the Soulanges to the foot of the Cornwall Canal there is a stretch through Lake St. Francis,  $32\frac{3}{4}$  miles, which is being made navigable for vessels drawing fourteen feet.

The Cornwall Canal extends past the Long Sault Rapids from the town of Cornwall to Dickinson's Landing.

## WILLIAMSBURG CANALS.

The Farran's Point, Rapide Plat and Galops canals are collectively known as the Williamsburg canals.

## FARRAN'S POINT CANAL.

Length of canal.....	1 mile.
Number of locks.....	1
New lock.....	800 feet by 45 feet.
Old lock.....	200 "
Total rise or lockages.....	$3\frac{1}{2}$ feet.
Depth of water on sills of new lock.....	14 "
Depth of water on sills of old lock.....	9 "
Breadth of canal at bottom.....	90 "
Breadth of canal at water surface.....	154 "

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From the head of the Cornwall canal to the foot of Farran's Point canal, the distance on the River St. Lawrence is five miles. The latter canal enables vessels ascending the river to avoid Farran's Point rapid, passing the full tow at one lockage. Descending vessels run the rapids with ease and safety.

## RAPIDE PLAT CANAL.

Length of canal.....	3 $\frac{2}{3}$ miles.
Number of locks.....	2
Dimensions of locks.....	270 feet by 45 feet.
Total rise or lockage.....	11 $\frac{1}{2}$ feet.
Depth of water on sills.....	14 "
Breadth of canal at bottom.....	80 "
Breadth of canal at surface of water.....	152 "

The old lift lock, 200 feet by 45, is also available, with nine feet of water on mitre sills.

From the head of Farran's Point canal to the foot of Rapide Plat canal, there is a navigable stretch of 10 $\frac{1}{2}$  miles. The canal was formed to enable vessels ascending the river to pass the rapids at that place. Descending vessels run the rapids safely.

## GALOPS CANAL.

Length of canal.....	7 $\frac{1}{3}$ miles.
Number of locks.....	3
Dimension of locks, (one of which is a guard lock.).....	2-270 by 45. 1-800 by 45.
Total rise or lockage.....	15 $\frac{1}{2}$ feet.
Depth of water on sills.....	14 "
Breadth of canal at bottom.....	80 "
Breadth of canal at surface of water.....	144 "

From the head of Rapide Plat canal to Iroquois, at the foot of the Galops canal, the St. Lawrence is navigable 4 $\frac{1}{2}$  miles. The canal enables vessels to overcome the rapids at Pointe aux Iroquois, Point Cardinal and the Galops.

## MURRAY CANAL.

Length between eastern and western pier heads.....	5 $\frac{1}{3}$ miles.
Breadth at bottom.....	80 feet.
Breadth at water surface.....	120 "
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

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## 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)		2
Number of locks	{ lift. . . . . 26	25
	{ guard. . . . . 1	1
Dimensions.....	{ 1 lock 200 x 45	} 270 feet x 45 feet.
	{ 1 lock 200 x 45	
	{ 1 (tidal) 230 x 45	
	{ 24 locks 150 x 45	
Total rise or lockage.....	326¾ feet	326¾ feet.
Depth of water on sills.....	10¼ "	14 "

## WELLAND RIVER BRANCHES.

Length of canal—

Port Robinson Cut to River Welland.....	2,622 feet.
From the canal at Welland to the river, via lock at Aqueduct... ..	300 feet.
Chippewa Cut to River Niagara... ..	1,020 feet.
Number of locks—one at Aqueduct and one at Port Robinson.....	2
Dimensions of locks.....	150 by 26½ feet.
Total lockage from the canal at Welland down to River Welland.....	10 feet.
Depth of water on sills.....	9 feet 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 feet by 45 feet
Total rise or lockage.....	7½ feet.
Depth of water on sills.....	11 feet.

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.

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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 River St. Mary to the Sault canal, a distance of about 580 miles. From the Sault the distance through Lake Superior to Port Arthur is 266 miles, and to Duluth 400 miles.

SAULT STE. MARIE CANAL.

Length of canal, between the extreme ends of the entrance piers.....	5,967 feet.
Number of locks.....	1
Dimensions of locks.....	900 feet by 60 feet.
Depth of water on sills (at lowest known water level).....	20 feet 3 inches.
Total rise or lockage.....	18 feet.
Breadth of canal at bottom.....	141 feet 8 inches.
Breadth at surface of water.....	150 feet.

This canal has been constructed through St. Mary's Island, on the north side of the rapids of the River St. Mary, and, with that river, gives communication on Canadian territory between Lakes Huron and Superior.

MONTREAL, OTTAWA AND KINGSTON.

This route extends from the harbour of Montreal to the port of Kingston, passing through the Lachine canal, the navigation section of the lower River Ottawa, and the Ottawa canals, to the city of Ottawa; thence by the River Rideau and the Rideau canal to Kingston, on Lake Ontario—a total distance of 245½ miles.

After leaving the Lachine canal the works constructed to overcome difficulties of navigation are:—

*Ottawa River Canals.*

The Ste. Anne's Lock.	Grenville Canal.
Carillon Canal.	Rideau Canal.

The total lockagè (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.	Interme- diate Distance.	Total Distance from Montreal.
	Miles.	Miles.
The Lachine canal .....	8½	
From Lachine to Ste. Anne's lock .....	15½	23
Ste. Anne's lock and piers .....	1	23
Ste. Anne's lock to Carillon canal .....	27	50
The Carillon canal .....	3	51
From Carillon to Grenville canal .....	6½	57
The Grenville canal .....	3	63
From the Grenville canal to entrance of Rideau navigation .....	56	119
Rideau navigation ending at Kingston .....	126½	245

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## STE. ANNE'S LOCK.

	New lock.	Old lock.
Length of canal.....	$\frac{1}{2}$ mile.	$\frac{1}{2}$ mile.
Number of locks.....	1	1
Dimensions of locks.....	200 x 45 feet.	190 x 45 feet.
Total rise or lockage.....	3 feet.	3 feet.
Depth of sills.....	9 "	6 "

This work, with guide piers above and below, surmounts the Ste. Anne's rapids between Ile Perrot and the head of the Island of Montreal, at the outlet of that portion of the River Ottawa which forms the Lake of Two Mountains,  $23\frac{1}{2}$  miles from Montreal harbour.

## THE CARILLON CANAL.

Length of canal.....	$\frac{3}{4}$ mile.
Number of locks.....	2
Dimensions of locks.....	200 x 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.

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.

## GRENVILLE CANAL.

Length of canal.....	$5\frac{3}{4}$ miles.
Number of locks.....	5.
Dimensions of locks.....	200 x 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 feet.

This canal, by which the Long Sault Rapids are avoided, is about 56 miles below the city of Ottawa, up to which point the River Ottawa affords unimpeded navigation.

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 x 33 feet.
Depth of water on sills.....	5 feet.
Navigation depth through the several reaches....	4 $\frac{1}{2}$ feet.
Breadth of canal reaches at bottom..	{ 60 feet in earth, 54 feet in rock.
Breadth of canal at surface of water.....	80 feet in earth

PERTH BRANCH.

Length of canal.....	6 miles.
Number of locks.....	2.
Dimensions of locks.....	134 feet x 32 feet
Total rise or lockage.....	26 "
Depth of water on sills.....	5 " 6 inches.
Length of dam.....	200 "
Breadth of canal at bottem.....	40 "
Breadth of canal at surface at water.....	{ 40 " in rock, 60 " in clay

The Perth branch of the Rideau canal affords communication between Beveridge's bay, on Lake Rideau, and the town of Perth.

The summit level of the Rideau system is at upper Lake Rideau, but several of the descending reaches are also supplied by waters which have been made tributary to them. The following description gives the sources of supply:—

From the summit, the route towards Ottawa follows the Rideau river, and that towards Kingston follows the River Cataragui. 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.

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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 Cataract. The river, rendered navigable by dams at various points, affords a line of navigation to Kingston.

### 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 down the River Richelieu to Lake Champlain. The distance from Sorel to the boundary line is 81 miles.

At Whitehall, the southern end of Lake Champlain is entered, and connection is obtained with the River Hudson, by which the city of New York is directly reached. From the boundary line to New York the distance is 330 miles.

The following table shows the distances between Sorel and New York:—

Section of Navigation.	Inter- mediate Distance.	Total Distances.
	Miles.	Miles.
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.....	145	411

### ST. OURS LOCK AND DAM.

Length.....	$\frac{1}{2}$ mile.
Number of locks.....	1
Dimensions of lock.....	200 feet by 45 feet.
Total rise or lockage.....	5 feet.
Depth of water on sills.....	7 feet at low water.
Length of dam in eastern channel.....	300 "
Length of dam in western channel.....	690 "

At St. Ours, 14 miles from Sorel, the River Richelieu is divided by a small island into two channels. The St. Ours lock is 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 32 miles.



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CHAMBLY CANAL.

Length of canal.....	12 miles.	
Number of locks.....	9	
Dimensions of locks:—		
Guard lock, No. 1 at St. Johns... ..	122 feet.	} From 22½ to 24 feet wide.
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 “	
Breadth of canal at 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.

TRENT CANAL.

The term ‘Trent canal’ is applied to a series of water stretches, which do not, however, form a connected system of navigation, and which, in their present condition, are efficient only for local use. By various works this local use has been extended, and by others, now in progress and contemplation, this will become a through route between Lake Ontario and Lake Huron.

The series is composed of a chain of lakes and rivers, extending from Trenton, at the mouth of the River Trent, on the Bay of Quinté, Lake Ontario, to Lake Huron.

Many years ago the utilizing of these waters for the purpose of through water communication between Lake Huron and Lake Ontario was projected.

The course, as originally contemplated and modified, is as follows:—

Through the River Trent, Rice lake, the River Otonabee and Lakes Clear, Stony, Lovesick, Deer, Buckhorn, Chemong, Pigeon, Sturgeon and Cameron to Lake Balsam, the summit water, about 165 miles from Trenton; from Lake Balsam by a canal and the River Talbot to Lake Simcoe; thence across Lake Simcoe to the Severn river; thence by the River Severn to Georgian Bay, Lake Huron; the total distance being about 200 miles, of which only about 15 or 20 miles will be actual canal.

The full execution of the scheme, commenced by the Imperial government in 1837, was deferred. By certain works, however, below specified, sections of these waters have been made practicable for navigation, and the whole scheme is now being carried out. A branch of the main route, extending from Sturgeon lake south, affords communication with the town of Lindsay, and, through Lake Sengog to Port Perry, a distance of 190 miles from Trenton.

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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 Falls dam.....	—	14½
Heeley's Falls dam to Peterborough.....	51¾	—
Peterborough to Lakefield.....	—	9½
Lakefield to a point across Balsam lake....	61	—
Balsam Lake to Lake Simcoe.....	—	18¾
Across Lake Simcoe to Severn River.....	18	—
Lake Simcoe to Georgian Bay via Severn River..	—	14
	150¼	65¾
Total distance, Bay of Quinté to Georgian Bay.....		212
From Sturgeon Point on Sturgeon lake, 48¾ miles from Lake- field, the branch through the town of Lindsay to Port Perry at the head of Lake Scugog.....		27

The works by which the Trent navigation has been improved comprise canals, with locks and bridges, at Young Point, Burleigh Rapids, Lovesick, Buckhorn Rapids, Bobcaygeon, Fenelon Falls and Rosedale; also dams at Lakefield, Young's Point, Burleigh Falls, Lovesick, Buckhorn, Bobcaygeon and Fenelon Falls. By these works there is afforded communication between Lakefield, 9½ miles from Peterborough, and Balsam lake, the headwaters of the system; opening up a total of about 160 miles of direct and lateral navigation.

At Lakefield, 9½ miles from Peterborough, the dam at the head of the Nine Mile rapids of the River Otonabee, maintains navigation on Lake Katchewanoe up to Young's Point.

At Young's Point, 5 miles from Lakefield, the dam between Lake Katchewanoe and Clear lake controls the water level through Clear and Stony lakes up to the foot of the Burleigh canal. The lock here, it should be observed, is controlled by the Provincial government.

At Burleigh Rapids, 10 miles from Young's Point, a canal, about 2¼ miles in length, passes the Burleigh and Lovesick rapids, and gives communication between Stony lake and Deer bay.

At Buckhorn rapids, 7 miles from Burleigh Rapids, there is a canal about one-fourth of a mile long.

At Bobcaygeon, 15¾ miles from Buckhorn Rapids, a dam, 553 feet long, controls the water level up to Fenelon Falls.

At Fenelon Falls, 15 miles from Bobcaygeon, a canal about one-third of a mile in length connects Sturgeon lake with Cameron lake.

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The following is a list of the locks, with their dimensions:—

1	Lock at Rosedale (maintained by the Ontario government),	100' x 30' x 4'. 6"		
		to 6' 6" depth water on mitre sill.		
2	Locks at Fenlon. . . . .	134' x 33' x 5' 0" to 7' 6'	depth of water on mitre sill.	
1	" Lindsay. . . . .	134' x 33' x 5' 0" to 7' 0"	"	"
1	" Bobcaygeon. . . . .	134' x 33' x 5' 8" to 7' 6"	"	"
1	" Buckhorn. . . . .	134' x 33' x 5' 0" to 9' 0"	"	"
1	" Lovesick. . . . .	134' x 33' x 5' 0" to 9' 4"	"	"
2	" Burleigh. . . . .	134' x 33' x 6' 0" to 5' 0"	"	"
1	" Young's Point (a provincial government work)	134' x 33' x 5' 0" to		
		14' 0" depth of water on mitre sill.		
1	" Peterborough. . . . .	134' x 33' x 5' 0" to 10' 0"	depth water on mitre sill.	
1	" Hastings. . . . .	134' x 33' x 7' 0" to 10' 6"	"	"
1	" Chisholm's. . . . .	134' x 33' x 5' 0" to 8' 6"	"	"

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## 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.

## BEAUHARNOIS CANAL.

Length of canal. . . . .	12 statute miles.
Number of locks. . . . .	9
Dimensions of locks. . . . .	200 feet by 45 feet.
Total rise or lockage. . . . .	82½ "
Depth of water on sills. . . . .	9 "
Breadth of canal at bottom. . . . .	80 "
Breadth of canal at water surface. . . . .	120 "

As the new Soulanges canal is now opened for navigation, it is to be presumed that the Beauharnois canal will be abandoned for navigation purposes.

## CHIEF ENGINEER'S REPORT.

DEPARTMENT OF RAILWAYS AND CANALS,  
OFFICE OF THE CHIEF ENGINEER,  
OTTAWA, November 1, 1903.

SIR,—I have the honour to submit my annual report for the fiscal year ended June 30, 1903, covering, however, the works of construction up to 1st October instant. Accompanying it are the following:—

*First.*—The annual report of the General Manager of Government Railways, to which are attached the report of the Chief Engineer, the Engineer of Maintenance, the Mechanical Superintendent of the Intercolonial Division and the report of the Superintendent of the Prince Edward Island Division, with statements of accounts prepared by the Accountants of these roads. (Part I.)

*Second.*—The annual reports of the Superintending Engineers of the several Canals, and of the Superintendents of the Sault Ste. Marie Canal, the St. Peter's Canal and of the St. Lawrence Canals. The engineer in charge of the improvements of the upper entrance of the Welland Canal and the engineer in charge of the improvements to the entrance to the Sault Ste. Marie Canal. (Part I.)

*Third.*—Proceedings before the Railway Committee of the Privy Council. (Part I.)

*Fourth.*—Financial Statements of the Accountant of the Department. (Part II.)

*Fifth.*—A statement of the condition of the subsidies granted in aid of the construction of railways; also a list of Railway Subsidy Acts. (Part III.)

*Sixth.*—Statement of contracts entered into during the year, prepared by Mr. Ruel. (Part IV.)

*Seventh.*—Statement of water powers and other public property leased by the Department during the year, prepared by Mr. Ruel. (Part IV.)

*Eighth.*—Statement of property purchased or damaged during the year, prepared by Mr. Ruel. (Part IV.)

*Ninth.*—Agreements respecting subsidies in aid of construction of railways entered into during the year, prepared by Mr. Ruel. (Part IV.)

*Tenth.*—The Canal Statistics for the season of navigation of 1902, compiled by Mr. Devlin. (Part V.)

*Eleventh.*—The Railway Statistics for the year ended June 30, 1903, compiled by Mr. Ridout from returns prepared by the Railway Companies. (Part VI.)

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The following shows the length of the government railways in operation on June 30, 1903:—

### INTERCOLONIAL RAILWAY.

#### MAIN LINE AND BRANCHES.

	Miles.
Montreal to Halifax, via Lévis.....	837
Moncton to St. John.....	89
Truro to Sydney.....	213
Oxford Junction to Pictou.....	69
St. Charles Junction to Chaudière Curve, via St. Henri.....	17
Dalhousie Junction to Dalhousie.....	7
Derby Junction to Indiantown.....	14
Painsec Junction to Point du Chene.....	12
Pugwash Junction to Pugwash.....	5
Stellarton Junction to Brown's Point.....	12
North Sydney Junction to North Sydney.....	5
New Glasgow to Pictou Landing.....	8
Dartmouth Branch.....	13
Nicolet Branch.....	14'76
	<hr/>
	1,315'76

#### FREIGHT BRANCHES.

	Miles.
Rivière du Loup Wharf Branch.....	4
Rimouski ".....	2
Newcastle ".....	2
Dorchester ".....	1
Courtney Bay ".....	1
Sackville ".....	50
Stewiacke ".....	1
Halifax Cotton Factory Branch.....	1
	<hr/>
	12'50
Total.....	<hr/>
	1,328'26

#### WINDSOR BRANCH.

Windsor Junction to Windsor.....	32
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#### PRINCE EDWARD ISLAND RAILWAY.

Souris to Tignish.....	167
Mount Stewart to Georgetown.....	24
Charlottetown to Royalty Junction.....	5
Emerald Junction to Cape Traverse.....	13
Alberton to Cascumpec Wharf.....	1
	<hr/>
	210
Total length of government railways.. . . .	<hr/>
	1,570'26

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The result of the year's operations of the government railways may be stated as follows :—

Name of Railway.	Mileage in Operation	Amount.		Profit.		Loss.	
		\$	cts.	\$	cts.	\$	cts.
Intercolonial Division . . . . .	1,301	Working expenses . . . . .	6,196,653	19	127,670	53	
		Earnings . . . . .	6,324,323	72			
Windsor Branch . . . . .	32	One-third earnings . . . . .	42,560	81	24,717	62	
		Maintenance . . . . .	17,843	19			
Prince Edward Island Division . . . . .	210	Working expenses . . . . .	259,637	82			41,923
		Earnings . . . . .	217,714	24			
Total miles . . . . .	1,543				152,388	15	
		Deduct loss from profit . . . . .			41,923	58	
		Net profit . . . . .			110,464	57	

The maintenance of the roads and rolling stock has received careful attention, and both roads continue to be in efficient condition ; the rolling stock is being brought up to the modern standard.

The working expenses of the Intercolonial Railway given above include the \$140,000 rental paid to the Grand Trunk Railway.

The gross earnings of the government railways for the last two years compare as follows :—

	1901-1902.	1902-1903.
Intereolonial Division . . . . .	\$5,671,385 91	\$6,324,323 72
Windsor Branch . . . . .	49,604 59	42,560 81
Prince Edward Island Division . . . . .	197,999 97	217,714 24
	<u>\$5,918,990 47</u>	<u>\$6,584,598 77</u>

Showing an increase in the gross earnings of \$665,608.30.

The gross working expenses of the government railways for the last two years compare as follows :—

	1901-1902.	1902-1903.
Intereolonial Division . . . . .	\$5,574,563 30	\$6,196,653 19
Windsor Branch . . . . .	16,376 27	17,843 19
Prince Edward Island Division . . . . .	270,159 97	259,637 82
Total . . . . .	<u>\$5,861,099 54</u>	<u>\$6,474,134 20</u>

Gross working expenses of government railways . . . . .	\$6,474,134 20
Gross earnings of government railways . . . . .	6,584,598 77

Excess of earnings over working expenses, which include rental, \$140,000 . . . . . \$ 110,464 57

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Showing an increase in working expenses for the year, compared with the previous year, of \$623,079.66, which is made up of the following:—

	1901-1902.		1902-1903.		Difference.			
					Increase.		Decrease.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Locomotive power.....	2,107,121	60	2,249,212	81	142,091	21		
Car expenses.....	1,180,186	12	1,388,805	73	208,619	61		
Maintenance of way and works.....	1,254,927	47	1,485,545	61	230,618	14		
Station expenses.....	737,718	80	831,650	91	93,932	11		
General charges.....	457,844	49	490,355	29	32,510	80		
Rental of leased lines.....	140,000	00	140,000	00				
	5,877,798	48	6,585,570	35	707,771	87		
Deduct car mileage.....	16,743	94	111,436	15	94,692	21	94,692	21
	5,861,054	54	6,474,134	20	613,079	66		
Net increase.....								

## INTERCOLONIAL DIVISION.

The ocean passenger and freight traffic via the port of Halifax shows a considerable increase for the winter season of 1902-3, as compared with the previous winter season.

COMPARATIVE Statement of Ocean-borne Passenger Business done at the Port of Halifax during the Winter Seasons of 1901-2 and 1902-3.

Name of Steamer.	1901-1902.			Name of Steamer.	1902-1903.		
	No. of Passengers.				No. of Passengers.		
	1st Class.	2nd Class.	Total.		1st Class.	2nd Class.	Total.
Pretrorian.....	16	2	18	Pretrorian.....	176	1,271	1,447
Parisian.....	23	50	73	Parisian.....	216	1,506	1,722
Neckon Castle.....	50	2,198	2,248	Bavarian.....	198	2,033	2,231
Corinthian.....	23	30	53	Corinthian.....	139	1,543	1,682
Manchester Shipper.....	1	146	147	Armenian.....		3,277	3,277
Siberian.....		7	7	Siberian.....	5	1,086	1,091
Lake Manitoba.....		37	37	Mongolian.....	26	726	752
Corean.....	3	28	31	Corean.....		489	489
Assyrian.....		19	19	Assyrian.....		2,944	2,944
Numidian.....	21	61	82	Numidian.....	71	1,758	1,829
Arcadian.....	1	12	13	Arcadian.....		971	971
Buenas.....		7	7	Canada.....	76	1,634	1,710
Lake Superior.....	1	22	23	Carthaginian.....	2	1,110	1,112
Tunisian.....	37	66	103	Tunisian.....	383	2,972	3,355
Ionian.....	37	114	151	Sardinian.....		501	501
Garth Castle.....		42	42	Laurentian.....	20	616	636
				Pomeranian.....	1	510	511
				Lake Champlain.....	61	1,306	1,367
				Adria.....		1,090	1,090
				Bulgaria.....		2,204	2,204
				Sicilian.....	4	16	20
Total.....	213	2,841	3,054	*Total.....	1,378	29,563	30,941

\* NOTE.—Of the above 29,315 travelled by the Canadian Pacific Railway and 1,626 travelled by the Intercolonial Railway.

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Of the 30,941 passengers carried by the Intercolonial Railway in 1902-3 as above, 29,315 travelled via St. John by the Canadian Pacific Railway, and 1,626 travelled by the Intercolonial Railway to Montreal.

COMPARATIVE STATEMENT of Ocean-borne Freight Traffic during the Winter Seasons of 1901-1902 and 1902-1903.

Name of Line of Steamers.	WINTER OF 1901-1902.			Name of Line of Steamers.	WINTER OF 1902-1903.		
	Measurement tons.	Weight tons.	Total tons.		Measurement tons.	Weight tons.	Total tons.
Furness-Allan . . . . .	2,433	2,640	5,073	Furness-Allan . . . . .	Nil.	Nil.	Nil.
Allan Line . . . . .	3,679	3,265	6,944	Allan Line . . . . .	3,962	2,530	6,492
Furness Line . . . . .	2,419	2,064	4,483	Furness Line . . . . .	4,339	8,445	12,784
Elder-Dempster . . . . .				Elder-Dempster . . . . .	Nil.	Nil.	Nil.
Pickford and Black . . . . .	30	11,830	11,860	Pickford and Black . . . . .	152	1,786	1,938
Beaver Line . . . . .	31	13	44	Beaver Line . . . . .	Nil.	Nil.	Nil.
Total . . . . .	8,592	19,812	28,404	Total . . . . .	8,453	12,761	21,214

The above statement shows a decrease of 7,190 tons of ocean-borne freight traffic for the winter season of 1902-3 as compared with the winter season of 1901-2.

The following is a statement of the quantity and classes of the rolling stock purchased on capital account up to June 30, 1903:—

	PASSENGER CAR STOCK.							Conductor's van.	Oil tank cars.	Box, cattle and refrigerator cars.	Platform cars.	Coal cars of 3 several kinds.	Snow ploughs.	Wing ploughs.	Flangers.	Rotary snow ploughs.	Auxiliary cars.
	Engines.	Dining cars.	1st class sleeping and par. car.	1st class.	2nd class sleepers.	2nd class.	Baggage and mail postal.										
290	7	27	109	25	93	50	99	15	5,279	999	54	49	10	22	2	10	
.....	.....	5	.....	.....	.....	32	.....	.....	84	.....	593	.....	.....	.....	.....	.....	
Total . . . . .	290	7	32	109	25	93	82	99	15	5,486	2,635	1,646	49	10	22	2	10

NOTE.—15 platform cars have been converted into oil tank cars.

31 coal cars have been converted into platform cars.

98 gondola cars have been converted into 98 platform cars.



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The following is a statement of the quantity and classes of rolling stock which have been rebuilt during the year ended June 30, 1903, at the cost of revenue to maintain the work:—

	Passenger Car Stock.														
	Engines.	1st class sleeping and parlor.	1st class.	2nd class sleepers.	2nd class.	Baggage and mail.	Conductor's van.	Auxiliary cars.	Platform cars.	Stock cars.	Coal cars of three several kinds.	Snow ploughs.	Wing ploughs.	Flangers.	Rotary snow ploughs.
Total.....	3	1					2		149	21	131	3			

The following table shows the working expenses, gross earnings, the tonnage of freight and number of passengers carried each year since July 1, 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	318,957
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	2,583,959	67	2,450,993	88			133,965 79		1,023,788	932,880
1886-87.....	977	2,922,369	62	2,660,116	93			262,252 69		1,143,020	942,784
1887-88.....	971	3,306,781	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			276,847 73		1,218,877	1,136,272
1889-90.....	971	3,569,575	74	3,012,739	87			847,835 87		1,368,819	1,219,233
1890-91.....	1,094	3,662,341	94	2,977,395	38			684,946 56		1,304,534	1,298,304
1891-92.....	1,142	3,439,377	00	2,945,441	97			493,935 03		1,264,575	1,297,732
1892-93.....	1,142	3,045,317	50	3,065,499	09	20,181 59				1,388,080	1,292,878
1893-94.....	1,142	2,981,671	98	2,987,510	27	5,838 29				1,342,710	1,301,062
1894-95.....	1,142	2,936,902	74	2,940,717	95	3,815,21				1,276,816	1,352,667
1895-96.....	1,142	3,012,827	62	2,957,640	10			55,187 52		1,379,618	1,471,866
1896-97.....	1,145	2,925,968	67	2,866,028	02			59,940 65		1,296,028	1,501,690
1897-98.....	1,201	3,327,648	51	3,117,669	85			209,978 66		1,424,576	1,523,444
*1898-99.....	1,301	3,075,686	21	3,738,331	44	62,645 43				1,750,761	1,603,095
*1899-1900.....	1,301	4,431,404	69	4,552,071	71	120,667 02				2,151,208	1,751,754
*1900-01.....	1,301	5,460,422	64	4,972,235	87			488,186 77		2,111,310	2,025,295
*1901-02.....	1,301	5,574,563	30	5,671,385	91	96,822 61				2,385,816	2,186,226
*1902-03.....	1,315	6,196,653	19	6,324,323	72	127,670 53				2,790,737	2,404,230

The working expenses include the rental paid for leased lines.

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## INTERCOLONIAL RAILWAY.

STATEMENT of Earnings from the several sources named from June 30, 1876, to June 30, 1903.

Year.	Miles in operation.	Passenger	Freight	Mails and sundries.	Total.				
		traffic.	traffic.						
		£	cts.	£	cts.				
1876-77	714	460,368	15	607,564	99	86,512	21	1,154,445	33
1877-78	714	475,256	82	801,709	82	101,985	07	1,378,946	78
1878-79	714	451,893	29	753,490	85	88,715	55	1,294,009	69
1879-80	829	490,338	66	915,486	50	100,473	32	1,506,298	48
1880-81	840	545,114	48	1,113,872	21	101,407	23	1,766,393	92
1881-82	840	651,296	94	1,303,495	00	124,470	72	2,079,262	66
1882-83	840	741,992	72	1,487,601	98	141,326	40	2,370,910	10
1883-84	887	775,783	77	1,461,390	37	147,240	78	2,384,414	92
1884-85	941	747,585	13	1,542,052	18	151,566	35	2,441,203	66
1885-86	946	765,900	03	1,523,487	72	160,706	13	2,450,093	88
1886-87	977	828,328	28	1,677,971	59	153,817	06	2,660,116	93
1887-88	971	884,448	07	1,932,877	85	166,010	13	2,983,336	05
1888-89	971	906,246	47	1,909,094	44	152,460	09	2,967,801	00
1889-90	971	895,094	53	1,964,646	86	152,998	48	3,012,739	87
1890-91	1,094	962,316	88	1,854,629	88	160,448	62	2,977,395	38
1891-92	1,142	961,427	94	1,803,529	03	180,485	00	2,945,441	97
1892-93	1,142	1,002,912	74	1,868,823	84	194,468	80	3,065,499	09
1893-94	1,142	958,915	13	1,834,123	34	193,762	51	2,987,502	27
1894-95	1,142	963,914	44	1,782,608	54	194,194	97	2,940,717	95
1895-96	1,142	971,426	26	1,788,813	18	197,400	66	2,957,640	10
1896-97	1,145	979,005	57	1,687,050	42	199,972	03	2,866,028	92
1897-98	1,201	1,053,864	64	1,857,740	06	206,065	15	3,117,669	85
1898-99	1,315	1,167,453	16	2,348,096	58	222,781	70	3,738,331	44
1899-00	1,315	1,404,469	87	2,912,790	52	234,811	32	4,552,071	71
1900-01	1,315	1,607,166	79	3,121,006	15	244,062	93	4,972,235	87
1901-02	1,315	1,770,941	13	3,644,513	42	255,931	36	5,671,385	91
1902-03	1,315	1,927,916	97	4,128,255	00	268,151	75	6,324,323	72

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## INTERCOLONIAL RAILWAY.

STATEMENT showing the Number of Tons of Local and Through Freight Carried from June 30, 1876, to June 30, 1903.

Year	Miles in operation.	Local freight.	Through freight.	Total.
1876-7	714	The information for these years was destroyed when the general offices in Moncton were burned.		421,327
1877-8	714			522,710
1878-9	714			510,861
1879-0	829			561,924
1880-1	840			725,777
1881-2	840	571,684	267,272	838,956
1882-3	840	537,025	443,936	970,961
1883-4	887	584,581	424,656	1,009,237
1884-5	941	506,574	483,362	989,936
1885-6	946	580,076	443,712	1,023,788
1886-7	977	633,455	509,565	1,143,020
1887-8	971	727,599	561,224	1,288,823
1888-9	971	624,436	594,441	1,218,877
1889-0	971	756,696	612,123	1,368,819
1890-1	1,094	797,492	507,942	1,305,434
1891-2	1,142	750,783	513,792	1,264,575
1892-3	1,142	1,030,628	357,452	1,388,080
1893-4	1,142	996,114	376,596	1,372,710
1894-5	1,142	991,374	366,442	1,267,816
1895-6	1,142	1,011,229	368,389	1,379,618
1896-7	1,145	927,167	368,859	1,296,028
1897-8	1,201	1,053,569	381,007	1,434,576
1898-9	1,315	1,351,569	399,192	1,750,761
1899-0	1,315	1,713,928	437,280	2,151,208
1900-1	1,315	1,633,671	477,639	2,111,310
1901-2	1,315	1,914,351	471,265	2,385,616
1902-3	1,315	2,239,993	550,744	2,790,737

NOTE.—According to this table, the Through Freight business appears to be less than 16 years ago. This is explained by Montreal having become a local station after the I. C. Ry. was extending to that city. Another cause is the opening of the C. P. Ry. to St. John.

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## INTERCOLONIAL RAILWAY.

STATEMENT of the Number of Local and Through Passengers carried from June 30, 1876, to June 30, 1903.

Year.	Miles in Operation.	Number of Local Passengers.	Number of Through Passengers.	Total.
1876-7.	714	The information for these years was destroyed when the general offices in Moncton were burned.		613,420
1877-8.	714			618,957
1878-9.	714			640,101
1879-80.	829			581,483
1880-1.	840			631,245
1881-2.	840	647,534	132,460	779,994
1882-3.	840	728,186	150,414	878,600
1883-4.	887	784,715	159,921	944,636
1884-5.	941	812,028	145,200	957,228
1885-6.	946	784,817	148,063	932,880
1886-7.	977	814,032	128,752	942,784
1887-8.	971	948,324	91,839	1,040,163
1888-9.	971	1,050,592	85,680	1,136,272
1889-90.	971	1,112,695	91,531	1,219,233
1890-1.	1,094	1,203,814	94,490	1,298,304
1891-2.	1,142	1,198,649	99,083	1,297,732
1892-3.	1,142	1,188,827	104,051	1,292,878
1893-4.	1,142	1,216,027	85,035	1,301,062
1894-5.	1,142	1,272,284	80,383	1,352,667
1895-6.	1,142	1,386,803	85,063	1,471,866
1896-7.	1,145	1,416,631	85,059	1,501,690
1897-8.	1,201	1,438,590	89,854	1,523,444
1898-9.	1,315	1,504,652	98,443	1,603,095
1899-1900.	1,315	1,678,858	112,896	1,791,754
1900-1.	1,315	1,905,599	119,696	2,025,295
1901-2.	1,315	2,061,196	125,030	2,186,226
1902-3.	1,315	2,255,013	149,217	2,404,230

NOTE.—According to this table the Through Passenger business appears to be less than it was 20 years ago, this is explained by the business of Montreal having become local after the I. C. Ry. was extended to that city, the Montreal business is now classed local. The opening of the C. P. Ry. to St. John also affected it.

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The following table shows the number of tons of coal carried over the Intercolonial Railway from the Nova Scotia collieries to Ste. Rosalie, Montreal and St. John for points west thereof, and to local stations in each year since the road was opened as a through line:—

Year.	For the West.			To Local Stations.	Total.
	Via Ste. Rosalie.	Via Montreal.	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		9,102	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	492,653	543,296
1893-94		102,273	8,028	367,390	478,691
1894-95		67,082	7,865	310,253	385,200
1895-96		53,124	9,681	369,708	432,513
1896-97		38,395	12,305	331,469	382,172
1897-98		9,084	9,796	351,069	369,949
1898-99		4,644	5,399	484,163	494,206
1899-1900		3,495	Nil.	509,714	603,289
1900-01	136	Nil.	Nil.	506,454	506,590
1901-02	1,131	5,763	3,640	546,986	557,520
1902-03	2,200	7,817	6,775	725,727	742,519

It thus appears that the largest tonnage of coal carried over the road for the west was in the year 1886-7, when it reached 220,407 tons, since which the through coal traffic for points west of the Intercolonial Railway has greatly declined.

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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	Via			Via	Via	
	Chaudière.	St. John.			Chaudière.	St. John.	
1876-77				1890-91	148,803	59,534	218,337
1877-78				1891-92	845,997	519,500	1,265,497
1878-79				1892-93	155,306	197,669	352,975
1879-80				1893-94	Nil.	8,026	8,026
1880-81				1894-95	Nil.	Nil.	Nil.
1881-82				1895-96	Nil.	Nil.	Nil.
1882-83	31,011		31,011	1896-97	Nil.	Nil.	Nil.
1883-84	73,389		73,389	1897-98	8,000	Nil.	8,000
1884-85	300,901		300,901	1898-99	30,000	Nil.	30,000
1885-86	389,122		389,122	1899-1900	15,239	Nil.	15,239
1886-87	575,880		575,880	1900-01	147	Nil.	147
1887-88	69,021		69,021	1901-02	Nil.	Nil.	Nil.
1888-89	129,725		129,725	1902-03	Nil.	Nil.	Nil.
1889-90	502,012		502,012				

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	1890-91	1,013,129
1877-78	557,778	1891-92	954,015
1878-79	620,329	1892-93	856,913
1879-80	535,248	1893-94	944,967
1880-81	672,310	1894-95	938,351
1881-82	692,095	1895-96	822,097
1882-83	983,916	1896-97	847,701
1883-84	817,134	1897-98	987,408
1884-85	935,977	1898-99	1,157,250
1885-86	761,127	1899-1900	1,234,076
1886-87	1,638,894	1900-01	1,292,106
1887-88	871,838	1901-02	1,311,707
1888-89	948,514	1902-03	1,521,540
1889-90	1,116,650		

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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	1890-91.....	2,890,921
1877-78.....	331,170	1891-92.....	3,776,677
1878-79.....	302,921	1892-93.....	1,514,619
1879-80.....	534,021	1893-94.....	1,304,684
1880-81.....	563,678	1894-95.....	1,036,384
1881-82.....	560,253	1895-96.....	1,064,385
1882-83.....	1,195,691	1896-97.....	1,093,499
1883-84.....	654,673	1897-98.....	1,551,372
1884-85.....	734,902	1898-99.....	2,595,353
1885-86.....	849,800	1899-1900.....	2,720,453
1886-87.....	1,918,395	1900-1901.....	3,535,364
1887-88.....	1,219,035	1901-02.....	2,959,761
1888-89.....	1,256,158	1902-03.....	3,392,252
1899-90.....	2,610,202		

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.....	50,096,474	1890-91.....	184,188,324
1877-78.....	56,626,547	1891-92.....	175,474,340
1878-79.....	55,626,696	1892-93.....	181,211,013
1879-80.....	55,462,654	1893-94.....	200,507,949
1880-81.....	72,841,388	1894-95.....	202,247,269
1881-82.....	78,356,418	1895-96.....	226,332,715
1882-83.....	104,633,417	1896-97.....	243,355,725
1883-84.....	131,120,948	1897-98.....	354,093,816
1884-85.....	138,493,675	1898-99.....	306,554,031
1885-86.....	117,186,512	1899-1900.....	379,350,074
1886-87.....	161,801,763	1900-1901.....	396,858,964
1887-88.....	197,755,272	1901-02.....	428,051,029
1888-89.....	199,507,777	1902-03.....	459,231,589
1889-90.....	210,886,071		

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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	1890-91.....	95,529
1877-78.....	46,498	1891-92.....	87,889
1878-79.....	47,584	1892-93.....	93,369
1879-80.....	70,990	1893-94.....	79,203
1880-81.....	61,574	1894-95.....	72,106
1881-82.....	73,479	1895-96.....	64,051
1882-83.....	68,338	1896-97.....	72,082
1883-84.....	60,090	1897-98.....	89,301
1884-85.....	70,785	1898-99.....	109,821
1885-86.....	74,498	1899-1900.....	92,813
1886-87.....	82,896	1900-01.....	95,923
1887-88.....	98,302	1901-02.....	98,495
1888-89.....	85,960	1902-03.....	127,060
1889-90.....	80,771		

TABLE showing the number of tons of ocean-borne goods to and from Europe, via the port of Halifax, carried over the road during each year since it was first opened for traffic as a through line.

Year.	Via Ste. Rosalie and from the West.	Via Mont- real to and from the West.	Via St. John to and from the West.	To and from local Stations.	Total.
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
1893-94.....		3,023	204	13,455	16,682
1894-95.....		6,749	213	10,399	17,361
1895-96.....		3,767	314	16,748	20,829
1896-97.....		2,654	263	17,239	20,156
1897-98.....		5,950	1,637	18,633	26,220
1898-99.....		2,465	243	31,555	34,263
1899-1900.....		2,379	307	37,108	39,794
1900-01.....	322	6,860	1,142	155,514	163,838
1901-02.....	1,106	7,780	1,528	172,733	183,147
1902-03.....	817	11,925	1,194	124,695	138,631



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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 Montreal for the West.	To St. John for the West.	To Local Stations.	Total.	To Ste. Rosalie for the West.	To Montreal for the West.	To St. John for the West.	To Local Stations.	Total.
	Tons.	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	11,126		3,607	10,753
1882-83	9,465		508	9,973	16,846	14,543		5,497	16,623
1883-84	13,778		3,068	16,846	14,543	18,024		7,265	21,808
1884-85	10,381		3,661	14,042	8,392	7,674		8,445	26,469
1885-86	4,394		3,998	8,392	15,044	21,641		5,858	13,518
1886-87	20,450		8,500	28,950	12,955	6,778		8,395	23,439
1887-88	14,320		14,085	28,405	10,130	468		7,133	28,774
1888-89	24,358		7,160	31,518	12,633	7,647		11,120	24,075
1889-90	7,390		8,913	16,303	15,138	13,734		6,125	12,903
1890-91	5,088	4,670	8,215	17,973	15,138	13,734		5,996	16,594
1891-92	7,142	3,960	10,535	21,637	15,138	13,734		12,414	32,721
1892-93	Nil.	Nil.	10,137	10,137	8,327	6,456		7,840	22,623
1893-94	Nil.	Nil.	6,775	6,775	17,729	6,967		8,885	33,581
1894-95	Nil.	Nil.	10,342	10,342	13,351	15,819		4,695	33,865
1895-96	Nil.	Nil.	9,824	9,824	15,138	13,734		11,309	40,181
1896-97	Nil.	Nil.	4,925	4,925	5,694	8,069		6,957	20,720
1897-98	Nil.	Nil.	Nil.	Nil.	6,624	8,821		10,989	26,534
1898-99	Nil.	Nil.	Nil.	Nil.	8,138	2,193		15,833	26,164
1899-1900	96	Nil.	Nil.	96	9,795	257		19,655	29,907
1900-01	489	Nil.	Nil.	489	403	14,791	12	10,615	25,821
1901-02	90	Nil.	11,553	11,643	3,101	6,831	861	18,839	29,632
1902-03	194	Nil.	17,137	17,331	3,183	5,763	1,636	20,529	31,111

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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 Ste. Rosalie for the West.	To Mont- real for the West.	To St. John for the West.	To Local Sta- tions.	Total.	To Ste. Rosalie for the West.	To Mont- real for the West.	To St. John for the West.	To Local Sta- tions.	Total.
	Tons.	Tons.	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		3,229	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		1,689	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
1893-94.....		1,959	2,192	2,224	6,375		2,921	1,814	2,962	7,697
1894-95.....		2,006	3,726	1,160	6,892		2,075	1,849	5,285	10,209
1895-96.....		1,966	3,059	1,319	6,344		1,863	1,087	2,791	5,741
1896-97.....		3,307	3,115	1,286	7,708		2,168	1,176	2,536	5,880
1897-98.....		3,575	3,703	1,052	8,330		1,729	1,066	2,210	5,005
1898-99.....		1,210	2,070	3,305	6,583		1,651	1,198	3,625	5,474
1899-1900.....		2,547	2,706	3,686	8,939		2,421	1,563	2,659	6,643
1900-01.....	37	2,009	3,207	4,125	9,393	360	3,419	1,346	4,643	9,768
1901-02.....	219	3,013	4,373	5,477	13,082	283	3,150	1,413	5,196	10,042
1902-03.....	140	2,269	3,040	4,842	10,289	493	2,808	1,615	6,579	11,495

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37.24 miles of 67 lb. rails and 37.21 miles of 58 lb. rails were taken up and replaced by 90.50 miles of 80 lb. and 19.95 miles by 100 lb. rails; 648,694 ties and 146 sets of switch ties were renewed.

## CAPITAL ACCOUNT.

Total cost of road and equipment up to June 30, 1903 :

Road, including \$1,464,000 paid on account purchasing Drummond County Railway.....	\$57,273,027 00
Rolling stock.....	13,254,337 43
	<hr/>
Total.....	\$70,527,364 43*

The increased accommodation at the deep water terminus at Halifax is still progressing. The dredging and removing of rock is completed, the land near the elevator has been purchased, additional sidings have been laid, all of which facilitates the work of conducting the traffic.

One hundred locomotives have been added to the rolling stock, and both the road and rolling stock have been efficiently maintained during the year.

The net results in the operation of this road show a still further improvement, attributable largely no doubt to the introduction of more powerful locomotives and freight cars of greater carrying capacity now in use upon the road; and the bringing of the passenger train equipment up to a high standard of excellence. Further additions to this class of rolling stock are in contemplation, as being a necessity for the efficient working of the traffic.

## WINDSOR BRANCH.

This road continues to be operated by the Dominion Atlantic Railway Company, formerly the Windsor and Annapolis Railway Company, the company receiving two-thirds of the gross earnings for working the traffic, and the government one-third of the gross earnings for maintaining the way and works.

This road has been maintained in efficient condition.

\*NOTE.—In addition to the above \$70,527,364, there was expended on the Montreal and European Short Line Ry. which now forms part of the I. C. R. the sum of \$233,942.72.

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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	21,052 19	13,099 55	7,953 64	.....
1882-83..	32	31,199 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	6,689 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	.....
1880-91..	32	39,519 56	9,284 43	33,508 35	28,931 71	1,303 42	.....
1881-92..	32	42,891 23	9,382 38	30,235 13	19,514 37	13,994 48	.....
1882-93..	32	43,901 28	9,585 17	34,316 11	16,889 95	17,426 16	.....
1883-94..	32	41,834 70	8,859 23	32,975 47	17,645 09	15,330 38	.....
1884-95..	32	50,703 84	11,626 20	39,077 64	14,640 07	24,437 57	.....
1885-96..	32	47,456 74	10,894 91	36,561 83	16,476 46	20,985 37	.....
1886-97..	32	54,208 81	13,605 58	40,603 23	10,821 04	29,782 19	.....
1887-98..	32	48,892 21	11,665 57	37,226 64	18,181 09	14,045 01	.....
1888-99..	32	56,314 51	13,840 48	42,474 04	12,873 06	29,600 94	.....
1889-1900	32	62,266 61	14,925 18	47,351 43	12,891 56	34,459 87	.....
1900-01..	32	62,523 20	15,261 31	47,261 89	16,862 66	30,399 23	.....
1901-02..	32	65,315 38	15,710 79	49,604 59	16,376 27	33,228 32	.....
1902-03..	32	56,417 38	13,856 57	42,560 81	17,843 19	24,717 62	.....

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PRINCE EDWARD ISLAND RAILWAY.

CAPITAL ACCOUNT.

The cost of road and rolling stock up to June 30, 1903:—

Road, &c. . . . .	\$4,912,710 33
Rolling stock. . . . .	516,529 00
<hr/>	
Total. . . . .	\$5,429,239 33
<hr/> <hr/>	

The rolling stock provided on capital account consists of:—

Engines.	Passenger car Stock.			Official cars.	Box, cattle and Refrigerator cars.	Platform car and coal cars.	Conductors' vans.	Pay car.	Snow ploughs.	Flanges.
	1st class cars.	2nd class cars.	Baggage, smoking and postal.							
25	21	14	4 3 4	1	213 17 1	147 18	3	1	8	7
			11		231	165				

The capital expenditure during the year amounted to \$829,414.18, of which was expended on the construction of the Murray Harbour branch railway and on the Hillsboro' bridge \$799,991.74, and \$13,400 for steel rails, 56 lbs. to the yard.

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Statement of rolling stock rebuilt during the year:—

One baggage car, 1 stock car, 1 coal car, 14 platform cars.

The following works are being carried on, on capital account:—

1. Bridge over the Hillsboro' river at Charlottetown, of which Mr. M. J. Hancy is the contractor, for the substructure, which work is well advanced. Total expenditure up to June 30, 1902.....	\$275,962 71
Expenditure from June 30, 1902, to June 30, 1903.....	459,139 28
	-----
Total expenditure up to June 30, 1903.....	\$735,101 99
	=====
2. Murray Harbour branch, of which Mr. Willard Kitchen is the contractor. Total expenditure up to June 30, 1902.....	\$416,571 02
Expended from June 30, 1902 to June 30, 1903.....	340,852 46
	-----
* Total expenditure up to June 30, 1903.....	\$757,423 48
	=====

\*Of this total of \$757,423.48, \$94,259.66 is for rolling stock.

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The following table shows the working expenses, the gross and net earnings, the tons of freight and number of persons carried each year since June 30, 1875, when the road was first opened for traffic:—

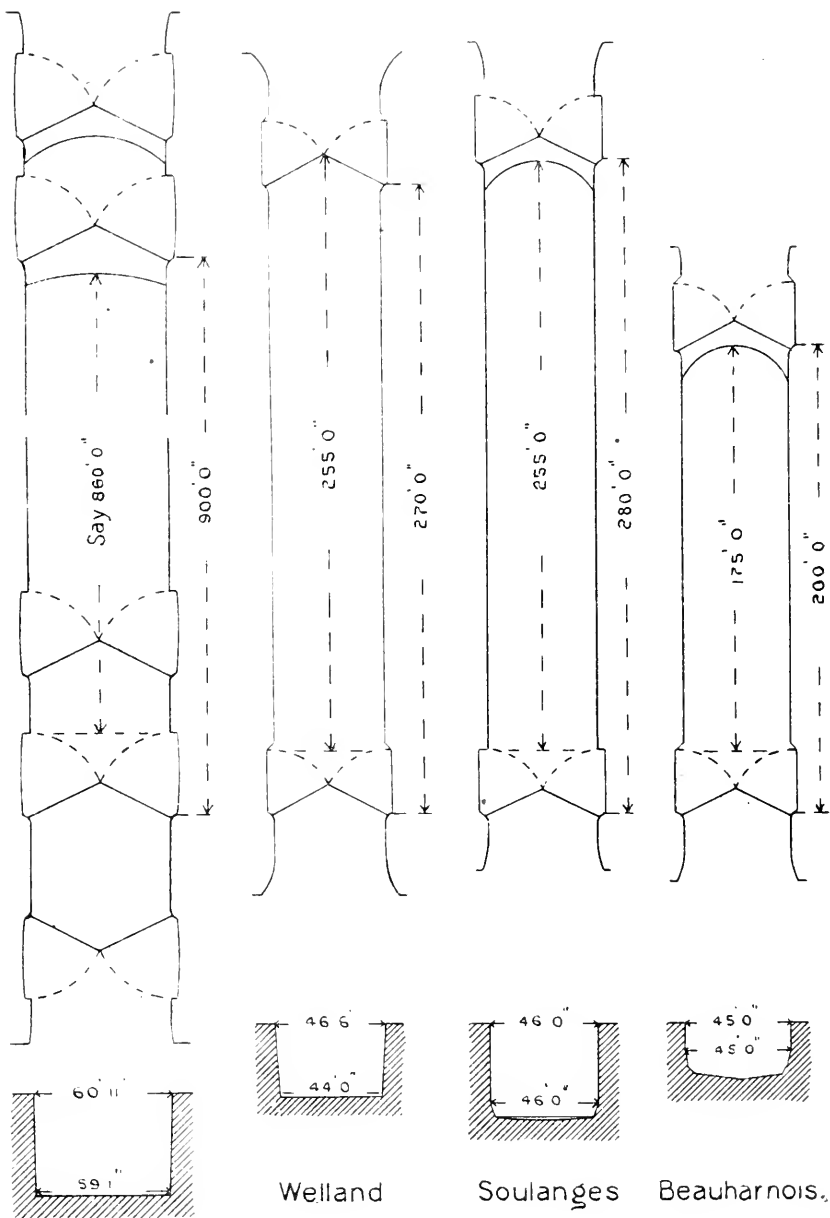
Year.	Miles in operation.	Working ex- penses.		Gross earnings.		Loss.	Tons of freight carried.	No. of passengers carried.	
		§	cts.	§	cts.				§
1875-76.....	199	214,930	43	118,060	96	96,869	47	28,358	93,964
1876-77.....	199	228,595	25	130,664	92	97,930	33	41,039	93,478
1877-78.....	199	221,599	49	135,899	60	85,699	89	38,668	111,428
1878-79.....	199	223,313	12	125,855	99	97,457	21	38,923	105,046
1879-80.....	199	164,640	55	113,851	11	59,789	44	37,298	90,533
1880-81.....	199	203,122	88	131,131	43	71,991	45	45,336	102,937
1881-82.....	199	228,259	97	137,267	54	90,922	43	48,315	118,436
1882-83.....	199	252,808	41	146,170	42	106,637	99	51,920	117,162
1883-84.....	199	236,428	13	144,504	12	91,924	01	51,841	118,988
1884-85.....	211	211,207	01	158,588	06	52,618	95	57,346	130,423
1885-86.....	211	216,744	34	155,584	36	61,159	98	57,913	120,374
1886-87.....	211	204,237	37	155,303	37	48,934	00	63,589	103,067
1887-88.....	211	229,639	95	158,365	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	87	160,971	78	105,514	97	51,604	133,699
1890-91.....	211	257,990	08	174,258	05	83,732	03	59,511	145,598
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
1893-94.....	211	226,891	06	158,533	83	68,857	23	53,577	123,727
1894-95.....	211	232,105	19	149,654	71	83,250	41	48,325	125,089
1895-96.....	211	225,138	56	146,476	54	78,662	02	46,395	122,586
1896-97.....	211	240,489	90	153,443	13	87,946	77	52,151	121,498
1897-98.....	211	231,418	74	158,950	61	72,468	13	57,539	126,519
1898-99.....	211	218,053	01	165,021	03	53,049	98	57,968	129,667
1899-1900.....	211	220,931	81	174,738	73	46,193	08	62,227	147,471
1900-01.....	211	261,766	24	193,833	48	67,883	76	73,696	157,793
1901-02.....	210	270,159	97	197,999	97	72,160	00	75,381	184,748
1902-03.....	209	259,637	82	217,714	24	41,923	58	80,582	203,265

Steel rails (50 and 56 lbs. to yard).....	Miles. 205
Iron rails (40 lbs. to yard).....	4
Total length of road.....	209

The road and rolling stock are in good running condition.

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Plans and Sections showing the on each of the Canadian Canal which is uncompleted.



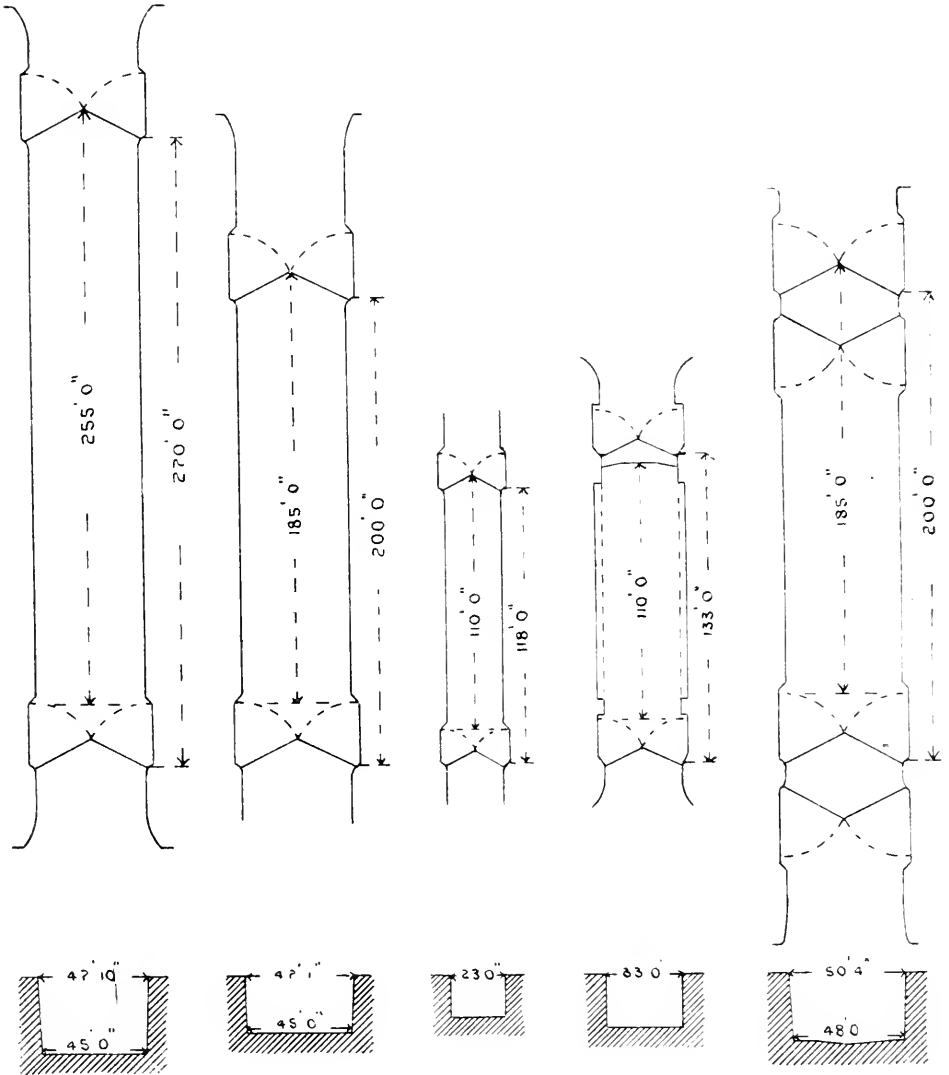
Sault Ste. Marie.

There are no locks on the through Montreal of less dimensions than



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dimensions of the smallest lock Systems. Except the Trent



Lachine.

St Anne,  
St Ours,  
Carillon,  
& Grenville.

Chambly.

Rideau.

St Peter's

route between Lake Superior and those of the Welland Canal locks.

## CANALS.

The preceding diagrams of the locks on the Lachine, Soulanges, Welland and Sault Ste. Marie canals practically give the key to the whole navigation between Montreal and Lake Superior. There are no locks to be passed of less dimensions than those of the Welland canal.

The dimensions of the locks on the Beauharnois, Carillon, Grenville, St. Anne, Chambly, St. Ours, Rideau and St. Peter canals are also shown.

## CONSTRUCTION.

## SOULANGES CANAL.

This canal extends from Coteau Landing to Cascades Point, a distance of 14 miles.

The works of construction of this canal are now completed with the exception of the erection of workshops at Cascades Point, the contract for which has recently been awarded to Mr. Prefontaine.

Total expenditure up to June 30, 1902, . . . . .	\$3,489,714 22
Expended during the year ended June 30, 1903, . . . . .	248,929 10
	<hr/>
Total expenditure up to June 30, 1903, . . . . .	\$3,738,643 32
Expended from June 30, 1903, to October 1, 1903, . . . . .	487 97
	<hr/>
Total expenditure up to October 1, 1903, . . . . .	<u>\$6,739,131 29</u>

## SAULT STE. MARIE CANAL.

This canal is cut through St. Mary's Island; it is 1½ miles in length. The canal proper has a depth of 22 feet of water in the prism, with 20 feet 4 inches of water on mitre sill of the lock, at low water, which is equivalent to the depth on the American lock. The dredging out of the lower entrance for a depth of 21 feet 5 inches at low water, with a minimum width of 315 feet, has been completed. It now remains to treat the upper entrance in a similar manner, deepening the channel, which has only 18 feet at low water, to 21 feet 5 inches, and widening out the entrance to give safer passage for vessels approaching and departing from the canal. It is also found to be absolutely necessary to increase the length of the entrance piers at each end of the canal about 800 feet. Preparations have been made for inviting tenders for these works. A series of soundings have been taken over the whole of the upper entrance, and plans and specifications have been prepared both of this field of soundings and of the extension of the south lower entrance pier. It is proposed to continue this work next year by lengthening the south pier at the upper entrance by 800 feet, and deepening and widening the entire upper entrance. The probable addition to this appropriation for the current year will be \$170,000.

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Total expenditure up to June 30, 1902.....	\$4,215,591 33
Expended from June 30, 1902, to June 30, 1903....	65,932 43
<hr/>	
Total expenditure up to June 30, 1903.....	4,281,464 76
Expenditure from June 30, 1903, to October 1, 1903..	220 00
<hr/>	
Total expenditure up to October 1, 1903.....	\$4,281,684 76

## TRENT CANAL.

This canal, when completed, is designed to extend from Trenton on the Bay of Quinte to the Georgian Bay on Lake Huron, at the mouth of the Severn River, the total distance being about 200 miles, of which 20 miles are canal and about 180 miles river and lake navigation.

The works now under contract are :--

*Section 2* of the Peterboro-Lakefield Division is 3'83 miles in length. Messrs. Corry & Laverdure were the contractors for the construction of this section, with the exception of the steel structure for the hydraulic lift. I am pleased to be able to report that Messrs. Corry & Laverdure's work is completed, and is a very creditable piece of work, of which they have reason to be proud. The steel structure is now in course of erection by the Dominion Bridge Company of Montreal and is about completed, but will not be operated until the opening of navigation next spring.

*Section 1* of the Peterboro-Lakefield Division is 5'78 miles in length. Messrs. Brown, Love & Aylmer are the contractors. The works are completed. The work is well done. Amongst other features it comprised 5 dams and 5 locks. These locks are constructed of concrete, and have a very neat, finished appearance.

The length of the Peterboro-Lakefield Division is about 10½ miles.

*Section 1.*—Balsam-Simcoe division, Andrew Onderdonk, contractor. This section extends from Balsam lake, 6 miles, to Kirkfield, a distance of about 6 miles. The work is completed.

*Section 2* of the Balsam-Simcoe division. Messrs. Larkin & Sangster are the contractors for this section, which is about 7½ miles long, except for the construction of an hydraulic lift lock. The work is practically completed, with the exception of the hydraulic lift-lock, for the construction of which tenders have not yet been invited.

*Section 3* of the Balsam-Simcoe division. Messrs. Brown & Aylmer are the contractors. The section is about 5½ miles in length, and extends to Lake Simcoe. The work of constructing the piers and abutments of the several bridges is completed; the concrete work of the locks and dams is well advanced (two locks and one dam; others are well under way.) The work remaining to be done in forming the prism of the canal is almost entirely confined to the first 1¼ miles from the upper entrance, where a dredge is at work dredging out the prism of the canal from Lake Simcoe. She has reached to within about 300 feet of the Grand Trunk Railway bridge over the canal.

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To complete this canal there remains yet to be placed under contract the sections from Trenton to Frankfort, 9 miles, from Percy Landing to Heeley's Falls, 14½ miles, and from Lake Simcoe to Georgian bay, 14 miles.

The length of the Balsam-Simcoe division is about 18¾ miles. The following is a statement of the expenditure made on the construction of this canal from its commencement up to October 1, 1903:—

Expenditure prior to June 30, 1867.....	\$ 309,371 31
Expenditure subsequent to June 30, 1867 and June 30, 1894 (date of works now under contract).....	782,524 88
Expenditure from June 30, 1894, to June 30, 1901.....	2,070,431 18
	<hr/>
Total expenditure up to June 30, 1901.....	\$3,162,327 37
Expended from June 30, 1901, to June 30, 1903.....	973,026 19
	<hr/>
Total expenditure up to June 30, 1903.....	\$4,135,353 56
Expended from June 30, 1903, to October 1, 1903.....	82,298 59
	<hr/>
Total expenditure up to October 1, 1903.....	<u>\$4,217,652 15</u>

## ENLARGEMENT.

## LACHINE CANAL.

This canal extends from Montreal to Lachine, a distance of 8½ miles. The mitre sills of the locks have 14 feet of water upon them, the stone lining of the prism of the canal is progressing slowly, and much remains yet to be done to complete the work, as the major portion of it can only be done when the canal is unwatered in the spring, for about a month. The lower portion of this canal as far up as the St. Gabriel basins is being dredged by the government dredge to a depth of 20 feet below low water, so that large vessels can enter the several basins. This work cannot be completed until the wall on the south side of the basin is completed; it will certainly take two seasons yet to finish it. The machinery for operating the lock gates, valves, and bridges by electricity is not yet in complete working condition, but it is expected it will be by the opening of navigation next spring.

The total expenditure up to June 30, 1902, is.....	\$8,533,204 35
Expended from June 30, 1902, to June 30, 1903.....	58,426 92
	<hr/>
Total expenditure on enlargement up to June 30, 1903.....	\$8,501,631 27
Expended from June 30, 1903, to October 1, 1903....	1,788 56
	<hr/>
Total expenditure on enlargement up to Oct. 1, 1903.....	<u>\$8,593,419 83</u>

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## CORNWALL CANAL.

This canal extends from Cornwall to Dickenson's Landing, a distance of 11 miles. The works of actual enlargement are completed, the only work incidental thereto yet to be done is the completion of the building of a protection wall and wharf at Cornwall which is under contract with Mr. J. J. Fallon, and is almost finished, there remaining only a small quantity of work on the wharf to be done as soon as the working season opens in the spring, and the enlarging of the regulating weir at Lock 17. The machinery for operating the lock weirs, valves, and bridges, and for moving vessels through the locks by electricity, are all in position, and are worked by electrical power with most satisfactory results. The motors for the workshops are delivered, but not yet set up. The object of the enlargement of the regulating weir at Lock No. 17, is to enable the water to be regulated in connection with the manufactories established along the line of the canal, which use water from the canal under lease.

Total expenditure on enlargement up to June 30, 1902..	\$4,939,840	43
Expended from June 30, 1902, to June 30, 1903.....	77,833	81

Total expenditure on enlargement up to June 30, 1903..	\$5,017,674	24
Expended from June 30, 1903, to October 1, 1903.....	41,411	86

Total expenditure on enlargement up to Oct. 1, 1903. . .	\$5,059,086	10
--	-------------	----

## FARRAN'S POINT CANAL.

This canal extends from Farran's Point for a mile westward.

The work of enlargement, which was under contract with the Canadian Construction Company, is completed. There remains a small balance due the contractors.

Total expenditure on enlargement up to June 30, 1902..	\$ 540,014	66
Expended from June 30, 1902, to June 30, 1903.....	10,266	92

Total expenditure on enlargement up to June 30, 1903..	\$ 850,281	58
Expended from June 30, 1903, to October 1, 1903.....	1,136	90

Total expenditure on enlargement up to Oct. 1, 1903..	\$ 851,418	48
---	------------	----

## RAPIDE PLAT CANAL.

This canal extends from Morrisburg westward  $3\frac{2}{3}$  miles. The works of enlargement, with the exception of the work connected with the widening of the upper entrance are completed, the latter work is being executed by Mr. P. H. Gilbert by contract. It is expected that they will complete their contract during the present year.

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Total expenditure on enlargement up to June 30, 1902. .	\$2,104,119 50
Expenditure from June 30, 1902, to June 30, 1903. . . . .	18,483 34
	<hr/>
Total expenditure on enlargement up to June 30, 1903. .	\$2,122,602 84
Expended from June 30, 1903, to October 1, 1903. . . . .	3,502 61
	<hr/>
Total expenditure on enlargement up to Oct. 1, 1903. .	\$2,126,105 45

## GALOPS CANAL.

*Iroquois Section.*—The enlargement of this section of the canal is completed, but the final estimate is not yet completed; there remains a considerable sum owing the contractors.

*Cardinal Section.*—The work of enlargement of this section, which was a heavy piece of work, will be completed this season. It is a very creditable piece of work and has a neat appearance.

*Upper Entrance.*—The works of enlargement on this section have progressed satisfactorily this season, and will be completed this year.

A wharf is no doubt a necessity for the accommodation of the business of Cardinal, and its construction has been authorized, but the work has not yet been placed under contract.

Total expenditure on enlargement up to June 30, 1902. .	\$4,950,695 24
Expended from June 30, 1902, to June 30, 1903. . . . .	320,354 92
	<hr/>
Total expenditure on enlargement up to June 30, 1903. .	\$5,271,050 16
Expended from June 30, 1903, to October 1, 1903. . . . .	28,595 60
	<hr/>
Total expended on enlargement up to October 1, 1903. .	\$5,299,645 76

## WELLAND CANAL.

## IMPROVEMENTS.

The Trunk Line extends from Port Dalhousie on Lake Ontario to Port Colborne on Lake Erie, a distance of 26 $\frac{3}{4}$  miles:—

*Port Colborne Improvements.*—This work is under contract with Messrs. Hogan and McDonnell. These gentlemen have a contract with the Public Works Department for the construction of a breakwater at this point, a work of great importance, and which is now completed, doing good service. The works of improvement under contract with this department have not progressed very rapidly, as the contractors have applied their energies largely towards the completion of the breakwater. As a consequence, the improvement works at the entrance to the canal are not as far advanced as might otherwise reasonably have been expected. Greater progress with this work is looked for next season, as the breakwater is completed. When this work is completed it will no doubt be greatly appreciated by those engaged in the business of transportation.

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REMOVAL OF OBSTRUCTIONS.

The obstructions are the pivot piers of bridges in the centre of the canal : these are being removed and new bridges are being erected spanning the entire channel. Mr. Battle was the contractor of the sub-structure of the 'junction bridge' and of the 'stone bridge,' the Hamilton Bridge Company being the contractor for the super-structure. Both these bridges are completed and are giving great satisfaction to the shipping interests using the canal.

Three other bridges will be similarly treated during the current year.

Expended up to June 30, 1902.....	Nil.
Expended from June 30, 1902, to June 30, 1903.....	\$ 125,116 72
<hr/>	
Total expenditure up to June 30, 1903.....	\$ 125,116 72
Expended from June 30, 1903, to Oct. 1, 1903.....	20,961 63
<hr/>	
Total expenditure up to Oct. 1, 1903.....	\$146,078 35

DEEPENING PORTIONS OF LONG LEVEL.

This work is under contract with Magan & Phin, who are progressing well with it. There remains, however, considerable dredging yet to be done.

Expended up to June 30, 1903.....	\$85,349 71
Expended from June 30, 1903, to October 1, 1903....	5,660 00
<hr/>	
Total expenditure up to October 1, 1903.....	\$94,009 71

DEEPENING CANAL FROM PORT COLBORNE TO HUMBERSTONE.

This work is all submarine rock excavation under contract with Messrs. Hogan & McDonnell. They have made good progress, and though not completed there is a good deep channel through it, and vessels have no difficulty in navigating that section of the canal.

Expended up to June 30, 1903.....	\$66,411 01
Expended from June 30, 1903, to October 1, 1903.....	Nil.
<hr/>	
Total expenditure up to October 1, 1903.....	\$66,411 01

Total expenditure on the enlargement of this canal up to October 1, 1903, is as follows, including the amounts given for the above-named works :—

Total expenditure on enlargement up to June 30, 1902	\$16,624,513 79
Expended from June 30, 1902, to June 30, 1903.....	315,819 49
<hr/>	
Total expenditure on enlargement to June 30, 1903....	\$16,940,333 28
Expended from June 30, 1903, to October 1, 1903....	80,986 11
<hr/>	
Total expenditure on enlargement up to Oct. 1, 1903.	\$17,021,319 39

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## GRENVILLE CANAL.

This canal extends from the town of Grenville towards Carillon, a distance of 5½ miles.

The expenditure on the enlargement of this canal up to October 1, 1903 :—

Total expenditure up to June 30, 1902.....	\$4,119,039 32
Expended from June 30, 1902, to June 30, 1903.....	Nil.
<hr/>	
Total expenditure up to June 30, 1903.....	\$4,119,039 32
Expenditure from June 30, 1903, to Oct. 1, 1903....	Nil.
<hr/>	
Total expenditure on enlargement up to Oct. 1, 1903.	\$4,119,039 32

## ST. LAWRENCE RIVER AND LAKE IMPROVEMENTS.

## LAKE ST. LOUIS.

The channel cut through this lake is two miles long, 300 feet wide, with 17 feet of water at low tide. The channel, since it was formed, has given good satisfaction. Surveys and soundings have been taken over the lake, which are being conducted under the direct charge of Mr. Lordly, and a chart is being prepared.

Expended up to June 30, 1902.....	\$280,750 49
Expended from June 30, 1902, to June 30, 1903.....	9,508 72
<hr/>	
Total expenditure to June 30, 1903.....	\$290,259 21
Expended from June 30, 1903, to Oct. 1, 1903.....	2,610 78
<hr/>	
Total expenditure up to Oct. 1, 1903.....	\$292,869 99

## LAKE ST. FRANCIS.

The following named shoals have been cut through, and channels formed, for 14 feet navigation : first, St. Regis bar, 2½ miles east of Cornwall; the Hamilton Island channel, about 8 miles east of Cornwall; the Clark's Island shoal, 7½ miles east of Cornwall; the Middle Ground, 10 miles east of Cornwall; the Highland shoal, 10½ miles east of Cornwall.

Total expenditure up to June 30, 1902.....	\$70,906 71
Expenditure from June 30, 1902, to June 30, 1903....	5,000 00
<hr/>	
Total expenditure up to June 30, 1903.....	\$75,906 71
Expended from June 30, 1903, to Oct. 1, 1903.....	Nil.
<hr/>	
Total expenditure up to Oct. 1, 1903.....	\$75,906 71



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GALOPS RAPIDS.

A channel 3,000 feet long, 200 feet wide and 17 feet deep was cut through the upper bar, North Caledonia shoals, Island shoal and lower bar. Subsequently it was found to be necessary to increase the width to 300 feet. This work has been in progress for several years, but is unfinished. An appropriation of \$75,000 was made last session of Parliament to complete it, for which tenders will be called. It was, owing to the rapid current, a very difficult piece of work of execution. It consisted of subaqueous rock blasting and dredging. To make navigation safe it is necessary that the rock blasted should be removed.

Total expenditure up to June 30, 1902. . . . .	\$878,441 85
Expended from June 30, 1902, to June 30, 1903. . . . .	25,000 00
<hr/>	
Total expended to June 30, 1903. . . . .	\$903,441 85
Expended from June 30, 1903, to Oct. 1, 1903. . . . .	Nil.
<hr/>	
Total expenditure up to Oct. 1, 1903. . . . .	\$903,441 85
<hr/>	

NORTH CHANNEL.

This channel is about 2½ miles in length, 300 feet wide, with 16 feet of water at low water. It commences about one mile west of the upper entrance to the Galops Canal, and runs in a direct line to deep water off Chimney Point. The work comprises the building of a dam from Adams Island to Ogden Island. The work has been prosecuted with vigour during the year, owing to unavoidable delay in completing arrangements with the authorities at Washington, the work has not progressed as rapidly as was expected. However, all is now arranged, and the work of constructing the dam is far advanced, and it is anticipated will be completed this year.

Total expenditure up to June 30, 1902. . . . .	\$1,168,106 49
Expended from June 30, 1902, to June 30, 1903. . . . .	126,833 94
<hr/>	
Total expenditure up to June 30, 1903. . . . .	\$1,294,940 43
Expended from June 30, 1903, to Oct. 1, 1903. . . . .	550 00
<hr/>	
Total expenditure up to Oct. 1, 1903. . . . .	\$1,295,490 43
<hr/>	

ST. LAWRENCE RIVER AND CANALS.

The buoying and lighting of the route between Montreal and Prescott, which was formerly done jointly by the Marine and Fisheries Department and this department, has all been placed under the charge of the former department, a course which it is believed will enure to the advantage of those navigating this deep water channel. Surveys have been made of portions of the channel, with the view of locating shoals which it might be advantageous to cut a way through in order to straighten and im-

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prove the present deep water channel. I mention this matter in order that it may be kept in view in the future.

Total expenditure up to June 30, 1902.....	\$432,919 75
Expended from June 30, 1902, to June 30, 1903.....	Nil.
Total expended up to June 30, 1903.....	Nil.
Expended from June 30, 1903, to Oct. 1, 1903.....	Nil.
<hr/>	
Total expenditure up to Oct. 1, 1903.....	\$432,919 75
<hr/>	

To summarize, I may state the cost of construction and enlargement of the canals and improvements to the rivers and lakes up to June 30, 1903, to be as follows, viz.:—

ROUTE FROM MONTREAL TO PORT ARTHUR.

	Original construction of Canals.	Enlargement of Canals.	Improvements to St. Lawrence River and Lakes.	Total Expenditure.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Lachine Canal	2,589,532 85	8,591,631 27		11,181,164 12
Lake St. Louis			290,259 21	290,259 21
Soulanges Canal	6,736,970 55			6,736,970 55
Lake St. Francis			75,906 71	75,906 71
Cornwall Canal	1,945,624 73	5,017,674 24		6,963,298 97
Williamsburg Canals:	1,320,655 54	2,486 63		
Farran's Point		850,281 58		
Rapide Plat		2,122,602 84		
Galops		5,269,288 63		
Galops Rapids			903,441 85	
River Reaches			975,860 76	
North Channel			1,294,940 43	
Murray Canal	1,247,470 26	590 60		1,247,970 26
Welland Canal	7,693,824 03	16,940,333 28		24,634,157 31
Sault Ste. Marie	4,281,464 76			4,281,464 76
Total	25,815,542 72	38,794,798 47	3,240,408 96	67,850,750 15

If to the above total there is added the cost, \$1,636,690.26, of the Beauharnois canal, now not required for navigation, the total expenditure is \$69,487,440.41.

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ROUTE FROM LACHINE TO OTTAWA.

	Original Construction.	Enlargement.	Total.
	§ cts.	§ cts.	§ cts.
Ste. Anne's Lock.....	134,456 51	1,035,759 12	1,170,215 63
Carillon and Grenville Canals.....	63,053 64	4,119,039 32	4,182,092 96
Total.....	197,510 15	5,154,798 44	5,352,308 59

\* Construction by Imperial Government not included; records relating to same were kept in Ordnance Office, Montreal, and were destroyed by fire in 1852.

ROUTE FROM OTTAWA TO KINGSTON.

	Original Construction.	Enlargement.
	§ cts.	§ cts.
Rideau Canal.....	4,984,323 37	.....
Tay Canal.....	489,599 23	.....
Total.....	4,573,922 60	.....

ROUTE FROM ST. JOHNS, P.Q., TO SOREL.

	Original Construction.	Enlargement.
	§ cts.	§ cts.
Chambly Canal.....	637,056 76	.....
St. Ours Lock.....	121,537 65	.....
Total.....	758,594 41	.....

ROUTE FROM TRENTON TO GEORGIAN BAY.

	Original Construction.	Enlargement.
	§ cts.	§ cts.
Trent Canal.....	4,135,353 56	.....
Total.....	4,135,353 56	.....

ROUTE FROM ATLANTIC OCEAN TO BRAS D'OR LAKES.

	Original Construction.	Enlargement.
	§ cts.	§ cts.
St. Peter's Canal—Cape Breton.....	248,762 84	399,784 30
Total.....	248,762 84	399,784 30

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The Culbute canal has been abandoned and the Beauharnois canal is no longer required for navigation purposes, but has to be maintained as a power canal.

The construction of these two canals cost:—

Culbute.....	\$ 382,776 46
Beauharnois canal.....	1,636,690 26
	<hr/>
Total.....	\$2,019,466 72
	<hr/>

## MAINTENANCE AND OPERATION.

### LACHINE CANAL.

#### *Operation*

No interruption occurred to the traffic through this canal during the season of 1902.

#### *Maintenance.*

The repairs in old locks Nos. 1 and 2 will be proceeded with this season and carried through with all speed to completion, so as to make these locks available for traffic at the earliest possible date.

The cost of repairs made during the year ended June 30, 1903, is as follows:—

Ordinary repairs under the head of staff and repairs....	\$ 53,054 20
Lachine—To renew masonry wall, basin No. 2	\$4,999 89
“ Dump scows, repairs.....	2,796 59
“ Repairs to old locks, 1 and 2.....	86,329 46
“ To repair government tug No. 2....	3,999 21
“ Repairs to bridges.....	2,365 00
“ Widening pier at Côte St. Paul....	8,100 30
“ Replace cast iron by steel rollers and treads on bridges.....	1,192 95
	<hr/>
	109,783 43
	<hr/>
	\$162,837 63
	<hr/>

### SOULANGES CANAL.

#### *Operation.*

This canal has been most successfully operated during the season of 1902, the electrical machines for working the lock gates, valves and bridges having proved thoroughly efficient, and no delay in the traffic having occurred.

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*Maintenance.*

The cost of repairs made during the year ended June 30, 1903, is as follows:—

Ordinary repairs under the head of staff and repairs..	\$10,362 23
Special repairs under the head of income.... . . . . .	Nil.
Total..... . . . . .	<u>\$10,362 23</u>

## CORNWALL CANAL.

*Operation.*

No interruption has occurred to the traffic through this canal during the season of 1902.

The machinery for operating all the lock gates, valves, weirs and bridges, by electricity, have been operated during the season of navigation of 1903 successfully. The canal is well lighted by electricity throughout, which gives great satisfaction to the transportation companies using the canal.

*Maintenance*

The cost of repairs during the year ended June 30, 1903, is as follows:—

Ordinary repairs under the head of staff and repairs..\$	19,205 66
Special repairs under the head of income.. . . . .	Nil.
Total.... . . . . .	<u>\$ 19,205 66</u>

## WILLIAMSBURG CANALS.

*Operation.*

These canals are composed of the Farran's Point, Rapide Plat, and Galops canals. These canals were operated during the season of 1902 without interruption to navigation.

*Maintenance.*

The cost of repairs during the year ended June 30, 1903, was as follows:—

Ordinary repairs under the head of staff and repairs..\$	20,092 79
Special repairs under the head of income.... . . . .	Nil.
Total.... . . . . .	<u>\$ 20,092 79</u>

## WELLAND CANAL.

*Operation.*

No interruption occurred to navigation during the season of 1902.

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*Maintenance.*

The cost of repairs during the year ended June 30, 1903, is as follows :—

Ordinary repairs under the head of staff and repairs.... \$ 72,004 59  
 Special repairs under head of income—

Welland—To improve drainage along feeder.....	\$ 1,842 75	
Welland—To execute heavy repairs....	29,986 96	
“ To rebuild Marlatt’s bridge... ..	12,577 76	
“ Telephone line.....	2,721 36	
“ To rebuild dam and bridge at Dunnville.....	33,000 06	
Welland—To build tile sewer at east end, Port Colborne.....	4,998 32	
Welland—To build a concrete centre pier and steel swing span for Montrose bridge over Chippawa river..	9,000 00	
		94,127 21
		\$166,131 80

## SAULT STE. MARIE CANAL.

*Operation.*

This canal was operated successfully and without interruption to navigation during season of 1902.

*Maintenance.*

The cost of repairs during the year ended June 30, 1903, is as follows :—

Ordinary repairs under the head of staff and repairs....	\$10,855 70
Special repairs under the head of income .....	Nil.
	\$10,855 70
Total.....	

## CHAMBLY.

*Maintenance.*

The cost of repairs during the year ended June 30, 1903, is as follows :—

Ordinary repairs under the head of staff and repairs..	\$ 21,745 65
Special repairs under the head of income—	
Rebuilding culvert at Little Iroquois river.	\$2,260 26
Renewing wharf at Chambly entrance....	6,389 10
To extend and repair wall at head of Ste. Thérèse Island.....	328 07
	8,977 43
Total.....	\$30,723 08

ST. OURS LOCK AND DAM.

*Operation.*

There was no interruption to navigation on this canal during the season of 1902.

*Maintenance.*

The cost of repairs during the year ended June 30, 1903, is as follows :—

Ordinary repairs under the head of staffand repairs.....	\$ 1,671 83	
Special repairs under the head of income—		
Rebuilding east abutment of dam... . . . .	\$7,582 34	
Rebuilding dam... . . . .	1,762 55	
		9,244 89
		<hr/>
Total... . . . .		\$10,916 72
		<hr/>

STE. ANNE'S LOCK.

*Operation.*

No interruption occurred to navigation on this lock during the season of 1902.

*Maintenance.*

The cost of repairs during the year ended June 30, 1903, is as follows :—

Ordinary repairs under the head of staff and repairs... . .	\$4,684 42
Repairing wing dam at head of lock... . . . .	1,984 39
	<hr/>
Total... . . . .	\$6,668 81
	<hr/>

CARILLON AND GRENVILLE CANAL.

*Operation.*

This canal was operated without interruption to navigation during the season of 1902.

*Maintenance.*

The cost of repairs during the year ended June 30, 1903, is as follows :—

Ordinary repairs under the head of staff and repairs....	\$17,766 28
Special repairs under the head of income—	
Rebuilding guide pier... . . . .	9,993 53
Repairing dam at Carillon... . . . .	5,998 99
	<hr/>
Total... . . . .	\$33,758 80
	<hr/>

BEAUHARNOIS CANAL.

*Operation.*

This canal is practically closed to navigation, it being only used by a few market boats for local business. Unless heavy repairs are made upon it, it will fall entirely into disuse for navigation.

*Maintenance.*

The cost of repairs during the year ended June 30, 1903, is as follows:—

Ordinary repairs under the head of staff and repairs. . . . .	\$10,063 38
Special repairs under the head of income. . . . .	Nil.
	<hr/>
Total. . . . .	\$10,063 38
	<hr/>

MURRAY CANAL.

*Operation.*

There was no interruption to navigation on this canal during the season of 1902.

*Maintenance.*

The cost of repairs during the year ended June 30, 1903, is as follows:—

Ordinary repairs under the head of staff and repairs. . . . .	\$4,627 70
Special repairs under the head of income. . . . .	Nil.
	<hr/>
Total. . . . .	\$4,627 70
	<hr/>

RIDEAU CANAL.

*Operation.*

This canal was operated during the season of 1902 without interruption to navigation.

*Maintenance.*

The cost of repairs during the year ended June 30, 1903, is as follows:—

Ordinary repairs under the head of staff and repairs. . . . .	\$36,424 23
Special repairs under the head of income—	
Rebuilding bridge at Brasses Point. . . . .	\$8,950 00
Rebuilding bridge at upper lock, Kingston Mills	2,290 00
Rebuilding bridge at Beckett's Landing. . . . .	4,995 13
	<hr/>
	16,235 13
	<hr/>
Total. . . . .	\$52,659 36
	<hr/>



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## TRENT CANAL

*Operation.*

No interruption occurred to navigation during the session of 1902. The tourist travel on the line of the Trent canal was very considerable during the heated season, the lakes north of Peterboro' having become a favourite resort for Americans and others.

*Maintenance.*

The cost of repairs during the year ended June 30, 1903, is as follows:—

Ordinary repairs under the head of staff and repairs..	\$ 10,791 15
Special repairs under the head of income—	
Toward constructing bridge at Healey's Falls,	\$ 891 57
Rebuilding dam at Peterboro' . . . . .	3,108 75
Dredging shoals on Trent and Otenabee	
Rivers . . . . .	3,471 02
New lock gates at Bobcaygeon . . . . .	1,457 18
Towards building a road between Lindsay	
and Fenelon Falls . . . . .	1,308 29
Dredging at mouth of the lock . . . . .	3,313 05
Building new hull of dredge . . . . .	4,998 72
	-----
	18,548 58
Total . . . . .	-----
	\$ 29,339 73

## ST. PETER'S CANAL.

*Operation.*

This canal was operated during the season of 1902, without interruption to navigation.

*Maintenance.*

The cost of repairs during the year ended June 30, 1903, is as follows:—

Ordinary repairs under the head of staff and repairs . . . . .	\$764 11
--	----------

## CULBUTE CANAL.

Damages by flooding . . . . .	Nil.
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## SUMMARY.

Cost of maintenance and operation of the canal system	
for the year ended June 30, 1903 . . . . .	\$ 747,570 93
Net revenue of canals after deducting refunds . . . . .	230,213 15
	-----
Excess of cost of maintenance and operation over revenue	\$517,357 78

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STATEMENT showing the number of Vessels and the Tonnage which passed through the Canals during the season of 1902.

Name of Canal.	No. of Trips of Vessels.	Tonnage.
Lachine.....	7,866	1,710,256
Soulanges.....	2,419	962,573
Cornwall.....	3,698	745,852
Farran's Point.....	1,493	316,504
Rapide Plat.....	1,541	371,104
*Galops.....	5,688	736,891
Lift Lock, Galops, upper end.....	1,748	365,916
Murray.....	839	251,536
Welland.....	768,460	644,679
Sault Ste. Marie.....	5,017	4,604,156
Ste. Anne's.....	883	105,703
†Carillon.....	43	1,599
Grenville.....	110	42,520
Chambly.....	3,323	296,702
St. Ours.....	419	75,643
Beauharnois.....	179	13,511
Rideau.....	3,372	171,030
Trent.....	2,923	108,417
St. Peter's.....	1,653	114,846

\*NOTE.—1,925 trips and 58,250 tonnage were by contractors' tugs.

†In addition to the 43 passages of vessels and 1,599 tonnage, there were lockages of rats, 596; tonnage, 63,730.

STATEMENT showing the dates of the closing and opening of the Canals.

	1902.		1903.	
	Closed.		Opened.	
Lachine.....	Dec. 6	May 1		
Soulanges.....	Nov. 30	" 1		
Cornwall.....	Dec. 11	" 1		
Farran's Point.....	" 10	" 1		
Rapide Plat.....	" 10	" 1		
Galops.....	" 10	" 1		
Murray.....	" 9	April 1		
Welland.....	" 16	" 13		
Sault Ste. Marie.....	" 20	" 2		
Ste. Anne's.....	Nov. 30	" 28		
Carillon and Grenville.....	" 30	" 27		
Chambly.....	" 30	May 1		
St. Ours.....	" 30	April 8		
Beauharnois.....	" 30	May 1		
Rideau.....	" 26	" 1		
	(Kingston).....	" 1		
	Nov. 29	" 28		
	(Ottawa).....	April 28		
Trent.....	Nov. 28	" 2		
St. Peter's.....	Jan. 8	" 15		

### RAILWAY SUBSIDIES.

The subsidies voted for railways are in such a form that it is not possible to show the amount of cash subsidy granted, as the amount of subsidy will, in many cases, be

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based upon the cost of each road. For this reason, I am again, this year, unable to give the amount of each subsidy available, but, as heretofore, I shall show the amount paid; also the number of miles of railway for which subsidy granted per mile, was available on July 1, 1902, and the number of miles of railway built up to July 1, 1903, for which cash subsidy per mile was granted. There will also be found the amount of subsidy per annum paid up to July 1, 1903, with the number of miles built. Also a statement showing the railways to which subsidies have been granted aid in land.

Amount of cash subsidy per mile paid up to July 1,	
1903.....	\$24,755,097 51
Number of miles of railway on which cash subsidy per	
mile was paid up to July 1, 1903.....	4,637 12
Amount of cash subsidy per mile paid up to October	
1, 1903.....	24,878,617 51
Cash subsidy per annum paid to July 1, 1903.....	2,612,400 00
Number of miles built on each subsidy, per annum to	
July 1, 1903.....	<b>252</b>
*Number of miles of railway to which aid in land has	
been authorized.....	2,409
*Number of acres of land, the grant of which in aid of	
railways has been authorized.....	18,762,368

The foregoing statements do not include the grants in cash and land to the Canadian Pacific Railway, the Canada Central Railway and the Esquimalt & Nanaimo Railway.

These roads, as previously reported, received in cash as follows:—

Canadian Pacific Railway (mileage, 1905).....	\$25,000,000
Canada Central Railway (mileage, 120).....	1,525,250
Esquimalt & Nanaimo Railway (mileage, 71).....	750,000
	<hr/>
Total.....	\$27,275,250

For land as follows:—

	Acres.
Canadian Pacific Railway.....	25,000,000
Esquimalt & Nanaimo Railway.....	1,900,000
	<hr/>
Total.....	26,900,000

## RAILWAY COMMITTEE OF THE PRIVY COUNCIL.

The report of the secretary of the Railway Committee of the Privy Council, herewith, enumerates the cases which have been before the committee during the twelve

\* These items do not include the land grant to the Canadian Pacific Railway Co's. main line, which was 18,206,986 acres.

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months from October 1, 1902, to October 1, 1903. Within the period above named there were fourteen meetings of the railway committee as follows:—

October 28, 1902.	May 21, 1903.
November 7, 1902.	July 23, 1903.
November 11, 1902.	July 30, 1903.
<b>December 19, 1902.</b>	September 12, 1903.
January 6, 1903.	September 22, 1903.
February 3, 1903.	September 29, 1903.
March 4, 1903.	
March 19, 1903.	

The character of the business before them was:—

1. For permission to make highway crossings over railways.
2. For permission for one railway to cross another.
3. For permission for one railway to form a junction with another.
4. For permission for railways to cross and run along streets and highways.
5. For approval of plan and proposed site of bridges over navigable water.
6. For permission to use crossings and junctions before installation of interlocking appliances.
7. For permission to construct branch lines.
8. For running powers of one railway over another.
9. For protection of streets and highways crossed by railways.
10. For permission to change location of sections of railways.
11. For approval of rules and regulations of railways.
12. For permission to close streets and highways and to divert them.

### CANAL STATISTICS.

These statistics are for the season of 1902; they have as usual been prepared by Mr. R. Devlin, the officer in charge of the Canal Statistics Office.

TABLE showing the tons of freight passing through each canal, the toll collected and the number of trips of vessels passing through each canal for the season ended December, 1902.

Name of Canal.	Tons of freight passed through.	Amount of tolls collected.	No. of trips of vessels passing through.
		\$	
Welland.....	665,387	98,601 50	1,568
St. Lawrence.....	1,023,133	65,081 11	8,400
Chambly.....	379,442	22,713 31	3,791
Ottawa.....	444,682	24,852 37	1,906
Rideau.....	59,879	3,831 15	2,871
St. Peter's.....	73,538	3,034 14	1,671
Trent.....	41,690	1,328 98	2,550
Murray.....	35,178	1,069 80	830
Sault Ste. Marie.....	4,729,268	Free.	5,044

SESSIONAL PAPER No. 20

## GENERAL REMARKS.

For details as regards the subjects treated in this report, I refer you to the reports of the officers in charge of the government railways and canals which form appendices hereto.

The Summary of Tables of Steam Railways for the Years ended June 30, 1901, and June 30, 1902.

	Comparative Statement.	
	June 30, 1902. Steam Rail- ways only.	June 30, 1903. Steam Rail- ways only.
	\$	\$
Miles of railway completed (track laid).....	18,868	19,077
" sidings.....	2,829	2,953
" iron rails in main line.....	107	101
" steel ".....	18,761	18,976
" " (double track).....	647	695
Capital paid (including the 4 following items).....	1,098,852,203	1,146,550,769
Government (Dominion & Provincial) bonuses paid.....	185,182,371	189,874,202
" " loans paid.....	20,613,214	20,613,214
" (Provincial only) subscriptions to shares paid.....	300,000	300,000
Municipal aid paid.....	16,465,694	16,551,044
Miles in operation.....	18,714	18,988
Gross earnings.....	83,666,503	96,064,527
Working expenses.....	57,348,592	67,481,524
Net earnings.....	26,322,911	28,583,003
Passengers carried.....	20,679,974	22,148,742
Freight carried (tons).....	42,376,527	47,373,417
Train mileage.....	55,729,856	60,382,920
Passengers killed.....	19	53
Number of elevators.....	275	296
" guarded level crossings—public roads.....	205	221
" unguarded level ".....	12,740	12,829
" overhead bridges.....	452	468
" public roads under crossings.....	175	299
" level crossings of other railways.....	344	256
" junction with other railways.....	365	374
" " branch lines.....	224	223
" engines owned.....	2,344	2,488
" " hired.....	100	99
" sleeping and parlour cars owned.....	268	290
" " hired.....	15	14
" first class cars owned.....	1,117	1,106
" " hired.....	49	42
" second class and immigrant cars owned.....	562	579
" " hired.....	11	11
" baggage, mail and express cars owned.....	657	796
" " hired.....	24	22
" refrigerator cars owned.....	786	979
" " hired.....	271	242
" cattle and box freight cars owned.....	45,291	49,652
" " hired.....	3,499	3,455
" platform cars owned.....	15,298	17,784
" " hired.....	536	501
" coal and dump cars owned.....	7,500	7,356
" " hired.....	236	283
" conductors' vans owned.....	1,118	1,107
" " hired.....	24	122
" tool cars owned.....	1,009	1,070
" " hired.....	5	4
" snow ploughs owned.....	308	308
" " hired.....	5	5
" flangers owned.....	302	345
" " hired.....	2	2
Included in the above there are the following:—		
Number of cars with air-brakes owned.....	54,201	63,788
" " hired.....	3,910	4,348
" cars with automatic couplers owned.....	62,456	71,964
" " hired.....	4,426	4,572

\*Including steam shovels, pile drivers, water tank cars, store cars, gravel cars, boarding cars, &c.

3-4 EDWARD VII., A. 1904

## SUMMARY of Tables of Electric Railways for the year ended June 30, 1902.

	Comparative Statement.	
	June 30, 1902.	June 30, 1903.
Miles of railway completed (track laid).....	558	759
"  siding.....	25	32
"  iron rails in main line.....	5	7
"  steel ".....	553	752
"  "  double track.....	169	185
Capital paid (including the two following items).....	\$41,593,064	\$47,274,853
Government (Dominion) bonuses paid.....	\$60,800	\$156,800
Municipal aid paid.....	\$173,000	\$173,000
Miles in operation.....	557	759
Gross earnings.....	\$6,486,438	\$7,233,677
Working expenses.....	\$3,892,855	\$4,472,858
Net earnings.....	\$2,683,583	\$2,760,819
Passengers carried.....	137,681,402	155,662,812
Freight carried (tons).....	266,182	371,286
Car mileage.....	35,833,841	38,028,529
Passengers killed.....	8	10
Number of guarded level crossings, public roads.....	9	7
"  unguarded ".....	226	307
"  overhead bridges ".....	16	16
"  public roads under crossings.....	9	11
"  levels crossings of other railways.....	89	89
"  junctions with ".....	37	42
"  "  branch lines.....	8	13
"  power-houses (steam power) owned.....	25	28
"  "  "  hired.....	2	2
"  "  (water power) owned.....	12	11
"  "  "  hired.....	1	4
"  passenger cars (motor) owned.....	1,900	*2,027
"  "  "  hired.....		6
"  "  (trailers) owned.....	289	290
"  "  "  hired.....	2	
"  locomotives owned.....	2	1
"  "  hired.....		
"  baggage, mail and express cars owned.....	13	11
"  cattle and box cars owned.....	6	+15
"  platform cars owned.....	65	70
"  tool cars owned.....	11	16
"  snow ploughs owned.....	23	26
"  snow sweepers owned.....	63	71

\* 3 are official cars. † includes 1 conductor's van.

I have the honour to be, sir,

Your obedient servant,

COLLINGWOOD SCHREIBER,

*Deputy Minister and Chief Engineer of Railways and Canals.*The Honourable H. R. EMMERSON,  
Minister of Railways and Canals.

# No. 1

## RAILWAYS

INTERCOLONIAL RAILWAY OF CANADA,  
OFFICE OF THE GENERAL MANAGER,  
MONCTON, N.B., November 26, 1903.

SIR,—I have the honour to submit the following report on the working of the Intercolonial Railway during the fiscal year ended June 30, 1903.

I inclose the report of the Chief Engineer on the works charged to capital account, the report of the general superintendent, and of the engineer of maintenance on the repair and renewals of the permanent way, buildings and works, and the report of the mechanical accountant with the statements relating to the mechanical department; also the following statements of the accounts of the railway prepared by the chief accountant and treasurer:—

- No. 1. Capital Account.
- 2. Revenue.
- 3. Locomotive Power.
- 4. Car Expenses.
- 5. Maintenance of Way and Works.
- 6. Station Expenses.
- 7. General Charges.
- 8. Special Votes.
- 9. General Stores.
- 10. General Balance.
- 11. Comparative Statement of Averages.

The length of railway in operation during the year was the same as last year, 4,314.67 miles.

On June 22, 1903, the Rivière Ouelle Branch, six and one quarter miles in length, extending from Rivière Ouelle station to St. Denis wharf on the south shore of the River St. Lawrence was opened for traffic.

This branch was provided for the purpose of making communication more regular, more frequent, more rapid and more comfortable between Murray Bay and the other summer resorts and settlements in its neighbourhood on the north shore of the St. Lawrence river, and the railway systems of Canada and the United States. The operation of this branch in conjunction with a steam ferry boat subsidized by the government has accomplished this purpose during the present season of navigation.

### CAPITAL ACCOUNT.

The total cost of road and equipment on June 30, 1902, was \$68,310,619.55.

The additions during the year were as follows.—

To increase accommodation at Halifax.....	\$ 75,040 56
Towards double tracking between Windsor Junction and Halifax.....	11,918 92
Improvements at Rockingham.....	3,393 70
Increased accommodation at Stellarton.....	29,887 25

3-4 EDWARD VII., A. 1904

Towards improving ferry service at Strait of Canso....\$	16,606	05
Improvements at Point Tupper.....	29,520	27
To increase accommodation at Sydney.....	40,609	42
Improvements at North Sydney.....	29,293	23
Increased accommodation at Pictou.....	12,155	10
Addition to erecting shop at Moncton.....	11,555	36
To extend freight car repair shop, Moncton.....	17,924	64
To increase accommodation at Moncton.....	105,372	47
Increased accommodation at St. John.....	94,491	13
Station and freight house at Eel river.....	1,832	15
Yard for freight business at Rivière du Loup.....	25,774	72
Engine house, &c., Rivière du Loup.....	960	34
To increase accommodation at Lévis.....	55,922	76
Engine house, &c., at Chaudière Junction.....	29,465	75
Station at Nicolet.....	2,653	38
Building a spur line of railway from Rivière Ouelle station to the wharf on the St. Lawrence.....	72,970	05
Original construction.....	1,085	18
Sea-walls.....	4,999	82
To strengthen bridges.....	149,744	15
New superstructure for 6 spans Miramichi bridge....	98,392	94
New superstructure for North-west, Miramichi bridge..	120,028	45
New superstructure for Restigouche bridge.....	43,668	34
Steel rails and fastenings.....	597,590	11
Additional sidings along line.....	41,638	04
Additional siding room and increased accommodation and facilities along line.....	121,452	53
New machinery for locomotive and car shops.....	9,280	24
Rolling stock.....	254,694	38
To change car couplers of passenger cars.....	973	00
To equip passenger cars with vestibules.....	7,993	12
To equip ten passenger cars with Pintsch gas apparatus.	7,062	89
To change air-brakes of passenger cars to quick action brakes and apply air signals.....	1,284	66
To change brakes of locomotives to quick action brakes and apply air signals.....	4,400	45
Air brakes to freight cars.....	19,925	80
To exchange draw-bars of freight cars.....	60,000	00
Eastern Extension Railway of Nova Scotia, one half arbitrators' and stenographers' fees.....	3,952	62
Eastern Extension Railway of New Brunswick, balance of interest on award of arbitrators.....	1,230	87
	\$2,216,744	88
Making the total cost on June 30, 1903.....	\$70,527,364	43

*Towards improving the ferry service at the Strait of Canso.*

This expenditure was for dredging, for building protecting houses, over the machinery of the bridges, and for providing and fitting on board the ss. *Scotia* additional capstans, water tanks, heating apparatus, &c.



## SESSIONAL PAPER No. 20

*New machinery for locomotive and car shops.*

This is for additional machinery for the construction and repair of locomotives and cars.

*Rolling stock.*

Ten consolidation locomotives for freight service were purchased, also ninety-three box freight cars, each of 80,000 lb. capacity.

*To change the car couplers of passenger cars.*

This work has been in progress for several years, in order to make our rolling stock conform to that of other Canadian and American railways. Forty-four cars were changed.

*To equip passenger cars with vestibules.*

Six passenger cars were fitted with vestibules of the wide pattern.

*To equip ten passenger cars with Pintsch gas apparatus.*

Eight cars were equipped during the year.

*To change the air brakes of passenger cars to quick action brakes, and to apply air signals.*

The change of brakes was made on seventy-eight cars, and air signals were applied to fifty-five cars.

*To change the air brakes of locomotives to quick action brakes and apply air signals.*

Forty-nine locomotives were equipped with air signals.

*Air brakes to freight cars.*

Two hundred and five cars were equipped during the year with the Westinghouse automatic quick action air brake.

*To exchange draw bars of freight cars.*

Seven hundred and fifty-eight cars were changed from the link and pin draw bar to the M.C.B. coupler.

The explanations in regard to the other expenditures on capital account will be found in the report of the chief engineer.

## REVENUE ACCOUNT.

The gross earnings and the working expenses for the year compare as follows:—

Gross earnings.....	\$6,324,323 72
Working expenses.....	6,196,653 19
Net earnings.....	\$ 127,670 53

The gross earnings compare as follows with those of the previous year:—

In 1902-3.....	\$6,324,323 72
In 1901-2.....	5,671,385 91
Increase.....	\$ 652,937 81

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The earnings from passenger traffic compare as follows:—

In 1902-3. . . . .	\$1,927,916 97
In 1901-2. . . . .	1,770,941 13
	<hr/>
Increase. . . . .	\$ 156,975 84

The earnings from freight traffic compare as follows:—

In 1902-3. . . . .	\$4,128,255 00
In 1901-2. . . . .	3,644,513 42
	<hr/>
Increase. . . . .	\$ 483,741 58

The earnings from mails and express freight compare as follows:—

In 1902-3. . . . .	\$ 268,151 75
In 1901-2. . . . .	255,931 36
	<hr/>
Increase. . . . .	\$ 12,220 39

The earnings by mile of railway compare as follows:—

In 1902-3. . . . .	\$ 4,810 56
In 1901-2. . . . .	4,313 92
	<hr/>
Increase. . . . .	\$ 496 64

The earnings by train mile compare as follows:—

	Cents.
In 1902-3. . . . .	99·66
In 1901-02. . . . .	93·46
	<hr/>

The number of passengers carried compares as follows:—

In 1902-3. . . . .	2,404,230
In 1901-2. . . . .	2,186,226
	<hr/>
Increase. . . . .	218,004

Of this increase 193,817 were local passengers, and 24,187 were through passengers.  
The weight of freight carried compares as follows:—

	Tons.
In 1902-3. . . . .	2,790,737
In 1901-02. . . . .	2,385,816
	<hr/>
Increase. . . . .	404,921

The increase in local freight was 325,442 tons, and in through freight, 79,479 tons.

## SESSIONAL PAPER No. 20

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.	1901-02.	1902-03.	Increase.	Decrease.
Barrels of flour and meal.....	1,314,707	1,521,540	209,833	
Bushels of grain.....	2,959,761	3,392,252	432,491	
Lumber in superficial feet.....	428,051,029	459,231,589	31,180,560	
Head of live stock.....	98,495	127,060	28,565	
Coal in tons.....	571,214	750,076	178,862	
Manufactured goods in tons.....	531,180	590,526	59,346	
Cords of firewood.....	60,892	55,002		5,890
All other articles in tons.....	418,729	493,225	74,496	

There was an increase over last year in the quantity of the following articles carried:—Flour, meal and other mill products, grain, potatoes and other vegetables, butter and cheese, horned cattle, sheep, and lambs, calves, lumber, logs, tanbark, shingles, coal, stone, brick, lime and cement, sand, iron and other metals, salted fish, dried fish, cysters and clams, sugar, molasses, salted and fresh pork, fresh beef and leather.

There was a decrease in the quantity of the following:—Eggs, hay and straw, fresh fish, canned fish, salt beef, hides and skins, horses, hogs, ship timber, telegraph poles, railway ties, firewood, clapboards, laths and palings, extract of hemlock bark.

## WORKING EXPENSES.

The working expenses compare as follows with the previous year:—

In 1902-3.....	\$6,056,653 19
In 1901-2.....	5,434,563 30
Increase.....	\$ 622,089 89

The averages compare with those of last year as follows:—

Per mile run by engines—

In 1902-3.....	Cents. 75'52
In 1901-2.....	71.17

Per mile run by trains—

In 1902-3.....	95'45
In 1901-2.....	89'56

Working expenses per mile of railway—

In 1902-3.....	\$4,606 97
In 1901-2.....	4,133 78

The rent paid to the Grand Trunk Railway Company, \$140,000, is not included in the above, as it would disturb the comparison with previous years, no corresponding charge relating to the cost of any portion of the railway having been included in the working expenses previous to the year 1898-99.

3-4 EDWARD VII., A. 1904

The permanent way and structures and all the works of the railway received necessary repairs and are in good order.

The number of ties renewed was 648,694. One hundred and forty-six sets of switch ties were also renewed.

Sixty-four miles of track were rebalasted, 96,231 cubic yards of ballast being used.

Bridges, culverts, wharfs and buildings received necessary repairs. The fences were repaired, and 101 miles of fences were built.

The snow sheds and snow fences were repaired.

The rolling stock received necessary repairs, and is in good order.

Two large locomotives were purchased, and one was built in the railway shops at Moncton to replace an equal number of smaller ones taken out of service.

One first-class passenger car, two conductors' vans, twenty-one stock cars, 277 platform cars, two coal cars and three snow ploughs were built to replace an equal number taken out of service. These freight cars were of much greater capacity than the ones they replaced.

## STORES.

The value of stores purchased was. . . . .	\$2,563,090 36
The value of stores used was. . . . .	3,570,369 07
The value of material sold was. . . . .	311,148 73
<hr/>	
The value of stores on hand at the end of the year was:—	
Miscellaneous. . . . .	\$376,665 63
Fuel. . . . .	163,679 90
Track materials. . . . .	269,131 68
Iron and steel rails. . . . .	108,465 12
<hr/>	
Total. . . . .	\$917,941 73
<hr/>	

## GENERAL.

In the month of May, 1903, forest fires destroyed all the railway buildings at Moosepark, Forestdale and Aston Junction stations, and also some freight and a number of freight cars.

Freshets washed out small portions of the track during the year : near West Bay Road Station, August 16, 1902; near West River Bridge, Picton, 5th December, 1902, length about 1,200 feet; near Sutherland's River Bridge on December 8, 1902, length about 1,000 feet; west of Folley Station on December 17, 1902, length about 25 feet.

The damage in these cases was not great, and was promptly repaired.

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.

SESSIONAL PAPER No. 20

No. 1. INTERCOLONIAL RAILWAY.  
CAPITAL ACCOUNT, Year ended June 30, 1903.

	1902 June 30, . . . . .	1903 June 30, . . . . .	1902 June 30, . . . . .	1903 June 30, . . . . .
	£	cts.	£	cts.
To cost of Intercolonial Railway to date . . . . .	597,590	11	68,310,619	55
To expenditure for current year . . . . .	40,609	42		
By Dominion of Canada . . . . .	1,085	18	68,310,619	55
By Dominion of Canada . . . . .	149,744	15		
By Dominion of Canada . . . . .	55,922	76		
By Dominion of Canada . . . . .	41,638	01		
By Dominion of Canada . . . . .	19,925	80		
By Dominion of Canada . . . . .	973	00		
By Dominion of Canada . . . . .	60,000	00		
By Dominion of Canada . . . . .	9,280	21		
By Dominion of Canada . . . . .	7,062	89		
By Dominion of Canada . . . . .	98,392	94		
By Dominion of Canada . . . . .	251,694	38		
By Dominion of Canada . . . . .	4,999	82		
By Dominion of Canada . . . . .	29,887	25		
By Dominion of Canada . . . . .	13,668	34		
By Dominion of Canada . . . . .	120,928	45		
By Dominion of Canada . . . . .	11,918	92		
By Dominion of Canada . . . . .	29,329	28		
By Dominion of Canada . . . . .	25,774	72		
By Dominion of Canada . . . . .	1,284	66		
By Dominion of Canada . . . . .	4,400	45		
By Dominion of Canada . . . . .	11,555	36		
By Dominion of Canada . . . . .	17,924	64		
By Dominion of Canada . . . . .	969	34		
By Dominion of Canada . . . . .	29,465	75		
By Dominion of Canada . . . . .	94,491	13		
By Dominion of Canada . . . . .	75,010	56		
By Dominion of Canada . . . . .	121,452	53		
By Dominion of Canada . . . . .	12,155	40		
By Dominion of Canada . . . . .	2,653	38		
By Dominion of Canada . . . . .	1,832	15		
By Dominion of Canada . . . . .	29,293	23		
By Dominion of Canada . . . . .	72,970	05		
By Dominion of Canada . . . . .	163,372	47		
To increase accommodation at Sydney . . . . .				
Original construction . . . . .				
To strengthen bridges . . . . .				
To increase accommodation at Lewis . . . . .				
Additional sidings along line . . . . .				
Air brakes to freight cars . . . . .				
To change car couplers on passenger cars . . . . .				
To exchange drawbars of freight cars . . . . .				
New machinery for locomotive and car shops . . . . .				
To equip 10 passenger cars with Pintsch gas apparatus . . . . .				
New superstructure for six spans, Miramichi bridge . . . . .				
Rolling stock . . . . .				
Sea walls . . . . .				
Increased accommodation at St. John's . . . . .				
New superstructure for Restigouche bridge . . . . .				
New superstructure for north-west Miramichi bridge . . . . .				
Tow-ais double tracking between Windsor Jet. and Halifax . . . . .				
Improvements at Point Tupper . . . . .				
Yard for freight business at Riviere-du Loup . . . . .				
To change air brakes of passenger cars to quick-action brakes and apply air signals . . . . .				
To change air brakes of locomotives to quick-action brakes and apply air signals . . . . .				
Addition to erecting shop at Moncton . . . . .				
To extend freight car repair shop at Moncton . . . . .				
Engine house, machine-shop, stores office at Riviere-du Loup . . . . .				
Engine house, &c., at Chaudiere Junction . . . . .				
To increase accommodation at St. John . . . . .				
To increase accommodation at Halifax . . . . .				
Additional siding room and increased accommodation and facilities along the line . . . . .				
Increased accommodation at Pictou . . . . .				
Station at Nicolet . . . . .				
Station and freight house at Eel River . . . . .				
Improvements at North Sydney . . . . .				
Building a spur line of railway from I.C.R. station at Riviere-Ouelle to the wharf on the St. Lawrence . . . . .				
To increase accommodation at Moncton . . . . .				

No. 1.—INTERCOLONIAL RAILWAY—Concluded.  
CAPITAL ACCOUNT, Year ended June 30, 1903.—Concluded.

1903, June 30.	cts.	cts.	cts.	cts.
Improvements at Rockingham . . . . .	3,393	70		
Towards improving ferry service at Strait of Canso . . . . .	16,606	08		
To equip passenger cars with vestibules . . . . .	7,993	12		
Eastern Extension Ry. of N.B. . . . .	1,230	87		
Eastern Extension Ry. of N.S. . . . .	3,932	62		
	2,216,744	88	1903, June 30.	By Dominion of Canada . . . . .
	70,527,364	43		2,216,744
				70,527,364

E. & O. E.,  
MONCTON, N.B., June 30, 1903

T. WILLIAMS,  
*Chief Accountant and Treasurer.*

SESSIONAL PAPER No. 20

## No. 2.—INTERCOLONIAL RAILWAY.

REVENUE ACCOUNT, year ended June 30, 1903.

Previous Year	Expenditure	Year ended June 30, 1903	Previous Year	Earnings	Year ended June 30, 1903
§ cts.		§ cts.	§ cts.		§ cts.
2,030,928 40	Locomotive power, Abst. No. 1.	2,176,160 76	1,770,941 13	Passenger traffic.	1,927,916 97
1,119,461 86	Car expenses, " 2.	1,338,857 68	3,644,513 42	Freight traffic.	4,128,255 00
1,155,891 66	Main. way and works, " 3.	1,386,350 29	255,931 26	Mails and sundries	268,151 75
699,797 82	Station expenses, " 4.	789,346 84			
445,227 50	General charges, " 5.	477,373 77			
5,451,307 24		6,168,089 34			
16,743 94	Car mileage . . . . .	111,436 15			
5,434,563 30		6,056,653 19			6,324,323 72
140,000 00		140,000 00			
5,574,563 30		6,196,653 19	5,671,385 91		
96,822 61	Balance . . . . .	127,670 53			
5,671,385 91		6,324,323 72	5,671,385 91		6,324,323 72

E. and O. E.,  
Moxton, N.B., June 30, 1903T. WILLIAMS,  
*Chief Acct. and Treasurer.*

## No. 3.—INTERCOLONIAL RAILWAY.

LOCOMOTIVE POWER, Abstract No. 1.

Previous Year		Year ended June 30, 1903
§ cts.		§ cts.
22,144 35	Mechanical superintendent's salary, clerks, office and travelling expenses. . . . .	17,061 86
486,976 72	Wages of drivers, firemen and cleaners . . . . .	513,160 91
1,044,047 42	Fuel . . . . .	1,111,725 32
27,150 23	Oil, tallow and waste and small stores . . . . .	29,881 77
374,699 59	Repairs to engines, tenders and engine tools . . . . .	497,861 03
40,166 27	Water, including pump and tank repairs . . . . .	44,149 60
35,743 82	Miscellaneous . . . . .	52,320 27
2 030,928 40		2,176,160 76

E. and O. E.,  
Moxton, N.B., June 30, 1903.T. WILLIAMS,  
*Chief Acct. and Treasurer.*

3-4 EDWARD VII., A. 1904

## No. 4.—INTERCOLONIAL RAILWAY.

## CAR EXPENSES, Abstract No. 2.

Previous Year	—	Year ended June 30, 1903.
£	cts.	£
117,332	16	152,672
31,193	78	33,002
304,035	58	412,612
7,510	87	13,250
472,227	27	497,753
6,992	33	9,211
125,851	51	151,411
54,318	36	68,943
1,119,461	86	1,338,857

E. and O. E.,  
MONCTON, N.B., June 30, 1903.

T. WILLIAMS,  
*Chief Acct. and Treasurer.*

## No. 5.—INTERCOLONIAL RAILWAY.

## MAINTENANCE OF WAY AND WORKS, Abstract No. 3.

Previous Year.	—	Year ended June 30, 1903.
£	cts.	£
6,847	94	6,796
491,693	27	591,742
69,441	83	185,746
192,566	46	193,533
180,911	48	179,557
12,075	32	17,967
100,122	38	97,894
17,612	25	19,985
80,982	47	89,480
3,638	26	3,846
1,155,891	66	1,386,350

E. and O. E.,  
MONCTON, N.B., June 30, 1903.

T. WILLIAMS,  
*Chief Acct. and Treasurer.*



SESSIONAL PAPER No. 20

## No. 6.—INTERCOLONIAL RAILWAY.

## STATION EXPENSES, Abstract No. 4.

Previous Year.		Year ended June 30, 1903.
§ cts		§ cts.
567,462 64	Salaries and wages of station-masters, agents, clerks, telegraph operators, station baggage-masters, yard-masters, switchmen and labourers.....	644,939 90
132,335 18	Fuel, oil and light, stationery, tickets and other incidental expenses.....	144,406 94
699,797 82		789,346 84

E. and O. E.,  
MONCTON, N.B., June 30, 1903.

T. WILLIAMS,  
*Chief Acct. and Treasurer.*

## No. 7.—INTERCOLONIAL RAILWAY.

## GENERAL CHARGES, Abstract No. 5.

Previous Year.		Year ended June 30, 1903.
§ cts.		§ cts.
187,007 50	General manager, general superintendent, traffic manager, district superintendents, train despatchers, general freight agent, general passenger agents' salaries, clerks, office and travelling expenses.....	197,442 67
46,205 79	Chief accountant and treasurer, traffic auditor, paymaster, cashiers' salaries, clerks, office and travelling expenses.....	50,091 96
28,391 04	Damage to men, animals and goods.....	24,075 20
67,409 28	Ferry service.....	69,624 15
3,495 14	Telegraph expenses, not including pay to operators.....	2,883 80
50,338 04	Miscellaneous, printing, advertising, &c.....	64,978 03
62,380 71	Agency expenses.....	67,761 29
445,227 50		476,857 10
.....	To pay Ida E. Robertson and Mary E. Thompson.....	516 67
445,227 50		477,373 77

E. and O. E.,  
MONCTON, N.B., June 30, 1903.

T. WILLIAMS,  
*Chief Acct. and Treasurer.*

## No. 8.—INTERCOLONIAL RAILWAY.

## SPECIAL NOTES, Abstract No. 6.

Previous Year.	Rental of Leased Lines.	Year ended June 30, 1903.
§ cts.		§ cts.
140,000 00	Rent of Grand Trunk Railway—Chaudière Curve to Chaudière and Ste. Rosalie to Montreal, including Victoria Bridge and terminals at Montreal.....	140,000 00

E. and O. E.,  
MONCTON, N.B., June 30, 1903.

T. WILLIAMS,  
*Chief Acct. and Treasurer.*

3-4 EDWARD VII., A. 1904

No. 9.—INTERCOLONIAL RAILWAY.  
GENERAL STORES ACCOUNT—Year ended June 30, 1903.

Cr.

Dr.

		1902.		1903.		1903.			
		£	cts.	£	cts.	£	cts.	£	cts.
June 30	To Balance	1,535,377	20			3,570,369	07		
1903.						33,949	51		
						277,199	22		
June 30	To Purchases during year							3,881,517	80
	Changes from other departments	2,563,090	36						
	Labour, &c.	549,482	02						
	Staff pay rolls	135,115	73						
		16,394	22						
		3,204,082	33			782,685	11		
						133,246	62		
								917,941	73
								4,799,459	53

E. &amp; O. E.

MONCTON, N.B., June 30, 1903.

T. WILLIAMS,

*Chief Accountant and Treasurer.*



3-4 EDWARD VII., A. 1904

No. 10, INTERCOLONIAL RAILWAY *Continued.*  
 GENERAL BALANCE, Year ended June 30, 1903 *Continued.*

Div.	cts.	cts.
Central Vermont Ry.	16 73	
Grand Trunk Ry. - suspense	98 75	
Drummond County Ry.	7,199 87	
Windsor Ry.	30 61	
Newfoundland Ry.	68 15	
Pennsylvania Co.	9 50	
Maine Central Ry.	7 13	
Midland Ry. of Nova Scotia	750 22	
Quebec Southern Ry.	21,689 67	
Central Ry. of New Brunswick	11,136 62	
New York, N. H. and H. Ry.	5 68	
Cape Breton Ry. Co.	1,992 32	
Lake Shore and Mich. S. Ry.	14 53	
Great Northern Ry. of Canada	8 56	
Ballston Terminal Ry.	396 11	
Delaware and Hudson Ry.	512 46	
Eastern and Albany Ry.	18 39	
Continental Print-Express	9 50	
F. A. Cutting Car Co.	1 25	
Michigan Central Ry.	25 00	
Chicago and North Western Ry.	16 51	
Canada Atlantic Ry.	621 75	
Cincinnati, H. and D. Ry.	2 70	
Indiana, Illinois and I. Ry.	0 55	
Dairy Shippers Dispatch Lane	2 82	
Armour Refrigerator Lane	3 10	
Street's Western Stable Car Co.	15 92	
American Refrigerator Transportation Co.	5 39	
Lehigh Valley Ry.	9 53	
Erie Ry.	5 70	
Union Refrigerator Transportation Co.	2 31	
Mather Horse and Stock Car Co.	80 03	
Minn., St. Paul and South Ste. Marie Ry.	0 36	
Wisconsin Central Ry.	1 01	
Swift Refrigerator Lane.	1 39	
Baltimore and Ohio Ry.	2 38	
Chicago and Alton Ry.	1 92	
Anglo American Refrigerator Lane.	2 21	
National Dispatch - Great Eastern Lane.	17 30	
Vandalia Lane	1 02	
Cleveland, Cinn., C. and St. Louis Ry.	0 55	
Philadelphia and Reading Ry.	5 69	
Toronto, Hamilton and B. Ry.	0 35	

## SESSIONAL PAPER No. 20

Pere Marquette Ry.	1 66
Illinois Central Ry.	8 11
Chicago, R. I. and P. Ry.	1 63
Missouri Pacific Ry.	12 25
Chicago, New York and B. Refrigerator Line	7 45
Nova Scotia Central Ry.	5 20
Rudland Ry.	5 19
Great Northern Line	9 50
Cincinnati Northern Ry.	0 53
Atchafson, Topeka and S. Fe Ry.	0 60
New York, Chicago and St. Louis Ry.	0 92
Pittsburg and Lake Erie Ry.	0 31
Quebec and Lake St. John Ry.	3 45
Evansville and Terre Haute Ry.	0 65
Northern and Western Ry.	1 88
Pittsburg, Shawmut and U. Ry.	2 75
Mobile and Ohio Ry.	2 63
Eastman Header Car Co.	0 60
New York Central and H. River Ry.	34 27
Canada Atlantic and Plant Line.	0 71
Canada Northern Ry.	0 96
Southern Ry.	7 25
Sherbrooke Tank Line.	10 45
Merchants Dispatch Transportation Co.	0 60
Buffalo, Rochester and Pittsburg Ry.	0 51
International S. S. Co.	2 69
Union Tank Line.	1 61
Philadelphia, W. and Pa. Ry.	0 67
Edgen and Havlock Ry.	114 45
SS. <i>Admiral</i> .	2,618 91
Can. Ry. and Coal Co.	101 65
Can. Coals and Ry. Co.	152 80
Canadian Express Co.	9,583 86
Acadia Coal Co.	328 53
Intercolonial Coal Co.	1,638 22
Dominion Coal Co.	3,987 25
St. Francis Bridge Co.	49 59
Western Union Telegraph Co.	763 61
Royal Vais.	10,189 80
Dani. Iron and Steel Co.	9,295 51
Baldwin Locomotive Works.	181 10
SS. <i>Leida</i>	50 78
SS. <i>Lake Ontario</i>	17 04
Standard Car Truck Co.	465 30
Nova Scotia Store and Coal Co.	3,337 40
SS. <i>Scotia</i>	8,861 99
Elmsdale Brick Co.	0 95
Atlantic Gravelstone Co.	26 84
Halifax Station, Labour.	1,000 00
Engineering Contract Co.	518 68

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No. 10. - INTERCOLONIAL RAILWAY *Concluded.*  
 GENERAL BALANCE, Year ended June 30, 1903 *Concluded.*

	%	cts.
McDonnell Rolling Mills.....	385	56
Canadian Locomotive and Eng. Co.....	321	90
Lake Superior Tower Co.....	17,658	19
N. B. Anchor Wire Fence Co.....	26	20
Michigan Mining Co.....	317	81
Montagny Light and Pulp Co.....	1,768	46
Canadian Pacific Telegraph Co.....	26	15
Red Cross Lahr.....	3	54
SS <i>Restigouche</i> .....	278	87
Portland Rolling Mills.....	149	79
Allan S. S. Lahr.....	1,892	13
Union Heating Co.....	928	18
Elgin Branch Ry.....	726	10
Polson Iron Works.....	273	25
Town of Dartmouth.....	32,000	00
St. John Street Ry.....	31	00
Ontario Car and Foundry Co.....	1,276	00
Remittances destroyed.....	788	81
Schooner <i>Mary Jane</i> .....	71	30
Springhill and Parrishoro Ry.....	3,161	99
Coldbrook Rolling Mills.....	1,967	41
Halifax and Cape Breton Ry.....	1,151	42
Uncurrent and failed bank notes.....	82	20
SS <i>Atrato</i> .....	268	14
Trois Pistoles station.....	97	37
Eel River.....	32	61
Nauwigewank.....	3	00
Gleugary.....	5	00
Bloomfield.....	25	21
Coal Branch.....	65	84
Weldford.....	55	00
Bic.....	22	00
St. Arsene.....	107	12
Ste. Luce.....	80	00
Dalhousie.....	19	69
Valley.....	6	65
Iona.....	72	71
Isle Verte.....	25	00
Kent Junction.....	28	38
Gloucester Junction station.....	78	87
Campbellton (freight).....	25	00
Derby Junction.....	231	64

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Ste. Louise	0 66		
Nicolet	3 00		
Rivière du Loup (freight)	136 82		
St. Alexandre	25 90		
Red Pine	20 00		
Rivière du Loup (ticket)	16 00		
Newcastle	102 75		
Napain	40 00		
Memramcook	7 54		
St. John (freight)	3,096 46		
Amherst (freight)	3 31		
Boisdale	7 80		
Sackville	10 17		
Wentworth	33 21		
Rockingham	27 47		
New Glasgow	633 90		
Nash's Creek	5 00		
Shediac	31 70		
Eureka Mills	13 56		
Halifax (freight)	887 49		
Athol	1 41		
	6,090 70		
Total	1,581,317 12	Total	1,581,317 12

E. & O. E.,

Moncton, N.B., June 30, 1903.

T. WILLIAMS,

Chief Accountant and Treasurer.

3-4 EDWARD VII., A. 1904

## INTERCOLONIAL RAILWAY.

INDIVIDUAL ACCOUNTS, Year ended 30th June, 1903.

<i>Dr.</i>	s	cts.	s	cts.
Gray & Lawrence Bros Co. ....				6 75
F. E. Caine. ....			2,760	70
Rhodes, Curry & Co. ....			0	70
J. Morris & Co. ....				22 22
Ryan & McDonnell. ....			3,736	29
T. A. S. Dewolf & Son. ....				9 51
M. J. O'Brien. ....				4 45
M. Beattie & Sons. ....				1 14
Robt. Reford Co. ....				7 43
Fraser Bros. ....			106	88
J. Fisher. ....			140	00
J. Barnes Construction Co. ....			502	44
H. A. McKeown. ....			150	00
J. W. C. McConnell. ....			50	00
Geo. McDougall & Son. ....			1,466	00
L. R. Harrison. ....			1,343	41
Pickford & Black. ....			134	22
I. U. Pouliot. ....			352	20
R. A. & J. Stewart. ....			41	39
J. Richards & Son. ....			116	24
Wallace Ross. ....			33	70
T. Cook & Son. ....			19	80
P. E. Gallant. ....			173	36
A. Forbes. ....			82	18
H. J. Cameron. ....			1,679	07
J. J. McLeod. ....			644	16
H. M. Hamilton. ....			316	66
R. Hamilton. ....			1,131	52
H. Atkinson. ....			12	80
T. Atkinson. ....			49	87
				15,095 09
<i>Cr.</i>				
Dubs & Co. ....		98 63		
N. K. & M. Connolly. ....		16,424 09		
McLean, Holt & Co. ....		152 83		16,675 55
				\$1,580 46



SESSIONAL PAPER No. 20

## No. 11—INTERCOLONIAL RAILWAY.

COMPARATIVE STATEMENT of Averages, Year ended 30th June, 1903.

	1902.	1903.
Mileage of railway.....	1,314·67	1,314·67
Engine mileage.....	7,636,113	8,019,320
Train mileage.....	6,067,947	6,345,500
Car mileage.....	74,973,924	80,690,353
Receipts per engine mile..... Cents	73·74	78·86
Receipts per mile of railway..... Dollars	4,313·92	4,810·56
Percentage of passenger earnings to gross earnings.....	31·23	30·48
"    freight    "    ".....	64·26	65·28
"    other    "    ".....	4·51	4·24
Express per engine mile :—		
Drivers, firemen and cleaners' wages..... Cents	6·38	6·40
Fuel..... "	13·67	13·86
Oil, tallow, waste and small stores..... "	·35	·37
Repairs to engines..... "	4·91	5·09
Water and tank repairs..... "	·53	·55
Miscellaneous..... "	·47	·65
Total.....	26·31	26·92
Mechanical superintendent's salary, office and travelling expenses.....	·29	·21
	26·60	27·13
Locomotive power per engine mile..... Cents	26·60	27·13
Car expenses..... "	14·63	16·70
Maintenance way and works per engine mile..... "	15·14	17·29
Station expenses per engine mile..... "	9·16	9·84
General charges..... "	5·83	5·95
	71·39	76·91
Less car mileage..... "	·22	1·39
Total.....	71·17	75·52
Rental of leased lines.....	1·83	1·75
Total per engine mile.....	73·00	77·27
Locomotive power per train mile..... Cents	73·47	34·29
Car expenses..... "	18·45	21·10
Maintenance way and works per train mile..... "	19·04	21·85
Station expenses per train mile..... "	11·53	12·44
General charges..... "	7·34	7·52
	89·83	97·20
Less car mileage..... "	·27	1·75
Total.....	89·56	95·45
Rental of leased lines.....	2·31	2·20
Total per train mile.....	91·87	97·65
Working expenses per mile of railway :—		
Ordinary.....	4,133·78	4,606·97
Rental of leased lines.....	106·48	106·49
	\$4,240·26	\$4,713·46

3-4 EDWARD VII., A. 1904

## INTERCOLONIAL RAILWAY.

OFFICE OF THE CHIEF ENGINEER,

MONCTON, N.B., September 23, 1903.

SIR,—I have the honour to submit the following report on Capital Account expenditures for the fiscal year ending June 30, 1903.

*To increase accommodation, Halifax.*

Dredging and removing rock at deep water terminus was completed.

The purchase of land originally taken at the elevator site was completed.

With the exception of some small items still outstanding, work under Illsley & Horn's contract in connection with the improvements to North street station was completed.

A new mail room was built at North street station, and the concrete platforms extended at the west end of building, and a drain put in to take drainage from roofs.

An electric baggage elevator was put in the station.

A heating and power plant is being put in end of brick freight shed for heating station building and cars, also supplying power. The foundations for boilers, &c., are in place. Contracts have been let for a steel stack and 300 horse-power boilers for this plant, and preparations are being made for installing same. A sewer has been laid to the city sewer.

The flour shed at North street was converted into a car-cleaning shed; the end wall being taken down and doors put in, and tracks laid inside and outside the building. Additional light was provided by sky-lights being put in roof and windows substituted for doors. Concrete platforms were laid in shed and drainage provided.

Considerable rock was removed from the face of the retaining wall on Campbell Road, and masonry built.

Quarters were prepared for the sleeping car supplies, and a platform built for cleaning carpets, &c.

Two new sidings were put in west of the station, and two at the flour shed. The yard was re-arranged. A new 75-foot turntable was provided, but is not yet erected.

*Towards double tracking between Windsor Junction and Halifax.*

A contract was let for grading, &c., 2½ miles of line between Richmond and Rockingham; work under this contract is well advanced. A piece of line was built at Lily lake by extending an existing siding.

*Improvements at Rockingham.*

A new station building was built by contract. Considerable filling was done at the west end of station, and a culvert extended. A new platform was built.

*To increase accommodation at Moncton.*

A contract was let for an extension of 200 feet x 75 feet to the brick car shop; work on this contract is well advanced.

An extension of 103½ feet x 62½ feet was made to the brick blacksmith shop, and a new plant was installed in same.

A drop pit house was built at erecting shop, and machinery for drop pit put in place.

A contract was awarded for the erection of a coal handling plant purchased last year, and work is well under way.

## SESSIONAL PAPER No. 20

A water tube boiler plant, for supplying power to Moncton shops has been purchased, and is now being installed.

A new tin shop was made from part of the old engine house.

Part of the yard was rearranged.

*Addition to erecting shop at Moncton.*

An addition of 30 feet was made the full length of the building, and nine pits were extended to accommodate large engines.

*To extend freight car repair shop at Moncton.*

A contract was let for an extension to the freight car shop, 345 feet x 78½ feet.

Work is now under way and is well advanced.

*Increased accommodation at St. John.*

A quantity of rock was excavated for the yard from Gilbert's island, so called.

Property and claims for damages in connection with property taken for Long Wharf improvements were settled for.

A 100,000 gallon tank was erected on an elevated trestle, and a pipe line from the city main on Marsh road to the tank is being laid.

A cattle shed was built on the D. W. T. wharf (ballast wharf).

A contract was let for an 18 stall engine house, with annex, hot well, &c., at Gilbert's Island; work is about one-half completed.

A quantity of grading was done, and additional tracks were laid in new yard at Gilbert's Island.

*New superstructure, North-west Miramichi Bridge.*

The metal work started in last year was completed this year, and the bridge is completely renewed and up to date.

*New superstructure for six spans, Miramichi Bridge.*

The bridge at South-west Miramichi is now in course of renewal, the spans being all manufactured, and two are being erected on the ground.

*Station and freight shed at Eel River.*

A building combining station and freight house was completed at Eel River. The station was supplied with seating, &c.

*New superstructure, Restigouche Bridge.*

A contract was let for the iron work for this bridge, and it is now being manufactured.

*Yard for freight business at Rivière du Loup.*

A site for yard was prepared east of the present yard by a large quantity of rock excavating and grading being done. Some additional siding room was provided.

*Engine house, machine shop, car shop, stores, office, at Rivière du Loup.*

Surveys have been made and plans prepared for land required, and for new engine house, &c.

*Building a spur line of railway from Intercolonial Railway Station at Rivière Ouelle to the wharf on the St. Lawrence.*

This branch was opened for traffic on June 22. Ballasting is now being done, and the other work of completion is now going on. The wharf at St. Denis is being strengthened to carry trains.

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*Increased accommodation, Lévis.*

The new station building started last year was completed, furnished, and supplied with blinds and outside windows.

Plans were prepared for a new building for baggage, &c. A temporary building for baggage was erected. Temporary platforms were built. Tenders were received June 6 for the iron work for covered platforms and overhead bridge.

The yard was rearranged and some additional siding room provided.

Some of the claims for land taken for increased accommodation were settled.

*Engine house, Chaudiere Junction.*

Additional land was purchased. Water pipes were laid from the river to engine house site. A sewer from the engine house site to the river was put in. A contract was awarded for an 18-stall engine house, and work on it is well under way. Some grading was done and tracks laid at site of engine house. A new 75-foot turntable has been provided.

*Station at Nicolet.*

A new station building was built by contract.

*Increased accommodation, Stellarton.*

The yard was re-arranged, a quantity of grading done, and additional tracks laid. Land for yard room was purchased.

Water pipes and fittings for water service were supplied.

*Increased accommodation, Pictou.*

Some additional tracks were laid. Some dredging was done at wharf, making new berth. The contract for wharf and freight shed was completed.

*Improvements at Point Tupper.*

A site for new freight yard and a second main line into the present yard was prepared by cutting down the hill at Point Tupper and filling between wharfs and west end of yard with the material. A small amount of track-laying was done. A small piece of land was purchased and buildings moved, for these improvements.

*To increase accommodation, Sydney.*

A new building for baggage room, &c., was constructed. A number of tracks were laid and grading done. A contract for a new freight shed 204 feet x 45 feet was let, and work is now being done. A concrete floor was laid in engine house and turntable pit. The hot well was completed and tank foundation built and tank erected.

The engine house was piped for water, steam and air. A quantity of piping and fittings was supplied for water service to stand-pipes, &c., in yard. A quantity of ballasting was done in yard, and tracks laid.

*To raise Sydney and Louisburg Bridge over I.C.R.*

The Dominion Coal Company has not yet signed the necessary agreement.

*Improvements at North Sydney.*

An extension of 200 feet x 60 feet was made to the existing wharf of cribwork, sheathed with creosoted material. The berths on each side of wharf were dredged, to accommodate larger steamers.

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*Sea Walls.*

Sea walls were constructed between Bedford and Rockingham, and on the Cape Preton Division, by contract.

*Original construction.*

Amounts were paid:—R. R. McNeil, for farm crossing; Department of Indian Affairs, for right of way; Edward Keays, for diversion of water; Mrs. E. Veith, for right of way; also for legal expenses in connection with above and other cases.

*Strengthening bridges.*

The following new bridges were supplied and put in place during the year:—

Bathurst bridge, 2 spans 87 feet, through plate girders; Nash's creek, 1 span, 87 feet, through plate girder; Grant's brook, 1 span, 87 feet, through plate girder; Nigadoo, 1 span, 87 feet, through plate girder; McKinnon's brook, 2 spans, 87 feet, deck plate girder, new mills, 2 spans 87 feet, deck plate girder; Sayabec, 1 span, 87 feet, through plate girder; Grand Bic, 1 span, 87 feet, deck plate girder; Louison's brook, 1 span, 65 feet, plate girder; Clark's brook, 1 span, 65 feet, through plate girder; Westchester, 1 span, 66 feet, deck plate girder; Little river, 1 span, 66 feet, deck plate; Eel river, 3 spans, 66 feet, deck plate girder; Mud creek, 1 span, 55 feet, deck plate girder; Gilmore's brook, 1 span, 66 feet, deck plate girder; Trois Pistoles, 3 deck truss spans, 108 feet.

The following bridges have been delivered, but not yet put in place:—

Lydia brook, 2 spans, 25½ feet; Scott's public crossing, 1 span, 30½ feet; Shubenacadie bridge, 1 span, 26½ feet; Rawdon river, 2 spans, 31½ feet; Darling's brook, 1 span, 25½ feet; Quispamsis, 1 span, 24½ feet; Meadow Brookfield, 2 spans, 22 feet; Ellis brook, 1 span, 23 feet; Elmsdale, 1 span, 21 feet 3 inches; Secord's, 1 span, 20 feet 10 inches; Groom's Cove, 1 span, 20 feet 6 inches; Williams' brook, 1 span, 19 feet 3 inches.

Contracts have been let for the following bridges, which have not been erected in place:—

St. Joseph street, Pomquet, Pollet river, Trout creek, Passekeag, Moosehorn. Government street, New Glasgow, Under Crossing, Perkin's, St. Francis—at Drummondville.

The following bridges were doubled up during the year:—

Nepisquit, 2 spans; Trois Pistoles, 2 spans; Little Metis, 4 spans; Barnaby river (2nd crossing) 1 span; Barnaby river (3rd crossing) 1 span; Beresford, 1 span; Kouchibouacis, 1 span and Moffatt's, 7 spans—is partly completed.

Materials are on hand to double up Bartibogue, Elm tree, Belledune, and Rimouski bridges.

In connection with work on these bridges, temporary sidings were put in, and the cost of putting in charged to this vote, at the following places:—

Kouchibouacis bridge, Barnaby river (2nd crossing), Nigadoo, Beresford, Little Metis, Moffatt's.

Masonry was altered at the following bridges, in connection with work done on them:—

Mill creek, Little river, Grant's brook, Louison's brook, New Mills, Nigadoo, McKinnon's brook, Gilmore's brook, Clark's brook, Grand Bic.

Two new concrete abutments were built at Pomquet trestle, and the wood trestle replaced with an earth embankment.

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*Additional sidings along the line.*

The following sidings were put in or extended under this vote:—

Name.	Length now.	Length extended.
Hampton cut-off.....	174	
Painsec Junction.....		1,028
Sussex—for military purposes.....	1,350	
Boundary creek.....		2,100
Humphrey's.....		3,416
Folleigh.....	3,740	
Springhill Junction.....		3,920
Dorchester.....	341	
College Bridge.....	1,670	
Shubenacadie cut-off.....	147	
Adamsville.....		3,480
St. Octave.....	3,400	
Salmon lake.....	882	
Little Metis.....		1,389
McKenzie's.....		628
Isle Verte.....		1,269
L'Anse a Giles.....		180
St. Cyrille.....		148
Ste. Rosalie.....	294	

The following sidings were also extended, or work started last year completed—such as ballasting, &c.—

Amherst, Wellington, Bedford, Milford, Brookfield, Stewiacke, Elmsdale, Hali-burton, Catamount, St. Alexis, Price's, St. Apollinaire, and Drummondville.

*Additional siding room and increased accommodation and facilities along the line.*

Under this vote, the following sidings were put in or extended:—

Name.	Length now.	Length extended.
Jubilee.....	294	
Apohaqui.....		566
Maccan.....	1,100	
Athol.....	2,300	
Nappan.....		2,917
Lily lake.....	1,844	
Oxford Junction.....	225	
“.....	1,400	
Pictou Landing.....	410	
“ ‘Y’.....		826
South River.....	1,018	
Stellarton.....	502	
Trenton.....	360	
North Sydney.....	1,408	
Beaver Cove.....	1,600	
Two-miles West Canaan.....	350	
Nash's Creek.....		3,144
Metapedia—freight shed.....		482
St. Pierre.....	2,165	
Montmagny.....		2,294
Riviere Ouelle, crossing siding.....	2,900	
“ ‘Y’.....	310	
“ cross-over.....	180	
“ local.....	310	
Ville Marie.....	380	
Ste. Rosalie, ‘Y’.....	1,930	

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The following sidings were also extended, or work started last year completed, such as ballasting, &c.:—

Ainaganuce, Nauwigewank, Wentworth, Windsor Junction, Rocky Lake, Ferona Junction, Brown's Point, Oxford, Pugwash, Sylvester, McCallum's, Antigonish, North Sydney, Nigadoo, Patterson's, Rimouski, St. Laurent, Paradis, St. Charles, Bennett, Carmel, Ste. Monique, Mitchell, St. Romuald, Nicolet, Belliveau's, Eel River. Other work was done at different points under this vote, as follows:—

- Ball's Creek, platform built.
- Orangedale, loading platform built.
- Mulgrave, loading platform built.
- Antigonish, drain put in at station.
- New Glasgow, new loading platform 340 feet long, built.
- Westville, electric light put in station.
- Brown's Point, new station builbling, with dwelling apartments built, yard graded, culvert extended, platform built.
- Chisholm's Siding, land purchased to widen cut for extension of siding.
- Dartmouth, pillar crane at loading platform provided.
- Enfield, land purchased for siding.
- Elmsdale, station remodelled and new freight shed built.
- Milford, land purchased for new station site.
- Shubenacadie, land purchased for siding.
- Belmont, land purchased for extension of siding.
- Oxford Junction, freight shed moved and platform built.
- " pump house built for water supply.
- Springhill Junction, an ash pit provided.
- Maccan, 100 ton track scale put in.
- Pt. du Chene, well provided at station.
- Boundary Creek, new station and platform built.
- Salisbury, well provided at station.
- River Glade, new station and platform built.
- Penobsquis, water supply provided for station.
- Sussex, stand pipe provided, and water service extended.
- Riverside, new station built.
- Estmere, platform extended.
- Coal Branch, well provided.
- Campbellton, hot water heating installed in station.
- Metapedia, new station being built; existing station removed and being converted into dwelling for agent; freight shed moved, and yard being re-arranged.
- Millstream, work on section house.
- St. Octave, work done on station.
- St. Flavie, boring well for water supply completed.
- Cacouna, awning over station platform built.
- " platform extended.
- Old Lake Road, work done on station.
- St. Anaclet, work done on station.
- St. Andre, work done on freight shed.
- St. Philippe de Neri, work done on station.
- St. Charles Junction, station improved: freight shed extended.
- St. Romuald, water supply put in station.
- St. Nicholas, well provided at station.
- Laurier, well provided at Station.
- Forestdale, water supply extended.
- Aston Junction, work done on section man's dwelling.
- St. Monique, land purchased for siding and loading ground.
- St. Wenceslas, well provided at station.

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St. Cyrille, well provided at station.

St. Germain, well provided at station.

Bagot, well provided at station.

Ste. Rosalie, land purchased for additional sidings.

“ shelter and drain built for track scale.

Beaumont, shelter provided.

Craig's Road, platform built.

New electric semaphores were put up at the following stations:—

Assametquaghan (2).	St. Henri.
Causapscaal (2).	North Sydney Junction.
Amqui (2).	Point Tupper.
Little Metis.	Enfield.
Ste. Flavie.	Wentworth (2)
Bic (2).	Maccan (2)
St. Fabien.	Aulac.
Trois Pistoles.	Sackville.
Rivière Ouelle.	Evans.
Montmagny.	Anagance.
St. Pierre.	Penobsquis.
St. François.	Apohaqui.
St. Michel.	Norton.
Lévis (2).	Quispamsis.
Hadlow.	Rothesay (2).
Chaudiere.	St. John (2).
Moose Park (2).	Nash's Creek.
Forestdale.	Eel River.
Mitchell.	Flatlands (2).
Drummondville.	Millstream (2).
Ste. Rosalie.	

*Steel rails and fastenings.*

During the year, 110.45 miles of rails weighing 58 and 67 lbs. per yard were replaced with rails weighing 80 and 110 lbs. per yard.

I have the honour to be, sir,

Your obedient servant,

WM. B. MACKENZIE,

*Chief Engineer.*

D. POTTINGER, Esq.,

General Manager,

Government Railways,

Moncton, N.B.



## INTERCOLONIAL RAILWAY OF CANADA.

OFFICE OF THE GENERAL SUPERINTENDENT,

MONCTON, N.B., September 15, 1903.

SIR.—I have the honour to submit the annual reports of the mechanical department, and of the maintenance of way and works for the year ended June 30, 1903.

I have the honour to be, sir,

Your obedient servant,

J. E. PRICE,

*General Superintendent.*

D. POTTINGER, Esq.,

General Manager, Government Railways,  
Moncton, N.B.

## INTERCOLONIAL RAILWAY.

OFFICE OF THE ENGINEER OF MAINTENANCE,

MONCTON, N.B., September 16, 1903

SIR.—I have the honour to submit the report of the maintenance of way and works department for the year ending June 30, 1903.

## TRACK.

During the year 37.24 miles of 67 lb. rails and 73.21 miles of 58 lb. rails were taken up and replaced by 90.50 miles of 80 lbs., and 19.95 miles of 110 lb. rails.

## TIES.

During the year 648,694 ordinary ties and 146 set switch ties were renewed.

## BALLASTING.

During the year 64.15 miles of track ballasted, using 83,916 cubic yards of gravel, and 12,315 cubic yards of ashes and cinders.

## SWITCHES AND SEMAPHORES.

Distant electric semaphore signals were erected, or extended, at the following stations:—

North Sydney Junction, 1.  
Pt. Tupper east, 1.  
Enfield east, 1.  
Wentworth east, 1.  
“ west, 1.  
Maccan east, 1.  
“ west, 1.  
Aulac east, 1 .

Evans east, 1.  
Anagance west, 1.  
Penobsquis east, 1.  
Apohaqui west, 1.  
Norton west, 1.  
Quispamsis east, 1.  
Rothsay east, 1.  
“ west 1.

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Sackville east, 1.	St. John, inside, 1.
St. John, outside, 1.	St. Fabien east, 1.
Eel River west, 1.	River Ouelle east, 1.
Nashe's Creek east, 1.	Montmagny west, 1.
Flatlands east, 1.	St. Pierre east, 1.
"    west, 1.	St. François east, 1.
Millstream east, 1.	St. Michel east, 1.
"    west, 1.	Lévis east, 1.
Assametquaghan east, 1.	"    west, 1.
"    west, 1.	Hadlow east, 1.
Causapséal east, 1.	Chaudiere west, 1.
"    west, 1.	Moose Park east, 1.
Amqui east, 1.	"    west, 1.
"    west, 1.	Forestdale west, 1.
Little Metis east, 1.	Mitchell east, 1.
Ste. Flavie east, 1.	Drummondville east, 1.
Bic east, 1.	"    west, 1.
"    west, 1.	Ste. Rosalie east, 1.
Trois Pistoles east, 1.	St. Henri east, 1.

One hundred and sixty-four new switches were put up on the various divisions during the year.

New telegraph signals were provided at the following stations.—Marshy Hope, Woodburn, Elmsdale, St. Henri, Moffats, Cedar Hall, Campbellton, Millstream, Nashe's Creek.

Necessary repairs were made to all other semaphores, switches, and station telegraph signals throughout the line where required.

## SIDINGS.

During the year 2·15 miles of additional siding accommodation has been provided at different points throughout the line.

## FENCE BUILT BY CONTRACT.

50·98 miles of Strathy wire fence was built at different points on the line.

852 feet of anchor wire fence was built in front of general office building, Moncton.

## FENCE BUILT BY OUR OWN MEN.

50·11 miles of Page wire, 150 rods of woven wire, 123 rods of barbed wire, and 30 rods of lath and wire, were built at different points on the line.

Necessary repairs were made to fences throughout the line.

## SNOW SHEDS AND SNOW FENCES.

There was built during the year:—

806 rods portable snow fence.

70 rods stationary snow fence, 10 feet high.

Necessary repairs were made to snow sheds and snow fences where required.

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## WHARFS AND TRESTLES.

*Repairs.*

Moncton public wharf.  
 Point du Chene wharf.  
 Dorchester wharf.  
 Halifax, Piers Nos. 1, 2, 3, 4, 5, 6, 8 and 9.  
 Halifax, D.W.T., coal trestle.  
 Halifax, trestle bridge, cotton factory branch.  
 Richmond coal trestle.  
 Dartmouth branch, Motts crib work.  
 Stewiacke wharf.  
 Pictou crib work.  
 Tatamagouche crib work.  
 West River crib work.  
 Pictou wharf.  
 Brown's Point crib work.  
 Loch Broom, crib work.  
 Pirate Harbour crib work.  
 Pictou Landing wharf.  
 Pictou Landing, cribwork.  
 Murphy's Bridge crib work.  
 Jamesville trestle.  
 Walker's Gulch trestle.  
 Ottawa brook trestle.  
 Newcastle wharf.  
 Newcastle coal trestle.  
 Campbellton coal trestle.  
 River du Loup trestle.  
 Lévis, Chabot's wharf.  
 Lévis crib work.  
 Drummondville coal trestle.

## NEW WORK.

Rawdon river crib work.  
 Halifax, moor post, pier No. 2.  
 Stewiacke, floor in bridge.  
 Halifax, North street crib work.  
 Pictou, landing between freight shed wharfs.  
 Pictou, extended wharf.  
 James river, top on trestle.  
 Campbellton, trestle in landslide at Adams' dump.

## ALTERATION.

St. John ballast wharf.

## BRIDGES AND CULVERTS.

*Repairs.*

West river bridge.  
 Elmsdale bridge.  
 Shubenacadie overhead bridge.  
 Ellis bridge.

Wellington bridge.  
 Christies' bridge.  
 Trout Creek bridge.  
 Miller's bridge.  
 Harris' millstream bridge.  
 Pollet river bridge.  
 Moose Horn bridge.  
 Passakeag bridge.  
 Quispamsis bridge.  
 Point du Chene bridge.  
 St. John, Wall street bridge.  
 St. John, swing bridge.  
 St. John, Stanley street bridge.  
 St. John, Dorchester street, foot bridge.  
 Lakeside overhead bridge.  
 Nappan bridge.  
 Salmon river bridge.  
 Breau's creek bridge.  
 Lindsay's siding bridge.  
 Dartmouth, north ferry foot bridge.  
 Dartmouth, Mott's bridge.  
 Pietou harbour bridge.  
 Middle river bridge.  
 Pirate harbour bridge.  
 Middle river bridge.  
 West Merigomish bridge.  
 Tracadie bridge.  
 Grand Narrows bridge.  
 Georges river bridge.  
 Cleveland bridge.  
 Mill brook bridge.  
 North-west Miramichi bridge.  
 South-west Miramichi bridge.  
 Barnaby river, 1st crossing bridge.  
 Barnaby river, 2nd crossing bridge.  
 Barnaby river, 3rd crossing bridge.  
 Barnaby river, 5th crossing bridge.  
 Kouehibouguacis bridge.  
 Richibuto river bridge.  
 Rogersville overhead bridge.  
 Cocagne river bridge.  
 North and south Bouctouche bridges.  
 Bathurst sub crossing bridge.  
 Haehey's overhead bridge.  
 Derby Junction overhead bridge.  
 Gloucester Junction overhead bridge.  
 Gilmore's bridge.  
 Trois Pistoles bridge.  
 Rimouski bridge.  
 Montmagny bridge.  
 St. Charles bridge.  
 Boyer river bridge.  
 Drummondville bridge.  
 Mulgrave cedar culvert.  
 Brierly brook culvert.

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West Bay road culvert.  
McKinnon's harbour culvert.  
Ottawa brook culvert.  
North Sydney branch culvert.  
Gillis' Cove culvert.  
Rockingham culvert.  
Wallace culvert.  
Major's siding culvert.  
**Doran's culvert.**  
Crocker's Brook culvert.  
Bryenton's culvert.  
Foran's culvert.  
Cliff's culvert.  
Parker's culvert.  
Barnaby river culvert.  
Derby Junction, east, 3 culverts.  
Millerton, east, culvert.  
Clancy's culvert.  
Acadiaville, east, culvert.  
Kouchibouguac river, arch culvert.  
Brown's siding culvert.  
Kent Junction, east, 5 culverts.  
Masonry pointed 16 culverts.  
Petit Roche culvert.  
Assametquaghan culvert.  
Kempt culvert.  
Metapedia culvert.  
St. Moise, culvert.  
Millstream culvert.  
St. Arsene culvert.  
Isle Verte culvert.  
Ste. Flavie culvert.  
Rimouski culvert.  
River du Loup culvert.  
St. Simon culvert.  
Ste. Luce culvert.  
St. Anaelet culvert.  
Montmagny culvert.  
Chaudiere Junction culvert.  
St. Romuald culvert.  
St. Germain culvert.  
Chaudiere culvert.  
St. Apollinaire culvert.  
Forestdale culvert.  
Aston Junction culvert.  
St. Nicholas culvert.  
St. Leonard culvert.  
Nicolet branch culvert.  
Ste. Rosalie, east, culvert.  
Ste. Rosalie, east, stone culvert.  
Ste. Rosalie, culvert.  
Moncton Jonathan creek aboideau.  
Stellarton ash pit.

## NEW WORK.

Stewiacke bridge floor.  
 Scotsburn, ballast pit bridge.  
 Pirate harbour bridge sidewalk.  
 Pirate harbour, protection rail along main road bridge.  
 Daveluyville, walk on bridge.  
 Nappan, culvert 50' long 3' x 5'.  
 Pictou Landing culvert.  
 Pictou Landing 'Y' culverts, Nos. 1, 2, and 3.  
 Iona culvert.  
 Ste. Anne beam culvert.  
 Aston Junction, culvert west.  
 Mitchell culvert.  
 Drummondville culvert.  
 Stellarton ash pit.  
 Moncton, built new aboideau back of round house.

## MASONRY WORK DONE.

*Repairs.*

Harris Mill brook bridge.  
 Hall's creek bridge.  
 Portage Pit, two culverts.  
 Between Portage and Anagance, three box culverts  
 Portage, west of, three box culverts.  
 Penobsquis, west, two box culverts.  
 Penobsquis, double box culverts.  
 St. John, Mill street bridge.  
 Dorchester road open culvert.  
 Truro, pointing open box culvert.  
 DeBert, open box culvert.  
 Sackville, track scale foundation.  
 Fort Lawrence, overhead bridge.  
 Musquash bridge.  
 Maccan track scale.  
 Maccan, box culvert.  
 Nappan, east, two culverts.  
 Section 36, eleven culverts.  
 Calhoun's bridge.  
 Painsec Junction, east, three culverts.  
 Meadow brook bridge.  
 Amherst subway.  
 Londonderry overhead bridge.  
 Rockingham culvert.  
 Cattle guards between Richmond and Fairview.  
 Birch Cove, two culverts.  
 Bedford bridge.  
 Bedford culvert.  
 Graham's culvert, west culvert.  
 Riverton siding, east culvert.  
 Valley, Christie's bridge.  
 Wellington, canal bridge.  
 Enfield, east, culvert.

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Enfield, west, culvert.  
 Murray's crossing abutments.  
 Richmond yard culverts.  
 Wellington cattle guard.  
 Rawdon river bridge.  
 Rawdon river culvert.  
 Stewiacke, east, culvert.  
 Elmsdale, east, bridge.  
 Hilden, west, bridge.  
 Brookfield bridge. •  
 Stewiacke, west, bridge.  
 Dewar's siding, east, bridge.  
 Wallace bridge culvert.  
 West river bridge.  
 Asphelt culvert.  
 Stellarton culvert.  
 French river bridge.  
 Mulgrave bridge.  
 Dewar's mill bridge.  
 Pomquet bridge.  
 Orangedale, mill-dam bridge.  
 Trenton, arch culvert.  
 New Glasgow, culvert.  
 Pictou Landing culvert.  
 New Glasgow, east, Chapell's culvert.  
 Dowling's Gulch, west, culvert.  
 River inhabitants bridge.  
 Cummings' ballast pit, culvert.  
 Beaver Brook bridge.  
 Orangedale bridge.  
 Leitches' creek bridge.  
 Sydney river bridge.  
 Ball's creek bridge.  
 Grand Narrows bridge.  
 McDonald's bridge, half mile east of river inhabitants bridge.  
 Harecourt east, six culverts.  
 Richibucto river bridge.  
 South Cocaigne bridge.  
 East Canaan, box culvert No. 2.  
     "      "      "      3.  
     "      "      "      4.  
     "      "      "      5.  
     "      "      "      9.  
     "      "      "     12.  
     "      "      "     13.  
     "      "      "     14.  
     "      "      "     15.  
     "      "      "     16.  
 North-west and south-west Miramichi bridges.  
 South branch, coal branch bridge.  
 Canaan river, arch culvert.  
 Buctouche river, east, box culvert.  
 Buctouche river bridge.  
 Canaan culvert.  
 Coal branch, east, three culverts.

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- Richibucto river, east, culvert.  
 Harcourt bridge.  
 Richibucto bridge.  
 Harcourt, east, five culverts.  
 Kent Junction, east four culverts.  
 Kouchibouguacis river bridge.  
 Kouchibouguacis river arch culvert.  
 Adamsville siding, east, culvert.  
 Rogersville culvert.  
 Barnaby river, 5th crossing culvert.  
 Barnaby river, 3rd crossing bridge.  
 Barnaby river, right branch bridge.  
 Millerton station, east, culvert.  
 Derby Junction, east, three culverts.  
 Derby Junction, overhead bridge.  
 Barnaby river bridge.  
 Barnaby river culvert.  
 Campbellton, east, section 72, 15 culverts, Nos. 6, 7, 8, 9, 10, 11, 12, 13, 14 15,  
 16, 17, 18, 19, 20.  
 Campbellton culvert.  
 Campbellton derrick foundation.  
 Section 71, 23 culverts, Nos. 1, 2, 3, 4, 5, 6, 7, 21, 23, 24, 25, 26, 27, 28, 29,  
 30, 31, 32, 33, 35, 36, 37 and 38.  
 Section 70, 11 culverts, Nos. 2, 3, 4, 5, 6, 8, 9, 10, 11, 12 and 13.  
 Section 69, 8 culverts, Nos. 1, 7, 8, 9, 10, 11, 12, 13.  
 Charlo, overhead bridge piers.  
 Section 61, culvert 16.  
 Section 62, 10 culverts, Nos. 3, 5, 6, 7, 8, 9, 10, 11, 12, 14.  
 Bathurst bridge.  
 Bathurst overhead crossing.  
 Trois Pistoles bridge.  
 Ste. Flavie track scale foundation.  
 Ste. Flavie ash pit.  
 Hadlow ash pit.  
 St. Ignace culvert.  
 Chaudiere farm crossing.  
 Ste. Anne culvert.  
 Chaudiere, east, arch culvert.  
 St. Remuald, west, culvert.  
 Old Lake road, east, culvert.  
 Ste. Rosalie culvert.  
 St. Apollinaire culvert.  
 Drummondville culvert.  
 St. Leonards bridge.

## NEW WORK.

- Portage Pit culvert.  
 Oxford Junction pump house.  
 Ste. Rosaie, scale foundation.

*Alterations.*

- Fairview culvert.  
 Glengarry yard, east end, beam culvert into box.  
 Wellington, east, beam culvert into box.  
 Truro, east, beam culvert into box.



## PAINTING.

Trout creek bridge.  
 Milner bridge.  
 Nepisquit river deck, Lattice truss bridge, six spans.  
 Little river bridge.  
 Middle river bridge.

## BUILDINGS AND PLATFORMS.

*Repairs.*

St. John round-house.  
 Rothesay platform.  
 Norton platform.  
 Sussex platform.  
 Moncton government cottages.  
 Moncton transfer shed platform.  
 Cold Brook station.  
 St. John station.  
 Torryburn station.  
 Moncton, general superintendent's cottage.  
 Moncton, floor of round-house.  
 Humphrey's freight platform.  
 Salisbury freight-house.  
 Petitcodiac platform.  
 Apohaqui station.  
 Quispamsis station.  
 St. John turn table.  
 Sussex station.  
 Nauwigewauk station.  
 Hampton station.  
 St. John baggage room.  
 St. John coal shed.  
 Brookville platform.  
 Sussex engine-house.  
 Moncton cattle shed.  
 Petitcodiac freight and power house.  
 Buctouche Junction tower house.  
 Point du Chene round house.  
 St. John boiler shop.  
 St. John erecting shop.  
 Bloomfield station.  
 Penobsquis cattle pen.  
 Moncton tool-house.  
 Moncton round-house roof.  
 Moncton erecting shop floor.  
 Moncton car cleaning shed.  
 St. John coal trestle.  
 St. John flour shed.  
 Sussex freight-house.  
 Armstrong's platform.  
 St. John, Robinson House, Lombard street.  
 St. John, train sky-lights.  
 Moncton machine shop.  
 Moncton government cottage No. 8.

Apohaqui main road crossing.  
St. John No. 7 shed.  
St. John No. 9 shed.  
St. John baggage trucks.  
Lakeside platform.  
Bloomfield platform.  
Sussex platform.  
Moncton erecting shop floor.  
Moncton sidewalk, front general office.  
Moncton old station building.  
Moncton machine shop floor.  
Moncton station and loading platform.  
St. John Mill street crossing.  
St. John freight office cellar.  
Dorchester platform.  
Memramcook platform.  
Debert platform.  
Greenville platform.  
Westville station.  
Meadow Brook platform.  
Amherst, track, blacksmith shop roof.  
Painsec Junction, agent's dwelling.  
Aulac station.  
Sackville station.  
Wentworth station.  
Thomson station.  
Springhill Junction, engine-house.  
Dorchester station.  
Upper Dorchester station, dwelling.  
Oxford Junction, pump-house.  
Springhill Junction, coal-house.  
Painsec Junction, station.  
Amherst station.  
Amherst platform.  
Sackville platform.  
Calhouns station.  
Halifax, brick shed No. 1.  
Halifax, sheds Nos. 2 and 4.  
Halifax, shed No. 6.  
Halifax, blacksmith shop roof.  
Halifax, government dwelling.  
Halifax, Government dwelling.  
Halifax, coal shed.  
Halifax, D.A.R. loading platform.  
Milford platform.  
Shubenacadie freight platform.  
Truro blacksmith shop.  
Truro station.  
Hopewell station.  
Halifax, old flour store.  
Halifax, machine shop floor.  
Halifax, round-house floor.  
Halifax, North street station roof.  
Rockingham platform.  
Elmsdale platform.

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Valley station.  
Halifax, shed, No. 3.  
Halifax, cattle shed.  
Halifax, watch-tower.  
Windsor Junction, water tank.  
Elmsdale loading platform.  
Dewar's siding platform.  
Hopewell platform.  
Ferrona Junction platform.  
Halifax baggage room.  
Scotsburn loading platform.  
Oxford Junction coal shed.  
Pictou station platform.  
Pictou loading platform.  
Meadowville station platform.  
River John cattle pen.  
River John station platform.  
Pictou, old freight shed.  
Malagash station.  
Pugwash Junction cattle pen.  
Pictou engine-house.  
Pugwash station.  
Pictou, scales in old freight-house.  
Scotch Hill, station roof.  
Scotsburn station platform.  
Pictou, deck of wharf.  
Tatagouche station.  
Pictou ice-house.  
Mulgrave freight shed.  
Pirate Harbour round-house.  
Antigonish station waiting-room.  
Antigonish station office.  
James River station.  
Pirate Harbour coal shed.  
Mulgrave station platform.  
Trenton station platform.  
New Glasgow station platform.  
Stellarton station platform.  
Pictou Landing station platform.  
Heatherton station platform.  
Heatherton cattle pen.  
New Glasgow freight shed.  
Dewar's station platform.  
Marshy Hope platform.  
New Glasgow loading platform.  
Mulgrave round-house.  
Pictou landing station.  
New Glasgow station.  
Trenton station.  
Stellarton station.  
Mulgrave, engineer's office.  
Antigonish station.  
Stellarton, blacksmith shop.  
West Merigomish station.

Mulgrave power-house.  
Merigonish baggage room.  
Mulgrave baggage room.  
River Denys coal-house.  
Ottawa Brook shelter.  
Georges River station.  
North Sydney Junction platform.  
Leitche's Creek platform.  
Shenacadie station.  
Orangedale platform.  
North Sydney Junction, baggage room.  
Barachois, shelter.  
Sydney freight-house.  
Sydney platform.  
Shenacadie platform.  
West Bay Road platform.  
Point Tupper baggage room.  
Point Tupper round-house.  
Hawkesbury station.  
West Bay road cattle pen.  
River Denys cattle pen.  
Orangedale cattle pen.  
Iona cattle pen.  
North Sydney cattle pen.  
Derby Junction station.  
Derby Junction platform.  
Indiantown engine-house.  
Indiantown platform.  
Indiantown station.  
Millerton platform.  
Harcourt station platform.  
Harcourt station.  
Harcourt agent's dwelling.  
Newcastle, freight house platform.  
Newcastle, gas meter house.  
Newcastle, turntable.  
Newcastle, coal shed.  
Newcastle, hand-car and coal shanties.  
Kent Junction station.  
Rogersville station.  
Chatham Junction, freight house.  
Kent Junction, station platform.  
Chatham Junction, baggage trucks.  
Newcastle station.  
Chatham Junction, platform.  
Dalhousie station platform.  
Dalhousie Junction, freight house roof.  
Beaver Brook station, kitchen.  
Charlo station.  
Nashes Creek station.  
Petite Roche station.  
Bathurst, pump house.  
Beaver Brook station.  
Petite Roche, agent's dwelling.  
Bathurst, freight house.

## SESSIONAL PAPER No. 20

Bartibogue station.  
 Red Pine station.  
 Eel River station.  
 Dalhousie Junction, tank house.  
 Charlo platform.  
 Jacquet River platform.  
 Beresford station.  
 Bathurst, freight platform.  
 Gloucester Junction station.  
 Gloucester Junction, station platform.  
 Gloucester Junction, coal house.  
 Charlo, tank house.  
 Green Point station.  
 Dalhousie station.  
 Dalhousie freight shed.  
 Little Métis, platform.  
 St. Octave, platform.  
 St. Moïse, station platform.  
 St. Moïse, station windows glazed.  
 St. Moïse, section foreman's house.  
 Sayabec station.  
 Campbellton, engine house.  
 Campbellton, car shanty.  
 Campbellton, superintendent's office.  
 Campbellton, trolley cars.  
 Campbellton, gents' waiting room.  
 Campbellton, ice house.  
 Campbellton, ash pit.  
 Campbellton station.  
 Campbellton, freight shed.  
 Campbellton, coal shed.  
 Campbellton, round house.  
 Campbellton, freight agent's office.  
 Campbellton, ladies' water closet.  
 Campbellton, baggage room.  
 Campbellton, coal chute.  
 Campbellton, gents' water closet.  
 Cedar Hall freight shed.  
 Métis station.  
 Moffats, station foundation.  
 St. Alexis, station foundation.  
 Millstream station.  
 Sayabec station.  
 Metapedia, snow shed, west.  
 Métis, snow shed.  
 Flatlands station.  
 Assametquaghan station.  
 Amqui station.  
 St. Octave station.  
 St. Alexis station.  
 Kempt station.  
 Cedar Hall station.  
 Cedar Hall, section foreman's dwelling.  
 Amqui kitchen.

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Metapedia, snow shed, east.  
Metapedia, water tank.  
St. Octave freight shed.  
St. Octave, station platform.  
St. Octave, section foreman's dwelling.  
Millstream, agent's house.  
Millstream, section foreman's house.  
Millstream, water tank.  
Millstream station.  
Salmon Lake platform.  
Metapedia platform.  
Rivière du Loup platform.  
Rivière du Loup station roof.  
St. Eloi station.  
St. Eloi station platform.  
Bic station, drainage.  
Bic station.  
Rivière du Loup, round house.  
Isle Verte platform.  
Ste. Flavie station, windows glazed.  
Rivière du Loup baggage room.  
Ste. Flavie coal shed.  
St. Fabien station.  
Sacré Cœur station.  
Cacouna station.  
Rivière du Loup freight house.  
Rivière du Loup turn table.  
St. Arsène, station platform.  
St. Arsène station.  
Cacouna platform.  
Bic freight shed.  
Lévis passenger platform.  
Quebec baggage room roof.  
St. François station.  
Old Lake road platform.  
Chaudière curve passenger platform.  
Lévis, agent's house.  
Montmagny passenger platform.  
St. Pierre passenger platform.  
St. Henri passenger platform.  
Cap St. Ignace loading platform.  
Chaudière Junction freight shed.  
St. Pascal Junction freight shed.  
Chaudière curve dwelling house roof.  
Hadlow coal shed.  
Lévis freight shed.  
Lévis electric building.  
Harlaka snow sheds.  
Charlo coal sheds.  
St. André station.  
Lévis water closets.  
St. Pierre tool house.  
Montmagny coal shed.  
Lévis baggage room.

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Hadlow round house roof.  
 St. Pacome platform.  
 St. Philippe station roof.  
 Aston Junction station platform.  
 Drummondville tank.  
 Mitchell station.  
 Drummondville engine house.  
 St. Nicholas, putting drain, &c., in dwelling house  
 St. Eugene station.  
 St. Monique station, glazing windows.  
 St. Germain station, glazing windows,  
 St. Germain platform.  
 Nicolet engine house.  
 Aston station, glazing windows.  
 Forestdale freight shed.  
 Moose Park freight shed.  
 River Sauvage station.  
 Forestdale station.  
 Bagot station.  
 Nicolet platform.  
 St. Apollinaire station.

## NEW WORK.

Eel river platform.  
 Sayabec station platform.  
 Kempt hand car house.  
 Campbellton station drain box.  
 St. Alexis station, coal shed for agent.  
 St. Alexis, storm porch agent's dwelling.  
 Millstream station, box for semaphore.  
 Assametquaghan, storm porch agent's dwelling.  
 Assametquaghan, tank, ladder.  
 Campbellton, freight shed storm porch.  
 St. Octave tool house.  
 Campbellton station heating fixtures.  
 St. Octave, platform and oil house.  
 St. Octave tool house.  
 Campbellton, table and letter box for superintendent's office.  
 Campbelltown, handrail for office stairway.  
 Campbelltown, gate for cattle pen.  
 Campbellton, building for Canadian Express Company.  
 River du Loup station, cesspool.  
 Trois Pistoles station platform.  
 St. Eloi hand car house.  
 Isle Verte hand car house.  
 St. Anaclet station platform.  
 River du Loup hand car house.  
 River du Loup, blacksmith's shanty.  
 Ste. Flavie track scales.  
 St. Eloie station storm doors.  
 Trois Pistoles station storm doors.  
 St. Arsène hand car house.  
 St. Simon hand car house.  
 St. Anaclet frost proof building.

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St. Anaetlet water closet.  
 St. Anaetlet coal box.  
 Chaudière Junction, station telegraph table.  
 St. Pierre, station sheathed.  
 Beaumont road shelter.  
 Hadlow station platform.  
 L'Islet kitchen.  
 Chaudière, scale box shelter.  
 St. Pierre station, storm windows.  
 Old Lake Road, standard telegraph table.  
 Chaudière Junction, transfer shed office.  
 Laurier drain.  
 Ste. Rosalie station, cupboard.  
 Mitchell stock yard.  
 Aston Junction, hand car house.  
 Ste. Rosalie, platform extended.  
 St. Leonard, platform extended.  
 Ste. Rosalie Junction, scale drain.  
 Laurier turn table.  
 St. Engène, frost proof building.  
 Ste. Rosalie, scale, box shelter.  
 St. Germain, frost proof building.  
 Drummondville, blacksmith forge and chimney.  
 St. Apollinaire, stock yard drain.  
 St. Monique, stock pen.  
 St. Apollinaire, stock pen.  
 Armstrong's Crossing, shelter.  
 St. John, glass in station.  
 St. John, booth in exhibition.  
 St. John, platform in exhibition.  
 St. John, platform in oil house.  
 St. John, C.P.R. freight agent's office.  
 St. John, shelter for lamp-lighter.  
 St. John, sheep pens.  
 St. John, new crossing at Gilbert's land.  
 St. John, fitting warehouses for stock.  
 Moncton, station platform extended.  
 Moncton, platform for car cleaners.  
 Boundary creek, platform.  
 Moncton, tin shop floor.  
 Moncton, shelving in general office.  
 Riverside, steps to new station.  
 Boundary creek, coal shed.  
 Salisbury, stock pen.  
 Nauwigewauk, stock gangway.  
 Chalet, platform.  
 Pt. du Chene, coal shed.  
 Penobquis, platform.  
 Sussex, platform.  
 Quispamis, platform.  
 Apohaqui, platform.  
 Moncton, platform from ice-house to station platform  
 Thomson, platform.  
 East mines, stock pen.  
 Painsee junction, stock pen.



## SESSIONAL PAPER No. 20

Oxford Junction, pump-house.  
 Springhill, platform.  
 Halifax, new counters and closets, Pullman car service.  
 Halifax, coal shed for traffic department.  
 Hopewell station, bay windows and office.  
 Oxford station platform.  
 River John, pump-house.  
 Pugwash, platform.  
 Loch Broom, station, platform.  
 Wallace, station platform.  
 Tatamagouche, cellar floor.  
 Stellarton, switchman's shanty.  
 Pictou, sheathing corner of new wharf.  
 Pictou, railing around corner of new wharf.  
 West Merigomish, stock pen.  
 Stellarton, ash pit.  
 Angrave, water-closet.  
 Estuere, platform.

## ALTERATIONS.

Passokang, station doors and windows.  
 Moncton, part of old station into ice-house.  
 Moncton, store room for outfit, official cars, in baggage room.  
 Moncton, shanty for pintel gas.  
 Oxford Junction, platform.  
 Springhill Junction, platform.  
 Amherst, coal trestle.  
 Amherst, station platform.  
 Amherst, freight platform.  
 College bridge, platform.  
 Dorchester, platform.  
 Aulac, platform.  
 Maceau, platform.  
 Upper Dorchester, platform.  
 Londonderry, platform.  
 East mines, platform.  
 Belmont, platform.  
 Westchester, platform.  
 Nappan, platform.  
 Westchester, freight house.  
 Ferrona Junction, platform extended.  
 Westville, agent's dwelling.  
 Halifax, North street station, alteration made to awning.  
 Campbellton, station.  
 Chaudière Junction, new freight shed.  
 Chaudière Junction, new transfer shed.  
 St. Romuald, station.

## PAINTING

Sacré Cœur, station.  
 Harcourt, station building.  
 Harcourt, exterior freight shed.  
 Apohaqui, station.  
 Cold brook, station.

Salisbury, station.  
 Armstrong's, flag station.  
 Nauwigewauk, station.  
 Derby Junction, station.  
 Interior section foreman's house at Cedar Hall.  
 Campbellton, station.  
 Flatlands, station.  
 New Glasgow, station and freight house.  
 Hopewell, station.  
 Valley, station.  
 Pictou Landing, station.  
 Ferrona, station roof.

## MASONRY.

*Repairs.*

Amherst, freight house.  
 Amherst, station chimney.  
 Dorchester, station chimney.  
 Windsor Junction, tank house.  
 Hopewell station chimney.  
 Windsor Junction, station chimney.  
 Brown Point, telegraph office chimney.  
 Sylvester, hand-car house chimney.  
 Westville, hand-car house chimney.  
 Scotch Hill, hand-car house chimney.  
 Scotsburn, hand-car house chimney.  
 Pictou, hand-car house chimney.  
 Meadowville, hand-car house chimney.  
 Denmark, hand-car house chimney.  
 Tatamagouche, hand-car house chimney.  
 Pugwash Junction, hand-car house chimney.  
 Conn's Mills, hand-car house chimney.  
 Conn's Mills, kitchen chimney.  
 Oxford, hand-car house chimney.  
 Wallace, hand-car house chimney.  
 River John, hand-car house chimney.  
 Malagash, hand-car house chimney.  
 Pictou, turntable.  
 Harcourt, agent's house chimney.  
 Beaver Brook station, chimney.  
 Bathurst, overhead crossing.

## NEW WORK.

Oxford Junction, pump-house.  
 Truro, ash-pit and boiler foundation.  
 Milford station, concrete foundation.  
 Windsor Junction, water tank, brick piers and chimney.  
 River John, tank-house.  
 St. Apollinaire, station foundation.  
 St. Nicholas, dwelling-house foundation.

## ALTERATIONS.

Truro, round-house extended for large engines.

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GENERAL.

New buffers were made and set up at different points on the line where required.

Repairs were made to crossings at various points on the line where required.

Repairs were made to wheelbarrows, trolleys and tools at different points on line where required.

A number of old box car tops were obtained from the mechanical department and sent to different points on line, repaired and set up, and converted into sectionmen's hand-car and tool-houses.

During the year farm crossings, gates and cattle-guards were renewed and repaired along the line where necessary.

Ladders for buildings and semaphores were provided where required along the line.

Outhouses and approaches to public road crossings were whitewashed where necessary.

A new sluiceway was put in at Etters aboideau, but work was only partially completed in the year.

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

T. C. BURPEE,  
*Engineer of Maintenance of Ways and Works.*

J. E. PRICE, Esq.,  
General Superintendent,  
Moncton, N.B.

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## INTERCOLONIAL RAILWAY OF CANADA.

OFFICE OF THE MECHANICAL ACCOUNTANT.

MONCTON, N. B., August 31, 1903.

SIR,—I have the honour to submit the following statements for the year ended June 30, 1903:—

- A. Statement showing the number of locomotives, and of the 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. Also a summary of the principal work done in the Moncton locomotive and car shops, and in the shops at Halifax and Rivière du Loup.

During the year 10 locomotives and 93 box cars were purchased on capital account, and added to the rolling stock of the railway.

Two large locomotives were purchased and one built in Moncton shops, to replace three of the smaller locomotives condemned.

One first-class passenger car, 21 stock, 277 platform, 2 conductor's vans, 2 coal cars and 3 snow ploughs were built to replace an equal number of the smaller cars condemned.

I have the honour to be, sir,

Your most obedient servant,

JOHN SUTTON,  
*Mechanical Accountant.*

JAMES E. PRICE, Esq.,

General Superintendent, Intercolonial Railway,  
Moncton, N.B.

The following work was done in Moncton locomotive shops:—

One new locomotive built, and 3 others well advanced; 59 locomotives received heavy repairs, 63 specific, and 119 general repairs; 13 locomotives had new smoke box extensions, and 4 new smoke boxes complete; 5 locomotives had new fire doors and rings, and 5 new half sheets in fire box; 33 locomotives had fire boxes patched. 22,135 tubes were pierced and put in service. 270 pairs of driving wheel tires and 271 pairs of engine truck and tender wheels were turned. 109 locomotive boilers were tested. 60 new pilots and 9 new cabs were made and put in service. 3 locomotives received half saddles and cylinders; 7 new tender frames, and 1 new tender frame and tank complete were made and put in service, and 115 locomotives and tenders were painted.

479,000 bolts were forged, and 1,890,319 pounds of other forgings were made in the blacksmith shop; 419,000 bolts and 6,315 studs were serewed, and 78,937 pounds of nuts tapped.

In addition to the above, there was more or less work done in the shops for the ss. *Scolin* and for the transfer at Mulgrave.

## SESSIONAL PAPER No. 20

Two rotary ploughs, No. 1 and 2, were given a general overhauling, and scrapers and flangers made to work automatically on each; 3 steam shovels repaired and 1 dredge and 1 small steam crane put in shape for service.

## OUTPUT OF BRASS FOUNDRY.

159,780	lbs. of castings made.
220,100	" bearings made.
11,000	" babbit metal.
149,750	" antimonial lead for journal bearings.
7,500	" metallic packing.

Work done for maintenance of way department:—

26 new hand-cars were fitted up with cog wheels, axles, crank pins and wheels. Also, wheels and fittings made for 1 lorry; 265 new frogs made, and 246 old ones repaired; 756 guard rails made, also 493 pairs of jog plates and 13 pairs of split rails made for switches. A large number of track tools were made and repaired. 65 new switches were made and 53 old ones repaired.

Special work done as follows:—

Part of the old round house was taken and fitted up as tin and coppersmith shop; the new extension to erecting shop was completed, drop table placed in the new drop pit house and other work done in connection with same. Two furnaces, 1 steam hammer and 1 crane installed in the new blacksmith shop; 4 new air reservoirs of 765 cubic feet capacity were erected in the different shops; 1 new furnace and 1 new crane were put in the boiler shop, and a new furnace built in the brass foundry. Work on building foundations and fitting up for new machinery which was purchased on capital account was done.

## MONCTON CAR SHOPS.

The following cars were built new at Moncton:—

One first-class, 2 conductor's vans, 1 snow plough, 77 platform, 2 coal cars, to replace an equal number condemned, 51 of which were 60,000 lbs. capacity, to replace a similar number of cars of less capacity.

The following received heavy repairs:—

One official, 4 parlour, 17 sleeping, 4 dining, 47 first-class, 38 second-class, 11 second-class sleeping, 20 postal, 16 baggage, 1 auxiliary, 338 freight cars, 13 vans, 7 snow ploughs and 3 wing ploughs.

The following received light repairs:—

One official, 10 sleeping, 3 dining, 49 first-class, 28 second-class, 4 second-class sleeping, 10 postal, 10 baggage, 5382 freight cars, 16 freight vans, 1 snow plough and 3 flanges.

The following were burnt off, repainted and varnished:—

One sleeping, 19 first class, 22 second class, 2 second class sleeping, 4 postal, 2 baggage cars.

The following were scraped, filled, stained and varnished:—

Two parlour, 4 sleeping, 5 first-class, 6 second-class, 2 second-class sleeping, 6 postal and 5 baggage cars.

The following were painted and varnished:—

Two second-class, 2 baggage, 14 freight vans, 1 auxiliary car.

The following were renovated and varnished:—

One official, 2 parlour, 9 sleeping, 3 dining, 19 first-class, 4 second-class, 7 second-class sleeping, 5 postal, 7 baggage and 1 freight van.

The following were repainted:—

One hundred and ninety-six box, 238 platform, 29 hopper, 13 gondola, 16 refrigerator, 5 cattle, 15 tank cars, 3 flangers, 2 wing and 9 snow ploughs.

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Special work done as follows:—

Thirty-eight new wooden trucks were built, and 137 Sterlingworth steel trucks were put under freight cars; 3,844 new, and 1,658 second hand chilled, and 390 steel tired wheels were pressed on axles; 756 new axles were turned; 758 freight cars were changed from link and pin drawbars to M.C.B couplers; 205 freight cars were equipped with Westinghouse air brake; 78 passenger cars had Westinghouse air brake changed from old automatic to emergency; 55 passenger cars were fitted with Westinghouse air signal appliances; 60 passenger cars were fitted with automatic air brake slack adjuster; 44 passenger cars were changed from the Miller to M.C.B. couplers; 8 passenger cars were fitted with Pintsch gas; 6 passenger cars were fitted with Pullman wide vestibules.

In addition to the lumber prepared for the above repairs, 480,000 feet were milled on store orders. Also a large amount of work done to freight and baggage car trucks, chairs, ticket cases, station furniture and footboards on account of Store No. 1. There were also 88 new hand cars built, and 5 repaired; 17 new push cars built and 8 received heavy repairs, for the maintenance of way department.

#### RIVIÈRE DU LOUP SHOPS.

Thirty-one locomotives received general, 9 heavy, 34 specific and 11 medium repairs. 10 boilers were patched, and 37 locomotives were retubed. 190 pairs of engine truck, tender and car wheels were turned, 95 pairs of driving wheels were turned; 19 pilots and 2 tender frames were made and put in service; 5,032 bolts were forged; 13,312 bolts and 3,094 studs were screwed; 43 engines and tenders were painted.

#### RICHMOND SHOPS.

Eleven locomotives received heavy, 2 medium and 104 specific repairs; 3 boilers and 6 fire boxes were patched; 12 boilers were retubed; 160 pairs of engine truck, tender and car wheels were turned; 11 pairs of driving tires were turned; 10 pilots and 1 tender frame were made and put in service; 32,600 bolts were forged; 39,500 bolts and 900 studs screwed.

#### WATER SERVICE.

Water service has been maintained in efficient condition all over the line.

SESSIONAL PAPER No. 20

A.—INTERCOLONIAL RAILWAY.

STATEMENT showing the Number of Locomotives and of the Various classes of Cars on July 1, 1902, and on June 30, 1903.

THE VARIOUS CLASSES OF CARS.

	Locomotives.	First Class Sleepers.	Second Class Sleepers.	Parlour.	Dining Cars.	First Class Passenger.	Second Class Passenger.	Postal and Smoking.	Express and Luggage.	Box.	Refrigerator.	Platform, 10, 15, 20 and 30 tons.	Oil Tank Cars.	Hoppers, 6 tons.	Gondolas, 15 and 20 tons.	Coal Cars, 20 tons.	Stock Cars.	Auxiliary and Tool Cars.	Vans.	Total.	Snow Ploughs.	Wing Ploughs.	Flangers.	Steam Ploughs.	Total.
On hand, serviceable, July, 1902	279	27	57	5	7	108	93	32	48	5,033	71	2,398	15	878	51	561	102	10,914	5	9,571	24	10,22	2	18	3
Condemned July, 1902	1					1				133	8	123		121	88	63	21			5	375	1	22	2	12
Total	280	27	57	5	7	109	93	32	48	5,186	81	2,521	15	999	132	624	123	10,999	10	10,146	49	10,222	2	30	3
Received on capital account	10									93															
Changed from gondolas to platform.																									
" large coal to platform.																									
" platform to tank cars.																									
Total	290	27	57	5	7	109	93	32	50	5,279	81	2,635	15	999	132	633	123	10,999	10	10,239	49	10,222	2	30	3
Condemned, July 1, 1902.	1					1				133	8	123		121	98	63	21			5	575	2			2
" during the year.	3					2				59		115		93	12	26	3			1	314	1			1
Total	6					3				192	8	238		214	110	89	24			6	889	3			3
Less rebuilt	3					1														2	304	3			3
To be rebuilt	3																								
Add serviceable	287	27	24	5	7	107	92	32	47	5,087	76	2,546	15	785	42	337	120	10,935	4	9,654	49	10,222	2	33	3
Total	290	27	25	5	7	109	93	32	50	5,279	81	2,635	15	999	132	633	123	10,999	10	10,239	49	10,222	2	33	3

\* Add. † Deduct.

MONROE, June 30, 1903.

JOHN SUTTON,  
Mechanical Accountant.

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B.—INTERCOLONIAL RAILWAY.  
STATEMENT of Locomotive and Car Mileage, Year ended June 30, 1903.

MONTHS.	LOCOMOTIVE MILEAGE.		CAR MILEAGE.				Snow Plough Mileage.	AVERAGE NUMBER OF CARS Hauled PER MILE RUN BY ENGINES.	
	Passenger.	Freight.	Passenger.	Express, Postal and Baggage.	Freight.	Total.		Passenger.	Freight.
1902.									
July	286,323	304,820	457,113	425,283	5,551,539	6,433,935	5.13	18.21	
August	228,191	288,321	361,588	410,245	5,102,073	6,176,906	6.03	17.70	
September	221,399	293,635	450,413	404,601	5,266,486	6,421,530	6.12	17.97	
October	211,707	300,936	794,012	371,903	5,637,845	6,803,760	5.51	18.73	
November	196,634	296,713	767,313	342,940	5,445,835	6,496,088	5.36	18.35	
December	210,704	324,910	761,388	355,164	5,468,471	6,585,023	5.30	16.83	
1903.									
January	299,113	334,656	728,084	340,255	5,529,553	6,597,892	5.10	16.52	
February	189,679	318,362	631,430	311,596	5,149,198	6,092,221	4.97	16.17	
March	212,810	371,977	761,301	351,555	6,615,582	7,731,388	5.25	17.78	
April	206,132	350,280	767,522	349,172	6,255,114	7,371,800	5.41	17.87	
May	206,690	303,125	744,130	347,519	5,418,990	6,510,639	5.28	17.88	
June	223,610	365,673	860,945	397,390	5,216,825	6,469,159	5.63	17.05	
	2,552,692	3,792,808	9,631,270	4,407,623	66,651,461	80,690,353	5.30	17.37	

JOHN SUTTON,  
*Mechanical Accountant.*

Month to June 30, 1903.



C. INTERCOLONIAL RAILWAY.

ABSTRACT of Locomotive Returns for Year ended June 30, 1903.

Months.	CONSUMPTION.										AVERAGE CONSUMPTION PER 100 MILES.			
	Hours in Steam.	Locomotive Mileage.	Tons of Coal.	Pints of Oil.	Pints of Valve Oil.	Pounds of Waste.	Miles run to 1 hour in Steam.	Pounds of Coal.	Pints of Oil.	Pints of Valve Oil.	Pounds of Waste.	Pints of Oil.	Pints of Valve Oil.	Pounds of Waste.
1902.														
July.....	61,527	675,539	22,813	27,411	12,913	10,428	10 47	7,561	1 00	1 78				1 62
August.....	60,529	611,745	20,993	25,510	11,611	10,786	10 60	7,328	3 98	1 81				1 68
September.....	62,225	612,238	22,315	25,579	11,543	10,812	10 32	7,783	3 98	1 79				1 68
October.....	62,910	645,317	21,393	21,928	11,304	11,268	10 26	8,466	3 86	1 75				1 74
November.....	60,996	619,213	21,399	25,078	11,385	11,476	10 45	8,826	1 65	1 81				1 80
December.....	72,190	691,308	30,186	27,646	12,674	11,716	9 61	9,738	3 98	1 52				1 69
1903.														
January.....	71,326	693,757	31,112	29,016	12,972	12,537	9 73	10,015	4 19	1 87				1 80
February.....	70,882	661,839	29,753	28,977	12,814	11,298	9 31	10,069	4 38	1 93				1 69
March.....	74,930	740,059	34,485	35,351	15,617	13,432	9 88	9,530	4 78	2 11				1 88
April.....	68,996	698,962	28,556	33,792	13,394	13,394	10 13	9,152	4 83	2 21				1 91
May.....	62,723	612,765	24,225	29,190	13,778	12,919	10 24	8,442	4 69	2 14				2 01
June.....	64,716	653,518	24,986	31,400	14,792	12,697	10 25	8,401	4 70	2 21				1 82
	796,948	8,019,320	315,218	343,878	158,915	143,653	10 06	8,803	4 29	1 91				1 79

JOHN SUTTON,  
*Mechanical Accountant.*

MONROE, June 30, 1903.



SESSIONAL PAPER No. 20

## E.—INTERCOLONIAL RAILWAY.

GENERAL STATEMENT of the Expenses of the Mechanical Department, Year ended  
June 30, 1903.

The miles run by trains.....	6,345,500
" engines.....	8,019,320
" cars.....	80,690,353
" snow ploughs.....	71,566
	\$ cts.
Cost of locomotive power.....	2,176 169 76
Cost of car repairs—	
Repairs to passenger cars.....	152,672 78
" postal, express and baggage.....	33,092 79
" freight cars and vans.....	412,612 08
Oil and waste for packing.....	9,211 14
Repairs to snow ploughs and flangers.....	13,250 37
	620,749 16
The cost of locomotive power—	
Per 100 miles by train.....	34 29
" engine.....	27 13
" cars and ploughs.....	2 69
The cost of repairs to cars and ploughs—	
Per 100 miles by train.....	9 64
" engines.....	7 62
" cars and ploughs.....	75
The cost of oil and waste for packing—	
Per 100 miles by trains.....	0 14
" engines.....	0 11
" cars and ploughs.....	0 01
The cost of repairs to cars per 100 miles run by them—	
Passenger.....	1 58
Postal, express and baggage.....	74
Freight cars and vans.....	61
Ploughs and flangers.....	18 52

JOHN SUTTON,  
*Mechanical Accountant*

MONCTON, June 30, 1903

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## WINDSOR BRANCH RAILWAY.

OFFICE OF THE GENERAL MANAGER OF GOVERNMENT RAILWAYS.

MONCTON, N.B., November 10, 1903.

SIR.—I have the honour to submit the following statements, showing the results of the working of the Windsor Branch Railway for the year ended June 30, 1903:—

- No. 1. Revenue account.
- No. 2. Maintenance of way and works.
- No. 3. General balance.
- No. 4. Statement of earnings.

I also send you the report of the Engineer of Maintenance on the condition of the permanent way and works.

This line, 32 miles in length, was operated during the year by the Dominion Atlantic Railway Company on the same terms as last year, the company being allowed to retain two-thirds of the gross earnings, the balance, one-third, being paid over to the government, the latter maintaining the line.

The gross earnings show a considerable decrease as follows:—

Earnings 1901-02.....	\$49,604 59
Earnings 1902-03.....	42,560 81
Decrease.....	\$7,043 75

The decrease was in both freight and passenger traffic.

The net earnings for the year were \$24,717.62.

The permanent way and works received necessary repairs, and 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.

SESSIONAL PAPER No. 20

## No. 1.—WINDSOR BRANCH RAILWAY.

## REVENUE ACCOUNT—Year ended June 30, 1903.

Previous Year.	Expenditure.	Year ended June 30, 1903.	Previous Year.	Earnings.	Year ended June 30, 1903.
§ cts.		§ cts.	§ cts.		§ cts.
16,376 27	Maintenance of way and works...	17,843 19	16,152 55	Passenger traffic...	14,747 39
33,228 32	Balance.....	24,717 62	32,300 20	Freight traffic....	26,661 58
			1,151 84	Mails.....	1,151 84
49,604 59		42,560 81	49,604 59		42,560 81

E. and O. E.,  
MONCTON, N.B., June 30, 1903.

T. WILLIAMS,  
*Chief Acct. and Treasurer.*

## No. 2.—WINDSOR BRANCH RAILWAY.

## MAINTENANCE OF WAYS AND WORKS—Year ended June 30, 1903.

Previous Year.		Year ended June 30, 1903.
§ cts.		§ cts.
9,867 23	Repairs of track.....	11,427 84
197 38	Rails and fastenings.....	372 96
3,937 59	Ties.....	1,972 67
670 53	Bridges.....	584 36
66 78	Signals.....	22 14
201 78	Culverts, cattle guards, &c.....	544 66
	Wharf at Windsor.....	617 80
518 28	Buildings and platforms.....	477 36
0 90	Hand cars and trollies.....	14 63
339 75	Removing snow and ice.....	337 54
209 66	Tools and repairs of same.....	170 20
223 24	Fencing.....	617 65
370 15	Accountant's office and expenses.....	637 11
81 32	Miscellaneous.....	46 27
16,376 27		17,843 19

E. and O. E.,  
MONCTON, N.B., June 30, 1903.

T. WILLIAMS,  
*Chief Acct. and Treasurer.*

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## No. 3.—WINDSOR BRANCH RAILWAY.

GENERAL BALANCE, Year ended June 30, 1903.

DR.			CR.		
		\$	cts.	\$	cts.
1903.				1903.	
June 30.	To Stores.....	364	54	June 30.	By Dominion Account. . . .
	Old Rails.....	141	04		613 78
	D. A. Ry.....	108	20		
		613	78		
					613 78

E. & O. E.,  
MONCTON, N.B., June 30, 1903.

T. WILLIAMS  
*Chief Accountant and Treasurer*

## No. 4.—WINDSOR BRANCH RAILWAY.

MONTHLY STATEMENT OF RECEIPTS, ONE-THIRD EARNINGS.

Month.	Passenger Traffic.		Freight Traffic.		Mails.	Totals.
	\$	cts.	\$	cts.	\$	cts.
1902—July.....	1,786	63	2,109	72	96 91	3,993 26
August.....	2,091	22	1,684	77	96 91	3,872 90
September.....	2,619	48	2,408	92	96 90	5,124 40
October.....	1,426	09	3,386	78	96 91	4,909 78
November.....	889	39	2,962	64	96 91	3,948 94
December.....	965	31	2,065	37	96 90	3,067 58
1903—January.....	655	59	2,146	20	94 46	2,896 25
February.....	612	09	1,654	15	94 45	2,360 69
March.....	731	96	2,107	26	94 45	2,933 67
April.....	934	18	2,188	50	95 68	3,218 36
May.....	902	03	2,065	69	95 68	3,063 40
June.....	1,193	42	1,882	48	95 68	3,171 58
	14,747	39	26,661	58	1,151 84	42,560 81

E. & O. E.,  
MONCTON, N.B., June 30, 1903.

T. WILLIAMS,  
*Chief Accountant and Treasurer*

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WINDSOR BRANCH RAILWAY.

OFFICE OF THE ENGINEER OF MAINTENANCE,  
MONCTON, N.B., Sept. 16, 1903.

SIR,—I have the honour to submit herewith the report of the maintenance of the Windsor Branch, for the year ending June 30, 1903.

TRACK.

During the past year 1,053 feet of 4-inch and 4½-inch rails were taken out of track, and 1,053 feet of the same sized rails were cut and re-laid.

TIES.

8,318 ordinary ties have been renewed during the year.

BALLASTING.

2,937 cubic yards of ballast were distributed and put under during year.

SEMAPHORES AND SWITCHES.

During the year one new switch was put in, and necessary repairs were made to the existing semaphores and switches throughout the line.

FENCING.

520 rods of new Page wire fence was built during the year, and repairs made to existing fences where necessary.

BUILDINGS AND PLATFORMS.

*Repairs.*

Beaver Bank, station.  
Mount Uniacke, platform.  
Mount Uniacke, freight house, glass in windows.  
Mount Uniacke, station, inside woodwork.  
Mount Uniacke, cattle pen.  
Windsor Junction, platform.  
Windsor Junction, freight shed.  
Windsor Junction, station.  
Windsor Station, platform.  
Windsor Station, station.  
Windsor Station, freight house, glass in window.  
Windsor Station, engine shed.  
Windsor Station, freight platform.  
Windsor Station, cattle pen.  
Hartville, platform.  
Ellershoushe, platform.  
Waverly, platform.  
Waverly, station, glass in windows.  
South Uniacke, platform.  
Newport, freight shed.

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## FROM MAN

Beaver Bank, platform, 109 feet long by 12 feet wide.  
 Beaver Bank, cellar wall.  
 Beaver Bank, water closet.

## BRIDGES AND CULVERTS.

Mount Uniacke, small bridge.  
 Daley's, bridge.  
 Sharp's, bridge.  
 Fletcher's, bridge.  
 Hibbert's, culvert.  
 Bushy Hill, culvert.  
 Bushy Hill, culvert.  
 Mount Uniacke (west of), culvert.  
 Stillwater (east of), culvert.  
 Between Newport and Windsor, culvert (2).

## NEW WORK.

Mount Uniacke, box culvert (wooden).  
 South Uniacke, box culvert (wooden).  
 Beaver Bank, box culvert (wooden).  
 Different points, box culvert (6) (wooden).

## WHARFS AND TRESTLES.

*Repairs.*

Windsor, wharf.

## GENERAL.

Repairs have been made to cattle-guards and crossings where required.

## SIDINGS.

Windsor (east of). Standard Oil Company, 189 feet.  
 I have much pleasure in stating that this branch is in good order.

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

T. C. BURPEE,  
*Engineer of Maintenance of Ways and Works.*

J. E. PRICE, Esq.,  
 General Superintendent,  
 Moncton, N.B.



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## PRINCE EDWARD ISLAND RAILWAY.

OFFICE OF THE GENERAL MANAGER OF GOVERNMENT RAILWAYS,  
MONCTON, N.B., November 12, 1903.

SIR,—I have the honour to submit the following reports on the working of the Prince Edward Island Railway for the fiscal year ended June 30, 1903.

I inclose the report of the superintendent including statements of the various accounts, also the report of the Chief Engineer on the works charged to Capital Account.

The mileage of railway in operation was the same as last year, 209 miles.

The expenditure on Capital Account during the year was \$829,414.18. This makes the total cost of the railway on June 30, 1903, \$5,429,239.33.

Of the expenditure during the year, \$340,852.46 was for the construction of the Murray Harbour Branch, and \$459,139.28 for the Hillsborough bridge, which is a part of that branch.

The results of operating the railway are much more favourable than last year.

The working expenses being \$259,637.82, and the gross earnings, \$217,714.24, a loss of \$41,923.58, as compared with the previous year, when the loss was \$72,160.04.

The gross earnings increased \$19,714.30 over last year. One half of the increase was in passenger traffic, and the other half in freight traffic.

There was a decrease of \$10,522.15 in the working expenses compared with last year.

The permanent way and works, and the 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 SCHRIEBER, Esq., C.M.G.,  
Deputy Minister and Chief Engineer,  
Railways and Canals, Ottawa, Ont.

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## PRINCE EDWARD ISLAND RAILWAY.

OFFICE OF THE CHIEF ENGINEER,

MONCTON, N.B., September 23, 1903.

SIR.—I have the honour to submit the following report on Capital Account expenditures for the fiscal year ending June 30, 1903.

## MURRAY HARBOUR BRANCH.

The roadbed, masonry and structures are practically completed between Mutch's Point and Murray river, a distance of 42'26 miles, except the placing of permanent iron bridges at Beaton's Mill, McLeod's Brook and Quarry Gulch. Wooden trestles now carry the track over these places, which trestles will later be used as false work for placing the iron in position. Thirty-two miles of ballasting and 23½ miles of tracklaying remain to be done.

A crib wharf 22 feet by 200 feet, sheathed with creosoted material, has been built at Murray river, and the space between it and the shore filled in with earth to provide a loading yard. In March, 1903, plans and specifications were prepared for all of the station houses and other buildings required.

## HILLSBOROUGH RIVER BRIDGE.

At the north approach, a line of piles have been driven, 4 feet centre to centre, along a line of each toe of the embankments, 68 wooden cribs 16 feet square, filled with stones, have been placed inside the piles, and about 12,500 cubic yards of dredged material placed on the site of the embankment.

## ABUTMENT 'A.'

The site is being prepared by dredging and blasting. The pneumatic caisson is on the ways and is completed to the twelfth course of timber. A passage for the caisson has been dredged from the channel to the site of the abutment. Piers 0 to 5—both inclusive—are completed and rip-rapped. Piers 6 and 7 : sites are being prepared by dredging and blasting. The pneumatic caissons are floating and partially filled with concrete. Piers 8 to 10—both inclusive—completed.

## ABUTMENT 'B.'—½ COMPLETED.

A large quantity of stone for rip-rap and slopes of embankment approaches has been delivered.

On March 3, 1903, tenders were asked for a 205 foot swing span, also steel-work for floor, sidewalks and railings of the whole bridge. The contract was awarded to the Dominion Bridge Company on May 18, 1903.

On April 30, 1903, tenders were asked for the transportation of twelve 204 foot bridge spans to Charlottetown, and placing eleven spans on masonry, together with the erection and completion of floors, sidewalks, railing, swing rests, &c.

*To straighten the line near Blueshank.*—The greater part of the earth work in cuttings and embankments has been completed.

I have the honour to be, sir,

Your obedient servant,

D. POTTINGER, Esq.,  
General Manager,  
Government Railways,  
Moncton, N.B.

WM. B. MACKENZIE,  
Chief Engineer.

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## PRINCE EDWARD ISLAND RAILWAY.

SUPERINTENDENT'S OFFICE,  
CHARLOTTETOWN, P.E.I., August 24, 1903.

SIR,—I have the honour to submit the following report on the working of the Prince Edward Island Railway, for the fiscal year ended June 30, 1903.

I also inclose the report of the mechanical superintendent, and the following statements prepared by the accountant and auditor, and the mechanical accountant and storekeeper:—

- No. 1. Capital account.
2. Revenue account.
3. Locomotive power (abstract No. 1).
4. Car expenses (abstract No. 2).
5. Maintenance of ways and works (abstract No. 3).
6. Station expenses (abstract No. 4).
7. General charges (abstract No. 5).
8. General store account.
9. General balance.
10. Comparative statement of averages.
  - A. Monthly statement of the cost of locomotive power.
  - B. Statement of performance and consumption of locomotives.
  - C. Monthly statement of car mileage.
  - D. Statement showing number of locomotives, cars, snow ploughs and flangers.
  - E. Comparative statement of the expenses of the Mechanical department.

The mileage of the railway in operation is the same as last year, 200 miles.

## CAPITAL ACCOUNT.

The total expenditure to June 30, 1902, was..... \$4,599,825 15

The additions during the year were as follows:—

Steel rails.....	13,400 00
New station at Georgetown.....	6,198 35
Addition to freight house at Mount Stewart.....	799 99
Addition to freight house at Morell.....	397 85
To increase accommodation at Charlottetown.....	5,129 41
To straighten line near North Wiltshire....	999 90
To widen wharf at Summerside.....	1,499 62
To straighten line near Blue Shank.....	997 32
Hillsborough bridge....	459,139 28
Murray Harbour Branch.....	340,852 46

Making the total cost on June 30, 1903..... \$5,428,239 33

Steel rails.—Good serviceable second-hand rails, 56 lbs. to the yard, were purchased from the Intercolonial Railway, and laid in the track in place of 40 lb. iron rails.

New station at Georgetown.—A new station was built on a new site obtained near the head of the wharf and close to the landing of the Montague ferry. Messrs. J. M. Clark & Company, of Summerside, were the contractors.

Addition to freight house at Mount Stewart.—A part of the old station was converted into a ladies' waiting room and a baggage room, and a new freight shed was erected by Messrs. J. M. Clark & Company, contractors, of Summerside.

Addition to freight house at Morell.—A new freight shed was erected by Messrs. J. M. Clark & Company, contractors, of Summerside.

To increase accommodation at Charlottetown.—To provide a suitable berth for the Manchester Traders' steamers at the railway wharf, 2,640 cubic yards of dredging was done by Mr. M. J. Haney, contractor, and the wharf was strengthened. A roadway was built on the face of the breastwork opposite the machine shops.

To straighten line near North Wiltshire.—This betterment consisted of lessening the grade from 1.25 per cent to 1.07 per cent, of reducing the curvature from 8 to 4, of obtaining more ground for snow fence purposes, and in diminishing the length of the track by 50 feet. The new work consisted of 2,450 feet of track.

To widen wharf at Summerside.—This work is fully explained under the head of wharfs.

To straighten line near Blue Shank.—Part of this work is completed, and the trains are running over it. The balance, consisting of some grading, track-laying and ballasting, will extend into the current year.

Hillsborough bridge.—Particulars are given by the chief engineer in his report.

Murray Harbour Branch.—Particulars are given by the chief engineer in his report.

.... REVENUE ACCOUNT.

The earnings show a very substantial increase. Trade in general was good throughout the province.

The gross earnings and working expenses for the year compare as follows:—

Gross earnings.....	\$217,714 24
Working expenses.....	259,637 82
Difference.....	\$ 41,923 58

The gross earnings compare with the previous year as follows:—

In 1902-1903.....	\$217,714 24
1901-1902.....	197,999 93
Increase.....	\$ 19,714 31

The earnings from passenger traffic compare as follows:—

In 1902-1903.....	\$ 95,237 12
1901-1902.....	85,086 44
Increase.....	\$ 10,150 68

The earnings from freight traffic compare as follows:—

In 1902-1903.....	\$106,519 72
1901-1902.....	95,577 79
Increase.....	\$ 10,941 93

## SESSIONAL PAPER No. 20

The earnings from mails and sundries compare as follows:—

In 1902-1903.....	\$ 15,957 40
1901-1902.....	16,335 70
Decrease.....	\$ 378 30

The number of passengers carried compare as follows:—

In 1902-1903.....	205,265
1901-1902.....	184,748
Increase.....	20,517

The weight of freight carried compares as follows:—

	<i>Tons.</i>
In 1902-1903.....	80,582
1901-1902.....	75,381
Increase.....	5,201

## WORKING EXPENSES.

The working expenses compare with the previous year as follows:—

In 1902-1903.....	\$259,637 82
1901-1902.....	270,159 97
Decrease.....	\$ 10,522 15

Notwithstanding the increase in wages paid, the large expenditure in the renewal of bridges and wharfs, and various other betterments, the total expenditure was largely reduced.

The averages compare with the previous year as follows:—

*Per mile run by engines.*

	<i>Cents.</i>
In 1902-1903.....	66'58
1901-1902.....	76'77

*Per mile run by trains.*

In 1902-1903.....	89'14
1901-1902.....	98'65

*Expenditure per mile of railway.*

In 1902-1903.....	\$1,242 29
1901-1902.....	1,292 63

## TRACK.

Forty-six thousand ordinary railway ties, 20 sets of switch ties, and 40 switch head-blocks with frames were renewed during the year, and 1,400 cull ties used in yards and sidings. Twenty-five miles of track was relaid with 56 lb. steel rails to replace 40 lb. iron rails, and 10 steel frogs put in to replace iron rail frogs.

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## SIDINGS.

At Painsville, siding was extended 118 feet.  
Ashton siding was moved on opposite side of track and rebuilt.  
Georgetown, a new siding was laid, 550 feet long.

## FENCING.

There were 79,065 feet of Page wire erected on new cedar posts; 3,420 feet barbed and web wire, and 5,333 feet of snow fence rebuilt, and repairs made to all fences where needed; 100 farm gates were renewed.

## BALLASTING.

1,222 cars ballast were distributed in places where most needed, and 339 cars of clay were used in widening embankments and grading station yards.

## BRIDGES AND CULVERTS.

Huntley River bridge, between Alberton and Tignish, a wooden structure, was replaced with a 70-foot steel plate girder with standard top, and the embankments were raised to suit the bridge. This required about 200 cars of clay.

At Wellington a 55-foot steel girder was erected to replace a wooden structure, and raised four feet higher than the old one. The abutments were built of concrete. Materials used: 125 barrels cement, 56 tons of sand, 94 tons broken stone, 24 iron rails, 700 feet hemlock plank, 8 piles 18 feet long, 50 cubic feet of 12-in. x 12-in. hemlock, 7 cars hard stone, 1 keg 6-in. cut spikes, and 200 cars clay.

At St. Nicholas a 20-foot span wooden bridge was rebuilt with an iron girder and standard top. The material used was: 8 piles 15 feet long, 2 pieces hard pine 14-in. x 14-in. x 15 feet long, 1 car hard stone, 10 butt bolts, 4 iron plates and 24 screw bolts.

At Barbara Weit a 20-foot span wooden structure was replaced with an iron span.

At Cardigan, Scrimgeour's bridge, a wooden structure of 20-foot span, was replaced with four iron girders and a standard top.

At Perth a 20-foot span wooden bridge was converted into a culvert, with opening 6 x 4, built with cedar and covered with old iron rails.

At 48 Road, bridge of 20-foot span, wooden stringers renewed, and new top put on with bent in centre.

All other bridges received necessary repairs.

Twenty-seven wooden culverts were rebuilt with cedar, and six with cast-iron pipe that were formerly of wood and earthenware.

Twenty-six cattle-guards were rebuilt.

## WHARFS AND BREASTWORKS.

At Summerside the following material was used in making repairs to and widening the wharf: 15 pieces hard pine, 12 in. x 12 in. x 30 ft. long, 35 round hemlock piles 30 feet long, 12 round hardwood piles 30 feet long, 709 feet hardwood plank, 75 pieces 12 in. x 12 in. x 17 ft. long, 4,200 lineal feet hemlock plank, 430 butt bolts, 100 screw bolts, 4 kegs 6-in. cut spikes.

At Georgetown, repairs were made to wharf, and the following materials were used: 11 tons 12-in. x 12-in. hemlock, 13 piles 30 feet long, 80 butt bolts, and five cars of brush.

At Charlottetown, the following material was used in making repairs to wharf: 12 piles 30 feet long, 56 tons 12-in. x 12-in. hemlock, 130 screw bolts, 300 butt bolts, 52 iron plates and clamps with screw bolts 36-in. x  $\frac{3}{8}$ -in., 105 pieces old iron rails 3 $\frac{1}{2}$  feet long, five cars brush, and five cars ballast. In constructing breastwork, the following

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material was used : 675 cubic feet 12-in. x 12-in. hemlock, and 75 iron butt bolts 20-in. x 1-in.

A roadway was constructed at Charlottetown, for which the following material was used : 27,400 feet hemlock plank, 16,800 feet hardwood plank, 3,854 cubic feet 12-in. x 12-in. hemlock, 115 piles 18 feet long, 1,200 feet spruce plank, : 560 butt bolts, 11 kegs 6-in. cut spikes and nails, 89½ tons of stone, and 468 loads of earth.

## BUILDINGS AND PLATFORMS.

Tignish.—New roof was put on baggage-room.

Alberton.—Roof of agent's dwelling was reshingled.

Elmsdale.—A portion of waiting-room was converted into a ticket office.

Bloomfield.—New sills placed under station, and necessary repairs made to building.

O'Leary.—Platform extended 50 feet.

Conway.—Ticket office built in station.

Ellerslie.—Cattle pen 20 feet by 50 feet erected.

Port Hill.—New floors laid in waiting room and agent's dwelling.

Summerside.—Coal shed roof was double boarded on one side, and new building erected in hog pen.

Kensington.—Platform extended 100 feet, and repairs made to agent's dwelling. A new cattle pen 20 feet by 60 feet was built, and raised so that cattle may be loaded on a level with cars.

Emerald.—A new floor was laid in kitchen of agent's dwelling, and necessary repairs made to dwelling.

Cape Traverse.—New roof put on engine house to replace old one, which was blown off by gale of wind. New pit built in engine house, and repairs made to turntable.

Kinkora.—Temporary cattle pen erected.

Hunter River.—New floor was laid in waiting room, roof of kitchen reshingled, and necessary repairs made to agent's dwelling.

Royalty Junction.—New kitchens added to agent's dwelling and sectionman's house.

York.—Kitchen erected to section foreman's dwelling.

Mount Stewart.—New floor laid in office, and counter built for agent. Old freight house converted into a ladies' waiting room and baggage room. New freight house 25 feet by 60 feet built.

Morell.—Roof of verandah of station reshingled. Freight house 20 feet by 40 feet built.

St. Peter's.—Roof of station house re-shingled.

Souris.—Roof of freight house on wharf and roof of freight house at station reshingled.

Georgetown. —A new station house was built on a foundation of concrete piers. Material used for foundation : 18 barrels cement, 8 tons sand, and 11 tons broken stone.

Charlottetown.—A new street crossing was made in front of station house, for which the following material was used: 1,320 feet hemlock plank, 7 pieces 6 inch by 6 inch by 10 feet hemlock timber, and 1 keg of 6 inch cut spikes.

## STORES.

The value of stores purchased, including rails, was....	\$227,592 73
The value of stores used was.....	254,594 89
The value of old material sold was.....	7,395 78

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The value of stores on hand at the end of the year was:—

Ordinary stores.....	\$ 31,960 81
Fuel.....	25,079 99
Steel rails and fastenings.....	1,799 37
Old material for sale.....	49,158 98
	\$107,999 15

## GENERAL.

The rolling stock, roadbed and buildings have been maintained in a state of efficiency.

I inclose a return of minor casualties which occurred during the year.

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

G. A. SHARP,  
*Superintendent.*

D. POTTINGER, Esq.,  
General Manager, Canadian Government Railways,  
Moncton, N.B.

## PRINCE EDWARD ISLAND RAILWAY.

OFFICE OF THE MECHANICAL SUPERINTENDENT,  
CHARLOTTETOWN, P.E.I., August 1, 1903.

SIR.—I beg to submit for your information the following statement of the operation of the mechanical department for the year ending June 30, 1903.

The following is a summary of the principal work performed:—

## LOCOMOTIVES.

Ten engines received heavy repairs, and eight specific repairs.

One engine had its cylinders bored out, received new pistons, crossheads, motion, fire-box and tube sheet, and had all running gear renewed. Six engines received new pistons, balance valves and slides. One engine received new driving boxes, and all new brasses. Six engines received new straps and bolts on side rods and new truck boxes, and had all running gear renewed. Two engines received new extension smoke boxes. Eight locomotive smokestacks were built. 1,600 tubes were pieced and put in locomotives. Six pop valves, 4 whistles and 100 sets of steam packing were made. Twelve injectors, 1 cab, 4 pilots, 3 tender houses, 2 tenders and tender trucks were rebuilt, and 4 tenders and 2 cabs largely rebuilt. 317 wheels were bored and pressed on axles. 150 axles, 15 sets of driving wheels, and 8 sets of truck wheels were turned. Forty sets of new truck boxes were fitted up, and spring covers adjusted. 4,000 pounds of nuts were tapped. 105,297 pounds of iron and 1,200 pounds of steel were forged. 130 driving and truck springs were repaired, and 40 new driving and truck springs made. A set of boiler plate rolls was purchased from the Intercolonial Railway and erected in the shops.

## BRASS FOUNDRY.

Output : 891 car bushings, 129 battery zincs and 3,227 pounds of brass castings, making in all 10,914 pounds of castings



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PAINT SHOP.

Three first-class cars, 2 second-class cars, 2 postal and baggage cars combined, 2 baggage cars, 20 box cars, 25 platform cars, 10 locomotives, 7 stations, 200 crossing sign-boards, and 109 box car roofs were painted.

Eight first-class cars, 2 second-class cars, 3 baggage cars, and 2 locomotives were cleaned and varnished.

CAR SHOP.

One postal and smoking car combined, one postal and baggage car combined, and ten box cars were built and charged to capital account.

One baggage car, 14 platform cars, and 1 stock car were rebuilt.

Four snow ploughs, 18 box cars, 20 platform cars, 4 first-class cars, and 6 second-class cars received heavy repairs.

Five first-class cars, 4 baggage cars, 20 box cars and 25 platform cars received light repairs.

A new dryer for drying lumber for car work was built, which has proved a great help in facilitating this part of the work.

ROAD AND TRAFFIC DEPARTMENTS.

Two second-hand steel plate girder bridges, each 55 feet in length, were braced and riveted together, one of which was lengthened 16 feet.

Eight cattle stages, 33 loading platforms, 3 freight trucks, 6 hand-cars, 8 snow scrapers, 18 coal wagons, 3 ticket cases, 2 baggage trucks, 60 barrels of plugs, 3 boxes, 7 frogs and 6 sets of switch gear were made. Sixteen switch frames were made and mounted.

Six frogs and 10 sets of switch gear were repaired, and various other ordinary repairs made.

I am pleased to say that we are in a better position to do our work than in the past, except that our shops are entirely too small for the amount of work we have to perform, which is a great inconvenience.

W. S. POOLE,  
*Mechanical Superintendent.*

G. A. SHARP,  
Supt. P. E. I. Railway,  
Charlottetown, P.E.I.

3-4 EDWARD VII., A. 1904

## No. 1.—PRINCE EDWARD ISLAND RAILWAY.

DR.		CAPITAL ACCOUNT.		CR.	
		\$	cts.		
1902.				1902.	
June 30.	To cost of road and equipment to date.....	4,599,825	15	June 30.	By Dominion of Canada.....
1903.				1903.	
June 30.	To expenditure, year ended June 30, as follows:—			June 30.	" ".....
	Addition to freight house at Morell. \$	397	85		
	Addition to freight house at Mt. Stewart.....	799	99		829,414 18
	Straightening line at Blueshank ..	997	32		
	Straightening line at North Wiltshire.....	999	90		
	Widening wharf at Summerside.	1,499	62		
	Increased accommodation, Charlottetown....	5,129	41		
	New station at Georgetown....	6,198	35		
	Steel rails.....	13,400	00		
	Murray Harbour Branch.....	340,852	46		
	Hillsborough Bridge.....	459,139	28		
		829,414	18		
		5,429,239	33		5,429,239 33

W. T. HUGGAN,

CHARLOTTETOWN, P.E.I., June 30, 1903.

*Accountant and Auditor.*

## No. 2.—PRINCE EDWARD ISLAND RAILWAY.

DR.		REVENUE ACCOUNT for Year ended June 30, 1903.				CR.	
Previous Year.	Expenditure.	Year ended June 30, 1903.		Previous Year.	Receipts.	Year ended June 30, 1903.	
\$	cts.	\$	cts.	\$	cts.	\$	cts.
76,193 20	Locomotive power, per Abstract No. 1.....	73,052	05	85,086 44	Passenger traffic.....	95,237	12
44,347 99	Car expenses, per Abstract No. 2.....	49,948	05	96,577 79	Freight traffic.....	106,519	72
99,080 81	Maintenance way and works, per Abstract No. 3	81,352	13	16,335 70	Mails and sundries.....	15,957	40
37,929 98	Station expenses, per Abstract No. 4.....	42,304	07	197,999 93	Total receipts....	217,714	24
12,616 99	General charges, per Abstract No. 5.....	12,981	52	72,160 04	Balance.....	41,923	58
270,159 97	Totals.....	259,637	82	270,159 97	Totals.....	259,637	82

W. T. HUGGAN,

CHARLOTTETOWN, P.E.I., June 30, 1903.

*Accountant and Auditor.*

SESSIONAL PAPER No. 20

## No. 3.—PRINCE EDWARD ISLAND RAILWAY.

## LOCOMOTIVE POWER.—(Abstract No. 1).

Previous Year.	Details.	Year ended June 30, 1903.
§ cts.		§ cts.
2,289 31	Mechanical superintendent's salary, clerks, office and travelling expenses..	2,406 38
21,646 26	Wages of drivers, firemen and cleaners.....	24,033 50
29,429 13	Fuel.....	23,082 65
1,485 08	Oil, tallow, waste and small stores.....	1,913 55
18,715 63	Repairs to engines, tenders and engine tools.....	18,486 21
600 54	Water, including pump and tank repairs.....	951 16
2,027 25	Miscellaneous.....	2,178 60
76,193 20	Totals.....	73,052 05

W. T. HUGGAN,

*Accountant and Auditor.*

CHARLOTTETOWN, P.E.I., June 30, 1903.

## No. 4.—PRINCE EDWARD ISLAND RAILWAY.

## CAR EXPENSES.—(Abstract No. 2).

Previous Year.	Details.	Year ended June 30, 1903.
§ cts.		§ cts.
5,352 53	Repairs to passenger cars.....	6,354 23
1,177 85	Repairs to postal, express and baggage cars.....	5,822 78
10,032 40	Repairs to freight cars and vans.....	9,858 09
1,170 35	Repairs to snow ploughs and flangers.....	611 90
21,061 48	Wages of conductors, train baggage masters and brakemen.....	21,743 64
595 91	Oil and waste for packing.....	594 79
3,576 86	Small stores and fuel.....	3,548 04
1,380 61	Miscellaneous.....	1,414 58
44,347 99	Totals.....	49,948 05

W. T. HUGGAN,

*Accountant and Auditor.*

CHARLOTTETOWN, P.E.I., June 30, 1903.

3-4 EDWARD VII., A. 1904

## No. 5.—PRINCE EDWARD ISLAND RAILWAY.

## MAINTENANCE OF WAY AND WORKS—(Abstract No. 3).

Previous Year.	Details.	Year ended June 30, 1903.
§ cts.		§ cts.
321 08	Engineer's salary, clerks, office and travelling expenses .....	334 91
44,487 62	Wages in repairing roadway, fences and semaphores .....	45,095 35
4,021 55	Rails, chairs and spikes .....	5,079 20
24,823 44	Ties .....	12,200 15
5,988 36	Timber and lumber for repairs to bridges, cattle guards, &c. ....	3,378 92
6,813 06	Repairs to wharfs .....	2,851 39
10,172 30	Repairs to buildings and platforms .....	6,285 96
1,585 28	Repairs to tools .....	1,654 35
868 12	Clearing ice and snow .....	4,480 87
99,080 81	Totals .....	81,352 13

W. T. HUGGAN,

CHARLOTTETOWN, P.E.I., June 30, 1903.

*Accountant and Auditor*

## No. 6.—PRINCE EDWARD ISLAND RAILWAY.

## STATION EXPENSES—(Abstract No. 4).

Previous Year.	Details.	Year ended June 30, 1903.
§ cts.		§ cts.
29,104 76	Salaries and wages of station masters, agents, clerks, telegraph operators, station baggage masters, yardmasters, switchmen, watchmen and labourers .....	33,771 43
8,816 22	Fuel, oil, light, stationery and other incidental expenses .....	8,532 64
37,920 98	Totals .....	42,304 07

W. T. HUGGAN,

CHARLOTTETOWN, P.E.I., June 30, 1903.

*Accountant and Auditor.*

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## No. 7.—PRINCE EDWARD ISLAND RAILWAY.

## GENERAL CHARGES—(Abstract No. 5).

Previous Year.	Details.	Year ended June 30, 1903.
8 cts.		8 cts.
6,443 63	Superintendent's and train despatchers' salaries, clerks, office and travelling expenses	6,774 85
4,906 60	Accountant and auditor's, paymaster's and cashier's salaries, clerks, office and travelling expenses	5,180 57
294 01	Advertising	296 90
377 94	Damages to men, animals and goods	337 55
371 74	Telegraph expenses (not including pay to operators)	309 40
133 07	Miscellaneous	82 25
12,616 99	Totals	12,981 52

W. T. HUGGAN,  
*Accountant and Auditor.*

CHARLOTTETOWN, P.E.I., June 30, 1903.

## No. 8.—PRINCE EDWARD ISLAND RAILWAY.

## STATEMENT OF GENERAL STORES ACCOUNT, Year ended June 30, 1903.

1902.	DR.	8 cts.	8 cts.	8 cts.
June 30..	To balance brought forward			66,978 94
1903.				
June 30..	Purchases during the year, including rails		227,592 73	
	Charges from other departments		74,173 15	
	Pay rolls		1,245 00	
				303,010 88
	CR.			369,989 82
June 30..	By issues during the year			261,990 67
	Balance			107,999 15
	( Ordinary stores	31,508 31	}	
	Fuel	25,079 99		
	Rails and fastenings on hand	50,958 35		
	Old material serviceable	452 50		

W. T. HUGGAN,  
*Accountant and Auditor.*

CHARLOTTETOWN, P.E.I., June 30, 1903.

3-4 EDWARD VII., A. 1904

## No. 9.—PRINCE EDWARD ISLAND RAILWAY.

Dr.	GENERAL BALANCE.		Cr.		
	§	cts.	§	cts.	
General stores .....	107,999	15	Dominion account .....	121,292	45
Cash .....	2,790	97	Intercolonial Railway .....	3,631	43
Stations .....	1,803	52	John McDougall & Company .....	878	75
Post Office Department .....	7,717	80	Rhodes, Curry & Company .....	631	13
Militia Department .....	1,564	19	Thomas Campbell .....	749	87
Anglo-American Telegraph Company..	46	43	Through ticket ledger.....	211	71
Judge Weatherbie .....	30	00			
Sidney Grey .....	30	00			
Railway Extension, Charlottetown....	812	83			
B. & M. Rattenbury .....	76	20			
Accident Insurance .....	1,524	70			
M. J. Haney .....	2,399	55			
<b>Total .....</b>	<b>127,395</b>	<b>34</b>	<b>Total .....</b>	<b>127,395</b>	<b>34</b>

W. T. HUGGAN,

CHARLOTTETOWN, P.E.I., June 30, 1903.

*Accountant and Auditor.*

## No. 10.—PRINCE EDWARD ISLAND RAILWAY.

COMPARATIVE STATEMENT of Averages for Years ending June 30, 1902 and 1903.

Details.	1903.	1902.
Mileage of railway open.....	209	209
Engine mileage.....	389,953	351,907
Train mileage.....	291,263	273,832
Car mileage.....	1,745,365	1,658,968
Receipts per engine mile .. Cents.	55·83	56·26
" " mile of railway .. Dollars.	1,041·69	947·36
Percentage of passenger earnings to gross receipts.....	43·74	42·97
" freight " "	48·93	48·78
" other " "	7·33	8·25
Expenses per engine miles—		
Drivers, firemen and cleaners' wages .....	6 16	6 15
Fuel .....	5 92	8 36
Oil, tallow, waste and small stores.....	49	42
Repairs to engines .....	4 74	5 32
Water and tank repairs .....	24	17
Miscellaneous.....	56	58
	18 11	21 00
Mechanical superintendent's salary, office and travelling expenses.....	62	65
<b>Total .....</b> Cents.	<b>18 73</b>	<b>21 65</b>
Locomotive power, per engine mile.....	18 73	21 65
Car expenses.....	12 81	12 60
Maintenance of way and works, per engine mile.....	20 86	28 16
Station expenses.....	10 85	10 77
General charges.....	3 33	3 59
<b>Total .....</b> Cents.	<b>66 58</b>	<b>76 77</b>
Locomotive power, per train mile.....	25 08	27 82
Car expenses.....	17 15	16 19
Maintenance of way and works .....	27 93	36 18
Station expenses.....	14 52	13 85
General charges .....	4 46	4 61
<b>Total per train mile.....</b> Cents.	<b>89 14</b>	<b>98 65</b>
<b>Working expenses, per mile of railway. . .</b> Dollars.	<b>1,242 29</b>	<b>1,292 63</b>

SESSIONAL PAPER No. 20

A.—PRINCE EDWARD ISLAND RAILWAY.  
MECHANICAL DEPARTMENT.

STATEMENT of Cost of Locomotive Power for the Year ended June 30, 1903.

MONTHS.	COST OF										AVERAGE PER 100 MILES.									
	Miles run by Engines less Ballasting.	Mechanical Superintendent's Salary, Clerks and Office Expenses.	Enginemen's Wages.	Fuel.	Oil, Waste, &c.	Repairs.	Water.	Engine Houses and Turntables.	Total.	Mechanical Superintendent's Salary, &c.	Enginemen's Wages.	Fuel.	Oil, Waste, &c.	Repairs.	Water.	Engine Houses and Turntables.	Total.			
1902—July.....	35,459	193 68	2,036 70	1,939 90	133 99	1,303 74	162 22	109 80	5,880 03	0 54	5 74	5 47	0 38	3 89	0 46	0 31	16 58			
August.....	33,022	218 83	2,018 70	1,799 31	153 96	1,347 24	33 30	136 62	5,707 96	0 66	6 11	5 45	0 47	4 08	0 10	0 41	17 28			
September.....	32,624	195 93	1,962 43	2,006 04	157 49	1,254 13	158 80	111 41	5,846 23	0 59	6 01	6 14	0 49	3 85	0 49	0 35	17 92			
October.....	33,213	194 76	1,962 40	2,241 23	145 47	1,616 56	28 68	145 89	6,334 99	0 59	5 90	6 74	0 41	4 87	0 09	0 44	19 07			
November.....	32,313	194 79	1,833 30	2,200 80	148 05	1,818 12	27 93	225 19	6,448 18	0 60	5 67	6 81	0 45	5 63	0 09	0 70	19 95			
December.....	38,580	196 84	2,248 52	2,884 44	225 94	1,898 26	160 49	313 97	7,428 46	0 51	5 82	7 47	0 58	4 93	0 42	0 82	20 55			
1903—January.....	30,535	201 63	2,181 44	2,343 75	188 21	2,085 86	0 97	239 00	7,240 86	0 66	7 11	7 66	0 62	6 82	0 01	0 78	23 66			
February.....	29,060	199 16	2,182 87	2,539 20	195 80	1,589 17	34 98	266 13	7,007 31	0 68	7 51	8 74	0 67	5 47	0 13	0 92	24 12			
March.....	30,631	199 64	2,033 42	2,206 95	171 61	1,785 58	23 39	216 43	6,637 02	0 65	6 63	7 20	0 56	5 82	0 07	0 70	21 63			
April.....	29,213	195 08	1,872 11	2,079 35	151 92	1,598 89	164 05	124 80	6,186 20	0 66	6 41	7 11	0 52	5 47	0 57	0 43	21 17			
May.....	32,844	203 41	1,964 41	578 92	156 03	1,336 75	7 82	106 79	4,353 63	0 62	5 98	1 77	0 47	4 07	0 02	0 32	13 25			
June.....	32,401	212 63	1,737 20	262 76	85 08	851 91	150 00	181 60	3,481 18	0 66	5 36	0 81	0 26	2 63	0 46	0 56	10 71			
Totals.....	383,953	2,406 38	24,033 50	23,082 65	1,913 55	18,486 21	952 13	2,177 63	73,652 05	0 62	6 16	5 92	0 49	4 74	0 21	0 56	18 73			

S. F. HODGSON,

Mechanical Accountant.

3-4 EDWARD VII., A. 1904

B.—PRINCE EDWARD

MECHANICAL

## 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.
1902—July.....	4,282	12,883	14,247	3,555	196	30,881	449	8,134	39,464
August.....	3,865	11,197	14,232	3,380	98	28,907	155	7,948	37,010
September.....	3,841	10,887	14,096	3,121	272	28,376	223	7,596	36,195
October.....	3,842	10,268	15,583	1,513	.....	27,364	.....	7,702	35,066
November.....	3,498	8,336	15,991	531	55	24,913	60	7,976	32,949
December.....	4,308	8,880	17,345	195	1,534	27,954	203	10,618	38,775
1903—January.....	3,512	6,606	14,673	180	55	21,514	24	9,235	30,773
February.....	3,469	6,523	11,676	.....	3,081	21,280	340	7,440	29,060
March.....	3,669	8,566	13,370	.....	112	22,048	230	8,353	30,631
April.....	3,331	8,044	13,451	352	.....	21,847	136	7,607	29,590
May.....	3,729	10,247	14,041	1,174	.....	25,462	32	8,669	34,163
June.....	3,748	10,561	14,157	1,333	.....	26,051	98	7,870	34,019
Totals.....	45,085	112,998	172,862	15,334	5,403	306,597	1,950	99,148	407,695



SESSIONAL PAPER No 20

ISLAND RAILWAY.

DEPARTMENT.

of Locomotives for the year ended June 30, 1903.

Total Mileage.		Average of Cars per Mile run with train.	Average Mileage.		Consumption.				Consumption per 100 Miles run by Engines.			
Cars.	Snow Ploughs.		Miles to one hour in steam.	Of cars to one of engines.	Tons of Coal.	Pints of Oil.	Pints of Valve Oil.	Pounds of Waste.	Pounds of Coal.	Pints of Oil.	Pints of Valve Oil.	Pounds of Waste.
198,857	.....	6.48	9.45	5.77	509	1,728	444	612	2,889	4.37	1.12	1.55
181,202	.....	6.28	9.58	4.62	454	1,765	508	592	2,747	4.76	1.37	1.59
183,695	.....	6.54	9.61	5.07	500	1,824	422	621	3,094	5.04	1.16	1.71
178,115	.....	6.50	9.12	5.07	533	1,614	368	583	3,404	4.60	1.05	1.66
154,633	.....	6.22	9.42	4.69	443	1,476	360	568	3,011	4.47	1.09	1.72
161,671	3,292	6.12	9.00	4.17	640	2,084	556	710	3,697	5.37	1.43	1.83
129,611	2,186	6.04	8.76	4.21	526	1,824	408	561	3,731	5.92	1.33	1.82
85,837	8,548	4.72	8.38	2.95	564	1,954	468	515	4,347	6.72	1.61	1.77
120,840	.....	5.50	8.35	3.94	472	1,712	284	598	3,451	5.59	0.92	1.95
132,603	.....	6.06	8.88	4.51	462	1,564	300	513	3,497	6.11	1.01	1.73
157,869	.....	6.19	9.02	4.62	486	1,652	332	548	3,186	4.83	0.96	1.60
163,691	.....	7.04	9.14	4.81	476	1,503	328	554	3,134	4.42	0.96	1.62
1,848,624	14,026	6.13	9.04	4.53	6,065	20,700	4,778	6,975	33,332	5.07	1.17	1.71

S. F. HODGSON,  
*Mechanical Accountant*

3-4 EDWARD VII., A. 1904

## C.—PRINCE EDWARD ISLAND RAILWAY.

## MECHANICAL DEPARTMENT.

## MONTHLY STATEMENT of Car Mileage for Year ended June 30, 1903.

Months.	First Class.	Second Class and Baggage.	Postal and Smoking.	Box and Stock.	Platform.	Total.
1902—July .....	42,152	25,048	32,601	63,274	35,782	198,857
August .....	37,216	21,220	33,165	59,417	30,184	181,202
September .....	36,952	22,387	29,203	59,664	35,489	183,695
October .....	27,425	21,727	27,618	72,494	28,851	178,115
November.....	22,150	18,016	23,194	75,058	16,215	154,633
December.....	26,407	21,259	24,931	83,012	6,062	161,671
1903—January .....	20,288	16,466	20,564	57,466	14,827	129,611
February .....	17,192	11,947	15,958	25,184	15,556	85,837
March.....	21,793	13,160	20,930	40,481	24,476	120,840
April.....	22,134	18,637	23,892	58,569	9,371	132,603
May.....	24,418	20,982	29,415	69,534	13,520	157,869
June.....	25,779	21,489	29,315	63,517	23,591	163,691
Totals.....	323,906	232,338	310,786	727,670	253,924	1,848,624
Less ballasting.....			14,330		88,929	103,259
Balance .....	323,906	232,338	296,456	727,670	164,995	1,745,365

SESSIONAL PAPER No. 20

D.—PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

STATEMENT showing the number of Locomotives and of the various classes of Cars and other Rolling Stock on June 30, 1903.

	CLASSIFICATION OF CARS.																	
	Locomotives.	1st Class.	2nd Class.	Combined 2nd and Baggage.	Postal and Smoking.	Combined Postal and Baggage.	Pay Car.	Vans.	Box Freight.	Refrigerator Car.	Stock.	Coal.	Platform.	Total.	Snow Ploughs, Flangers.	Total.		
On hand, serviceable, June 30, 1902..	25	21	8	6	2	3	3	1	2	203	1	17	18	147	432	8	7	15
Condemned, July 1, 1902.....							1	1						2				
Total .....	25	21	8	6	2	3	4	1	3	203	1	17	18	147	434	8	7	15
Built during the year on capital account .....					1	1			10					12				
Total .....	25	21	8	6	3	4	4	1	3	213	1	17	18	147	446	8	7	15
Condemned, July 1, 1902.....							1	1						2				
"    during the year.....	3						1				1	1	14	17				
Total condemned.....	3						2	1			1	1	14	19				
Less rebuilt.....							1				1	1	14	17				
To be rebuilt.....	3						1	1						2				
Add serviceable and repairing.....	22	21	8	6	3	4	3	1	2	213	1	17	18	147	444	8	7	15
Total.....	25	21	8	6	3	4	4	1	3	213	1	17	18	147	446	8	7	15

S. F. HODGSON,

*Mechanical Accountant.*

3-4 EDWARD VII., A. 1904

## E.—PRINCE EDWARD ISLAND RAILWAY.

## MECHANICAL DEPARTMENT.

COMPARATIVE STATEMENT of the Expenses of the Mechanical Department for the Years ended June 30, 1902 and 1903.

	1902.	1903.
The miles run by trains were.....	273,832	291,263
" " engines were.....	351,907	389,953
" " cars were.....	1,658,968	1,745,365
" " snow ploughs were.....	2,236	14,026
	\$ cts.	\$ cts.
The cost of locomotive power was.....	76,193 20	73,052 05
" " repairs to cars was.....	16,562 78	22,035 10
" " passenger cars was.....	5,352 53	6,354 23
" " postal and smoking cars was.....	1,177 85	5,822 78
" " freight cars and vans was.....	10,032 40	9,858 09
" " labour, oils and waste for cars was.....	595 91	594 79
" " repairs to snow ploughs and flangers was.....	1,170 35	611 90
The cost of locomotive power per 100 miles run by trains was.....	27 82	25 08
" " " " engines was.....	21 65	18 73
" " " " cars was.....	4 59	4 18
The cost of repairs to cars per 100 miles run by trains was.....	6 04	7 56
" " " " engines was.....	4 70	5 65
" " " " cars was.....	0 99	1 26
The cost of labour, oil and waste for packing per 100 miles run by trains was.....	0 22	0 20
" " " " engines was.....	0 17	0 15
" " " " cars was.....	0 03	0 03
The repairs to passenger cars per 100 miles run by trains were.....	1 95	2 18
" " postal and smoking cars were.....	0 43	1 99
" " freight cars and vans were.....	3 66	3 38

SESSIONAL PAPER No. 20

No. 2  
C A N A L S

ST. LAWRENCE DISTRICT.

SUPERINTENDING ENGINEER'S OFFICE,  
CORNWALL, July 1, 1903.

SIR,—I beg to inclose herewith my annual report for the fiscal year ending June 30, 1903.

I am, sir, your obedient servant,

TOM S. RUBIDGE,  
*Superintending Engineer.*

COLLINGWOOD SCHREIBER, Esq.,  
Deputy Minister and Chief Engineer,  
Ottawa.

SUPERINTENDING ENGINEER'S OFFICE,  
CORNWALL, July 1, 1903.

SIR,—I beg to submit my annual report upon works of construction and survey, in connection with the enlargement of the St. Lawrence canals, for the year ending June 30, 1903.

CORNWALL CANAL.

*(Opened for traffic, 1843.)*

This canal was originally designed and constructed to allow vessels of not over nine feet draught to surmount the Long Sault rapids, extending from Cornwall to Dickenson's Landing, a distance of  $11\frac{1}{4}$  miles, with a rise of 48 feet, originally made in six locks, but since reduced to five.

The canal is situated on the north side of the St. Lawrence river on ground sloping rapidly towards the river, and generally about 30 feet above it. The high embankments thus rendered necessary when not perfectly constructed, or when resting on treacherous foundations, which are common along this section of the river, have given rise to frequent landslides, accompanied by subsidence, entailing, as in 1888, very serious consequences.

In order to make the St. Lawrence navigable by vessels of the same class that pass through the Welland canal, and to carry out the general scheme of enlargement adopted by the government, work was commenced on the Cornwall canal division in 1876.

This work consisted in deepening, widening and straightening the original channel, strengthening and protecting the embankments, and in building enlarged locks 270 feet long by 45 feet wide, with not less than 14 feet of water on the mitre-sill, when the river is at its lowest stage; supply wiers, bridges, &c., also in addition to the above, and not included in the original contracts, the repair or renewal of the foundations and general restoration of the damaged masonry of the old locks 15, 16, 17, 18, 19 and

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20, and the adaptation of the basin between old locks 16 and 17 to the purpose of a dry dock. Also dams, weirs and the guard-gates, and automatic dam above lock 20, rendered necessary by the adoption of the Sheik's island channel, and the masonry superstructure with ice-breaker on the old pier at the upper entrance.

The Sheik's Island channel does away with the imperfectly constructed embankments west of Milleroches, embraced in the contracts for sections Nos. 6 and 7 and parts of 5 and 8, which were abandoned when the decision to construct the channel had been arrived at. This diversion from the line of the old canal does away with three and a-half miles of very tortious canal navigation, unfit for the class of vessels for which the enlarged canal system was intended, and substitutes two and three-quarters miles of what can be classed as lake navigation, thus dividing the canal into two sections, the lower or eastern section, six miles long; upper or western section, two and a-quarter miles, with two and three-quarters miles of lake navigation between, and saving about half a mile in distance.

The guard-gates and automatic dam at lock 20 were constructed to protect the lower reaches from the large body of water impounded by the construction of the Sheik's Island dams, in case of accident to the locks or other structures.

For the purpose of construction, the canal was divided into nine sections, commencing with No. 1, at the lower or eastern entrance. The work of enlargement was commenced on this section in 1876 and was finished in 1882, except some work on old lock 17, and the weir and headraee to the mills, which were afterwards completed under the contract for section No. 2.

The next section to be let was No. 10, to Messrs. Jocks, Delormier & Broder, who commenced work in 1884, and, with the exception of the upper entrance, completed it in 1895.

## LIST OF CONTRACTORS.

Locality.	Section.	Contractors.	Date of Contracts.
Cornwall.....	2	Wm. Davis & Sons .....	Nov. 5, 1888.
Lock No. 19 .....	3	" .....	" .....
Maple Grove.....	4	" .....	" .....
Sheik's Island dams.....	5, 6, 7, 8	" .....	June 19, 1893.
Milleroches.....	5	The Gilbert Blasting and Dredging Co .....	Nov. 2, 1888.
Moulinette .....	6	" .....	" .....
Sand Bridge.....	7	" .....	" .....
Long Sault.....	8	" .....	" .....
Dickenson's Landing.....	10	Jocks, Delormier & Broder.....	April 7, 1884.
Upper Entrance.....	10	Weddell & McAuliffe .....	Sept. 28, 1899.
Strengthening bank east of Pitt Street, Cornwall.....	1	J. J. Fallon .....	Feb. 8, 1902.
" .....	1	Billhouse, Dillon & Co.....	Sept. 16, 1903.
Cornwall Canal.....	1 to 10	Michael P. Davis .....	May 20, 1902.
" .....	1 to 10	" .....	Nov. 6, 1901.
" .....	1 to 10	" .....	April 25, 1903.

NOTE.—Section No. 8 adjoins section No. 10.

The work to complete the upper entrance was let to Messrs. Weddell & McAuliffe, under contract entered into on September 28, 1899, to be completed by November 13, 1900.

It consists in the extension, straightening and widening of the channel on the north or landward side of the present entrance, from deep water, which commences 900 feet west of the upper gates of guard lock No. 21, and extends to a point about 1,100 feet west of the lighthouse on the south entrance pier, a distance of about 3,500 feet.

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This contract was wholly completed on June 5, 1902, and the final estimate returned to the department on February 7, 1903.

On February 8, 1902, a contract was entered into with Mr. J. J. Fallon for widening and strengthening the north bank east of Pitt street, at Cornwall. This consists in the widening of the north bank of the canal and the building of a revetment wall for a distance of 1,000 feet from the east end of the present steamboat wharf at foot of Pitt street.

The work done during the past year was as follows:—

During the fall of 1902 and the following winter stone was prepared at the contractor's quarry at Cambridge and shipped to Cornwall.

In April, 1903, dams were constructed to permit of the work being completed after the water was let into the canal on May 1.

Excavation was resumed on April 1 and is still in progress.

Laying the foundation for and the building of the revetment wall was resumed on April 9, and will be completed by September.

Stone has been placed in rear of the completed wall.

In connection with this work a contract was entered into with Messrs. Bellhouse, Dillon & Co., of Montreal, for the supply of cement to be used in construction of the revetment wall.

On May 20, 1902, a contract was entered into with Mr. M. P. Davis for the mechanism for operating the locks, guard gates, weirs and bridges of the Cornwall canal, to be completed August 15, 1902.

This contract was wholly completed and the final estimate forwarded to the department on March 28, 1903.

A contract was entered into with Mr. M. P. Davis on November 6, 1901, for the erection of switch-houses required in connection with the installation of the electric lighting plant. This contract was completed and the final estimate sent to the department on November 5, 1902.

On April 25, 1903, a contract was entered into with Mr. M. P. Davis for the installation of the machinery for operating the locks of the old Cornwall canal, and also for motors to be installed in the workshops of the Cornwall canal, to be completed August 1, 1903. This work is now in progress.

In connection with the additional water-power granted at lock 18 to the Paper Mill Company, attention is again directed to the necessity for rebuilding and enlarging the regulating weir at old lock 17.

## FARRAN'S POINT CANAL.

*(Opened for traffic, 1847.)*

This canal is situated about five miles west of the village of Dickenson's Landing, the head of the Cornwall canal. It was built to overcome a short, swift rapid above the village of Farran's Point, and was about three-quarters of a mile long, with a lockage of  $3\frac{1}{2}$  feet.

In the year 1847 the original canal for nine feet navigation was opened for traffic. The present enlarged canal has been extended to Empey's Bay, thus increasing the length to  $1\frac{1}{2}$  miles and the lockage to 4 feet.

The enlargement having been authorized, tenders were advertised for, and on June 1, 1897, a contract was entered into with the Canadian Construction Company to undertake the necessary work, and to have it completed by January 31, 1899.

The time for completion has since been extended.

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The works undertaken in connection with the enlargement consisted of forming a new eastern or lower entrance, north of the original and free from the eddies produced by the above rapids.

The building of a 'flotilla lock' 800 feet long and 50 feet wide, with 14 feet of water on sill at the lowest known stage of the river, and extending from deep water at its eastern entrance to a point about 200 feet west of the old lock, and nearly parallel to it on the north side; also of deepening and straightening the old channel to the head of the old canal and its extension through Point Avoyon to Empey's Bay; also the building of a road to replace a portion of the King's old highway occupied by the enlargement. It is intended to keep the old lock in repair so that it can be used in case of accident to the new lock.

The new lock was ready for traffic September 6, 1899, and has since been used by all deep-draught vessels.

The old lift-lock has undergone a thorough repair, including new upper gates, which work was required for the reason that the usual guard-lock at the upper entrance was considered unnecessary in first construction.

This work was wholly completed on October 11, 1902. The final estimate is being prepared.

The channel from Baker's Point to the lock skirting the north side of the eddy was marked in 1901 by one gas buoy and two spar buoys; these have since been discontinued and accidents to upward bound vessels have occurred.

## WILLIAMSBURG CANALS.

### RAPIDE PLAT CANAL.

*(Opened for traffic, 1847.)*

The lower entrance of the Rapide Plat or Morrisburg canal is situated about 9½ miles west of the Farran's Point canal. It was designed to overcome the rapids of Rapide Plat by a lock of 11½ feet lift, and extends from the village of Morrisburg to Flagg's Bay, a distance of 3¾ miles.

The original canal, intended for vessels of nine feet draught, was opened for traffic in 1847.

The work of enlarging for the 14 feet draught vessels was commenced in 1884, and consisted in the deepening and widening of the old channel, the building of a new lift and a guard-lock of 270 feet by 45 feet, supply weirs, regulating weirs, &c., and the construction of a new road to replace the highway destroyed by the canal improvements.

The old lift-lock was put in thorough repair, and the sill lowered so as to admit of nine feet navigation through it at lowest water.

### LIST OF CONTRACTORS.

Locality.	Section.	Contractors.	Date of Contract.
Morrisburg .....	1	Poupore & Fraser .....	Jan. 26, 1891.
Mariatown .....	2	Weddell Dredging Co. ....	" 12, 1891.
New Road .....	3	Poupore & Fraser .....	" 26, 1891.
Flagg's Bay .....	4	William Broder .....	April 2, 1884.
Upper Entrance .....		P. H. Gilbert .....	" 17, 1901.



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The work on all sections except at upper entrance has been completed, and the final estimates forwarded to the department for approval.

*Upper Entrance.*—This work consists in the straightening, deepening and widening of the channel, the removal of the old north and south piers and the construction of a new and more extensive pier with stone superstructure and ice-breaker on the south side.

The contract for this work was awarded to Mr. P. H. Gilbert, and was commenced on April 17, 1901.

The work done during the fiscal year is as follows:—

Dredging operations were continued until November 6, 1902; resumed on May 26, and are still in progress.

The masonry of the stone superstructure of south pier commenced on November 27, 1902, and discontinued on December 15. This work has not been resumed this year, owing to the prevailing high water, but stone for masonry has been prepared.

## GALOPS CANAL.

(*Opened for traffic, 1847.*)

Between the head of the Rapide Plat canal and the foot of the Galops, at the village of Iroquois, there is a four and a half mile stretch of river navigation. What is now known as the Galops canal was originally built as two separate canals, with a short stretch of river navigation between.

These were opened for nine feet navigation in 1847, the lower or easterly section called the Point Iroquois canal, commenced at the village of Iroquois and extended to Presqu'île. It was three miles long, and had a lockage of 5 feet 7 inches, which overcame the rapid of Point aux Iroquois.

The upper or westerly section, known as the Galops canal, commenced at the village of Cardinal and extended up stream two miles to the head of the Galops rapids; it had a lockage of 6 feet 8 inches, and surmounted the Cardinal and Galops rapids called by the early forwarders 'the Upper Galoo's or Chain of Rocks.'

About ten years after the completion of these canals, they were connected by an embankment, otherwise the 'Junction canal,' built in the river, and other improvements made increasing the total length of canal to  $7\frac{1}{2}$  miles, and the lockage to 14 feet 10 inches, thus avoiding the rapid current of the short stretch of river navigation.

In 1888, Messrs. Murray & Cleveland entered into a contract with the government to enlarge the upper entrance; the work consisting of the building of a new lift-lock in Round Bay, connecting directly with the river immediately below the Galops rapids, and a new guard-lock, each 270 feet long by 45 feet wide, and a supply weir. The removal of the old guard-lock, and also the deepening, widening and straightening of the channel from the upper entrance past McLaughlin's Point to the new locks at Round Bay, a distance of about one mile.

The lift-lock at Cardinal is now cut off from the canal and connected directly with the river by means of a large opening which has been made through the old canal bank below, thus rendering free access from the river to the wharf at the foot of old lock 26 for the accommodation of the village of Cardinal.

The improvement of the channel at McLaughlin's Point by widening it towards the north, as authorized, was commenced with steam shovel in September, 1900.

*Earth Excavation.*—The work of excavation in prism of canal west of Nine Mile Road was commenced on July 5, 1902, and continued until October 6, when all excava-

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tion which could be done by means of steam shovel was completed. The excavation remaining to be done will be dredged.

The improvement to give a line of sight from the lift-lock to the head of the canal, which necessitated the removal of that portion of McLaughlin's Hill above a plane 12 feet above normal water in the canal, having been authorized, arrangements were made for the necessary right of way, and excavation was commenced in October, 1902, continuing until December 9, when work was suspended for the season. Excavation was resumed on April 2, 1903, and is still in progress.

*Rock Excavation.*—Rock excavation below water at the site of old lock 27 was carried on during the month of August, 1902.

Drilling and blasting in prism of canal east of Nine Mile Road and the west end of section was continued until December 9, 1902, resumed on May 1, 1903, and is still in progress.

The total amount of excavation for the year was about 138,000 cubic yards.

The cribwork extension of the south-east pier below lift-lock No. 28, which was completed to the level of high water last year, has been protected by a stone talus. To complete this work a masonry wall four feet above the normal water in the river will be constructed. This work, however, will not be attempted during the prevailing high water.

The stone protection to banks is practically completed, only a small section remaining to be done.

Waling pieces for the protection of the mooring pier east of the guard-lock were placed during April, 1903.

The progress of this work throughout has been satisfactory.

In the year 1897 the government advertised for tenders for the enlargement of the other portions of the canal, dividing it into two sections or contracts of about three miles each—Iroquois and Cardinal. Messrs. Larkin & Sangster obtained the first-named, and Messrs. Wm. Davis & Sons the latter. In each case, the work was to be completed by January 31, 1899, but the time for completion has since been extended.

The scheme for enlargement contemplated the raising of the level of the reach between Iroquois and Cardinal six feet, that is, to the height of the lowest known level of the river at the head of the Galops rapid, and overcoming the whole rise with one lift-lock at Iroquois.

#### IROQUOIS SECTION.

Work on the enlargement of this section was commenced in May, 1897. It consisted of excavating a new entrance channel, the building of two entrance piers, a 'flotilla lock,' 800 feet long by 50 feet wide, weirs, bridges, retaining walls, &c., and the straightening, deepening and widening of the canal for about three miles; also the reconstruction of the highway north of the old canal, &c.

The work of building the masonry foundation walls for the Iroquois waterworks, the renewal and repair of the government wharf at the village of Iroquois, and the widening and deepening of the government ditch on the north side of the canal have all been completed under this contract.

The small amount of work remaining to be done last year, which consisted of dredging, sodding of slopes, digging of ditches, repairing of ditches and building of fences, sidewalks, farm crossings, &c., besides a general trimming up of portions of the section, has since been completed.

The canal prism and lower entrance have been swept and all obstacles such as boulders, &c., removed therefrom.

An electric light cable has been placed under the canal.

The final estimate of this work is being prepared.

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## CARDINAL SECTION.

Commencing at the western end of the Iroquois section at Presqu'île it extends west through the rear of the village of Cardinal to Gate's Point, the eastern end of the upper entrance contract, a distance of about three miles.

The work consists in widening, deepening and straightening of the old canal at each end of the section, and construction of an entirely new piece of canal through and on either side of the village of Cardinal, requiring the excavation of the prism, the building of banks and their protection, and the construction of cribwork and masonry revetments through the 'deep cut'; also the building of bridge piers and abutments, &c.

The chief feature is the 'deep cut,' in rear of the village of Cardinal, 5,900 feet long and 68 feet at the highest point, requiring the excavation of about 2,000,000 cubic yards of material.

*Earth Excavation.*—The total quantity of earth excavation on this section is about 2,600,000 cubic yards. Of this quantity there remains to be done but a small amount of trimming up of the canal prism, and removing of boulders found to be above grade. A dredge and derrick with diver are now employed at this work, which will be completed this season.

*Rock Excavation.*—The total quantity of rock excavation on this section has proved to be about 19,000 cubic yards, of which about 10,000 cubic yards was contained in rock 'in situ' in bottom of 'deep cut.' The excavation of rock 'in situ' was completed November 13, 1902.

The cribwork revetment, which extends through a portion of the 'deep cut,' was completed last season. The total length of this cribwork revetment is 5,258 lineal feet, and contains about 317,000 cubic feet of timber, 293,000 pounds of iron in bolts, and 45,000 cubic yards of stone filling, both inside and in rear.

The masonry revetment walls, laid in Portland cement, which rests on top of this cribwork, were completed October 4, 1902. Some pointing of these walls still remains to be done.

*Embankments.*—All embankments have been made to their required height and width, but it will be necessary to repair those portions destroyed by slides which occurred during April last.

The work of protecting the slopes of the 'deep cut' by the placing on them of pitched stone facing was completed December 22, 1902. Some repairs to this pitched stone facing, which have been found necessary, are being done.

The sodding throughout the section is in progress and will be finished this season.

The stone protection to slopes of banks (where not affected by slides) was completed May 20, 1903.

The fencing throughout the section will be completed this season.

The placing of gravel on new public road constructed on north side of 'deep cut' is being carried on, and will be completed this season.

The forming of ditches has practically been completed.

The masonry culvert at Nine Mile Road was completed November 13, 1902.

The necessary mooring posts in 'deep cut' are being placed in position.

During the month of April, 1903, owing to the water in this level having been lowered, several large slides occurred in the 'green' embankments both east and west of 'deep cut.' The embankment at the slides east of 'deep cut' has already been repaired, and that west of 'deep cut' will be repaired this season. ;

At the junction of the old and new canals, west end of 'deep cut,' the protection to bank has been left unfinished pending a decision *re* the construction of a wharf for the accommodation of the village of Cardinal.

All sweeping which has been done throughout the section, although under the supervision of the engineering staff, should not be regarded as final, on account of the

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description of sweep used. The government sweep specially adapted for the purpose having been appropriated by the Department of Marine and Fisheries, in connection with the buoy service, is not now available.

## GALOPS RAPIDS IMPROVEMENT.

This work comprises the excavation of a straight channel 200 feet wide and 17 feet deep through the shoals of the rapids which are known by the following names : Upper bar, north and Caledonia shoals, island shoal and lower bar. The whole of these shallow places are included in a distance of 3,300 feet.

The work is subaqueous and consists in blasting and dredging the rock in the rapid.

The work as originally designed for the 200-foot channel was finished in November, 1888, but in view of the apparent lowering of the water surface of the River St. Lawrence, and for the purpose of making a satisfactory test and survey of its bottom, and at the same time to be prepared for the removal of any material above the original contract grade, an agreement was entered into in the year 1897 with the Gilbert Bros. Engineering Company, Limited, to perform the necessary work. Operations were commenced the same year. In the year 1898 it was decided to widen the entrance to the existing channel south or towards Adam's island, with a view to eventually increase the width of the channel as originally excavated to 300 feet.

The plant employed consists of a dredge, drill scow, tugs, scows, &c., all adapted to the special work in hand.

As there was no appropriation for continuing the work in 1902-3, no work of any kind has been done, but the plant is maintained in good working order.

To complete the channel and render it safe in all stages of the river, lower bar should be widened to 300 feet at bottom and some detached rock outlying north shoal either taken out or rolled into the adjacent deep water. With this done and the dam closing the gut completed, the new channel, which is the main channel of the river, will be brought into general use by all classes of vessels, except probably the old-time 9-ft. draught barges, which are now towed in batches of four or six by obsolete tugs and incompetent pilots.

## NORTH CHANNEL.

This channel commences about one mile west of the upper entrance to the Galops canal and extends in a straight line to deep water off Chimney Point, a distance of  $2\frac{1}{2}$  miles.

It was constructed to avoid the sinuous natural channel passing through American waters, which is about three-quarters of a mile longer, and could not be navigated with safety by the class of vessels for which the present enlarged canals were designed.

The work consists in the excavation of a channel originally 200 feet wide, which was subsequently increased to 300 feet, through the bed of the St. Lawrence river and Drummond and Spencer islands, the construction of embankments on either side of the channel, and of piers and of cribs at its eastern and western entrances.

The work having been authorized and tenders advertised for, it was let to Mr. M. A. Cleveland, May 14, 1897, the work to be finished on January 31, 1899.

The time has since been extended.

The chief reason for urging the construction of this channel was to complete the deep or 14-foot navigation from the Prescott reach to the head of the Galops canal and rapids, instead of following the old and circuitous American channel across the flat-rock shoals, over which navigation is limited to nine feet, besides involving a distance of three-quarters of a mile in excess of the north channel route, practically the shortest obtainable between Prescott and the head of the Galops canal.

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Since the construction of the north channel from its earliest unfinished stage, when less than 200 feet was the available width, it has become the principal navigable channel for vessels of all drafts, and will so continue in any stages of the river.

In its present condition it is full 300 feet wide on the bottom, except at the head of Spencer island, where for a short distance it is only 200 feet in the clear, and will remain at that width until early next season, when the material which is being reserved for backing the breakwater, will be removed and full width of 300 feet obtained.

The depth of water in the channel at its present high stage is 17 feet. The channel is temporarily lighted by one gas buoy at the head of the breakwater and by a lamp at the lower entrance pier.

The stone revetment and slope walls within the prism are finished, except the proposed continuous line of coping which has proved to be a necessity, and has been provided for in estimate.

The work done during the past year is as follows :—

*Earth Excavation.*—Dredging operations were carried on up to December 9, 1902, in preparing seat for the cribwork breakwater at the upper entrance and in the removal of material in unfinished parts of the channel through upper shoal and Drummond island. Dredging was resumed on March 27, 1903, at upper shoal and Drummond island and continued to June 30.

*Rock Excavation.*—The work of drilling and blasting of the solid rock and boulders remaining in the prism was resumed on April 6, 1903, continuing to May 15, when the work was completed.

The rock excavation remaining undredged at the lower entrance to the north channel has been reserved to be used in the formation of the proposed dam across the 'gut' (the international boundary) between Adam's and Galops islands, the consent of the United States government having been obtained therefor.

The total amount of excavation for the year was about 46,000 cubic yards.

Cribwork at upper entrance, consisting of a continuous breakwater on the north side of the channel from Spencer's island to the lighthouse, was completed to the level of normal water in October, 1902.

The plan of construction of proposed dam at the Galops 'Gut' channel was approved by Major Symons, U. S. E., January 21, 1903, and the site has since been examined and approved by his successor, Major T. Bingham, U. S. E. Operations by the contractors will be commenced forthwith, or as soon as a settlement with the owner of Galops island for land and damages is arrived at.

## RIVER REACHES.

From the head of Soulanges canal to the foot of the Cornwall canal, the length of the navigable channel is about  $32\frac{3}{4}$  miles; of this distance 30 miles is through Lake St. Francis.

A channel has been buoyed between the above-mentioned points, with a minimum depth of 16 feet at lowest water, and has been brought into general use.

St. Regis section, two and a half miles east of Cornwall, is situated about midway between the foot of Cornwall island and First Crab island. The work here consists in the dredging of a channel 1,100 feet long and 300 feet wide through what is known as the St. Regis shoals, and protecting it with a dyke terminating with crib piers. This work was let to Messrs. Manning & Macdonald, May 24, 1898, to be completed November 30, 1898.

This work, however, was not completed until the fall of 1900, but has since been generally used by all classes of vessels, and is an important link in the 14-foot or deep-water channel.

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Hamilton island section, between the seventh and eleventh mile east of the Cornwall canal.

This work consists in the dredging of a channel through or of widening and straightening it through the under-mentioned shoals, and the construction of a light-house crib on the Middle Ground, viz.:—

The Clark's island shoal,  $7\frac{1}{2}$  miles west of Cornwall; the dredging at this point was substituted for that proposed to be done at Horseback.

The Middle Ground, 10 miles east of Cornwall.

The Highlander shoal,  $10\frac{1}{2}$  miles east of Cornwall.

A contract was entered into with Messrs. Manning & Macdonald, May 24, 1898, to be completed November 30, 1898.

The time stated for completion has necessarily been extended, but all the works embraced in the Manning & Macdonald contracts are now finished.

The final estimates were sent to the department on August 8, 1903.

ST. LAWRENCE RIVER.

The St. Lawrence river has been placed in charge of the Department of Marine and Fisheries.

The regulation of the water levels in the canals, as also the water record kept by lockmasters, is with the Canal Superintendent.

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

TOM S. RUBIDGE,  
*Superintending Engineer.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Deputy Minister and Chief Engineer,  
Department of Railways and Canals,  
Ottawa.

## QUEBEC CANALS.

SUPERINTENDING ENGINEER'S OFFICE,

MONTREAL, September 12, 1903.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,

Deputy Minister and Chief Engineer,

Department of Railways and Canals,

Ottawa.

SIR.—I have the honour to submit herewith my annual report on the works under my charge for the fiscal year ended June 30, 1903.

This division comprises the Lachine, the Soulanges and the Beauharnois canals, on the St. Lawrence route; the St. Ann, the Carillon and the Grenville canals, on the Ottawa river, and the St. Ours and the Chambly canals, on the Richelieu river.

Of these, the Lachine canal is by far the most important on account of its immediate connection with the harbour of Montreal. The traffic through it during the year just ended showed a considerable increase over 1901-2, and the progression will likely go on in future until the canal is taxed to its full capacity.

It affords me great pleasure to report that no serious interruption to navigation occurred on any of the canals in this division during the year.

### LACHINE CANAL.

Length, 8½ miles; 5 locks, 270 x 45 feet; 14 feet of water on sills; total rise, 45 feet. Old locks, 200 x 45 feet, still available, with 9 feet of water on sills.

#### REPAIRS AND RENEWALS.

This canal was unwatered on March 15, and refilled on April 1, 1903.

The principal repairs and renewals executed during the year were as follows:—  
Pointing lock and basin walls.

Placing life protection ladders, 40 feet apart, around Wellington Basin and St. Gabriel Basins, Nos. 3 and 4. These ladders consist of iron rings inserted in grooves cut into the masonry walls.

Taking apart a pair of lock gates built for old lock No. 1 and reconstructing it to suit new lock No. 1.

Building a pair of spare gates for lock No. 5.

Removing gates of old locks Nos. 1 and 2, which are now being rebuilt. These gates will be remodelled to serve as spare gates for old locks Nos. 3 and 4.

Building concrete abutments for a new steel bridge over the tail-race of waste weir No. 2 on Mill street.

The superstructure was furnished and placed in position by the Dominion Bridge Company.

Renewing turning gear of Wellington bridge. The old gear was of cast-iron; the new one is of cast-steel.

Covering the roofs of St. Gabriel shed No. 1, flour shed No. 1 and Mill street electric light station with galvanized iron.

Renewing the Canada plate covering of flour shed No. 2.

The metal roofs of the sheds at the Mill street shops, as well as St. Gabriel shed No. 2 and flour sheds 2, 3, 4 and 5 were covered with a coat of Loftus cement. Renewing

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valves in supply and waste weirs at Lachine, Côte St. Paul, St. Gabriel and basin No. 2, and placing improved opening gear in all of these weirs.

Placing 17 large cast-iron mooring posts set in concrete on all the locks which had not yet been provided with them and renewing 160 wood mooring posts along the banks.

Placing life-saving ladders, 40 feet apart, on the face of the cribwork wharfs around St. Gabriel basins Nos. 1 and 2.

Rebuilding boom at the head of new lock No. 2.

A piece of the slope wall about 75 feet in length on the south side of the canal immediately west of the Grand Trunk Railway bridge was undermined during the year and settled down about four feet. This was repaired in April while the canal was unwatered.

A steam hammer was purchased towards the end of the year. It is now at the Mill street shops and will be placed in position shortly.

The roads, fences, banks, buildings, machinery, scows, &c., were kept in good repair throughout the year.

The electric light plant was also well maintained during the season of navigation. The lighting of the canal from Brewster's bridge to the head of the long entrance pier at Lachine is now perfect, with 2,000 c. p. arc lamps 400 feet apart. The plant in the station is in very good condition. The power house will be heated by electricity next fall and electric heaters also placed in all the lock houses.

#### INCOME.

##### *Repairing old Locks, Nos. 1 and 2.*

A contract for this work was signed by Messrs. Coulson, Quinlan & Robertson on October 29, 1902, and operations were commenced in November, 1902. The contractors had the coffer-dam in basin No. 2 in position before the close of navigation. During March and April last the foundations for the new Blacks bridge were built, and the superstructure of this bridge, erected in time for the opening of navigation, the Dominion Bridge Company being the contractors for the latter. The new bridge, which is 158 feet long and 42 feet wide, has proved quite an improvement in the street traffic conditions at that point.

The coffer-dam below the entrance lock was completed by June 30, and the contractors were then making preparations for pushing the work vigorously. At the end of the year the north walls of both locks had been removed down to the frost line and various sections of new walls completed. The work done so far is of very good quality. If the contractors meet with no mishaps there is a possibility of the new locks being completed in time for the opening of navigation in 1904 or, at least, early in the summer.

##### *Rebuilding Wall on South Side of Basin No. 2.*

This work can only be done in the spring, after the water in the St. Lawrence has receded to a certain level. Last spring operations were commenced early in April and continued until the end of the month. A length of 298 feet was underpinned with concrete opposite the Royal Mills of the Ogilvie Flour Mills Co.

There still remains a length of 863 feet to be treated in the same manner, after which the part of the wall above the present foundations will be dealt with. This portion, however, will be done much more quickly, as work on it will be possible in all seasons of the year.

##### *Widening Tail-race at Côte St. Paul.*

Mr. O. L. Henault was awarded the contract for this work on March 30, 1903, and commenced operations in April. The work consisted in removing the old south ma-



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sorry wall of the weir and rebuilding a new concrete wall 308 feet long and 18 feet high, the top being finished as a sidewalk. It was completed early in June. In addition to this the flooring of the waste weir was repaired by day's labour.

The tail-race wall below the end of this contract will have to be repaired next spring, but this portion will be done out of the ordinary repair appropriation.

## CAPITAL.

*Deepening between Locks 2 and 3.*

This work is proceeding gradually. A good deal of deepening was done during the year, both in basin No. 2 and the St. Gabriel basin. Some work was also done in the four basins.

The completing of the deepening of basin No. 2 cannot be done until the wall on the south side has been fully underpinned, which will be in a couple of years.

*Slope Walls above Côte St. Paul.*

This work has been continued during the year under contract by Mr. J. B. de Lorimier, 1,600 cubic yards of wall being laid under the water-line in April last. There are yet 7,500 cubic yards to be done before the north side slope is completed. Up to the date of writing the total quantity of work done is 9,235 cubic yards of wall and 3,060 lineal yards of top revetment.

*Lake St. Louis Survey.*

This work has been going on for a number of years. Last season's operations consisted in surveying 5½ square miles of land work, 38 miles of topography and taking 48,857 soundings in the lake, the area covered extending from Beaufort to a point some distance east of Point Claire.

A good deal of time was also consumed in sweeping and cleaning the new channel. The above works were done under the immediate supervision of Mr. H. R. Lordly.

*Electric Installation.*

The new power house at Côte St. Paul has given entire satisfaction throughout the year, the canal lighting from Lachine to Brewster's bridge, which is done from that station, is perfect. The installing of the appliances for the operation of lock gates and sluices and of the various bridges along the line, is proceeding slowly, the conditions being different at each lock. It will be completed in time for the opening of navigation in 1904. This work is under the supervision of Mr. L. S. Pariseau.

*Repairs to Vessels.*

Besides the usual overhauling of the vessels composing the canal dredging fleet, I have to report the renewing of the boiler of the tug 'Frank Pereu.' This tug is now one of the best and strongest in the harbour of Montreal and is proving a most valuable addition to the fleet.

## SOULANGES CANAL.

Length, 14 miles; 5 locks. 270 x 45 feet 15 feet of water on sills; total rise, 84 feet.

As instructed by your letter of February 28, 1903, I took charge of the Soulanges canal on March 1 last. Up to the end of the year I merely endeavoured to acquaint myself with the conditions of this canal.

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All the structures there being quite new, they require little attendance. However, I find that the machinery in the lock sluices will have to be looked into without delay, the ordinary steel rollers and treads being already very much worn out. As soon as it will be possible they will have to be replaced by hardened steel ones, otherwise break-downs will certainly occur.

During last year a quantity of stone was placed by Messrs. Quinlan & Robertson in the slope walls in the upper sections of the canal, the small broken stone used having proved unsatisfactory. I believe, however, that this was partly due to a large quantity of earth having been mixed with the stone in filling the notch provided from the top of the bank to a few feet below the water-line.

I must also call your attention to the condition of the banks on this canal. The soil composing them is such that it is almost impossible to draw the water out without the risk of a serious slide. This is very unsatisfactory as, if it became necessary to do any repair to one of the structures, coffer-dams would have to be resorted to and a great deal of time thus lost.

This canal is not yet provided with repair shops, but will be so during the coming winter.

The electrical service here is in perfect condition. The year passed without any accident of any kind except the burning of a bridge motor during an electric storm.

### BEAUIHARNOIS CANAL.

Length,  $11\frac{1}{4}$  miles; 9 locks, 200 x 45 feet; 9 feet of water on sills; total rise  $82\frac{1}{2}$  feet.

This canal is only being used by a few market boats and stray barges. The staff has been reduced to one man at each lock and isolated bridge and three men in charge of ferries.

Very little work has, therefore, been done during the year, except the maintaining of the roads and bridges and the cleaning of the ditches carrying water from the canal to the river.

The Hungry Bay dyke and road received particular attention, a good deal of damage having been done to it during last spring's freshets.

The wharf along the main dam at the head of the canal is in a very dilapidated condition; it is the intention to repair it during the summer and fall of this year.

Most of the buildings at the various locks, formerly occupied by lockmen, have been rented last spring.

### CHAMBLY CANAL.

Length, 12 miles; 9 locks, 115 x  $22\frac{1}{2}$  feet;  $6\frac{1}{2}$  feet of water on the sills; total rise, 74 feet.

The only interruption to navigation on this canal during the year occurred in October, 1902, when the barge 'Pavilion,' loaded with iron ore, sank in the channel at the head of St. Thérèse bridge. The owner abandoned the craft, which had to be removed by the canal staff. A lawsuit was instituted by the Department of Justice to recover the cost of the work, and judgment by default obtained. The vessel and cargo will shortly be sold at auction.

### REPAIRS AND RENEWALS.

The main items of repairs performed during the year were as follows:—

Repairing damage done to the towing path between St. Johns and St. Thérèse island in April, and stopping a serious leak near St. Thérèse bridge.

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Removing timber approaches to St. Thérèse bridge and rebuilding these approaches, 156 feet in length, with clay and broken stone.

Placing some 2,000 tons of hard gravel on towing path.

Rebuilding waste weir at Woods Creek, one mile below the town of St. Johns.

The new weir consists of concrete abutments 25 feet long, 3 feet thick and 13 feet high, placed about 25 feet apart. Between them is a concrete partition forming two openings, each 10 feet wide, the top of these openings being arched and the roadway consisting of a layer of concrete 18 inches thick and 33 feet wide. Wing walls, also of concrete, were provided, making water-tight connection with the canal bank on both sides.

Rebuilding the west abutment of bridge No. 1.

Rebuilding wharf at Chambly Canton.

This wharf was a mere platform resting on piles. The new one consists of a substantial cribwork, which, however, could not be completely filled with stone before the end of the year.

Building a tile pipe drain, 650 feet long, on the west side of the wharf at Chambly Basin. The pipes used are 15 inches in diameter.

Rebuilding two flat scows.

Renewing electric wires from the power house to Chambly Basin.

All the machinery at the shops has been kept in perfect condition throughout the year.

## INCOME.

*Wharf at Chambly Basin.*

The old wharf consisted of a plank platform resting on posts. On the canal side these posts being sound, were preserved and used as supports for a 4-inch timber facing, the rear side being rebuilt of 12-in. x 12-in. timber and the space between both filled with field stone, with a thick layer of gravel on top.

## SYPHON CULVERT.

The contractor for this work, Mr. W. J. Finn, again failed to finish his contract during last year. The time for completion having been extended, he will resume operations at the close of navigation.

## PROTECTION WALL AT ST. THÉRÈSE ISLAND.

Owing to the continued high water last spring, the contractor, Mr. Joseph Côté, could not complete this work before the end of the year. An extension of time was awarded in June, and a certain amount of money placed in the supplementary estimates to bring the wall to completion.

Work will be resumed as soon as this money is available.

## ST. OURS LOCK.

Length of canal,  $\frac{1}{2}$  mile; one lock, 200 x 45 feet; 7 feet of water on sills; total rise, 5 feet.

Besides the ordinary repairs to the grounds, lock-walls, lock-gates, buildings fences, scows, &c., the following works were performed here during the year:—

Building a shed for storing spare lock-gates.

Erecting a windmill, with a tank, in the upper story of the blacksmith shop. This will distribute water to the various buildings and provide the means of protecting them against fire.

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## INCOME.

*St. Ours Dam.*

The west abutment of this dam had been in a threatening condition for some time. It consists of a strong stone wall resting on piles, some of which had collapsed owing to the clay surrounding them having been washed away. A length of 50 feet of the wall was taken down, new piles planted and bedded in strong concrete, the work of removing clay and stone filling behind the wall proving especially difficult. A part of the new wall was also built of concrete.

The leak through this abutment is now practically stopped, and the whole structure is quite safe again.

## ST. ANNE'S LOCK.

Length,  $\frac{1}{2}$  mile; one lock, 200 x 45 feet; 9 feet of water on sills; total rise, 3 feet.

Old lock still available, 200 feet x 455 feet; 6 feet of water on sills; total rise, 3 feet.

All the structures in connection with the lock and its entrances were kept in good order throughout the year, and the following works performed beyond ordinary maintenance.

Rebuilding four small bridges over slips above and below the lock.

Rebuilding part of wing dam above lock which had been damaged by ice as reported last year.

Putting a new floor on a 240 feet section of the above dam and recovering ice-breaker at the head of it.

Building a lighthouse and erecting a new semaphore.

Spreading 500 cubic yards of vegetable earth on both sides of locks.

## CARILLON AND GRENVILLE CANALS.

*Carillon Canal.*—Length,  $\frac{3}{4}$  mile; 2 locks, 200 x 45 feet; 9 feet of water on sills; total rise, 16 feet.

*Grenville Canal.*—Length,  $5\frac{3}{4}$  miles; 5 locks, 200 x 45 feet; 9 feet of water on sills; total rise,  $43\frac{3}{4}$  feet.

Both these canals are under one overseer. They are separated by a stretch of navigable river about five miles long, and between them is to be found the old Chute-à-Blondeau lock, which was abandoned at the completion of the dam at the head of the new Carillon canal in 1883, the rise at the old lock having been practically obliterated.

## REPAIRS AND RENEWALS.

Following is a list of the most important items of repairs performed during the year beyond ordinary maintenance:—

Rebuilding both abutments of tow-path bridge over McBean's Creek, the foundations of which were made of concrete.

Tearing down and rebuilding with new stone a piece of wall about 100 feet long on the north side of the lower approaches to lock No. 6.

Completing the repairing of a portion of the Carillon dam.

As reported last year, the weather conditions during the winter of 1901-2 prevented the completion of this work. The cribs, which had been either displaced or carried away in the spring, were rebuilt or set right, and the apron covering placed on them. The dam is now safe.

## INCOME.

*Guide Pier at Upper Entrance of Carillon Canal.*

The contractors for this work, Messrs. Martineau, fils et Lemoine, resumed operations in May, 1902, with the tearing down of the old timber supestructure. The water in the river, however, kept rather high until the end of August, and the laying of the new timber foundation could only be commenced on September 3. From September 9 to November 25 a section of concrete wall was built, from the point reached the year before to a point about 200 feet west of the lock wall, a total length of 280 feet. The last section will be completed about the close of navigation this year.

The concrete laid so far is of very good quality and the work generally quite satisfactory.

Mr. F. J. Lynch is in charge of the construction works on these canals. He has continued during the winter months the survey of the Carillon and Grenville canals mentioned in my last annual report and commenced the preparation of plans and specifications for the renewal of the wharf at the upper entrance to the Grenville canal, tenders for which will be invited shortly.

I have the honour to be, sir,

Your obedient servant,

ERNEST MARCEAU,

*Superintending Engineer Quebec Canals.*

P.S.—Annexed to this report are tabular statements showing highest and lowest water on the mitre sills of the locks at the upper and lower entrance of each canal, statements of fines and damages collected during fiscal year 1902-3; also statement giving dates of closing and opening of each canal.—E.M.

## QUEBEC CANALS.

## STATEMENT of the opening and closing of navigation.

Name of Canal.	Closing.	Opening.
Lachine Canal.....	Dec. 6, 1902.....	May 1, 1903.
Beauharnois Canal .....	Nov. 30, 1902.....	" 1, 1903.
Chambly Canal.....	" 30, 1902.....	" 1, 1903.
St. Ours Lock.....	" 30, 1902.....	April 8, 1903.
Carillon and Grenville Canals.....	" 30, 1902.....	" 27, 1903.
St. Anne's Lock.....	" 30, 1902.....	" 28, 1903.
Soulanges Canal.....	.....	May 1, 1903.

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## LACHINE CANAL.

STATEMENT showing the depth of the river water on the 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, 1903.

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.
1902.								
July.....	20	1	19	6	17	3	16	6
August.....	19	5	17	8	16	8	15	9
September.....	17	11	16	11	15	10	15	0
October.....	17	7	17	0	15	9	15	1
November.....	19	0	17	3	16	4	15	3
December.....	37	2	18	5	17	5	15	4
1903.								
January.....	33	5	26	7	17	8	15	0
February.....	28	3	25	0	16	6	14	10
March.....	43	2	25	5	19	9	15	4
April.....	24	0	18	10	18	9	17	9
May.....	19	9	18	2	18	1	17	5
June.....	18	10	17	6	17	9	16	9

Mitre sill of old Lock No. 1—2' 2" above sill of new Lock No. 1.

Mitre sill of old Lock No. 5—5' 0" above sill of new Lock No. 5.

## BEAUHARNOIS CANAL.

STATEMENT showing the depth of the river water on the mitre sills of lock No. 6, at lower entrance, and lock No. 14, at upper entrance, during the fiscal year ended June 30, 1903.

MONTHS.	LOCK NO. 6, LOWER SILL.				LOCK NO. 14, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
1902.								
July.....	11	6	10	11	11	8	11	5
August.....	10	11	10	4	11	9	11	3
September.....	10	4	9	9	11	7	10	9
October.....	9	9	9	6	11	4	10	10
November.....	10	2	9	6	11	5	10	4
December.....	14	0	10	0	11	4	10	5
1903.								
January.....	16	4	12	0	11	10	10	6
February.....	18	9	12	6	11	6	10	0
March.....	14	0	12	11	12	4	11	2
April.....	12	11	12	2	12	3	11	7
May.....	12	2	11	8	11	11	11	7
June.....	11	11	11	6	11	11	11	6

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## CHAMBLY CANAL.

STATEMENT showing the depth of the river water on the mitre sills of lock No. 9, at lower entrance, and lock No. 1, at upper entrance, during the fiscal year ended June 30, 1903.

MONTHS.	LOCK NO. 9, LOWER SILL.				LOCK NO. 1, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
1902.								
July .....	13	5	11	11	10	6	9	4
August .....	12	0	10	7	9	5	8	7
September .....	10	9	9	6	8	11	7	10
October .....	10	6	9	2	8	8	7	7
November .....	12	4	10	3	9	8	5	2
December .....	12	7	9	7	8	11	7	0
1903.								
January .....	16	2	12	1	9	1	8	7
February .....	15	11	14	7	9	9	9	2
March .....	22	6	15	10	13	6	9	9
April .....	20	5	15	4	13	8	11	4
May .....	15	7	11	2	11	9	8	10
June .....	11	2	10	4	9	0	8	5

## ST. ANN'S LOCK.

STATEMENT showing the depth of the river water on the mitre sills of St. Ours lock during the fiscal year ended June 30, 1903.

MONTHS.	LOCK NO. 1, LOWER SILL.				LOCK NO. 1, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
1902.								
July .....	11	8	10	0	11	1	10	1
August .....	10	7	8	6	10	3	9	5
September .....	8	9	7	7	9	7	8	10
October .....	8	11	7	4	9	8	8	9
November .....	10	2	8	0	10	9	9	4
December .....	12	4	9	0	9	7	8	8
1903.								
January .....	12	10	10	3	9	10	8	5
February .....	14	7	12	2	10	4	9	8
March .....	24	0	15	4	19	7	11	4
April .....	18	10	13	6	15	2	12	2
May .....	13	7	10	10	12	3	9	10
June .....	11	9	9	9	9	10	9	5

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## ST. ANN'S LOCK.

STATEMENT showing the depth of the river water on the mitre sills of St. Ann's lock during the fiscal year ended June 30, 1903.

MONTHS	LOCK NO. 1, LOWER SILL.				LOCK NO. 1, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
1902.								
July .....	12	0	11	5	13	8	12	4
August .....	11	8	10	9	12	4	11	3
September .....	10	10	10	2	11	3	10	8
October .....	10	4	10	2	11	5	10	10
November .....	11	3	10	5	13	1	11	5
December .....	12	8	11	1	13	1	12	0
1903.								
January .....	12	8	10	11	12	0	11	3
February .....	12	0	10	8	11	11	10	8
March .....	14	9	11	0	16	3	11	6
April .....	13	10	12	10	15	4	14	4
May .....	13	0	12	6	15	0	13	9
June .....	12	8	11	4	14	1	13	3

## CARILLON CANAL.

STATEMENT showing the depth of the river water on the mitre sills of locks Nos. 1 and 2, Carillon canal, during the fiscal year ended June 30, 1903.

MONTHS.	LOCK NO. 1, LOWER SILL.				LOCK NO. 2, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
1902.								
July .....	15	2	13	6	15	5	13	6
August .....	13	7	12	0	13	5	12	0
September .....	12	3	11	10	12	0	11	4
October .....	12	7	11	11	12	6	11	6
November .....	14	8	12	6	14	10	12	6
December .....	14	7	13	9	17	10	13	9
1903.								
January .....	13	8	13	2	16	9	12	10
February .....	13	11	13	3	14	9	13	5
March .....	19	1	13	4	17	11	13	10
April .....	16	10	15	6	16	11	15	7
May .....	16	9	15	2	17	1	15	6
June .....	15	7	14	7	15	7	14	6



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## 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 June 30, 1903.

MONTHS.	LOCK NO. 3, LOWER SILL.				LOCK NO. 7, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
1902.								
July.....	18	9	16	4	16	0	13	8
August.....	16	4	14	6	13	8	12	0
September.....	14	8	13	8	12	0	11	2
October.....	15	0	13	11	12	4	11	3
November.....	18	0	15	0	15	6	12	4
December.....	20	5	16	11	15	0	14	2
1903.								
January.....	21	6	16	8	14	2	12	10
February.....	21	7	17	11	12	10	11	5
March.....	22	10	18	4	18	10	12	1
April.....	20	7	19	0	17	8	16	2
May.....	20	11	18	10	18	0	16	2
June.....	19	0	17	9	16	6	15	0

## SOULANGES CANAL.

STATEMENT showing the depth of the river water on the mitre sills of lock No. 1, at lower entrance, and lock No. 6. at upper entrance, during the fiscal year ended June 30, 1903.

MONTHS.	LOCK NO. 1, LOWER SILL.				LOCK NO. 6, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
1902.								
July.....								
August.....								
September.....								
October.....								
November.....								
December.....								
1903.								
January.....								
February.....	20	3	18	8	17	2	17	0
March.....	21	4	20	0	18	0	17	0
April.....	20	3	19	4	17	6	17	1
May.....	19	4	19	1	17	5	17	1
June.....	19	3	18	5	17	2	16	9



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## WELLAND CANAL.

ST. CATHARINES, ONT., July 1, 1903.

SIR,—I have the honour to report upon the maintenance and operation of the Welland Canal and its branches for the fiscal year ending June 30, 1903.

The canal was closed December 16, 1902, and opened for navigation April 13, 1903.

The operation of the canal was not interrupted during the fiscal year. Several leaks have developed in the different banks, and a dangerous looking slide commenced in the high bank at the head of lock No. 16, but it was not considered necessary to draw the water off the canal, and they have all been satisfactorily repaired.

The canal is beginning to show signs of age, and from this on considerable trouble may be expected from leaks in banks, washing out of foundations, &c.

The different works necessary to improve the canal for navigation purposes have been carried on satisfactorily during the past year.

Twenty-five lock-gates have now been fitted with the new valves and hanging gear, a much needed improvement.

Messrs. Megann & Phin have made good progress in deepening the earth section between Thorold and Port Colborne.

Messrs. Hogan & Macdonell, while they have not actually completed their contract for deepening the rock cut between Port Colborne and Humberstone, have a deep channel through it, and vessels have now no trouble in navigating that portion of the canal.

The most important improvement on the canal, namely, the removal of the old centre pier bridges, is now well under way. The substructures for two new bridges, one at the 'Junction,' one mile south of Welland, and the other at Stonebridge, one mile north of Port Colborne, were built under contract by Mr. Joseph Battle during last fall and winter, and upon these substructures have been erected by the Hamilton Bridge Works Co. two new steel highway swing bridges, spanning completely the deep water in the canal and giving a channel over 100 feet in width. The old centre pier work of the former bridges was removed by Messrs. Megann & Phin, under contract, prior to the opening of the canal last spring. The removal of these old centre piers is giving great satisfaction to the shipping interests using the canal. It is expected that by the opening of navigation next year three more of the old centre piers will have been removed.

The rebuilding of the dam and bridge across the Grand river at Dunnville was completed last winter by the contractors, Messrs. Hutchinson, Lattimore & Lalor.

A portion of the ditch along the south side of the feeder west of Marshville was deepened and enlarged last fall, but owing to wet weather the work was not quite completed. It will be finished this fall.

The open ditch through the village of Port Colborne, on the east side of the canal, has been replaced by an 18-inch tile drain, neatly covered over, making a much-needed improvement.

Four new steel valves have been placed in the supply weir at Port Colborne, replacing the old valves, which were unsatisfactory and which blocked the free flow of water.

In March last the water was pumped out of lock No. 2 on the new canal, and the lower mitre-sill was lowered two feet. The old flooring of the lock was taken up and the King sill and two braces of the upper sill were removed. This was done at a cost of about \$9,000 by the canal staff. This improvement removes the possibility of the navigable depth in the canal being reduced to 12 feet should the long retaining wall between locks 1 and 2 be carried away, a not unlikely occurrence.

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It is proposed to lower the sill of the guard gates above Thorold next winter.

Among the various general repair works that have been done during the year the following may be mentioned :—

The pointing of the new canal locks and weirs has been completed.

The retaining walls at several locks, which had settled from one to six feet, have been raised with concrete to their original levels.

The top of the east pier at Port Dalhousie, which was being washed out by the action of waves, has been replaced with a coating of Portland cement concrete about six inches thick.

New ways for hauling out lock-gates at the Port Dalhousie gate yard have been put in.

#### OLD CANAL.

The water was drawn off the old canal from April 6th to the 20th, and many much needed repairs were made during that time. Several of the regulating weirs were found to be dangerously undermined, over 200 yards of concrete being required in one case to fill the washout under the foundation of one weir (No. 7). The foundations of several of the locks were found to be badly washed out, and were repaired as well as it was possible in the time available. The locks and weirs are now in such shape that I do not anticipate there being any necessity for unwatering the canal again for three or four years.

While the kater was out one new valve was placed in a hitherto unused opening in each weir, and two new valves in some of the more important weirs. These new valves now give complete control of the water and allow much better regulation than was possible heretofore.

Several leaks in the banks have been successfully stopped without interfering with the water-powers along the canal.

A serious washout in No. 4 raceway in the city of St. Catharines occurred last fall. This raceway belongs to the Kinleith Paper Company, but the repairs were made by the canal staff, as no one else in the vicinity had the available plant.

A gang of men has been continuously employed in cleaning up the canal and ripping the slopes.

#### GENERAL.

Official caps have been issued to all lock and bridge tenders.

There has been no trouble from low water in Lakes Erie and Ontario.

Since the opening of navigation this spring there has been a large increase in the traffic through the canal over late years, and this will no doubt continue, as a large number of new vessels have been placed on the route.

The following employees have been superannuated during the year:—John Sullivan, Henry Hare and John Corbett.

Mr. R. Edgraft, a superannuated employee, died at Port Dalhousie on December 3, 1902.

Attached is a statement of fines collected for breaches of canal rules and regulations. Also a statement of damages to canal property and amounts collected for the same and to whom paid. Also a statement showing the highest and lowest recorded depths of water on the mitre sills of the locks at Port Dalhousie and Port Colborne for each month of the year.

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

J. L. WELLER,  
*Superintending Engineer.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Deputy Minister and Chief Engineer,  
Department Railways and Canals,  
Ottawa, Ont.

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WELLAND CANAL.

STATEMENT of damages to Welland canal property during the fiscal year ending June 30, 1903, and the amount paid and unpaid on account of said damages.

Date of Damage.	Name of Vessel.	AMOUNT OF DAMAGES.		WHERE PAID.	
		Paid.	Unpaid.	Date Paid.	Collector's Office.
1894.		\$ cts.	\$ cts.	1903.	
June 9 . . .	Steamer Sam Marshall . . . . .	40 75		May 29 . . . .	Port Dalhousie.
1898.					
June 20 . . .	" Business . . . . .	9 83		June 17 . . . .	Port Dalhousie.
1902.				1902.	
Aug. 7 . . . .	" Jas. Duncan . . . . .	80 52		Nov. 27 . . . .	Port Colborne.
				1903.	
Dec. 2 . . . .	" W. J. Haskell . . . . .	35 03		April 10 . . . .	Port Dalhousie.
		166 13			

STATEMENT of fines collected from vessels contravening canal rules and regulations and lock-tenders for dereliction of duties for the fiscal year ending June 30, 1903.

Date of Fine.	Name of Vessel.	AMOUNT OF FINE.		WHERE PAID.	
		Paid.	Unpaid.	Date Paid.	Collector's Office.
1902.		\$ cts.	\$ cts.	1902.	
Oct. 1 . . . .	Steamer Peshtigo . . . . .	5 00		Oct. 22 . . . .	Port Colborne.
" 18 . . . .	" Melbourne . . . . .	10 00		" 30 . . . . .	"
	<i>Looktenders.</i>				
July 8 . . . .	Harry McAvoy . . . . .	5 00		Sept. 24 . . . .	St. Catharines.
Aug. 27 . . . .	James Ellis . . . . .	10 00		" 20 . . . . .	"
" 27 . . . .	D. Mathewson . . . . .	5 00		" 20 . . . . .	"
" 27 . . . .	Mich. Moran . . . . .	5 00		" 20 . . . . .	"
Nov. 11 . . . .	J. M. Woodall . . . . .	5 00		Dec. 18 . . . .	"
" 11 . . . .	R. Brownlow . . . . .	5 00		" 18 . . . . .	"
		50 00			

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STATEMENT showing the highest and lowest depth of water on the Lower Mitre Sill, Lock No. 1, New Welland canal, Port Dalhousie, for fiscal year ending June 30, 1903.

MONTHS.	LOWER SILL.				MONTHS.	LOWER SILL.			
	Highest.		Lowest.			Highest.		Lowest.	
1902.	Ft.	In.	Ft.	In.	1903.	Ft.	In.	Ft.	In.
July.....	16	2	15	4	January.....	15	1	14	3
August.....	16	3	14	11	February.....	15	1	14	7
September.....	15	11	15	5	March.....	16	1	14	9
October.....	15	7	15	9	April.....	16	9	15	11
November.....	15	5	11	10	May.....	16	9	16	5
December.....	14	10	14	5	June.....	16	6	16	3

STATEMENT showing the highest and lowest depth of water on the Upper Mitre Sill, Lock No. 26, New Welland canal, Port Colborne, for the fiscal year ending June 30, 1903.

MONTHS.	UPPER SILL.				MONTHS.	UPPER SILL.			
	Highest.		Lowest.			Highest.		Lowest.	
1902.	Ft.	In.	Ft.	In.	1903.	Ft.	In.	Ft.	In.
July.....	16	2	14	8	January.....	15	9	13	1
August.....	15	10	14	10	February.....	15	3	13	8
September.....	15	9	13	3	March.....	15	8	14	0
October.....	16	5	13	11	April.....	15	8	14	7
November.....	15	1	13	7	May.....	16	0	14	3
December.....	15	11	10	10	June.....	15	9	14	10

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## TRENT CANAL.

SUPERINTENDING ENGINEER'S OFFICE,  
PETERBORO, July 15, 1903.

SIR,—I have the honour to submit my annual report for the fiscal year ending June 30, 1903, on the works under my charge known as the Trent canal. This is a term applied to the several works constructed to improve navigation together with the several navigable reaches between the town of Trenton, on Lake Ontario and Georgian Bay in Lake Huron.

The object of the works is to connect the several navigable stretches. When the present contracts are completed there will only remain three more comparatively inexpensive stretches of canal to construct in order to complete the whole of this land-locked waterway from Lake Huron to Lake Ontario.

A glance at the map of this district will show at once the great length of natural navigable reaches compared to the length of artificial navigable reaches required to connect them. Wherever possible advantage has been taken of utilizing the bed of the fine rivers which follow the course of this waterway for its entire length. By utilizing the beds of the lakes and rivers a comparatively cheap mode of construction is employed, while the cost of future maintenance will be reduced to a minimum. The Imperial government as far back as the year 1835, chose this route as being the most natural and feasible to make a water communication between Lake Ontario and Lake Huron, and they spent considerable sums in carrying out the project, and in fact a sufficient sum of money was voted by the government at that time to construct that part of the work lying between Lake Ontario and Balsam lake. The works then constructed have ever since been used for local traffic.

When the two divisions at present under construction are completed, a continuous line of navigation between Heeley's Falls and the ports on Lake Simcoe, a distance of about 160 miles, will then be available. Though a draught of six feet is provided on all the sills, the land necessary to flood for a draught of eight feet has been purchased on the new sections at present under construction, so that if required a draught of eight feet could be provided at comparatively little extra cost.

Owing to the fact that this waterway is also used by the lumbermen to float their logs down stream to their mills, and many of the reaches which are now opened up for navigation have heretofore been used exclusively by the lumbermen for the floating of their logs, brings a new condition of things into existence, and some means will have to be adopted to meet this changed condition. It has heretofore been the custom of lumbermen to allow many water-soaked logs to remain in the channel after the rest of the drive has passed on. This is a most dangerous practice and is a great menace to navigation. Some regulation should be passed to prevent the leaving of these water-soaked logs in the navigation channel, which lie with one end on the bottom and the other end a few inches above the surface of the water. At night it is impossible to see the tops of these logs, and several accidents have occurred by vessels striking these logs, in some cases the logs have passed through the planking of the vessel.

## MAINTENANCE.

Navigation closed on November 28, 1902, and opened again on April 2, 1903.

The height of water on the mitre sills of the locks was very fair throughout the season, though there is still room for very much improvement in regard to the regu-

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lation of the water on the different reaches. The regulation of the water is under three different managements, namely, the Dominion government, the Ontario government and the lumbermen, consequently it is not surprising that there are complaints regarding the management of the water during the dry season. Owing to the immense country drained, and the country becoming every year more cleared, the proper regulation of the water becomes more difficult. The regulation of the water also between Lakefield and Peterborough is, under the present circumstances, very unsatisfactory, and as the power at the several dams along the river is developed, the trouble will be increased. Owing to the mills at Young's Point and Lakefield using all the surplus water, any temporary stoppage almost stops the entire flow; in consequence the mills below are often stepped for a time. If the power owners at Lakefield and other dams were to notify the government caretakers of the dams, or otherwise compensate for the stoppage by allowing extra water to escape, when it is necessary to stop temporarily for repairs, the cause of complaint would be removed.

With reference to the water supply, it is not generally known that such a vast system of reservoirs exists as there are in the country to the north of the direct route of the canal. From a recent survey of these reservoirs, it was ascertained that there are over fifty dams at present constructed which control about 70,000 acres of water in which over 25 billion cubic feet of water can be stored, not taking into account the large quantity that could be stored by many new dams that could be constructed. The proper storing and regulation of the large quantity of water above referred to is a most important matter, not only to navigation, but to the vast commercial interests that are located along the valley of the Trent. The traffic on this waterway has nearly doubled during the last ten years—the total number of lockages ten years ago was only 2,500—now the lockages total 5,299, being an increase of 114 over those of last year. This does not fairly represent the traffic on the canal, as owing to many of the longer routes of the steamers not passing through a lock, no record of the traffic is kept. There are over 30 steamers engaged in commerce between Lakefield and Balsam Lake, besides a large number of small steamers belonging to private individuals.

There are five steamers on the reach between Peterborough and Heeley's Falls, and several on Lake Simcoe. Many of the larger steamers are of considerable size, some of them carrying as many as 450 passengers.

#### REPAIRS.

The following repairs were made:—

##### ROSEDALE.

The latch on the swing bridge was repaired.

##### FENELON FALLS.

One of the valves of the centre gates was broken and was repaired. The wooden packing in the quoin posts of the gates was renewed. The lock walls were repointed.

A storehouse for use in connection with the lock was built. The gates were painted.

##### BOBCAYGEON.

The mitre sill of the upper gates were caulked. The gates were painted.

##### BUCKHORN.

The dam was staunched. This dam will soon have to be entirely rebuilt, as it has become so waterworn with age that to repair it properly would amount to almost the



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cost of a new dam. A new storehouse was built on the north side of the lock. The bridge and gates were painted.

## LOVESICK.

The flooring of the entrance pier on the west side of the upper entrance was renewed. The platform of the dam was also repaired.

## BURLEIGH.

A new storehouse 24 feet by 36 feet was built. The valves of the centre gates were taken out and adjusted in order to make them work more freely. New stoplogs were also supplied for the dam.

## YOUNG'S POINT.

Some of the stoplog gains in the dam were renewed and the platform was repaired, also new stoplogs were supplied.

## LAKEFIELD.

The old wooden snubbing posts on the wharf, having rotted away to such an extent as to become unsafe, 'nigger-heads' bolted to concrete blocks let into the ground were substituted. The top timber of the wharf was renewed.

## NO. 2 DAM, PETERBOROUGH DIVISION.

The bank below the abutment of the dam on the west side became badly scoured. This was filled in with stone and riprap.

## NASSAU DAM.

The boulder filling on the lower side of the dam opposite the west sluiceway was washed out. The filling was renewed with larger boulders.

## PETERBOROUGH.

New lower lock gates were constructed. The upper gates were repaired and the valves were caulked and adjusted. The old timber entrance piers above and below the lock on the west side were removed and replaced with solid concrete piers.

## BUOYING OUT.

The buoys along the navigation channel were repainted and new buoys were put in where required.

The tug *Empire* had also some slight repairs made to it.

A considerable amount was spent on the dredge *Otonabee* in the way of strengthening the hull and caulking.

## INCOME.

The following charged to income was made:—

## BOBCAYGEON.

New upper gates for the lock were constructed.

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## RICE LAKE.

A cut across the point at the east entrance of the mouth of the river at Rice lake was made into the bay. This will shorten the distance about two miles, besides providing a channel free from weeds and drifting sawdust.

## TRENT RIVER.

Blasting and dredging on the rock shoal below the lock at Hastings was proceeded with. There is considerable work yet to do on this shoal to make it a good channel.

## HEELEY'S FALLS.

Three concrete piers for a new bridge over the river at this point were constructed. The superstructure has been placed on this bridge by the township.

## NEW HULL FOR DREDGE.

A new hull 26 by 72 was constructed to take the place of the old dredge *Otonabee*.

## ROAD NEAR LINDSAY.

A considerable amount of dredging was done in the way of casting up from the side ditches on the road which it is proposed to make between Lindsay and Fenelon Falls.

## CAPITAL.

*Hydraulic Lock.*

In order to give a neat and substantial appearance to the embankments leading to the hydraulic lock, it was recently decided to underdrain and sod them. In accomplishing this object it became necessary to first prepare the whole of the surrface of the slopes with soil in preparation for the necessary sodding, and a contract having been let for the sodding.

*Construction.*

Section No. 1, Peterborough-Lakefield Division.—The contract for this section, which was awarded to Messrs. Brown, Love & Aylmer, on August 27, 1895, was completed last year, with the exception of some cleaning up of the cut in the river below the lock at Lakefield.

Section 2, Peterborough-Lakefield Division.—The contract for this section was awarded to Messrs. Corry & Laverdure on May 21, 1896. The work in connection with this section has been completed and taken off the contractors' hands.

Section 2, Simcoe-Balsam Lake Division.—This section is under contract with Messrs. Larkin & Sangster, as contractors. The work in connection with this contract has been well advanced and should be completed this fall. The only work remaining to be done is the completion of the earth excavation in the swamp near the fourth concession line of Carden, and the completion of the rock cut west of the hydraulic lock; the foundations in the press wells and the concrete in connection with the chambers of the hydraulic lock.

Section 3, Simcoe-Balsam Lake.—The contractors for this section are Messrs. Brown & Aylmer. Wet weather last season interfered considerably with the progress of the work of this section. Only two locks out of five have been completed, and only one dam. No dredging had been done as yet. Slow progress has so far been made,

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and if more rapid progress is not made it will take the greater part of two seasons yet to complete this section. All the structures have been completed with the exception of those in connection with Locks Nos. 2, 3 and 4, and the entrance piers of Lock No. 1, and glance piers of the Portage road bridge and the entrance piers at Lake Simcoe.

A contract was entered into with the Grand Trunk Railway Co. to raise the embankment of their road crossing the canal near Gamebridge. This work has been about completed and the traffic is now turned over the high level bridge across the canal.

*Steel Bridge Superstructures.*

A contract for five swing highway bridges and one high level railway bridge was awarded to the Hamilton Bridge Works Company. These have all been completed.

*Plant.*

The dredge *Otonabee* was employed continuously throughout the season. During the latter part of last season she was rented to the Otonabee Power Company, and the contractors, Messrs Brown, Love & Aylmer. This season up to the end of the fiscal year she was employed making a road through the swamp near Lindsay.

The dredge *Trent* was loaned to the Department of Public Works to dredge a channel leading up to the Cereal Works at Peterborough.

The tug *Empire* has been fully employed throughout the season in hauling scows of dredged material from the dredge, buoying out and snagging the navigation channel, delivering stone, timber, gravel, &c., for the various works of repair along the route, besides the use for inspection by the staff officials.

I am, sir, your obedient servant,

RICHARD B. ROGERS, M.I.C.E.,  
*Superintending Engineer.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Chief Engineer and Deputy Minister,  
Department of Railways and Canals,  
Ottawa.

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## SAULT STE. MARIE CANAL.

SUPERINTENDENT'S OFFICE,

SAULT STE. MARIE, ONT., Sept. 3, 1903.

COLLINGWOOD SCHREIBER, Esq.,  
Deputy Minister, &c.,  
Ottawa.

DEAR SIR.—I inclose you herewith my annual report upon the operation of this canal for the last fiscal year.

Your obedient servant,

J. E. BOYD,  
*Superintendent.*

SUPERINTENDENT'S OFFICE, August 28, 1903.

SIR.—I herewith submit my eighth annual report on the operation of this canal for the fiscal year ending June 30, 1903.

The canal was closed for the season on December 20, having been in continuous operation for a period of 264 days, and was reopened for navigation on the 2nd day of April of this year.

During the fiscal year just ended there were made 3,425 lockages, passing through 4,562 registered craft and 378 unregistered vessels and scows, with a total tonnage of 4,495,308 tons, with an average time of 15'90 minutes to each lockage. Of this tonnage 1,476,029 was of Canadian bottoms, being an increase of 465,142 tons over last year in this class of vessels. In the total tonnage for the year there was an increase of 1,416,568 tons, thus showing that the deepening of the lower channel has been appreciated by the vesselmen and justifying the expenditure of the money by the department in the dredging.

The upper channel should now be widened and deepened to meet the increased capacity of the vesesls being built. The Canadian vessel tonnage has been increased in a very marked way by the building of several new vesels and the purchase of some from the old country. This is so marked that during the months of May and June the bulk of the grain from the Canadian North-west was carried east, which in former years generally took until early in September.

During the winter the machinery was thoroughly gone over and repaired, and so far it is in good working order.

The canal buildings and the swing dam have all been painted.

The canal piers have been repaired where necessary and there has been no damage done to them by vessels using the canal.

The daily exchange of vessel reports with the American canal officials is still carried on, thus ensuring the recording of the whole volume of the Lake Superior traffic as in former years. In this respect the amount of freight handled through the two canals at this point is of such magnitude as to call for more than a passing remark, and, as in former years, I give in the table following the figures of the amount of traffic passing through the two canals, and some figures as to the value and cost of carrying this vast amount of traffic. For these figures I have to thank Mr. Joseph Ripley, the General Superintendent of the American canal, and we are very much indebted to all the American canal officials for many courtesies during the season.

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Year	Number of Vessels passed	Registered Tonnage of Vessels	Total Freight Tonnage	Cost of Carrying per Mile Ton	Estimated Value of Freight carried	Percentage of Freight carried in Canadian Vessels	Number of Passengers
1855.....	193	106,296	14,503				4,270
1860.....	916	403,657	153,721				9,230
1865.....	997	409,062	181,638				19,777
1870.....	1,828	690,826	539,883				17,153
1875.....	2,023	1,259,534	833,465				19,685
1880.....	3,503	1,734,890	1,321,996				25,766
1885.....	5,380	3,053,987	3,256,628				36,147
1890.....	10,557	8,454,435	9,941,213	1.3	102,214,948	3.5	24,856
1895.....	17,956	16,806,435	15,962,580	1.14	159,575,129	3.75	31,656
1896.....	18,615	17,249,418	16,239,071	1	195,146,842	3	37,066
1897.....	17,171	17,619,933	18,982,755	.83	218,235,927	3	40,213
1898.....	17,761	18,622,754	21,234,634	.79	233,069,739	2.2	43,426
1899.....	20,255	21,958,347	25,255,810	1.5	281,364,750	3.1	49,082
1900.....	19,432	22,315,834	25,643,073	1.18	267,911,959	3	58,555
1901.....	20,041	24,626,976	28,403,065	.99	289,906,865	4	59,663
1902.....	22,659	31,955,582	35,961,146	.89	358,306,300	4	59,377

During the season of 1902 the Canadian canal passed 13 per cent of the freight traffic and 62 per cent of the passenger traffic, but the percentage of freight carried in Canadian bottoms was only 4 whilst that of the passenger in Canadian bottoms was 72 per cent.

The efficiency of the staff has been maintained.

I would again call attention to the want of a small building for the use of the lockmen whilst on duty waiting for vessels. A small sum should be spent annually on the levelling up of the grounds, thus beautifying and making more attractive this historic spot.

The lengthening of the two south piers is still necessary for the proper operation of the canal, and now that the tonnage is increasing so rapidly it is becoming more apparent that the extra length of pier room is an immediate necessity.

A system of cement walks should be adopted and so improve the looks of the grounds when building these walks which are of a necessity.

I have the honour to be, sir,

Your obedient servant,

J. E. BOYD,  
*Superintendent.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Deputy Minister and Chief Engineer,  
Railways and Canals,  
Ottawa.

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## HARBOUR IMPROVEMENTS.

PORT COLBORNE, ONT.,  
September 7, 1903.COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Chief Engineer Railways and Canals,  
Ottawa, Ont.

SIR,—I have the honour to submit my annual report on the progress of the works for the improvement of the Port Colborne entrance of the Welland canal.

The contract for this work was entered into on May 4, 1900, with Messrs. M. J. Hogan and Allan R. Macdonell, the value of which at the contract schedule rates is about \$1,000,000.

The contract embraces :—First, the deepening and cleaning up the basin and entrance channel south of the guard lock to the outer end of the west pier, to a depth of 16 feet when there is a depth of 17 feet on the south mitre sill of the new lock, and the construction along the sides of the basin of lines of docking formed of cribwork with a concrete superstructure. Second, the preliminary construction of a deep water harbour for the transfer of cargoes from the large lake vessels, to the 2,000 ton boats of the enlarged 14 feet canal navigation of the St. Lawrence river. This part of the work is of general interest to the Dominion, as marking a new departure in the transportation problem between the North-west and the Atlantic seaboard via the St. Lawrence river. The work now under construction provides for the formation of a wide channel leading in from deep water up to the south end of the west entrance pier of the canal, and the extension of this pier in a southerly and westerly direction by the construction of two piers of cribwork with a concrete superstructure, each 600 feet long by 200 feet wide, connected across the north end by a pier 200 feet long. The water in this channel and around the piers will have a depth of 22 feet at low water level of Lake Erie, which is taken at 17 feet on the south mitre sill of the new guard lock. The present condition of the works may be briefly described as follows:—The new docking on the west side of the canal basin is completed except 300 feet at the crossing of the Port Colborne town water main, preparations are now in progress for the lowering of the water pipe and completion of this part of the docking this fall. On the east side of the canal basin the new docking north of the Grand Trunk Railway elevator is finished, but the 900 lineal feet of docking on this side of the basin south of the elevator, embraced in this contract, was ordered last November not to be built, so that nothing has been done at this point this season. The dredging of the canal basin, principally earth excavation, is practically completed, except cleaning up the bottom.

At the outer or deep water harbour, south of the canal entrance, the two new docks are in an advanced stage of completion, only four cribs, which are built ready for sinking, and about 700 lineal feet of concrete wall superstructure are required to complete the face line of these docks, but only about 25 per cent of the stone filling forming the hearting of these piers has been put in place in rear of the lines of cribwork, as this rock filling was ordered to be stopped last May, as it would interfere with the formation of the foundations of grain elevators on these piers. The dredging on this section of the work, principally rock excavation, is more than one-half finished, and about 50 per cent of the remainder is drilled and blasted.

The value of the work done and materials delivered to August 31, 1903, is \$606,485.68, or 60 per cent of the estimated cost of the work at contract rates, of which the principal items returned in the estimate are as follows:—

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Item 1.	Excavation in canal basin to afford 16 feet of water. . . . .	C. yds.	67,960
" 2.	Excavation south of canal entrance to afford 22 feet of water. . . . .	C. yds.	112,300
" 2b.	Drilled and blasted, but not dredged. . . . .	C. yds.	44,900
" 4.	White pine in cribs, 12 x 12. . . . .	L. ft.	17,800
" 5.	Hemlock in cribs, 12 x 12. . . . .	L. ft.	456,400
" 6.	White pine in cribs, 6 x 12. . . . .	L. ft.	4,900
" 7.	Hemlock in cribs, 6 x 12. . . . .	L. ft.	37,500
" 11.	Iron in screw bolts of cribs. . . . .	Lbs.	377,500
" 12.	Iron in drift bolts of cribs. . . . .	Lbs.	674,200
" 13.	Ship spikes in cribs. . . . .	Lbs.	24,300
" 14.	Crib-filling. . . . .	C. yds.	75,700
" 15.	Concrete in blocks. . . . .	C. yds.	6,300
" 16.	Concrete in mass form. . . . .	C. yds.	6,200
" 17.	Oak waling. . . . .	M. ft. B.M.	737
" 18.	Cast-iron mooring posts. . . . .	Lbs.	12,900
" 19.	Wrought iron anchor rods of mooring posts. . . . .	Lbs.	6,000
"	Stone filling and ballast. . . . .	C. yds.	7,600
"	Macadam. . . . .	C. yds.	1,600
Special,	Stone filling behind cribs. . . . .	C. yds.	6,850

The plant at present employed on the work in the removal of the rock excavation, which is the principal item of work remaining to be done, consists of two drill boats of three drills each, and one boat of two drills, two large and powerful dredges with a full equipment of dump and deck scows supplied with large iron and wooden tubs. In addition to this plant there are several large deck scows equipped with powerful derricks and the concrete mixing plant.

Up to the end of last season (1902), the contractors' operations were seriously hindered by frequent storms on Lake Erie, their plant being weather-bound and idle a great part of the time : however, the work this season has been greatly facilitated by the protection afforded by the 4,400 lineal feet of breakwater built by Messrs. Hogan & Macdonell across the southern face of the harbour for the Department of Public Works, and which is now practically completed.

This breakwater protects the canal entrance and new docks from the south-west storms which sweep down Lake Erie with terrific force, but affords little protection from the south-east storms, which frequently blow with considerable violence, and from the experience thus far gained, it is the opinion of the writer that vessels could not lie on the eastern faces of the new docks, and load or unload cargoes during a heavy south-east blow, without the shelter afforded by a short eastern breakwater, the construction of which should be taken into consideration when a further extension of the harbour docking is contemplated.

In respect to such an extension at some future date, it is recommended that a thorough investigation should be made of this question on the east side of the canal basin, where, as previously stated, about 900 lineal feet of docking, originally embraced under this contract, has been cut out. Undoubtedly at no distant day better provision for the transfer of coal, iron ore, grain, &c., from the lake boats to the cars of the Welland branch of the Grand Trunk Railway will be required, and this is the most convenient point at which these facilities can be provided, and where the Department of Railways and Canals now own most of the land required for the construction of a deep inland basin and docking, which could be adapted for the transhipment of cargoes either to cars or canal boats.

I am, sir, your obedient servant,

ALEX. J. GRANT,  
*Engineer in Charge.*

3-4 EDWARD VII., A. 1904

ENGINEER'S OFFICE,  
SAULT STE MARIE, ONT., September 5, 1903.

SIR,—I beg leave to submit my annual report upon the improvement work to the channelways at the lower entrance and survey in connection with the widening and deepening of the upper approach to the Sault Ste. Marie canal.

## DREDGING LOWER ENTRANCE.

The contract for deepening the lower entrance to a depth of one foot below the mitre sill of the lower main gates, or 21 feet 5 inches below mean low water level, and widening to a minimum width of 315 feet, was completed in accordance with specifications and plans August 13, 1902.

In connection with the maintenance of this depth, I beg leave to state that great difficulty was found in securing it on the north limit of the channelway, 400 feet east of the end of the entrance pier, or just adjoining the Lake Superior Power Co. channelway, from the quantity of waste fibre allowed to be discharged from the pulp machines at the Power Co. mill and which it is expected will again fill in in a short time. The working of the lock or the discharge from turbines cause the formation of a small mud bank close to the end of the south entrance pier, which, in the course of a few years, will again require attention.

Since the opening of the improved channelway no complaints have been made of vessels using the lock striking the bottom, and from additional width provided at the turn vessels can make an entrance now in perfect safety. Good safe navigation having been secured in order to assure it, it will be necessary to sweep over the channelway at the beginning of each season and remove boulders and stone overturned by toe lines, and in some cases carried into channel by anchor ice, which is found in large quantity at the foot of the St. Mary rapids.

## EXTENSION OF SOUTH ENTRANCE PIER, LOWER ENTRANCE.

It is proposed to extend the south entrance pier 800 feet to provide better accommodation for vessels lying up during the night in the fall of the year and in waiting for lockage. A berth for this pier was dredged out in connection with the Bowman contract, and during the winter of 1903 close soundings were secured over the area.

## SURVEY AND PROPOSED WORK AT THE UPPER ENTRANCE.

During the winter seasons of 1900 and 1901 an examination of the channelway at the upper entrance of the Sault Ste. Marie canal was made, and a large plan showing information obtained prepared. The proposed deepening and widening was outlined and an estimate made of the same, which was submitted and approved. In the winter season of 1903 soundings with reference to the new centre line of channel were taken and an estimate made from same. Plans, specifications, &c., have been prepared and the work referenced and put in shape so that dredging may be started at once. The proposed work at the upper entrance consists of deepening the present channelway from 18 feet to 21 feet 5 inches below low water level, and in widening from the present width of 250 feet to 500 feet through the Vidal shoal, also the removal of a number of small shoals lying between the canal turning buoy and the American channel. The necessity of this work being done was again shown this season when the steam barge *George B. Leonard* going out of the canal passed the turning buoy, and in making for the American ranges struck on one of the shoals, also the barge *Pretoria* in tow



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of steamer *Rappahannock* was crowded on the bank in the 250 foot buoyed out channelway.

## EXTENSION OF SOUTH ENTRANCE PIER, UPPER ENTRANCE.

In the improvement work outlined at the upper entrance it is proposed to extend the south entrance pier 800 feet. The requirement of additional pier accommodation has long been felt, in providing vessels which have to wait for delayed orders, and harbour protection in the fall of the year. It will also act as a protection in keeping vessels from being driven on the bank by the heavy cross current found at the upper approach. Soundings have been taken over pier site and an estimate prepared of material to be removed.

I have the honour to be, sir,

Your obedient servant,

F. B. FRIPP,  
*Engineer in charge.*

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Deputy Minister and Chief Engineer,  
Ottawa, Ont.

3-4 EDWARD VII., A. 1904

## ST. LAWRENCE CANALS,

OFFICE OF THE SUPERINTENDENT OF OPERATION,  
MORRISBURG, ONT., June 30, 1903.

SIR,—I have the honour to report upon the operation and maintenance for the fiscal year ending June 30, 1903, of the canals in the River St. Lawrence district.

During the season of 1902 traffic was rather slack, chiefly owing to the great strike in the Pennsylvania coal fields. For the part of the season of 1903 already passed there has been a most decided improvement, large quantities of coal and grain, in addition to package freight, having passed through. There seems, too, very little reason to doubt that traffic has been stimulated by the abolition of the tolls. Some evidences of this are seen in the fact that the quantity of grain transhipped at Kingston far exceeds the record for last year; several of the large lake boats finding it possible to run to Kingston instead of to the Georgian Bay ports. Coal has been shipped as far east as Quebec.

The new boats of the Wolvin syndicate are now running regularly to Quebec, and the Canadian Ocean and Inland line have put on a line of lake and river boats to feed their ocean fleet.

Vessels of the size of those in use by both these lines are fast displacing the smaller craft employed when something of a lighter draft was necessary. Only a very few of these lighter vessels are now in commission for freight business.

The work of maintaining these canals would be very greatly aided by having a dredge. There are many places where defects could be remedied and improvements made by its assistance.

A statement of fines and damages assessed; and a record of the water levels is appended.

## THE CORNWALL CANAL

was closed on December 11, 1902, and opened for traffic on May 1, 1903.

During the year this canal was operated without any interruption to traffic.

The electric machinery has been installed on the bridges and new locks, by Mr. M. P. Davis, and is operating successfully. It is usual now to put a vessel through a lock in one-third less time than before electrical operation was introduced.

The electric lighting has been performed satisfactorily. There was one unusual interruption when the whole service at the foot of the canal was demoralized owing to the high water on February 10, and succeeding days. At this time the water rose to within a very few feet of the top of the bank on the 17-18 level. Many of the light poles were broken by the ice, and that part of the line rendered useless for the time being.

As soon as opportunity offered the needed repairs were made.

In adapting electrical machinery to work the gates and valves of the locks and weirs, it was thought advisable that there should be one uniform pattern throughout. In order that this end might be attained it became necessary to first bring about uniformity in the apparatus of the various locks. This involved changing many hand rails, lifting screws, strain plates, shafts and gate bridges.

A new valve-lifting gear was put on the weir at lock 17.

The old gates were rebuilt and put in at the lower end of lock 21; the draw-straps on the weir valves replaced by heavier ones; and the old wooden structure taken away and a neat iron railing built along the north side of this lock.

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A new white oak floor was put on the Mille Roches bridge; the floor of the lower dam weir patched, and a tool-house built.

At lock 20 weir, a concrete apron was built during the time that the water was cut in the spring. At the same time a piece of rip-rap, about 700 feet long, was built on the north bank above lock 19; and all the old barges were cleaned out of the canal.

During the month of April, when the water was out, all the lock gates were thoroughly overhauled and repaired.

The masonry on the north side of the lower entrance has always suffered severely from vessels entering the canal. It had been broken, and allowed to remain in that condition for some years. The courses of stone were chipped, cracked, and shoved back irregularly.

It appeared that if a substantial backing were put in that then the masonry would successfully resist the impact of vessels. Accordingly new stones were procured to replace the broken ones, and a bed of concrete,  $3\frac{1}{2}$  feet deep,  $3\frac{1}{2}$  feet wide was laid as a backing for the masonry for a length of 70 feet.

The work was done early last season, and so far has stood the test well. There is no shoving in the courses of masonry, nor no broken stones.

While replacing the two broken stoplog-check coping stones at the upper end of lock 15, the opportunity was taken of having the coping course opened to replace those stones which had been shoved out of place, and here, too, a backing of concrete was put in, and this backing properly finished on top to a width of six feet.

At any point on the bank where the rip-rap had given away it was replaced, and work of the same nature is going on still.

Iron hoods were put over the gearing of the operating machinery on the weirs.

Substantial new ditches were put in on the south side of the bank just east of Mille Roches bridge, and on both sides at lock 15.

In order to make the watch-houses better suited for winter use, one at each lock was lined and sheeted.

All the ironwork and woodwork requiring it was painted.

A granolithic walk was put in from the house to the street at the collector's residence.

Work is now progressing on fitting the gates on the old locks for electrical machinery.

The superannuations during the year were :—

Lock 17.—P. Denny, labourer, by Order in Council dated December 1, 1902.

Lock 18.—Alex. Adams, labourer, by Order in Council dated February 1, 1903.

Lock 21.—Timothy Sheets, master, by Order in Council, dated January 30, 1903.

It is imperative that repairs should be made to the north bank, in the town of Cornwall, further east than seems to be contemplated from the work now being carried on there. The bank is in a dilapidated condition and will not resist the weight of water much longer. It has been in a bad state for several years.

The old wooden superstructure at the foot of Pitt street, Cornwall, should be taken away and the stone wall raised to the same height as that now being built.

The necessary grading and finishing at locks 15 and 17 has not yet been done. It is now some years since the locks proper were finished, and it seems undesirable that the surroundings should be left in the condition in which they exist to-day.

During the last couple of years the size of vessels using the canals has increased wonderfully. The other day the *Robert Wallace* passed down with a cargo of over 2,100 tons. It would seem that the question of making the dry-dock at Cornwall of a sufficient size to accommodate the larger vessels should be in order. The dock has been of great value to the shipping interests, but to make it retain that value it must be adapted to the changed conditions. I would strongly urge that something should be done in this line.

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## THE WILLIAMSBURG CANALS

were closed on December 10, 1902, and opened for traffic on May 1, 1903.

These canals, the Farran's Point, Rapide Plat and Galops, were operated during the year without interruption from accident.

The yard at Morrisburg was put in good shape, by grading and ditching and road-making, all the buildings completed and a small wharf built.

A storehouse, for lumber and supplies, needs to be added yet.

Three houses belonging to the department, one at Cardinal and two at Iroquois, were put into a good state of repair for the use of the lockmen.

Extensive repairs were made to the wharf at Iroquois, so that it is now in excellent shape.

Ten iron snubbing posts with permanent concrete base were put in at lock 23, along with concrete backing, properly finished; steps were built to the lower terrace.

Immediately after navigation was closed in the fall the lower pair of gates were taken off lock 24; during the winter they were rebuilt, putting on the newer pattern of valve and valve-lifting gear and hanging apparatus. They were stepped again in the spring before navigation opened.

A very considerable deal of repairing has been done to the rip-rap on the Rapide Plat and Galops canals.

The leak that had been a source of trouble for so long, just near the junction of the Cardinal and Iroquois sections of the Galops canal, appears to have been stopped. This was done by taking out the old cribs which had been left in the bank and filling in with a good grade of earth, well rammed, and handled by scrapers and shovels. The work was done in such a substantial manner that the water was raised in it as soon as the inner course was built a foot higher than the water level.

A red light was placed on the outer pier at the upper entrance of the Farran's Point canal and a lightkeeper appointed.

The cross currents at the lower entrance at Farran's Point are still a source of great difficulty to vessels, and injury to the piers. It is impossible for tows to make anything like a safe entrance at times. It does seem that some remedy should be devised to make navigation safer at this point.

The large vessels now using the canals find it a difficult matter to use the Rapide Plat canal without running on the south bank east of the canal shops at Morrisburg; and again, there is difficulty in getting a straight entrance to the upper lock.

They also find a difficulty in making the lift-lock in the Galops canal, from the west, owing to the very short wing wall. There is not sufficient space in which to stop speed.

## THE MURRAY CANAL.

was closed on December 9, 1902, and opened for navigation on April 1, 1903.

During the year it was operated without interruption to traffic, or damage to the canal.

The back ditches were kept cleaned out, weeds cut, and rip-rap in place.

The wharf, for which material was on hand, was completed. It supplies a long felt want.

On both the Brighton and railway bridges the wooden piers were re-built from the water up.

A new covering was put on the culvert on the south side of the canal.

Numerous complaints had been made by the residents in the vicinity that the dump on the south bank prevented the flow of water from their land. An underground ditch was put in near the Brighton bridge, and the complaints have ceased.

A derrick was built, and the scow repaired so that it is now as good as new.

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A house was purchased near Smithfield bridge for the use of one of the bridge-tenders. It requires a considerable amount of repairs before being in a proper state for habitation.

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

W. A. STEWART,  
*Superintendent of Operation.*

COLLINGWOOD SCHRIEBER, Esq., C.M.G.,  
Deputy Minister and Chief Engineer,  
Department of Railways and Canals,  
Ottawa, Ont.

STATEMENT of Fines and Damages in Connection with the St. Lawrence Canals during the year ending June 30, 1903.

## CORNWALL CANAL.

Lock.	Date.	Name of Vessel.	Damage.	Fine.	Name of Owner.	Remarks.
			\$ cts.	\$ cts.		
Lock 19	July 19			5 00	L. A. Ross.	Unpaid.
" 19	" 26	Mary Ellen.		10 00	J. & M. Jesmer	Paid.
" 19	" 26			20 00	L. A. Ross.	Unpaid.
" 15	Oct. 21	John Duncan	21 50		Wolvin Syndicate	Paid.
" 18	" 21	Turret Crown	20 00		Wm. Petersen, Ltd.	"

## WILLIAMSBURG CANALS.

Lock.	Date.	Name of Vessel.	Damage.	Fine.	Name of Owner.	Remarks.
			\$ cts.	\$ cts.		
Lock 28	Sept. 9	Spartan	7 63	10 00	Richelieu and Ontario Co.	Paid.
" 28	" 10	Myles	183 50		Myles Transportation Co., Ltd.	"
" 22	May 13	Grantham	20 00		Donnelly Salvage and Wrecking Co.	"

## MURRAY CANAL.

Bridge.	Date.	Name of Vessel.	Damage.	Fine.	Name of Owner.	Remarks.
			\$ cts.	\$ cts.		
R. Road	July	Spartan	20 00		Richelieu and Ontario Co.	Paid.
	" 26	North King		10 00	Lake Ontario and Bay of Quinte Steamboat Co.	"

W. A. STEWART,  
*Superintendent of Operation.*

MORRISBURG, ONT., June 30, 1903.

Record of Highest and Lowest Levels of Water on the St. Lawrence Canals for the Year ending June 30, 1903.

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MONTH.	CORNWALL CANAL.						WILLIAMSBURG CANALS.						MURRAY CANAL.			
	Lock 15.			Lock 21.			Lock 22.		Lock 23.		Lock 24.		Lock 25.		Lock 27.	
	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.
1902.																
July	10 1	9 10	10 1	9 8	9 7	8 11	9 3	8 7	9 7	8 8	12 0	11 0	10 0	9 4	13 8	13 0
August	10 5	10 0	10 1	10 0	9 7	9 0	9 4	8 9	9 8	9 0	12 2	11 0	10 1	9 3	13 8	13 4
September	10 1	9 7	10 1	9 5	9 7	8 5	9 4	7 9	10 0	8 0	12 6	10 1	10 4	8 5	13 4	12 10
October	9 11	9 4	10 1	8 11	9 1	8 0	9 10	7 6	9 5	7 5	11 8	9 8	9 10	8 3	13 0	12 4
November	9 9	9 0	10 2	8 1	9 4	7 4	9 0	6 6	9 4	7 3	11 9	8 10	9 9	7 9	12 8	11 11
December	10 3	8 11	10 0	8 1	9 0	7 3	8 6	6 6	9 0	7 0	11 5	8 2	9 1	7 3	12 5	12 1
1903.																
January	18 9	9 5	9 6	8 3	9 4	7 6	8 8	7 1	8 6	7 0	10 9	8 7	9 5	8 0	12 6	12 1
February	27 8	14 5	9 2	8 5	8 3	7 10	8 0	7 0	8 5	7 5	10 5	9 3	8 8	8 0	12 6	12 2
March	19 2	10 6	10 8	8 5	10 0	8 0	9 10	7 2	10 3	7 5	12 9	9 3	10 1	8 2	13 7	12 3
April	10 11	10 4	10 11	10 0	10 2	9 0	9 9	9 0	10 3	9 2	12 9	11 6	10 6	9 6	14 2	13 6
May	10 7	10 2	11 3	10 3	10 7	9 6	10 2	9 0	10 7	9 4	12 9	12 0	10 9	9 9	14 4	13 7
June	10 7	10 2	10 7	10 2	10 0	9 5	9 9	9 3	10 2	9 6	12 8	11 11	10 4	9 7	14 3	13 9

W. A. STEWART,  
Superintendent of Operation.

MORRISBURG, Ont., June 30, 1903.

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SUMMARY OF TRAFFIC THROUGH THE ST. LAWRENCE CANALS DURING THE SEASON OF 1902.

REVENUE DIVISION.	Grain, &c. on which Tolls were paid here, transhipped at		Through Traffic to Quebec.					Number of Vessels passed through.						Registered Tonnage of Vessels passed through.				
	Kings-ton.	Pres-cott.	Ogdons-burg.	Wheat.	Flour.	Coal.	Corn-wall.	Farran's Point.	Rapide Plat.	Gadops.	Lift Lock.	Mur-ray.	Corn-wall.	Farran's Point.	Rapide Plat.	Gadops.	Lift Lock.	Murray.
	Passes issued and reem.																	
Cornwall	2,092		26,078	17,250	4,270	8,301	3,698		1,463	1,541	5,688	1,748		745,852	316,504	371,104	736,891	365,916
Cardinal	829	313	7,164															
Kings-ton	287																	
Brighton	857											839						251,536

W. A STEWART,  
*Superintendent of Operation.*

MORRISBURG, Ont., June 30, 1903.

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## RIDEAU CANAL.

SUPERINTENDING ENGINEER'S OFFICE,  
OTTAWA, July 7, 1903.

SIR,—I have the honour to submit herewith my annual report on the Rideau canal, under my charge, for the fiscal year ending June 30, 1903.

Navigation closed at Ottawa, November 29, 1902.

Navigation closed at Kingston Mills, November 26, 1902.

Navigation opened at Ottawa, April 28, 1903.

Navigation opened at Kingston Mills, May 1, 1903.

The depth of water maintained in the various levels throughout the whole season of navigation was excellent, no trouble or delay on account of low water having occurred anywhere.

The spring freshet this year was, I am glad to state, a low one, enabling us to pass off the water and ice through our weirs without any damage worth mentioning being done to the works.

The principal works and repairs executed along the line of the canal are as follows:—

## OTTAWA.

Two new piers of sandstone were built in lock No. 5, the stone having been cut in Elgin quarry during the summer by our own masons, and built by them during the winter.

The coping of lock No. 8 on the north side was taken up and relaid with new stone of the same description.

Repairs were made to portions of the wharves round the basin, and also the roadway round the same was macadamized in places where required, and sundry repairs made to the station in general.

## STEWARTON BRIDGE.

The swing span was shored up and adjusted, the roadway repaired; and small repairs made to the bridge-keeper's cottage.

## BANK STREET BRIDGE.

Sundry small repairs were made to the bridge, and to the bridge-keeper's cottage.

## HARTWELL'S.

Sundry small repairs were made to the lock-house and station in general. The tow-path road was raised and graded with gravel between this station and Bank street bridge, and is now in first-class order for vehicles. The masonry of this station is beginning to show signs of failure; and arrangements are being made to rebuild portion of the upper lock and the waste weir this winter.

## HOGSBACK.

The large stoplog bulkhead on the Gloucester side of the river was rebuilt last winter by our own carpenters. One pair of lock-gates were renewed; and the tow-path



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road was raised and graded between this station and Hartwell's. The swing bridge across the upper lock will be taken down next winter and replaced with a steel swing. Sundry small repairs were made to the station in general.

## BLACK RAPIDS.

The boom in front of the weir on the west side of the dam was broken by the ice this spring; but not until it had served its purpose in deflecting the most of the heavy ice from the weir. The repairing of this boom is but a trifling matter. The lock-house and store-house were re-shingled, and a new porch was built in front of the former. Sundry small repairs were made to the station in general.

## LONG ISLAND.

One pair of lock-gates were rebuilt; six new chain blocks placed in position. Small repairs were made to the bulkheads at this station and at Manotick; and both these structures will be rebuilt entirely next winter.

## BECKETT'S LANDING BRIDGE.

This bridge, with the exception of the swing span, was rebuilt last winter from low water line up, and a fine steel superstructure of three spans erected, the superstructure being built under contract with the Dominion Bridge Company, of Montreal.

## BURRITT'S RAPIDS.

Sundry small repairs were made to the station in general, and gravel placed on the dam and embankments.

## NICHOLSON'S.

One pair of lock gates were renewed, and sundry small repairs made to the station in general.

## CLOWES'.

A long protection crib was built on the south side of the lock, to prevent a repetition of the washing out of the lock slope during the discharge of water through the weir during the freshet. Sundry small repairs were made to the station in general.

## MERRICKVILLE.

The south side of the lower basin was taken down and rebuilt by our own masons last winter. Four new sluice frames were put in, and the protection piers at the south side of the bulkhead were rebuilt. The lower wing wall of the lower lock requires to be rebuilt, and this will be done next winter, as well as the upper sill of the lower lock. The blockhouse was reshingled, glazed and painted by contract, and now presents a neat appearance. Sundry small repairs were made to the station in general.

## KILMARNOCK.

The approaches to the swing bridge across the lock were rebuilt, and repairs made to the waste weir bridge, and sundry small repairs made to the station in general. The back dam is in bad condition and will require to be entirely rebuilt, as it is almost worn out.

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## EDMONDS.

Small repairs were made to the station in general, and some stones that had been carried out of the dam by ice were replaced therein.

## OLD SLY'S.

Two pairs of lock gates were rebuilt. A new flight of steps was placed on the slope of the lower lock. Small repairs were made to piers above the locks, and sundry small repairs were made to the station in general.

## SMITH'S FALLS COMBINED.

Two new swing bars were placed on the upper lock, and new foot boards framed. Sundry small repairs were made to the station in general.

## SMITH'S FALLS DETACHED.

A new kitchen was built for the lockmaster's house. The bulkhead was repaired, and the floor of the bridge across the waste water channel was replanked. One new swing bar was placed on the lock gates, and two pairs of sluice frames rebuilt, and six new chain blocks placed in position.

## POONAMALIE.

The wing wall on the south side of the lock was taken down and rebuilt by our masons. A new kitchen and shed was built for the lockhouse, and sundry small repairs made to the station in general.

## BEVERIDGE'S.

Sundry small repairs were made to the station in general, and a well was drilled for the lockmaster's house.

## PERTH.

Sundry small repairs were made to the bridges and to the wharves and tow-path roads along the canal.

## NARROWS.

One new swing bar was placed on the upper gates. A new fence was built on the west side of the lock, and sundry small repairs made to the station in general.

## NEWBORO'.

New foot boards and running bars were framed and placed on the upper gates of the lock, and sundry small repairs made to the high level bridge and to the station in general.

## CHAFFEY'S.

The upper wing walls of the lock were taken down and rebuilt last winter by our own masons, the stone having been cut in Elgin quarry last summer. Mr. T. Simmons, of Chaffey's, unwatered the lock by contract, and carried out his contract most satisfactorily, so that our men were not delayed at all by reason of water. Sundry small repairs were made to the station in general.

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DAVIS'S.

The bridge across the waste weir was repaired, but requires to be entirely rebuilt next winter. Some new fencing has been placed round the station. Sundry small repairs were made to the station in general.

JONES'S FALLS.

Two pairs of the high lock gates at this station were strengthened and will be rebuilt next winter, as well as the two masonry sills against which they shut. The waste weir will also be rebuilt next winter. Sundry small repairs were made to this station.

MORTON DAM.

Small repairs were made to the slopes leading down to the dam.

UPPER BREWER'S.

Some new fencing was erected on each side of the road leading to the swing bridge across the locks; and sundry small repairs were made to the station in general.

LOWER BREWER'S.

New approaches were built to the swing bridge across the lock. The rest pier above the lock was rebuilt; and small repairs made to the lockhouse and also to the storehouse; and to the station in general.

BRASS' POINT BRIDGE.

This bridge was, with the exception of the swing span, rebuilt from low water mark up, and instead of the old wooden structure of eight spans, there are now but four spans of steel :—the superstructure having been built under contract with the Dominion Bridge Company of Montreal.

KINGSTON MILLS.

One pair of lock gates were renewed. The old wooden swing bridge across the upper lock, was taken down, and a steel swing span substituted therefor under contract with the Hamilton Bridge Works Company. Small repairs were made to the sluice frames, and some new chain blocks placed in position. The lockhouse is in bad repair—so bad in fact as to not worth repairing. However, a new house will be built this year, provision for which has been made in the estimates.

GENERAL.

The pointing and grouting of the lock masonry was done, as usual, this spring, by our lockmen—the cement for which, as well as that used on the more extensive repairs, was purchased under contract, from Messrs. Bellhouse, Dillon & Co., of Montreal, the brand purchased being 'White Cross,' and the quantity 900 barrels.

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The painting of the lock gates, bridges, houses, &c., was also done by the lockmen, the paint being supplied under contract with Mr. W. E. Dickson, of Montreal, for 2,750 pounds of this material.

The Douglas Fir dimension timber required for the new lock gates, &c., was furnished under contract with Mr. M. Ryan of Smith's Falls, who supplied 135,700 feet, B.M., of this timber.

## DREDGING PLANT.

The dredge *Rideau* was employed last season in completing the new channel between Kingston Mills and the city of Kingston; and also in dredging the canal cut between Birmingham's Landing and Lower Brewer's lock (where she is at present working).

The tug *Shanly* was employed in attending on the dredge, delivering supplies along the canal to the various lock stations, and on inspection work. She is getting very old and her frames in places are too soft to hold spikes. She cannot last more than another year. I append hereto, a table showing the highest and lowest water during each month, at Ottawa and Kingston Mills lock stations, during the last fiscal year.

I have the honour to be, sir,

Your obedient servant,

ARTHUR T. PHILLIPS, M.C. Soc. C.E.,  
*Superintending Engineer.*

COLLINGWOOD SCHRIEBER, Esq., C.M.G.,  
Deputy Minister and Chief Engineer,  
Department of Railways and Canals.

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## RIDEAU CANAL.

TABLE showing monthly, the Highest and Lowest water on the Lower Mitre Sills of Locks Nos. 1 and 47, at Ottawa and Kingston Mills respectively, from July 1, 1902, to June 30, 1903.

OTTAWA, LOCK NO. 1.		KINGSTON MILLS, LOCK NO. 47.	
Highest.	Lowest.	Highest.	Lowest.
Ft. In.	Ft. In.	Ft. In.	Ft. In.
July 1-2..... 14 4	July 31..... 10 10	July 28-31..... 8 3	July 1-4..... 7 9
Aug. 3-5..... 10 11	Aug. 31..... 8 10	Aug. 1-22..... 8 3	Aug. 23-31..... 8 2
Sept. 1..... 8 8	Sept. 12-13..... 7 7	Sept. 1-3..... 8 2	Sept. 25-30..... 7 8
Oct. 30-31..... 9 10	Oct. 1-9..... 8 0	Oct. 1-7..... 7 8	Oct. 28-31..... 7 4
Nov. 25-27..... 13 2	Nov. 2-5..... 9 9	Nov. 1..... 7 4	Nov. 21-30..... 7 9
Dec. 1..... 12 11	Dec. 31..... 10 9	Dec. 1-5..... 7 0	Dec. 18-31..... 6 9
Jan. 1-3..... 10 9	Jan. 29-31..... 9 6	Jan. 9-27..... 6 11	Jan. 1..... 6 9
Feb. 28..... 9 9	Feb. 4-9..... 9 4	Feb. 1-9..... 6 10	Feb. 24-28..... 6 7
Mar. 23-24..... 17 2	Mar. 1..... 9 10	Mar. 30-31..... 8 0	Mar. 1..... 6 7
April 1..... 16 2	April 29-30..... 14 7	April 27-30..... 8 10	April 1..... 8 0
May 19..... 17 7	May 1..... 14 10	May 21-31..... 9 0	May 1-4..... 8 10
June 1..... 15 8	June 11-12..... 13 8	June 1-2..... 9 0	June 19-24..... 8 9

ARTHUR T. PHILLIPS,  
*Superintending Engineer.*

Rideau Canal Office,  
Ottawa, July 7, 1903.

## ST. PETER'S CANAL.

CANAL OFFICE, ST. PETER'S, C.B., June 30, 1903

SIR,—I have the honour to submit my annual report of work performed on St. Peter's canal, under my charge, during the fiscal year ending June 30, 1903.

1. Disposing of old sheds, known as the Donohoe sheds, and cleaning debris from surroundings, and gravelling same.

2. Cleaning out 300 feet of old drain leading from main post road and putting on new road covering and filling up same.

3. Shipping, as instructed, to North Sydney, C.B., to Intercolonial Railway, creosoted 3-inch and 2-inch pitch pine planking.

4. Hanging and making and placing 15 new fenders and repairing 13 old ones on west side of canal; built 15 new resting wooden pillows, two, three and four feet deep, attached to canal stone wall with split drift bolts, and hanging 13 new fenders on east side.

5. Repairing damages done to wharf, north entrance, west side, by steam yacht *Gundreda*.

6. Repairing damages done to wharf, south entrance, east side, by steam yacht *Elsa*.

7. Repairing five of the lock-gates by marine diver, and putting iron bands with bolts through the gates in order to fasten toe rollers that were loose and fastening track castings with bolts, and shimming same to a level.

8. Removing bank of clay at south entrance opposite lock, west side; this work was of great necessity. Removing this clay and sloping and draining at top of bank and at bottom slope; gives to all debris and waters an outlet clear of canal.

9. Cleaning and removing all stones, sticks and rubbish on east side of lock: levelling same and gravelling.

The canal is in very good condition, operating all right. The bridge will require some repairs soon, as considerable of the timber is decaying.

I failed in getting the services of a dredge to do the work at the south and north entrances, but trust that this work will be completed this year.

Navigation closed on St. Peter's canal January 8, 1903, and opened April 15, 1903. From the beginning of this fiscal year up to the end of this month 1,607 steamers and vessels passed through St. Peter's canal.

There is one tidal lock and four pairs of gates on St. Peter's canal.

I have the honour to be, sir,

Your obedient servant,

JNO. H. DEVEREUX,

COLLINGWOOD SCHREIBER, Esq., C.M.G.,  
Chief Engineer and Deputy Minister,  
Railways and Canals,  
Ottawa, Ont.

REPORT  
OF THE  
SECRETARY OF THE RAILWAY COMMITTEE  
OF THE  
PRIVY COUNCIL





### RAILWAY COMMITTEE OF THE PRIVY COUNCIL.

The report of the secretary of the Railway Committee of the Privy Council, herewith, enumerates the cases which have been before the committee during the twelve months from October 1, 1902, to October 1, 1903. Within the period above named there were fourteen meetings of the Railway Committee as follows:—

October 28, 1902; November 7, 1902; November 11, 1902; December 19, 1902; January 6, 1903; February 3, 1903; March 4, 1903; March 19, 1903; May 21, 1903; July 23, 1903; July 30, 1903; September 12, 1903; September 22, 1903; September 29, 1903.

The character of the business before them was:—

1. For permission to make highway crossings over railways.
2. For permission for one railway to cross another.
3. For permission for one railway to form a junction with another.
4. For permission for railways to cross and run along streets and highways.
5. For approval of plan and proposed site of bridges over navigable water.
6. For permission to use crossings and junctions before installation of interlocking appliances.
7. For permission to construct branch lines.
8. For running powers of one railway over another.
9. For protection of streets and highways crossed by railways.
10. For permission to change location of sections of railways.
11. For approval of rules and regulations of railways.
12. For permission to close streets and highways and to divert them.

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**THE RAILWAY COMMITTEE OF THE PRIVY COUNCIL.**

The Honourable the Minister of Railways and Canals being the Chairman of the Railway Committee of the Privy Council, on which certain extensive duties are imposed by the Railway Act, 1888, and its amendments, it seems proper that a brief record should here be made of the matters submitted to the Committee, during the period from October 1, 1902, to October 1, 1903, and the decisions arrived at. They are as follows :—

1. Application of the Corporation of the city of St. Henri, *re* opening of Gareau street across the tracks of the Grand Trunk Railway Company.—Withdrawn.

2. Application of the Winnipeg Street Railway Company for permission to cross, at rail level, the Canadian Pacific Railway at Main street and Higgings avenue, in the City of Winnipeg.—Under consideration.

3. Application of the Corporation of the city of Toronto for an order authorizing the construction and maintenance of a street by means of an overhead bridge, east of and immediately adjoining York street, across the tracks of the Grand Trunk and Canadian Pacific Railway Companies in the city of Toronto.—Under consideration.

4. Application of the Niagara, St. Catharines and Toronto Railway Company, for permission to intersect and unite with the Wabash Company's line which the latter have leased from the Grand Trunk Railway Company.—Under consideration.

5. Application of the Canadian Pacific Railway Company for approval of plan and profile of proposed crossing of Main street and Maple street in the city of Winnipeg.—Under consideration.

6. Application of the Canadian Pacific Railway Company for an order amending the order of December 16, 1893, so that the corporation of the city of Toronto shall hereafter bear and pay to the applicant half the cost of protection and half the cost heretofore borne by the applicant, at the crossings of Dufferin and Bathurst streets, Toronto.—Withdrawn.

7. Application of the Cape Breton Railway Extension Company for approval of the plans and proposed site of a bridge to be built by that company across the River Inhabitants, at a point about one mile above McCarthy's Ferry, in the county of Richmond, Nova Scotia. Approved, subject to the condition, that the said railway company shall forthwith enter into an agreement with the government of Canada whereby the said company will bind itself, whenever called upon by the Department of Public Works of Canada, to immediately provide a draw in the said bridge.

8. Application of the Canadian Pacific Railway Company for an order directing that the Canadian Northern Railway Company provide full interlocking appliances at its crossing of the Manitoba and North-western Railway near the town of Gladstone, Manitoba.—Order approving of place and mode of crossing, confirmed.

9. Application of the Canadian Northern Railway Company for an order amending order directing that an interlocking, derailing and signal system be installed at the crossings of the Canadian Pacific Railway at Port Arthur and Fort William.—Dismissed.

10. Application of the Schomberg and Aurora Railway Company for approval of the place and mode of crossing by its railway of the line of the Grand Trunk Railway

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Company at a point north of King station, as shown on plans and profiles submitted.—Approved.

11. Application of the Municipal Corporation of the village of Dutton for permission to open up across the lands of the Canada Southern Railway and the Lake Erie and Detroit River Railway a highway known as Charles street, and to extend the said Charles street and also Nancy street across the tracks of the said railway companies.—Under consideration.

12. Application of the Cape Breton Electric Railway Company for an order permitting its electric cars to cross the tracks of the Intercolonial Railway, at rail level, at Townshend street, Esplanade street, Ferry street and George street, in the town of Sydney, Nova Scotia, as shown on plans and profiles submitted.—Granted.

13. Application of the Vancouver, Victoria and Eastern Railway and Navigation Company for an order sanctioning the building of a branch line of railway from its main line extending to Columbia and Grand Forks, B.C., and for approval of plan, profile and book of reference of the said branch line.—Granted.

14. Application of the Vancouver, Victoria and Eastern Railway and Navigation Company for an order sanctioning the building of a branch line of railway from its main line extending to Granby smelters, near the city of Grand Forks, a distance of 4.4 miles, and for approval of plan, profile and book of reference of the said branch line.—Granted.

15. Application of the Vancouver, Victoria and Eastern Railway and Navigation Company for approval of plans and profiles of the proposed crossing, by that railway, of the line of the Grand Forks and Kettle River Railway.—Approved.

16. Application of the Ottawa Improvement Commission for an order directing the Canada Atlantic Railway Company to construct, at its own cost, a subway 30 feet in width under its tracks on the canal lands between Isabella and Catharine streets, Ottawa.—Granted.

17. Application of the Canadian Pacific Railway Company for use of tracks and facilities at Central station, Ottawa, for through as well as terminal purposes.—Under consideration.

18. Application of the Ottawa, Northern and Western Railway Company to the committee to determine the terms and conditions on which it may use, for railway purposes (jointly with all parties entitled to use the same), the passenger station and passenger tracks and approaches in connection therewith, situate on Ordnance lands of the Crown near Sappers' Bridge, Ottawa.—Under consideration.

19. Application of the Pontiac Pacific Junction Railway Company to the committee to determine the terms and conditions on which it may use, for railway purposes (jointly with all parties entitled to use the same), the passenger station and passenger tracks and approaches in connection therewith, situate on Ordnance lands of the Crown near Sapper's Bridge, Ottawa.—Under consideration.

20. Application of the Ottawa, Northern and Western Railway Company for approval of the place and mode of junction of its railway with the Canada Atlantic Railway near Sapper's Bridge, Ottawa.—Under consideration.

21. Application of the Canadian Northern Railway Company for approval of the place and mode of crossing by its railway of the Canadian Pacific Railway on Point Douglas avenue, Winnipeg.—Under consideration.

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22. Application of the town of Toronto Junction for a variation of orders Nos. 5163 and 5164, *re* St. Clair avenue and Davenport road crossings.—Withdrawn.

23. Application of the Toronto Railway Company for approval of place and mode of crossing, by its railway, of the Canadian Pacific Railway where the same crosses Avenue road, Toronto.—Approved.

24. Petition of the township of Thompson, district of Algoma, for an order directing the Canadian Pacific Railway Company to construct a highway crossing over its railway at a point two miles east of Dean Lake station.—Granted.

25. Application of the Ontario and Quebec Railway Company (C.P.R.) for approval of change in the location of its railway on lot 6, 3rd concession from the bay, fronting on the Humber, township of York, in the County of York, Ontario.—Approved.

26. Application of the township of Aldborough for better protection of the highway crossings in the villages of Rodney and West Lorne, on the Canada Southern and Lake Erie and Detroit River Railways.—Granted.

27. Application of the Algoma Central and Hudson Bay Railway Company for approval of plans and profiles of its proposed crossings of the Canadian Pacific Railway at Sault Ste. Marie, Ontario.—Under consideration.

28. Application of the Morden and North-western Railway Company for approval of the place and mode of crossing by its railway of the Manitoba and North-western Railway (C.P.R.) at Neepawa, Manitoba.—Approved.

29. Application of the municipal council of the county of Richmond, in the province of Quebec, for an order directing that a public highway may be constructed across the track of the Grand Trunk Railway Company, at rail level, as shown on plan submitted.—Under consideration.

30. Application of the Canadian Northern Railway Company for approval of the place and mode of crossing by its railway of the Canadian Pacific Railway near Emerson, Manitoba.—Approved.

31. Application of the Bruce Mines and Algoma Railway Company for an extension of the time for the installation of the interlocking, derailing system at its crossing of the Canadian Pacific Railway near Bruce Mines station.—Granted.

32. Application of the Vancouver, Victoria and Eastern Railway Company for approval of the places and mode of crossing by its branch line of the Columbia and Western Railway (C.P.R.) by means of two overhead bridges.—Approved.

33. Application of the Corporation of the city of Toronto for permission to lay and maintain a water main under the tracks of the Grand Trunk Railway where the same crosses Greenwood avenue, Toronto.—Granted.

34. Application of the Grand Trunk Railway Company of Canada for permission to make embankments on the deviation of its line between Bowmanville and a point west of Darlington station.—Granted.

35. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the township of Foley, showing the crossings of all public highways in the said township, at rail level or otherwise.—Approved.

36. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the township of Christie, showing the crossings of all public highways in the said township, at rail level or otherwise.—Approved.

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37. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the township of McMurrich, showing the crossings of all public highways in the said township, at rail level or otherwise.—Approved.
38. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the township of Perry, showing the crossings of all public highways in the said township, at rail level or otherwise.—Approved.
39. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the township of Monteith, showing the crossings of all public highways in the said township, at rail level or otherwise.—Approved.
40. Application of the Quebec Southern Railway Company for permission to construct a branch line from its main line to the Mount Johnson quarries.—Granted.
41. Application of the Lake Erie and Detroit River Railway Company for permission to construct a branch line from its main line to the town line road between the townships of Anderdon and Colchester North, in the county of Essex.—Granted.
42. Application of the Lake Erie and Detroit River Railway Company for approval of the changes in the location of the line of its railway in the township of Sombra, county of Lambton, and in the town of Wallaceburg and the Gore of Camden, in the county of Kent.—Approved.
43. Application of the Canadian Pacific Railway Company for approval of the construction of an additional track over the streets crossed by that portion of its line extending from a point south of Queen street in its Parkdale yard to a point near the intersection of Western road and Dundas streets in its yard at Toronto Junction.—Approved.
44. Application of the Canadian Pacific Railway Company for the approval of the construction of an additional track across streets north of the city of Toronto from Avenue road on the east, to Symington avenue on the west.—Approved.
45. Application of the Corporation of the city of Toronto for permission to lay and maintain a line of water pipes under the tracks of the Grand Trunk Railway Company of Canada on Cherry street, Toronto.—Granted.
46. Application of the Grand Trunk Railway Company of Canada for the approval of the construction of a siding from its line on the Don Esplanade across Eastern avenue to the premises of Wicket and Craig on Cypress avenue, Toronto.—Granted.
47. Application of the Montreal Terminal Railway Company for the approval of the construction of a subway under the Canadian Pacific Railway on the line of Forsyth street, in the city of Montreal.—Approved.
48. Application of the Sandwich, Windsor and Amherstburg Railway Company for approval of plan and proposed site of a bridge to be built by that company across the Cunard river, at a point in the 1st Concession of the township of Anderdon, Essex county.—Approved.
49. Application of the Canadian Pacific Railway Company for the approval of the construction of a track from the present terminus of the Spur track known as the Princess street spur, in the city of Winnipeg, southward to the northerly limit of McDermott avenue, crossing in its course Alexander, Pacific, Ross, Elgin, William and Bannatyne streets, in accordance with plan submitted and agreement with the city of Winnipeg.—Approved.

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50. Application of the Tilsonburg, Lake Erie and Pacific Railway Company for approval of the place and mode of crossing, at rail level, by its railway of the Grand Trunk Railway in the town of Tilsonburg.—Approved.

51. Application of the municipal Council of the county of Richmond, in the province of Quebec, for a temporary crossing over the Grand Trunk Railway during the reconstruction of the bridge across the River St. Francis.—Granted.

52. Application of La Compagnie du Chemin de Fer de Colonization du Nord for approval of amended location of a portion of its line extending from a point three miles north of Labelle to Nominigue, through the townships of Marchand and Loranger.—Approved.

53. Application of the Canadian Pacific Railway Company for the approval of the construction of a siding across Nena and Henry streets, in the city of Winnipeg, to Logan avenue to the premises of Stewart & Metcalf.—Approved.

54. Application of the Canadian Pacific Railway Company for the approval of the construction of a siding known as the McCormick spur across Princess and King streets, in the city of Winnipeg, to the premises of the McCormick Harvesting Machine Company.—Approved.

55. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the townships of Perry and Bethune, showing the crossings of all public highways in the said township at rail level or otherwise.—Approved.

56. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the town of Arnprior, showing the crossings of all public highways in the said township, at rail level or otherwise.—Approved.

57. Application of the Government of the province of British Columbia for the approval of plans and proposed site of a highway and railway bridge to be constructed across the Fraser river at New Westminster.—Approved.

58. Application of the Montreal Terminal Railway Company for approval of the places and mode of crossings, at rail level, by its railway of the Montreal Street Railway, at the intersections of St. Andre and St. Rachel streets and Duluth avenue and St. Denis street, in the city of Montreal.—Approved.

59. Application of the Corporation of the city of Woodstock for an order directing that the Grand Trunk Railway Company of Canada provide and keep a watchman at its crossing of Wilson street.—Approved.

60. Application of the Vancouver, Victoria and Eastern Railway and Navigation Company for an extension of time for the installation of the interlocking, derauling and signal system at its crossing of the Grand Forks and Kettle River Railway, near Grand Forks.—Granted.

61. Application of the Berlin and Bridgeport Electric Railway Company for approval of the place and mode of crossing by its railway of the Grand Trunk Railway at Margaret avenue, in the town of Berlin.—Approved.

62. Application of the Berlin and Bridgeport Electric Railway Company for approval of the place and mode of crossing by its railway of the Grand Trunk Railway at Bridgeport.—Approved.

63. Application of the Ontario and Quebec Railway Company (C.P.R.) for approval of the construction of a siding from a point where it passes through part of lot 6 in the village of Elora to McGowan's Mill in the village of Aboyne.—Approved.

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64. Application of the Grand Trunk Railway Company of Canada for approval of the construction of a siding along and across Jefferson avenue to the premises of the Toronto Foundry Company in the city of Toronto.—Approved.

65. Application of the Bay of Quinté Railway Company, for approval of the place and mode of crossing, at rail level, by its railway of the Grand Trunk Railway at Napanee station.—Interim order granted.

66. Application of the Ontario and Quebec Railway Company (C.P.R.) for approval of the plan and profile of its branch line crossing the highway known as South David street in the township of Nicol.—Approved.

67. Application of the Bruce Mines and Algoma Railway Company, for approval of the place and mode of crossing, at rail level, by its railway of the Canadian Pacific Railway at Bruce Mines station.—Approved.

68. Application of the Canadian Northern Railway Company, for approval of the changes in the location of its railway between the 17th and 40th mile.—Approved.

69. Application of the Canadian Pacific Railway Company for approval of the construction of a siding along Point Douglas avenue, in the city of Winnipeg, eastwardly from the west side of Rachel street to Joseph Maw's warehouse, east of McFarlane street.—Approved.

70. Application of the Grand Trunk Railway Company of Canada for approval of the construction of a siding from a point near Hagersville station to Hagersville Blue Stone Quarry in the township of Walpole.—Approved.

71. Application of the Grand Trunk Railway Company of Canada, for approval of plan and profile of proposed crossing by its proposed branch of King street, in the village of Hagersville, and also across the southeasterly corner of Mary and James streets in the said village.—Approved.

72. Application of the government of British Columbia for approval of the place and mode of crossing by its south approach of its proposed bridge across the Fraser river at New Westminster, the tracks of the New Westminster Southern Railway Company.—Approved.

73. Application of the government of British Columbia for approval of the place and mode of crossing by the north approach of its proposed bridge across the Fraser river at New Westminster, the tracks of the Canadian Railway Company.—Approved.

74. Application of the Grand Trunk Railway Company of Canada, for approval of the construction of a siding in the town of Orillia across Andrew street south of Berry Road and King street, between Andrew and West street, to the premises of the Tudhope Carriage Company.—Approved.

75. Application of the Grand Trunk Railway Company of Canada, for approval of the construction of a siding from Dumfries, in the township of South Dumfries, county of Brant, to the premises of the Ontario Portland Cement Company.—Approved.

76. Application of the Grand Trunk Railway Company of Canada, for approval of the plan and profile of its branch line crossing the highway between the second and third concession, in the township of South Dumfries, opposite Lot No. 18, in the said concessions and across the highway between Lots 18 and 19 in the said third concession.—Approved.

77. Application of the South Shore Railway Company for approval of the amended plan showing certain modifications of its proposed bridge across the St. Francis river, at St. Francis, in lieu of the plan approved of by Order dated December 21, 1900.—Approved.

78. Application of the Vancouver, Victoria and Eastern Railway and Navigation Company, for approval of plans and profiles showing crossings of public highways by

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its branch line to Granby Smelter, viz:—Gold Avenue, Fourth street, Fifth street, and Sixth street, in the Osogoes Division of the District of Yale.—Approved.

79. Application of the Vancouver, Victoria and Eastern Railway and Navigation Company, for approval of the changes in the location of its railway from Carson to Phoenix.—Approved.

80. Application of the Canadian Pacific Railway Company, for approval of the construction of a siding in the city of Winnipeg through certain streets to the premises of the Royal Crown Company.—Approved.

81. Application of the Sandwich, Windsor and Amherstburg Railway for approval of the place and mode of crossing by its railway of the Canada Southern Railway in the town of Amherstburg.—Approved.

82. Application of the Grand Trunk Railway Company of Canada for approval of plan and profile of its proposed highway crossings at a point near Landcaster street in the town of Berlin to the premises of the Ontario Sugar Company; also to Peter Shirks Mill at Bridgeport.—Approved.

83. Application of the Grand Trunk Railway Company of Canada for approval of the construction of a branch line to the premises of the Ontario Sugar Company in the town of Berlin and Peter Shirks Mill, Bridgeport.—Approved.

84. Application of the International Transit Company for approval of the place and mode of crossing by its railway of the Canadian Pacific Railway in the town of Sault Ste. Marie.—Interim order granted.

85. Application of the Great Northwest Central Railway Company for approval of the change in the location of its railway between the tenth and fourteenth mile.—Approved.

86. Application of the Algoma Central and Hudson Bay Railway Company for approval of plans and profiles showing the crossings of public highway in the townships of Korah and Terentorus and in the town of Sault Ste. Marie.—Approved.

87. Application of the Canadian Northern Railway Company for approval of the change in the location of its railway from Grand View to Snell River.—Approved.

88. Application of the Tilsonburg, Lake Erie and Pacific Railway Company for approval of the changes in the location of its railway between stations 0 and stations sixty-three + 66.7 = 95 + 66.7.—Approved.

89. Application of the Woodstock, Thames Valley and Ingersoll Railway Company for approval of the place and mode of crossing by its railway of the Grand Trunk Railway at Dundas street in the city of Woodstock.—Approved.

90. Application of the municipal council of the county of Frontenac for an order directing that the Grand Trunk Railway Company of Canada construct a subway where its railway crosses the highway known as the Montreal road near Kingston Junction.—Order granted.

91. Application of the Price-Porritt Pulp and Paper Company for approval of the place and mode of crossing by its overhead cableway the tracks of the Intercolonial Railway at Rimouski.—Approved.

92. Application of the Canadian Pacific Railway Company for an order directing that pending the replacement of the interlocking system, destroyed by fire, a watchman be placed at the crossing of the Canada Atlantic Railway by the Canadian Pacific Railway at St. Polycarpe Junction.—Granted.

93. Application of the Vancouver, Victoria and Eastern Railway and Navigation Company for approval of the place and mode of crossing by its railway of the Columbia and Western Railway by means of an under-crossing near Summit City.—Approved.



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94. Application of the Vancouver, Westminster and Yukon Railway Company for approval of plan and proposed site of a bridge across False creek in the city of Vancouver.—Approved.

95. Application of the Canadian Pacific Railway Company for approval of the construction of a bridge over its yards and tracks between 8th and 9th streets, in the city of Brandon, in accordance with agreement between the city and the company.—Approved.

96. Application of the Grand Trunk Railway Company of Canada for approval of the construction of a siding in the city of Brantford across George street to the premises of Ryerson Bros.—Approved.

97. Application of the Grand Trunk Railway Company of Canada for approval of the construction of a siding in the town of Collingwood, along Walnut street, to the manufacturing establishment of Wilson Bros.—Approved.

98. Application of the Grand Trunk Railway Company of Canada for approval of the construction of a siding in the town of Collingwood, along Walnut street, to Stewart & Cameron's grist mill.—Approved.

99. Application of the Chateauguay and Northern Railway Company for approval of amended plan and proposed site of its proposed bridge across the Rivière des Prairies at Charlemange.—Approved.

100. Application of the Vancouver, Westminster and Yukon Railway Company for approval of the place and mode of crossing by its railway of the Canadian Pacific Railway at Sapperton in the city of New Westminster.—Approved.

101. Application of the Canada Atlantic Railway Company for approval of plan and profile showing the crossings of all public highways and streets in the town of Renfrew.—Approved.

102. Application of the Grand Trunk Railway Company of Canada for approval of plan showing proposed location of arch or subway on road allowance between lots 6 and 7 in the broken front concession of the township of Adrlington, east of Bowmanville station.—Approved.

103. Application of the Canadian Pacific Railway Company for approval of the change in the location of its railway, on the South Berry branch, between mileage 440 and 443, east of South Berry.—Approved.

104. Application of the Grand Trunk Railway Company of Canada for approval of the construction of a siding and spurs therefrom from a point in Warton to the premises of the Warton Beet Sugar Company, in the said town.—Approved.

105. Application of the Vancouver and Lulu Island Railway Company for approval of changes in the location of its railway from a point near Vancouver to a point on south side of False Creek, known as the False Creek Branch.—Approved.

106. Application of the Canadian Northern Railway Company for approval of changes in the location of its railway between townships 30-33, ranges 4 to 11, W. 2 M., mileage 502'48 to 349'55, Assiniboia.—Approved.

107. Application of the Canadian Pacific Railway Company for approval of the construction of a siding in the city of Winnipeg from its West Selkirk branch, north of Jarvis avenue, to the premises of the American Abell Engine and Threshing Company.—Approved.

108. Application of the Vancouver, Victoria and Eastern Railway and Navigation Company for approval of changes in the location of its railway in the vicinity of Phenix, B.C.—Approved.

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109. Application of the Canadian Pacific Railway Company for approval of the construction of an overhead bridge across Stephen street in the town of Port Arthur.—Approved.

110. Application of the Canadian Northern Railway Company for approval of changes in the location of the Edmonton-Yukon Pacific Railway through the town and settlement of Edmonton.—Approved.

111. Application of the Grand Trunk Railway Company of Canada for approval of the construction of a siding along the southerly side of Falstaff street, in the city of Stratford.—Approved.

112. Application of the Canada Atlantic Railway Company for approval of the construction of a branch line in the township of Nepean, county of Carleton.—Approved.

113. Application of the Canada Atlantic Railway Company for approval of plan and profile of its proposed crossing by its branch line, of the Nepean and North Gower Macadamized Road Company's road in the township of Nepean.—Approved.

114. Application of the Canada Atlantic Railway Company for approval of plan and profile of its proposed crossing by its branch line of the concession road between concession 1, Ottawa front, and concession A, Rideau front, in the township of Nepean.—Approved.

115. Application of the Grand Trunk Railway Company of Canada for approval of the construction of a siding on Mill street in the city of Toronto, to the premises of the William Davis Company.—Approved.

116. Application of the Tilsonburg, Lake Erie and Pacific Railway Company for approval of the construction of a siding from the northern limit of the police village at Port Burrell, in the township of Beyham, in the south-westerly direction across the waters of Otter Creek.—Approved.

117. Application of the Canadian Pacific Railway Company for approval of the construction of a siding across Henry avenue, in the city of Winnipeg, to the premises of the Manitoba Iron Works.—Approved.

118. Application of the Canadian Pacific Railway Company, for approval of the construction of the siding across Sutherland avenue in the city of Winnipeg, to the premises of John Gumm, on the north side of Sutherland avenue.—Approved.

119. Application of the Grand Trunk Railway Company of Canada for approval of the construction of a siding and spurs therefrom to the premises of the Colonial Portland Cement Company.—Approved.

120. Application of the Grand Trunk Railway Company of Canada for approval of plan of its proposed extension of the abutments of its bridge across the Brock road west of Dundas station.—Approved.

121. Application of the Vancouver, Victoria and Eastern Railway Company for approval of plans and profiles of its railway crossing, Dominion avenue, Banner street and Standard avenue by means of overhead bridges; Phœnix street at rail level, and School and Church streets by means of subways in the city of Phœnix, B.C.—Approved.

122. Application of the Canadian Pacific Railway Company for approval of the change in the location of its main line between Port Moody and Westminster Junction.—Approved.

123. Application of the Corporation of the city of St. Catharines for approval of amendment plans of the proposed reconstruction of the bridge on Queenstown street, St. Catharines.—Approved.

## SESSIONAL PAPER No. 20

124. Application of the Canadian Northern Railway Company, for approval of the construction of a branch line in the town of St. Boniface, through lots 78, 79, 80 and 81, to the premises of the Rat Portage Lumber Company.—Approved.

125. Application of the Canadian Pacific Railway Company, for approval of the construction of additional tracks over Townsend, Bethune, Rink, Stewart, Perry, Park, Chamberlain, Romaine streets, and Boundary Road in the town of Peterborough.—Approved.

126. Application of the Canadian Pacific Railway Company, for approval of the change in the location of its main line between Caron and Waldec.—Approved.

127. Application of the Chateauguay and Northern Railway Company for approval of the place and mode of crossing, at rail level, by its railways of the Canadian Pacific Railway at L'Epiphanie station.—Approved.

128. Application of the Canadian Pacific Railway Company for approval of the change in the location of its main line between Markstay and Stinson.—Approved.

129. Application of the Canadian Pacific Railway Company for approval of changes in the location of a portion of its main line, viz.:—Carlstadt to Upsala, Eagle river to Notman, Keewatin to Ostersund, Ingolf to boundary of Ontario, and Ontario boundary to Cross lake.—Approved.

130. Application of the township of Seneca for an order requiring the Grand Trunk Railway Company of Canada to keep a flagman at its crossing of the Hamilton and Port Dover Road near the village of Caledonia; Order directing that the railway company install and thereafter maintain an automatic electric alarm bell at this crossing.

131. Application of the township of Yarmouth, John A. Smith and others, for an order requiring the Canada Southern Railway Company to perform certain works in connection with the drainage in the said township.—Dismissed.

132. Application of the Canadian Pacific Railway Company for approval of changes in the location of its main line near Beauceage on the Indian Reserve west of North Bay.—Approved.

133. Application of the Canadian Pacific Railway Company, for approval of the change in the location of its line entering its Winnipeg yard, viz.:—The Manitoba South-western Colonization Railway, South-western Pembina Mountain Branch, Winnipeg Branch and Selkirk Branch.—Approved.

134. Application of the Grand Trunk Railway Company of Canada, for approval of plan and profile of its proposed highway crossings by its branch line in the town of Wiarton.—Approved.

135. Application of the Grand Trunk Railway Company of Canada, for approval of the diversion of a portion of the Talbot Road in the township of North Cayuga, and of the opening and establishing of a new highway and crossing thereby of the Grand Trunk and Canada Southern Railways.—Approved.

137. Application of the Canadian Pacific Railway Company, for approval of the construction of a siding in the city of New Westminster to the premises of the Fraser River Lumber Company.—Approved.

138. Application of the Chateauguay and Northern Railway Company for approval of the place and mode of crossing by its railway of the Montreal Street Railway near the intersection of Valois avenue and Ontario street, in the city of Montreal.—Approved.

3-4 EDWARD VII., A. 1904

139. Application of the Grand Trunk Railway Company of Canada, for approval of the construction of a branch line across Front and John streets, in the city of Toronto, to the Old Parliament Buildings site.—Approved.

140. Application of the township of Hope for an order requiring the Grand Trunk Railway Company of Canada, to construct and maintain a subway at the highway crossing in the said township.—Order granted.

141. Application of the Niagara, St. Catharines and Toronto Railway Company for approval of plan and profile of its proposed extension in the city of St. Catharines, running along Ontario street from King street to junction with the main line to Port Dalhousie.—Under consideration.

142. Application of the Canadian Pacific Railway Company for authority to carry a portion of the highway between Concessions 2 and 3 of the township of London, over its railway by an overhead bridge, and to divert a portion of the said highway, and to expropriate from lot 22 the land necessary for that purpose, as well as authority to close up the portion of the original highway, when so diverted, and to take down and remove the present overhead wooden bridge.—Under consideration.

143. Application of the town of Whitby for an order directing that protection be provided at certain highway crossings of the Grand Trunk Railway.—Under consideration.

144. Application of the city of Ottawa for an order directing the widening of the bridge on Somerset street, over the tracks of the Canada Atlantic and Canadian Pacific Railways, as shown on plan submitted.—Under consideration.

145. Application of the Corporation of the city of Ottawa and the county of Carleton for an order directing the removal by the Canadian Pacific Railway of the earth embankment constituting the eastern approach of the railway bridge over the Rideau river at New Edinburgh, and the substitution therefor of a bridge having a clear span of 150 feet, and also the restoration of the island at this point to its original condition.—Under consideration.

146. Application of the Mabou and Gulf Railway Company for approval of the place and mode of junction of its railway with the Interecolonial Railway, as shown on the plan submitted.—Under consideration.

147. Application of the Mabou and Gulf Railway Company for approval of the place and mode of crossing by its railway of the Cape Breton Railway, as shown on the plan submitted.—Under consideration.

148. Application of the Canadian Pacific Railway Company for an order approving of the construction of Beatty street across the tracks of the Canadian Pacific Railway Company, in the city of Vancouver.—Under consideration.

149. Application of the Mabou and Gulf Railway Company for approval of the place and mode of crossing by its railway of the Inverness Railway & Coal Company's line at Hillsboro, N.S., as shown on plan submitted.—Under consideration.

150. Application of the Canadian Northern Railway Company for approval of the place and mode of crossing by its railway of the Brookdale branch of the Canadian Pacific Railway in Manitoba.—Under consideration.

151. Application of the Corporation of the city of Toronto for an order for the construction by the Grand Trunk and Canadian Pacific Railway Companies, or one of them, of a steel and iron bridge at the foot of Yonge street, Toronto, to be supported by steel columns and masonry piers over the said railway companies' tracks on the Esplanade.—Granted.

## SESSIONAL PAPER No. 20

152. Application of the Canadian Pacific Railway Company for permission to cross 1st and 18th streets in the city of Brandon.—Under consideration.

153. Application of the Canadian Pacific Railway Company for the approval of the construction of an additional track across the highway between First Meridian Concession and Concession 'A' in the township of Etobicoke, in the County of York.—Approved.

154. Application of British Columbia government, for approval of revised location of British Columbia government line of railway from Fraser river bridge easterly to the junction of Vancouver, Westminster and Yukon railway, also for permission to remove the track of British Columbia Electric Railway Company, as shown on plans submitted.—Under consideration.

155. Application of the Vancouver, Westminster and Yukon Railway Company for a right of way over and through Lot No. 1, Sapperton, B.C., owned by the Canadian Pacific Railway Company.—Under consideration.

156. Application of Lindsay, Bobcaygeon and Pontypool Railway Company for approval of place and mode of crossing of Grand Trunk Railway at Lindsay, Ont.—Approved.

157. Complaint of the town of Toronto Junction, *re* refusal of Grand Trunk Company to provide necessary siding facilities to the Union stock yards at Toronto Junction for the purpose of unloading live stock consigned to that place.—Under consideration.

158. Application of Vancouver & Lulu Island Railway Company for permission to cross certain streets in Vancouver.—Under consideration.

159. Complaint of Joseph James that the proposed location of Bay of Quinté Railway Company's line between Bridgewater and Queensborough will run through his mining property, being part of Lots 2 and 3, Concession 4, Township of Elzéar, county of Hastings, which will injuriously affect and damage his mining rights and privileges, and applies for an order limiting and defining the operations and works of said railway, &c., &c.—Under consideration.

160. Application of the Village of Hastings that protection be provided by placing a watchman or otherwise at the crossing of Grand Trunk Railway Company in said village.—Under consideration.

161. Complaint against Oshawa Railway Company in the matter of proposed crossing of King street with their line of railway and extending it up Mary street, Oshawa.—Dismissed.

162. Application of the city of Vancouver that gates should be erected and maintained by the Vancouver, New Westminster and Yukon Railway Company at its crossing of Westminster avenue at the present time, and that an overhead bridge be erected by the said railway company, when in the opinion of this committee it becomes necessary, owing to increase in traffic.—Granted.

163. Application of the city of Vancouver that gates should be erected and maintained by the Canadian Pacific Railway Company at its crossing of Granville street at the present time, and that an overhead bridge be erected by the said railway company when in the opinion of this committee it becomes necessary owing to increase of traffic.—Under consideration.

164. Application of the Corporation of the city of Chatham for a hearing under section 3, chapter 69, 2 Edward VII., *re* the erection and establishing workshops, &c., in said city of Chatham by the Lake Erie and Detroit River Railway Company.—Under consideration.

3-4 EDWARD VII., A. 1904

165. Application of the Preston and Berlin Street Railway Company for approval of the place and mode of crossing by its railway of the Grand Trunk Railway in the town of Preston.—Approved.

166. Application of the city of St. Thomas for an order permitting the electric cars of the St. Thomas Street Railway to cross the tracks of the Canada Southern Railway, at rail level, at William and Elgin streets, and for a further order compelling the Canada Southern Railway Company to construct a subway on Ross street in that city.—Under consideration.

167. Application of the village of Weyburn, N.W.T., for permission to extend Third street across the Canadian Pacific Railway.—Under consideration.

168. Application of the Vancouver, Westminster and Yukon Railway Company for approval of the place and mode of crossing by its railway of the Canadian Pacific Railway near Heatly avenue, in the city of Vancouver.—Under consideration.

168. Application of the Vancouver, Westminster and Yukon Railway Company for approval of the place and mode of crossing by its railway of the British Columbia Electric Railway on Vanables and Powell streets, in the city of Vancouver.

169. Application of the Vancouver, Westminster and Yukon Railway Company for approval of plan, profile and book of reference of its proposed branch line from False creek to Burrard inlet.—Withdrawn.

170. Application of the Lévis County Railway Company for approval of plans and profiles of its electric railway along certain highways in the county of Lévis.—Approved.

COLLINGWOOD SCHREIBER,  
*Secretary, Railway Committee, P.C.*

Prepared by  
J. W. PUGSLEY,  
*Clerk of the Railway Committee, P.C.*

PART II

STATEMENTS OF THE ACCOUNTANT





## No. 1.

STATEMENT showing the amount expended by the Department of Railways and Canals,  
Dominion of Canada, during the fiscal year ended June 30, 1903.

Name of Work.	Chargeable to Capital.	Chargeable to Income.	CHARGEABLE TO REVENUE.	
			Staff.	Repairs.
CANALS.				
	s cts	s cts.	s cts.	s cts.
Beauharnois.....			8,218 14	10,063 38
Carillon.....		15,992 52	14,348 17	17,766 28
Grenville.....		8,977 43	19,286 10	21,745 65
Cornwall.....	77,833 81		70,129 29	19,205 66
Lachine.....	58,426 92	109,893 43	69,762 03	53,054 20
Lake St. Louis.....	9,508 72			
Lake St. Francis.....	5,000 00			
Murray.....	500 00		5,757 00	4,627 70
Rideau.....		16,235 13	34,595 31	36,424 23
Sault Ste. Marie.....	65,933 43		16,977 22	10,855 70
Soulanges.....	248,929 10		31,987 06	10,362 23
Ste. Anne's.....		1,984 39	2,072 17	4,684 42
St. Lawrence.....	126,833 94			
{ Galops Channel.....	25,000 00			
{ River Reaches.....	16,432 28			
St. Ours.....		9,344 89	2,288 63	1,671 83
St. Peters.....			2,836 49	764 11
Trent.....	523,950 74	18,548 58	6,993 25	10,791 15
Welland.....	315,819 49	94,127 21	90,684 05	72,004 59
Williamsburg.....	320,354 92			
{ Galops.....	18,483 34			
{ Rapide Plat.....	10,266 92			
{ Farran's Point.....			15,246 91	20,092 79
Total.....	1,823,273 61	275,103 58	390,281 82	294,113 92
GENERAL ON CANALS.				
Arbitrations and awards.....		56 00		
Dredge vessels—Lachine.....				3,267 83
" Rideau.....				6,999 10
Miscellaneous.....			443 26	
Salaries and contingencies, canal officers.....			34,008 68	
Sunday labour.....			18,456 32	
Surveys and inspections.....		1,449 61		
Quebec canals, surveys for boundaries.....		986 23		
Total.....		2,491 84	52,908 26	10,266 93
RAILWAYS.				
Intercolonial.....	2,254,266 68		6,196,653 19	
Prince Edward Island.....	829,414 18		259,637 82	
Windsor Branch.....			17,843 19	
Total.....	3,083,680 86		6,474,134 20	

3-4 EDWARD VII., A. 1904

No. 1.—STATEMENT showing the amount expended by the Department of Railways and Canals, &c.—*Concluded.*

Name of Work.	Chargeable to Capital.	Chargeable to Income.	CHARGEABLE TO REVENUE.	
			Staff.	Repairs.
GENERAL ON RAILWAYS.				
	§ cts.	§ cts.	§ cts.	§ cts.
Railway statistics .....		232 01		
Railway subsidies .....		1,463,222 34		
Repairs to Governor General's car .....		657 72		
Reporting evidence before Railway Committee of the Privy Council .....		483 85		
Subscription to Railway Congress, Brussels .....		97 33		
Surveys and inspections .....		9,103 30		
" " (cattle guard commission) .....		4,996 22		
Total .....		1,478,792 77		
MISCELLANEOUS.				
Cost of litigation .....		5,937 18		
Miscellaneous works .....		135 04		
Salaries of engineers, draughtsmen, &c. ....		26,018 35		
" extra clerks, &c. ....		3,059 10		
" returns for parliament .....		248 33		
Total .....		35,398 00		
RECAPITULATION.				
Total on canals .....	1,823,273 61	275,103 58	390,281 82	294,113 92
" general .....		2,491 84	52,908 26	10,266 93
Total on canals .....	1,823,273 61	277,595 42	443,190 08	304,380 85
Total on railways .....	3,083,680 86		6,474,134 20	
" general .....		1,478,792 77		
Total on railways .....	3,083,680 86	1,478,792 77	6,474,134 20	
Grand total, Railways and Canals, including Miscellaneous .....	4,906,954 47	1,791,786 19	6,917,324 28	304,380 85

Total amount expended \$13,920,445.79.

S. LEONARD SHANNON,  
*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, October 31, 1903.





## SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

## LACHINE CANAL.

	Year ending June 30.	Chargeable to 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								
Government expenditure since Confederation .....	1868			1,852	70	13,742	05	10,431	51		
" " .....	1869	2,000	00			14,209	92	12,085	84		
Cost of original construction and enlargement of 1843 to 1848 .....				2,589,532	85						
Expenditure by Dominion Government .....	1870										
" " .....	1871					15,834	49	13,302	39		
" " .....	1872			12,231	40	17,478	52	15,093	25		
" " .....	1873	36,708	15			16,076	93	12,334	69		
" " .....	1874	7,824	28	35,158	21	23,601	03	34,300	60		
" " .....	1874	158,618	35			25,811	07	22,828	66		
" " .....	1875	197,420	52			28,592	01	30,057	34		
" " .....	1876	327,769	39			33,797	73	29,103	65		
" " .....	1877	1,439,375	73			33,148	86	19,824	33		
" " .....	1878	1,484,619	63			39,062	97	13,646	41		
" " .....	1879	958,053	30			42,338	84	12,400	78		
" " .....	1880	369,566	74			38,950	90	10,223	62		
" " .....	1881	292,165	51			39,027	99	19,888	33		
" " .....	1882	252,821	33	2,978	66	41,158	90	17,116	46		
" " .....	1883	396,496	96	1,859	68	45,554	91	18,199	59		
" " .....	1884	188,266	18			48,624	51	19,683	24		
" " .....	1885	111,215	23			49,004	85	20,199	78		
" " .....	1886	210,509	42			50,969	10	19,199	18		
" " .....	1887	28,772	52	12,981	59	53,113	97	22,567	81		
" " .....	1888	19,414	34	7,996	38	52,229	61	19,999	64		
" " .....	1889	76,032	96			972	71	22,957	71		
" " .....	1890	7,448	03	8,238	46	53,114	34	22,999	38		
" " .....	1891	217	53	16,155	75	50,721	69	36,292	98		
" " .....	1892	87,852	35	27,480	80	52,729	37	67,499	62		
" " .....	1893	445,983	21	50,937	40	53,185	00	51,616	79		
" " .....	1894	64,345	14	17,152	48	60,174	03	40,939	70		
" " .....	1895	189,944	36	32,405	20	56,337	44	25,891	45		
" " .....	1896	184,998	25	8,193	15	58,342	96	24,950	20		
" " .....	1897	282,052	48	14,664	21	57,533	20	25,820	73		
" " .....	1898	216,717	44	819	62	57,282	50	33,391	92		
" " .....	1899	162,351	83	3,103	99	55,990	00	35,776	90		
" " .....	1900	125,009	41	12,210	88	56,791	45	31,988	81		
" " .....	1901	97,305	52	12,072	87	58,364	29	50,005	48		
" " .....	1902	113,328	26	36,249	02	59,435	33	45,853	97		
" " .....	1903	58,426	92	109,893	43	69,762	03	53,054	20		
Cost of enlargement .....				8,591,631	27						
Total .....				11,181,164	12	425,608	59	1,576,202	56	961,526	94

Total expenditure on capital account as above..... § 11,181,164 12

Less charged to St. Lawrence River and Canals, see page 9... § 2,950,104 15

Less expenditure by Imperial Government..... 40,000 00

2,990,104 15

Agreeing with Public Accounts balance sheet, 1903, page 4. .... § 8,191,059 97

S. LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,

OTTAWA, October 31, 1903.

3-4 EDWARD VII., A. 1904

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

## BEAUHARNOIS CANAL.

	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		§ cts.	§ cts.	§ cts.	§ cts.
Government expenditure prior to Confederation		1,611,424 11			
" " since	1868		63,193 75	9,349 99	6,216 98
" " "	1869		55 00	9,626 99	6,498 57
" " "	1870		27 50	10,117 57	6,384 81
" " "	1871			12,316 53	5,722 36
" " "	1872		27 50	11,792 46	15,733 38
" " "	1873		5,122 50	12,210 73	9,882 06
" " "	1874		26 00	15,392 51	10,990 56
" " "	1875		36 00	14,399 32	12,253 01
" " "	1876			14,465 86	17,170 83
" " "	1877			14,377 63	15,207 36
" " "	1878			14,383 37	9,861 05
" " "	1879			15,015 86	10,370 71
" " "	1880	266 15		15,362 61	8,997 34
" " "	1881			17,659 93	10,770 67
" " "	1882			18,804 53	20,813 86
" " "	1883		6,727 44	18,287 77	15,826 71
" " "	1884		3,277 98	19,107 38	16,232 61
" " "	1885		7,999 79	18,960 40	14,637 70
" " "	1886		8,491 80	19,228 90	14,356 00
" " "	1887		3,633 57	18,867 45	14,999 88
" " "	1888		14,411 97	19,325 05	14,285 98
" " "	1889		10,993 52	20,019 11	14,982 54
" " "	1890			19,847 42	14,999 20
" " "	1891		17,085 68	18,886 86	12,537 39
" " "	1892		1,696 23	20,050 01	14,999 80
" " "	1893			20,348 34	14,107 11
" " "	1894		6,547 72	20,574 53	13,903 46
" " "	1895		27,982 93	10,428 59	12,299 49
" " "	1896			20,725 47	15,050 85
" " "	1897		9,813 15	21,012 64	14,802 98
" " "	1898	25,000 00	5,799 34	20,650 00	16,164 92
" " "	1899		1,000 00	20,613 22	13,463 01
" " "	1900		4,959 22	20,147 59	14,595 30
" " "	1901		483 40	20,118 42	14,199 12
" " "	1902			16,682 52	6,532 33
" " "	1903			8,218 14	10,063 38
Total		*1,636,690 26	199,391 99	607,375 70	459,833 31

\* See page 9 for total cost of St. Lawrence River and Canals.

S. LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, October 31, 1903.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

ST. LAWRENCE RIVER AND CANALS, SURVEYS, &c.

	Year ending June 30.	CHARGEABLE TO CAPITAL.				Chargeable to Income.
		North Channel.	River Reaches.	Galops Channel.	Total.	
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation					18,442 85	98,378 46
Government expenditure since Confederation	1868					
"	1869					
"	1870					
"	1871					
"	1872					
"	1873				32,241 69	
"	1874				26,541 30	
"	1875				20,611 36	
"	1876				50,215 47	
"	1877				47,377 31	
"	1878				5,570 46	
"	1879				9,265 77	
"	1880				9,214 56	
"	1881				6,927 96	
"	1882		6,933 45	22,000 00	28,933 45	
"	1883		3,574 31	41,300 00	44,874 31	
"	1884		15,546 03	74,300 00	89,846 03	
"	1885		13,710 17	101,400 00	115,110 17	
"	1886		16,251 73	99,800 00	116,051 73	
"	1887		20,037 31	54,400 00	74,437 31	
"	1888		16,982 85	40,400 00	56,482 85	
"	1889		1,293 92	17,200 00	18,493 92	
"	1890		18,279 91	5,700 00	23,979 91	
"	1891		35,137 25		35,137 25	
"	1892		59,779 31		59,779 31	
"	1893		52,643 39		52,643 39	
"	1894		13,721 66		13,721 66	
"	1895		1,223 72	181,552 03	182,775 75	
"	1896		7,457 05		7,457 05	
"	1897		12,347 31		12,347 31	
"	1898	171,336 65	7,491 11	32,710 00	211,537 76	
"	1899	461,979 50	9,366 47	42,430 00	513,775 97	
"	1900	225,000 00	72,484 41	50,000 00	347,484 41	
"	1901	184,790 31	19,389 75	91,211 97	295,392 06	
"	1902	125,000 00	29,268 64	24,037 85	178,306 49	
"	1903	126,833 94	16,432 28	25,000 00	168,266 22	
		1,294,940 43	448,452 03	903,441 85	2,874,243 04	98,378 46

ST. LAWRENCE RIVER AND CANALS.

St. Lawrence River and Canals, as above	\$ 2,874,243 04
Beauharnois Canal, see page 8	1,636,690 26
Cornwall Canal " 12	6,963,298 97
Williamsburg Canal " 14	9,567,976 75
Lake St. Louis " 10	290,259 21
Soulanges Canal " 26	6,738,643 32
Lachine Canal, from prior to Confederation to June 30, 1875, see page 7	2,950,104 15
Lake St. Francis, see page 11	75,906 71

Agreeing with Public Accounts Balance Sheet, 1903, page 4..... \$31,096,222 41

S. LEONARD SHANNON,  
*Accountant.*





## SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

## LAKE ST. FRANCIS.

	Year ending June 30.	Capital.		Renewals Chargeable to Income.	
		\$	cts.	\$	cts.
Government expenditure since Confederation.....	1868				
" " " " .....	1869				
" " " " .....	1870				
" " " " .....	1871				
" " " " .....	1872				
" " " " .....	1873				
" " " " .....	1874				
" " " " .....	1875				
" " " " .....	1876				
" " " " .....	1877				
" " " " .....	1878				
" " " " .....	1879				
" " " " .....	1880				
" " " " .....	1881				
" " " " .....	1882				
" " " " .....	1883				
" " " " .....	1884				
" " " " .....	1885				
" " " " .....	1886				
" " " " .....	1887				
" " " " .....	1888				
" " " " .....	1889				
" " " " .....	1890				
" " " " .....	1891				
" " " " .....	1892				
" " " " .....	1893				
" " " " .....	1894				
" " " " .....	1895				
" " " " .....	1896				
" " " " .....	1897				
" " " " .....	1898		3,420 00		
" " " " .....	1899		23,110 00		
" " " " .....	1900		15,431 46	12,288 39	
" " " " .....	1901		15,000 00	8,060 30	
" " " " .....	1902		13,945 25		
" " " " .....	1903		5,000 00		
Total.....			*75,906 71	20,348 69	

\*Included in total cost of St. Lawrence River and Canals, see page 9

S. LEONARD SHANNON,  
*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, October 31, 1903.

3-4 EDWARD VII., A. 1904

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

## CORNWALL CANAL.

—	Year ending June 30.	Chargeable to Capital.		Renewals Chargeable to Income.	Staff.	Repairs.		
		§	cts.	§	cts.	§	cts.	
Government expenditure prior to Confederation.....		1,933,152	69					
Government expenditure since Confederation.....	1868			2,786	00	11,244	47	
" " " " " " " " " " " "	1869	10,692	04			10,347	91	
" " " " " " " " " " " "	1870			17,780	05	10,368	16	
" " " " " " " " " " " "	1871			7	50	11,848	39	
" " " " " " " " " " " "	1872			10,000	21	10,594	30	
" " " " " " " " " " " "	1873			1,011	75	13,042	25	
" " " " " " " " " " " "	1874					13,405	20	
" " " " " " " " " " " "	1875	1,780	00			13,351	91	
Cost of original construction.....			1,945,624	73				
Expenditure by Dominion Gov- ernment.....	1876					13,320	61	
" " " " " " " " " " " "	1877	49,211	37			13,375	70	
" " " " " " " " " " " "	1878	145,915	45			13,825	50	
" " " " " " " " " " " "	1879	143,092	05			13,817	96	
" " " " " " " " " " " "	1880	109,454	95			14,440	33	
" " " " " " " " " " " "	1881	53,948	14			15,173	60	
" " " " " " " " " " " "	1882	44,587	61			15,052	20	
" " " " " " " " " " " "	1883	21,728	93			18,283	67	
" " " " " " " " " " " "	1884	22,018	13			18,475	48	
" " " " " " " " " " " "	1885	62,034	90	16,298	96	15,988	96	
" " " " " " " " " " " "	1886	57,820	83	6,960	95	15,994	80	
" " " " " " " " " " " "	1887	46,966	43			17,520	54	
" " " " " " " " " " " "	1888	67,945	74			16,938	54	
" " " " " " " " " " " "	1889	163,993	85			17,890	55	
" " " " " " " " " " " "	1890	365,038	01	2,000	00	17,063	49	
" " " " " " " " " " " "	1891	599,091	85	1,459	98	16,077	72	
" " " " " " " " " " " "	1892	398,555	25	2,345	26	15,596	66	
" " " " " " " " " " " "	1893	352,536	13			15,173	01	
" " " " " " " " " " " "	1894	404,990	22			15,344	02	
" " " " " " " " " " " "	1895	450,689	65	21,497	74	15,414	56	
" " " " " " " " " " " "	1896	448,408	31	2,175	00	15,472	26	
" " " " " " " " " " " "	1897	438,487	51			15,540	43	
" " " " " " " " " " " "	1898	133,208	96			15,011	50	
" " " " " " " " " " " "	1899	37,649	00	15,960	80	16,000	00	
" " " " " " " " " " " "	1900	169,889	51	18,547	50	18,798	10	
" " " " " " " " " " " "	1901	62,032	47			17,104	13	
" " " " " " " " " " " "	1902	90,535	18			17,896	58	
" " " " " " " " " " " "	1903	77,833	81			70,129	29	
Cost of enlargement.....			5,017,674	24				
Total.....			6,963,298	97	118,831	70	594,922	78
							425,583	17

\* Included in total cost of St. Lawrence and Canals, see page 9.

S. LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, October 31, 1903.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c. —Continued.

WILLIAMSBURG CANALS.

Year ended June 30.	Government expenditure prior to Confederation being amount of original construction.	Government expenditure since Confederation.	Capital.				Renewals Chargeable to Income.	Staff.	Repairs.
			Farrar's Point.	Galops.	Rapide Plat.	Total.			
			\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
1868						1,329,655 54			
1869							5,745 97	6,442 41	
1870							5,769 81	5,670 88	
1871							5,573 13	6,546 16	
1872							6,382 17	5,308 41	
1873						1,077 00	5,542 94	3,230 07	
1874							6,424 49	7,347 75	
1875							6,837 19	7,395 92	
1876							6,547 62	4,110 29	
1877							7,418 39	11,690 98	
1878							7,388 68	10,053 61	
1879							7,430 11	4,449 78	
1880							7,517 20	3,549 71	
1881							7,590 15	3,999 77	
1882							7,572 35	5,020 73	
1883							7,589 44	7,447 69	
1884						13 19	7,423 48	7,299 39	
1885						2,473 44	7,797 04	7,349 37	
1886			70,764 07	32,473 05		103,237 12	7,696 67	8,198 03	
1887			78,014 92	71,820 79		149,835 71	7,671 54	7,847 05	
1888			32,862 02	82,990 98		115,853 00	7,635 54	7,904 76	
1889			16,628 95	53,499 34		70,128 29	7,646 79	8,190 13	
1890			37,661 15	22,206 11		59,867 26	7,485 28	8,794 61	
1891			126,417 42	12,660 35		139,078 37	8,454 53	8,191 69	
1892			172,779 88	55,036 96		227,816 84	8,678 25	7,987 40	
1893			218,511 17	158,034 15		376,545 32	797 83	8,551 32	
1894			154,524 01	217,669 28		372,193 29	8,676 03	8,347 97	
1895			223,992 81	274,397 42		498,390 23	10,230 69	7,029 95	
			118,464 53	228,892 70		347,357 23	13,720 36	7,371 37	
			2,833 76	1,250,629 93		1,299,681 73	210,337 70	195,327 29	
						3,786,298 59	20,882 86	195,327 29	

Carried forward.

STATEMENT showing the amounts expended on Construction, Renewals, &c. — *Continued*

WILLIAMSBURG CANALS — *Continued.*

	Year ending June 30.	Capital.						Renewals Chargeable to Income.	Staff.	Repairs.		
		Farran's Point.		Rapids Plat.		Total.						
		\$ cts.	¢	\$ cts.	¢							
Brought forward .....		2,853 76		1,250,620 93		1,209,681 73		20,883 86		210,337 70		195,327 20
Government expenditure since Confederation .....	1896	4,980 00		150,744 16		286,306 96		8,607 04		9,588 51		9,636 00
" .....	1897			262,735 78		205,480 55		3,880 76		8,697 54		8,210 71
" .....	1898	231,321 44		734,492 07		116,072 55		1,081,886 06		10,708 66		8,032 84
" .....	1899	346,956 54		987,486 44		57,869 18		1,382,012 16		9,960 64		10,000 00
" .....	1900	100,534 64		752,799 27		14,208 74		7,410 00		11,092 06		10,897 79
" .....	1901	111,158 39		390,112 78		76,501 57		577,772 74		12,342 82		11,755 09
" .....	1902	42,209 89		421,915 81		137,818 22		601,373 92		14,403 28		13,673 26
" .....	1903	10,266 92		320,354 92		18,483 54		349,105 18		15,246 91		20,092 79
Total .....		850,281 38		5,271,050 16		2,422,602 84		9,507,076 75		392,577 62		287,025 68

\*Original construction.  
 †Cost of engagement

Total..... \$ 9,567,076 75

Included in total cost of St. Lawrence River and Canals, page 9.

S. LEONARD SHANNON,  
*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
 OTTAWA, October 31, 1903.







3-4 EDWARD VII., A. 1904

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

## CULBUTE LOCK AND DAM.

—	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		§ cts.	§ cts.	§ cts.	§ cts.
Government expenditure since Confederation.	1868				
" " "	1869				
" " "	1870				
" " "	1871				
" " "	1872				
" " "	1873		835 53		
" " "	1874		38,388 99		
" " "	1875	63,659 29			
" " "	1876	76,842 44			
" " "	1877	56,081 87			
" " "	1878	5,933 53			
" " "	1879	20,694 19			
" " "	1880	16,688 20		202 50	259 31
" " "	1881	4,721 62		962 85	
" " "	1882	29,567 15		790 00	162 33
" " "	1883	14,249 60		695 00	288 99
" " "	1884	8,151 16		733 50	
" " "	1885	19,071 76		730 00	572 75
" " "	1886	26,385 27		730 00	2,396 14
" " "	1887	7,760 88		730 00	967 33
" " "	1888	7,573 99		739 50	730 60
" " "	1889	17,112 01		1,050 00	116 53
" " "	1890	2,818 35		747 83	
" " "	1891	2,183 15	9,122 05	745 25	499 91
" " "	1892		1,546 25	736 00	
" " "	1893		1,420 65	749 00	13 55
" " "	1894		2,540 14	730 00	494 43
" " "	1895		1,475 26	436 05	434 28
" " "	1896				
" " "	1897				
" " "	1898				100 00
" " "	1899				
" " "	1900	3,085 00			
" " "	1901	197 00			
" " "	1902		1,135 00		
" " "	1903				
Total.....		*382,776 46	56,463 87	11,507 48	7,036 15

\* Included in total cost of Ottawa River Works, see page 19.

S. LEONARD SHANNON,  
*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, October 31, 1903.





3-4 EDWARD VII., A. 1904

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

## ST. OURS LOCK.

Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
	§ cts.	§ cts.	§ cts.	§ cts.
Government expenditure prior to Confederation	121,537 65			
" since				
1868			1,532 75	753 74
1869			1,755 15	1,399 18
1870			1,458 09	1,006 22
1871			1,414 48	1,210 98
1872			1,565 80	1,263 19
1873			2,076 50	1,575 10
1874			2,219 13	2,363 42
1875			1,362 22	1,245 69
1876			1,403 92	1,601 71
1877			1,533 40	750 80
1878			1,556 65	283 77
1879			1,581 55	456 07
1880			1,614 01	705 54
1881			1,741 97	1,299 77
1882			2,002 71	1,902 41
1883		17,230 32	2,361 65	2,188 08
1884		5,279 17	2,315 37	1,494 99
1885		4,700 64	2,271 57	3,652 63
1886			2,311 70	4,143 47
1887			2,175 37	5,864 78
1888			2,216 04	2,801 17
1889		17,964 45	2,421 14	2,002 63
1890		24,571 96	2,138 40	1,935 44
1891		21,696 74	2,011 08	4,460 16
1892		3,585 34	2,168 44	1,944 33
1893			2,136 66	1,994 34
1894			2,216 68	924 55
1895			2,161 63	915 50
1896			2,094 91	1,678 49
1897			2,135 60	707 06
1898			2,049 67	692 04
1899			2,244 12	1,494 93
1900		1,596 88	2,181 43	2,681 10
1901		3,610 06	2,128 25	1,681 44
1902		15,549 27	2,262 39	984 36
1903		9,344 89	2,288 63	1,671 83
Total	*121,537 65	125,129 72	71,109 06	63,739 91

\* Included in the total cost of Chambly Canal and Richelieu River, *see* page 21.S. LEONARD SHANNON,  
*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, October 31, 1903.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Cont.*

CHAMBLY CANAL.

	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs
		§ cts.	§ cts.	§ cts.	§ cts.
Government expenditure prior to Confederation		634,711 76			
" " since " " 1868	1868			8,312 90	9,355 70
" " " " 1869	1869			8,437 22	13,120 97
" " " " 1870	1870			8,934 41	20,180 73
" " " " 1871	1871		2,839 85	10,214 71	22,426 33
" " " " 1872	1872		1,906 40	9,628 50	22,327 99
" " " " 1873	1873		759 00	10,390 44	11,789 27
" " " " 1874	1874		2,810 00	11,675 67	16,427 19
" " " " 1875	1875	2,415 00		12,201 99	16,396 91
" " " " 1876	1876			10,593 14	13,273 56
" " " " 1877	1877	80 00		10,281 78	10,111 32
" " " " 1878	1878			10,413 99	6,022 96
" " " " 1879	1879			11,301 53	8,809 77
" " " " 1880	1880			11,516 22	12,377 74
" " " " 1881	1881			13,950 47	20,705 17
" " " " 1882	1882		31,796 41	16,686 78	16,843 60
" " " " 1883	1883		21,332 36	15,904 38	15,182 24
" " " " 1884	1884		41,640 77	18,448 85	12,003 34
" " " " 1885	1885		21,049 23	18,378 55	13,046 95
" " " " 1886	1886		14,547 27	19,501 28	11,999 77
" " " " 1887	1887		17,911 17	19,053 62	20,071 37
" " " " 1888	1888		65,536 64	20,073 60	11,823 74
" " " " 1889	1889		51,137 87	19,679 22	19,392 18
" " " " 1890	1890		23,221 48	19,655 38	14,399 93
" " " " 1891	1891		43,344 41	19,204 76	11,399 93
" " " " 1892	1892		38,353 99	19,665 22	12,976 48
" " " " 1893	1893		21,127 65	19,310 29	12,451 63
" " " " 1894	1894		8,567 78	19,040 93	11,920 74
" " " " 1895	1895		6,147 63	19,325 49	11,779 12
" " " " 1896	1896		3,694 63	19,349 65	11,801 12
" " " " 1897	1897		12,665 88	18,754 17	13,128 55
" " " " 1898	1898		13,184 68	17,992 90	12,466 51
" " " " 1899	1899		15,255 42	18,336 50	11,997 51
" " " " 1900	1900		5,448 88	18,397 58	13,995 06
" " " " 1901	1901		1,195 09	18,529 48	17,572 35
" " " " 1902	1902		19,132 80	18,832 25	17,313 02
" " " " 1903	1903		8,977 43	19,286 10	21,745 65
		637,206 76			
Less proceeds of sale of piece of land		150 00			
Total		*637,056 76	493,884 72	561,259 95	518,545 74

\*Chambly Canal and River Richelieu.

Chambly Canal as above § 637,056 76  
 St. Ours Lock, see page 20. . . . . 121,537 65

§ 758,594 41

Less amount deducted at Confederation, see  
 Public Accounts, 1868, part i, page 9.

Government expenditure prior to Confederation.

Chambly Canal as above . . . . . § 634,711 76  
 St. Ours Lock, see page 20. . . . . 121,537 65

§ 756,249 41

Returned as an asset in Public Accounts, 1868. . . . . 433,807 83

322,441 58

Agreeing with Public Accounts, 1903, page 4. . . . . § 436,152 83

S. LEONARD SHANNON,

Accountant.



SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—

TRENT CANAL.

	Year ending June 30.	Capital.		Renewals Chargeable to Income.		Staff.		Repairs.	
		\$	cts.	\$	cts.	\$	cts.	\$	cts.
Government expenditure prior to Confederation		309,371	31						
" " since	1868								
" " " "	1869								
" " " "	1870								
" " " "	1871								
" " " "	1872								
" " " "	1873								
" " " "	1874								
" " " "	1875								
" " " "	1876								
" " " "	1877								
" " " "	1878								
" " " "	1879								
" " " "	1880		561 50			1,188 92		3,568 89	
" " " "	1881					2,489 93		2,233 50	
" " " "	1882			5,836 51		2,011 92		8,115 50	
" " " "	1883	40,767 16		9,303 66		2,235 50		3,047 42	
" " " "	1884	120,393 91		6,198 57		2,208 64		5,264 35	
" " " "	1885	121,382 84				3,303 87		4,653 50	
" " " "	1886	75,103 30				1,639 75		5,917 88	
" " " "	1887	179,541 63				1,938 08		6,908 88	
" " " "	1888	114,879 35				1,770 29		5,151 42	
" " " "	1889	47,592 13		29,677 92		3,242 05		5,935 94	
" " " "	1890	58,644 50		11,522 65		3,450 99		730 55	
" " " "	1891	9,826 49		3,164 81		3,803 66		4,888 98	
" " " "	1892	4,457 28		6,506 97		3,695 85		4,721 85	
" " " "	1893	5,962 47		10,838 90		3,739 86		2,087 17	
" " " "	1894	3,412 32		20,403 93		3,785 47		4,988 59	
" " " "	1895	53,907 70		21,143 41		4,184 18		3,374 49	
" " " "	1896	392,976 08		6,185 75		4,349 34		3,329 97	
" " " "	1897	486,575 70		13,880 37		4,965 39		3,497 90	
" " " "	1898	351,273 31		8,991 54		5,034 60		4,998 80	
" " " "	1899	166,611 49		6,179 79		5,048 72		6,454 49	
" " " "	1900	334,583 01		8,043 39		5,131 52		9,989 26	
" " " "	1901	284,503 89		10,494 82		5,254 51		13,075 89	
" " " "	1902	449,075 45		26,165 93		5,575 52		14,984 88	
" " " "	1903	523,950 74		18,548 58		6,993 25		10,791 15	
Total, . . . . .		4,135,353 56*		223,087 50		87,041 81		137,811 25	

\*Total expenditure on Capital Account as above . . . . . \$4,135,353 56  
 Less—Expenditure prior to Confederation . . . . . 309,371 31  
 " " Year 1880 . . . . . 561 50  
 309,932 81  
 Agreeing with Public Accounts Balance Sheet, 1903, page 4 . . . . . \$3,825,420 75

S. LEONARD SHANNON,  
*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
 OTTAWA, October 31, 1903.

3-4 EDWARD VII., A. 1904

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

## TAY CANAL.

	Year ending June 30.	Capital.		Renewals Chargeable to Income.		Staff.		Repairs.	
		\$	cts.	\$	cts.	\$	cts.	\$	cts.
Government expenditure since Confederation.	1868								
" " "	1869								
" " "	1870								
" " "	1871								
" " "	1872								
" " "	1873								
" " "	1874								
" " "	1875								
" " "	1876								
" " "	1877								
" " "	1878								
" " "	1879								
" " "	1880								
" " "	1881								
" " "	1882				748 65				
" " "	1883		4,831 80						
" " "	1884		50,878 12						
" " "	1885		92,473 97						
" " "	1886		65,561 51						
" " "	1887		49,617 92						
" " "	1888		54,166 57						
" " "	1889		89,486 18						
" " "	1890		22,226 23				*	*	
" " "	1891		17,114 78				*	*	
" " "	1892		29,771 65				*	*	
" " "	1893						*	*	
" " "	1894						*	*	
" " "	1895						*	*	
" " "	1896						*	*	
" " "	1897		10,720 50				*	*	
" " "	1898						*	*	
" " "	1899						*	*	
" " "	1900		2,750 00				*	*	
" " "	1901						*	*	
" " "	1902						*	*	
" " "	1903						*	*	
Total.....			+489,599 23		748 65		*	*	

\*Included in Rideau Canal.

†Agreeing with Public Accounts, 1903, page 4.

S. LEONARD SHANNON,  
*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, October 31, 1903.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

SAULT STE. MARIE CANAL.

—	Year ending June 30.	Capital.		Renewals Chargeable to Income.		Staff.		Repairs.	
		\$	cts.	\$	cts.	\$	cts.	\$	cts.
Government expenditure since Confederation.	1868								
" " " "	1869								
" " " "	1870								
" " " "	1871								
" " " "	1872			949	35				
" " " "	1873								
" " " "	1874								
" " " "	1875								
" " " "	1876								
" " " "	1877								
" " " "	1878								
" " " "	1879								
" " " "	1880								
" " " "	1881								
" " " "	1882								
" " " "	1883								
" " " "	1884								
" " " "	1885								
" " " "	1886								
" " " "	1887								
" " " "	1888			8,145	06				
" " " "	1889	34,018	95						
" " " "	1890	176,568	55						
" " " "	1891	325,336	33						
" " " "	1892	341,474	31						
" " " "	1893	589,801	25						
" " " "	1894	1,316,529	29						
" " " "	1895	466,151	50			3,432	73		
" " " "	1896	189,986	59			16,074	70	2,650	17
" " " "	1897	209,561	82			15,381	59	7,671	79
" " " "	1898	21,004	56			14,389	92	8,172	09
" " " "	1899	63,935	48			13,840	24	6,564	40
" " " "	1900	27,157	98			13,901	40	13,219	87
" " " "	1901	323,353	93			48	39	13,730	93
" " " "	1902	122,505	73			15,920	80	14,839	71
" " " "	1903	65,933	43			16,077	22	10,855	70
Total		*4,281,464	76	997	74	122,749	53	74,262	91

Agreeing with Public Accounts, 1903, page 4.

S. LEONARD SHANNON,  
*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, October 31, 1903.

3-4 EDWARD VII., A. 1904

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

## SOULANGES CANAL.

—	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		£ cts.	£ cts.	£ cts.	£ cts.
Government expenditure prior to Confederation	1868				
"                    "                    "                    "	1869				
"                    "                    "                    "	1870				
"                    "                    "                    "	1871				
"                    "                    "                    "	1872				
"                    "                    "                    "	1873				
"                    "                    "                    "	1874				
"                    "                    "                    "	1875				
"                    "                    "                    "	1876				
"                    "                    "                    "	1877				
"                    "                    "                    "	1878				
"                    "                    "                    "	1879				
"                    "                    "                    "	1880				
"                    "                    "                    "	1881				
"                    "                    "                    "	1882				
"                    "                    "                    "	1883				
"                    "                    "                    "	1884				
"                    "                    "                    "	1885				
"                    "                    "                    "	1886				
"                    "                    "                    "	1887				
"                    "                    "                    "	1888				
"                    "                    "                    "	1889				
"                    "                    "                    "	1890				
"                    "                    "                    "	1891				
"                    "                    "                    "	1892	54,235 76			
"                    "                    "                    "	1893	210,336 24			
"                    "                    "                    "	1894	723,380 95			
"                    "                    "                    "	1895	752,016 53			
"                    "                    "                    "	1896	535,939 07			
"                    "                    "                    "	1897	363,126 06			
"                    "                    "                    "	1898	1,016,401 00			
"                    "                    "                    "	1899	1,442,824 22			
"                    "                    "                    "	1900	693,806 24		6,711 84	5,000 00
"                    "                    "                    "	1901	462,626 36	115 00	25,154 78	5,888 77
"                    "                    "                    "	1902	235,021 79		22,072 50	2,267 13
"                    "                    "                    "	1903	248,929 10		31,987 06	10,362 23
Total.....		*6,738,643 32	115 00	86,526 18	23,518 13

\* Included in total cost of St. Lawrence River and Canals, see part ii, page 9.

S. LEONARD SHANNON,

*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,

OTTAWA, October 31, 1903.



## SESSIONAL PAPER No. 20

STATEMENT showing amount expended on Construction and Enlargement of Canals, to  
June 30, 1903.

Canal.	Construction.		Enlargement.		Total.	
	\$	cts.	\$	cts.	\$	cts.
St. Peters.....	248,762	84	399,784	30	648,547	14
Lachine.....	2,589,532	85	8,591,631	27	11,181,164	12
Beauharnois.....	1,636,690	26	.....	.....	1,636,690	26
St. Lawrence River and Canals.....	18,442	85	2,855,800	19	2,874,243	04
Lake St. Louis.....	.....	.....	290,259	21	290,259	21
Lake St. Francis.....	.....	.....	75,906	71	75,906	71
Cornwall.....	1,945,624	73	5,017,674	24	6,963,298	97
Williamsburg. {	Farran's Point.....	.....	850,281	58	9,567,076	75
	Galops.....	.....	5,271,050	16		
	Rapide Plat.....	.....	2,122,602	84		
Williamsburg.....	1,320,655	54	.....	2,486	63	.....
Welland.....	7,693,824	03	16,940,333	28	24,634,157	31
St. Anne's.....	134,456	51	1,035,759	12	1,170,215	63
*Carillon and Grenville.....	63,053	64	4,119,039	32	4,182,092	96
Culbute.....	382,776	46	.....	.....	382,776	46
Rideau.....	4,084,323	37	.....	.....	4,084,323	37
St. Ours.....	121,537	65	.....	.....	121,537	65
Chambly.....	637,056	76	.....	.....	637,056	76
Murray.....	1,247,970	26	.....	.....	1,247,970	26
Trent.....	4,135,353	56	.....	.....	4,135,353	56
Tay.....	489,599	23	.....	.....	489,599	23
Sault Ste. Marie.....	4,281,464	76	.....	.....	4,281,464	76
Soulanges.....	6,738,643	32	.....	.....	6,738,643	32
	37,769,768	62	47,572,608	85	85,342,377	47

\* Construction by Imperial Government not included, records relating to same were kept in Ordnance Office, Montreal, and were destroyed by fire in 1852.

S. LEONARD SHANNON,  
*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, October 31, 1903.



SESSIONAL PAPER No. 20

HYDRAULIC AND OTHER RENTS.

Balances due July 1, 1902.	Accrued during the Year ended June 30, 1902.		Totals.	Statement.	Paid into hands of the Collectors.		Balances due June 30, 1903.		Totals.
	¢	cts.			¢	cts.	¢	cts.	
32,436 08	16,030 96	48,967 04	133 00	14,774 96	34,057 08	18,967 04			
2,259 58	1,368 00	3,627 58	1,063 33	807 11	1,696 84	3,627 58			
3,074 50	5,371 00	8,445 50		5,117 00	3,328 50	8,445 50			
11,920 84	3,396 00	15,316 84	47 50	3,035 50	12,213 84	15,316 84			
16,390 81	39,300 77	55,691 58	737 33	37,611 93	17,282 32	55,691 58			
500 84	349 00	849 84		137 00	652 81	849 84			
3,029 91	3,604 35	6,634 26	91 09	3,096 75	3,446 51	6,634 26			
227 00	1,372 50	1,599 50		1,292 50	307 00	1,599 50			
5,544 00	890 00	890 00		885 00	5 00	890 00			
4 00	5,504 00	11,048 00		491 00	10,557 00	11,048 00			
	38 00	42 00		32 00	10 00	42 00			
	3,000 00	3,000 00		3,000 00		3,000 00			
75,887 56	80,224 58	156,112 14	2,174 76	70,401 05	83,536 93	156,112 14			

S. LEONARD SHANNON,  
*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, October 31, 1903.

3-4 EDWARD VII., A. 1904

REVENUE STATEMENT.

CANAL REVENUE.			COLLECTION DIVISIONS		DEPOSITED TO THE CREDIT OF THE RECEIVER GENERAL.		Total.		Cost of Staff, Repairs and Offices of Collection chargeable to Revenue.		
Tolls.	Wharfage and Storage.	Fines.	Total Canal Revenue Accrued.		On Account Canal Revenue.	On Account Hydraulic Revenues.	Total.	%	cts.	%	cts.
			§	cts.							
62,576 05		15 00	62,595 05	63,365 05	62,595 05	770 00	108,930 59				
10,861 68		210 72	11,072 40	12,526 90	11,072 40	1,454 50	3,497 60				
256 71		1 82	258 53	481 53	258 53	226 00	2,253 03				
133 48		35 00	168 48	12,487 46	168 48	12,319 46	792 89				
53 72			53 72	58 72	53 72	5 00	299 97				
73,881 64		50 00	74,148 48	88,923 14	74,148 48	14,774 96	175,809 04				
87 01			87 01	3,122 54	87 01	3,035 50	316,601 41				
7,837 88			7,837 88	12,954 88	7,837 88	5,117 00	953 60				
684 50		10 00	694 50	1,561 91	694 50	867 41	1,749 45				
2,883 43		16 05	3,618 92	3,618 92	3,618 92		1,020 29				
21,258 79		2,140 47	26,374 81	63,986 00	26,374 07	37,611 93	2,263 10				
7,815 25			7,815 25	8,792 74	7,815 25		8,092 24				
5,792 74			5,792 74	8,792 74	5,792 74	3,000 00	790 35				
46,359 63		2,156 52	52,220 40	101,852 24	52,220 40	49,631 84	332,888 40				
10,078 93		10 00	10,088 93	10,188 93	10,088 93	100 00	45,371 41				
5,990 22			5,990 22	6,087 22	5,990 22	97 00	1,629 21				
419 32			419 32	419 32	419 32		614 60				
16,488 47		10 00	16,498 47	16,695 47	16,498 47	197 00	49,446 26				
11,224 77			11,224 77	11,224 77	11,224 77		39,558 64				
4,103 09		16 00	4,119 09	4,582 69	4,119 09	463 00	481 31				
55 09		75 00	130 09	138 09	130 09	28 00	682 70				
866 24		10 00	876 24	876 24	876 24		808 49				
16,249 19		85 00	16,350 19	16,841 19	16,350 19	491 00	41,534 14				













OXFORD AND NEW GLASGOW.

	Year.	Capital.		Working Expenses.	
		\$	cts.	\$	cts.
Government expenditure prior to Confederation	1868				
"                    "                    "                    "	1869				
"                    "                    "                    "	1870				
"                    "                    "                    "	1871				
"                    "                    "                    "	1872				
"                    "                    "                    "	1873				
"                    "                    "                    "	1874				
"                    "                    "                    "	1875				
"                    "                    "                    "	1876				
"                    "                    "                    "	1877				
"                    "                    "                    "	1878				
"                    "                    "                    "	1879				
"                    "                    "                    "	1880				
"                    "                    "                    "	1881				
"                    "                    "                    "	1882				
"                    "                    "                    "	1883				
"                    "                    "                    "	1884				
"                    "                    "                    "	1885				
"                    "                    "                    "	1886				
"                    "                    "                    "	1887				
"                    "                    "                    "	1888				
"                    "                    "                    "	1889	280,932	35		
"                    "                    "                    "	1890	840,553	57		
"                    "                    "                    "	1891	434,074	60		
"                    "                    "                    "	1892	220,886	39		
"                    "                    "                    "	1893	48,745	23		
"                    "                    "                    "	1894	7,922	80		
"                    "                    "                    "	1894	112,382	75		
"                    "                    "                    "	1895	*			
"                    "                    "                    "	1896				
"                    "                    "                    "	1897	3,565	52		
"                    "                    "                    "	1898				
"                    "                    "                    "	1899				
"                    "                    "                    "	1900				
"                    "                    "                    "	1901				
"                    "                    "                    "	1902				
"                    "                    "                    "	1903				
Total		† 1,949,063	21		†

\*Included in Intercolonial Railway capital. †Included in Intercolonial Railway working expenses.  
 ‡Included in total cost of Intercolonial Railway system, page 32.

S. LEONARD SHANNON,

*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
 OTTAWA, October 31, 1903.











3-4 EDWARD VII., A. 1904

## YUKON TERRITORY WORKS.

(Stikine Teslin Railway.)

		Year.	Construction.
			§ cts.
Government expenditure prior to Confederation			
"	since	1868	
"	"	1869	
"	"	1870	
"	"	1871	
"	"	1872	
"	"	1873	
"	"	1874	
"	"	1875	
"	"	1876	
"	"	1877	
"	"	1878	
"	"	1879	
"	"	1880	
"	"	1881	
"	"	1882	
"	"	1883	
"	"	1884	
"	"	1885	
"	"	1886	
"	"	1887	
"	"	1888	
"	"	1889	
"	"	1890	
"	"	1891	
"	"	1892	
"	"	1893	
"	"	1894	
"	"	1895	
"	"	1896	
"	"	1897	
"	"	1898	
"	"	1899	
"	"	1900	
"	"	1901	
"	"	1902	283,323 55
"	"	1903	
Total			*283,323 55

\* Agrees with Public Accounts Balance Sheet, 1902-1903, page 8.

S. LEONARD SHANNON,  
*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, October 31, 1903.



SESSIONAL PAPER No. 20

## STATEMENT showing amount expended on Capital Account on Railways.

## Railways.

	\$	cts.	\$	cts.
Intercolonial.....	61,923,351	32		
Cape Breton.....	3,860,679	14		
Oxford and New Glasgow.....	1,949,063	21		
Eastern Extension.....	1,324,042	81		
Drummond County.....	1,464,000	00		
			70,521,136	48
Carleton Branch.....			48,410	48
Montreal and European Short Line.....			333,942	72
Prince Edward Island.....			5,429,239	33
Canadian Pacific.....			62,752,243	58
Annapolis and Digby.....			660,683	09
Governor General's car (Victoria).....			1,290	31
Yukon Territory Works (Stikine-Teslin Ry).....			283,323	55
Total.....			140,030,269	54
<i>Memo re Recapitulation—Railways.</i>				
Total cost as per statement above.....			140,030,269	54
Add amounts transferred from Capital to Consolidated Fund, Intercolonial Railway, see statement, page 32.....			296,872	90
Agreeing with total cost of construction, as per statement, page 44.....			140,327,142	44

S. LEONARD SHANNON,  
*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, October 31, 1903.

3-4 EDWARD VII., A. 1904

## RECAPITULATION—RAILWAYS.

	Year.	Construction.		Working Expenses.		Revenue received.	
		£	cts.	£	cts.	£	cts.
Government expenditure prior to Confederation		13,881,460	65				
" " " " " " " "	1868	483,353	65	359,961	08	420,752	58
" " " " " " " "	1869	282,615	18	387,548	47	455,022	76
" " " " " " " "	1870	1,729,381	49	445,208	75	471,245	09
" " " " " " " "	1871	2,946,930	45	442,993	31	565,713	52
" " " " " " " "	1872	5,620,569	67	595,076	22	622,990	56
" " " " " " " "	1873	5,763,268	81	1,011,892	60	793,458	26
" " " " " " " "	1874	3,925,123	69	1,847,925	24	893,430	17
" " " " " " " "	1875	5,018,427	85	1,581,934	24	886,087	42
" " " " " " " "	1876	4,497,434	75	1,497,128	22	966,922	42
" " " " " " " "	1877	3,209,502	16	1,890,268	80	1,285,110	27
" " " " " " " "	1878	2,643,741	73	2,032,873	05	1,514,846	38
" " " " " " " "	1879	2,507,053	71	2,233,496	34	1,419,955	60
" " " " " " " "	1880	6,109,077	14	1,851,489	26	1,739,137	25
" " " " " " " "	1881	5,577,236	73	2,220,421	39	2,200,486	25
" " " " " " " "	1882	5,175,046	61	2,310,638	54	2,237,583	39
" " " " " " " "	1883	11,707,619	02	2,636,551	70	2,541,205	41
" " " " " " " "	1884	14,013,074	89	2,613,508	87	2,551,937	97
" " " " " " " "	1885	11,224,244	54	2,749,710	53	2,624,243	07
" " " " " " " "	1886	4,443,220	17	2,819,973	50	2,628,336	35
" " " " " " " "	1887	1,846,887	18	3,152,650	40	2,840,747	88
" " " " " " " "	1888	1,765,582	11	3,621,076	62	3,166,253	22
" " " " " " " "	1889	2,709,857	37	3,513,063	67	3,167,542	67
" " " " " " " "	1890	2,392,767	99	3,846,044	42	3,293,874	11
" " " " " " " "	1891	1,184,317	34	3,949,263	73	3,181,888	56
" " " " " " " "	1892	417,425	73	3,748,597	77	3,136,393	51
" " " " " " " "	1893	712,917	44	3,288,629	62	3,292,505	62
" " " " " " " "	1894	585,749	01	3,226,208	13	3,179,019	57
" " " " " " " "	1895	376,814	83	3,197,846	17	3,129,450	37
" " " " " " " "	1896	324,774	72	3,254,442	64	3,149,678	47
" " " " " " " "	1897	204,624	31	3,195,959	58	3,060,074	38
" " " " " " " "	1898	270,990	85	3,507,248	88	3,313,847	10
" " " " " " " "	1899	1,112,348	47	3,696,612	31	3,940,570	11
" " " " " " " "	1900	3,309,130	42	4,665,228	06	4,774,161	87
" " " " " " " "	1901	3,922,989	37	5,739,051	54	5,213,381	24
" " " " " " " "	1902	5,386,611	24	5,861,099	54	5,918,990	43
" " " " " " " "	1903	3,083,680	86	6,474,134	20	6,584,598	77
Total		*140,365,852	13	99,465,757	39	90,942,352	60
Total amount paid on construction						£140,365,852	13
Less amount received from the City of St. John, N.B., as purchase of the Carleton Branch Railway						40,000	00
Total cost of construction						£140,325,852	13
Add expenditure Governor General's car "Victoria"						1,290	31
Agreeing with amount expended on capital, see page 43						£140,327,142	44

S. LEONARD SHANNON,  
Accountant.

SESSIONAL PAPER No. 20

STATEMENT showing Miscellaneous Expenditure, yearly, by the Department of Railways and Canals.

Year ending June 30.	CHARGEABLE TO CAPITAL.		CHARGEABLE TO INCOME.		CHARGEABLE TO REVENUE.			Total Yearly Expenditure
	Railways.	Canals.	Railways.	General.	Canals.	Railways.	General.	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1868.....				6,305 66	12,000 00		2,416 66	20,722 32
1869.....				8,367 52	12,000 00		1,000 00	21,367 52
1870.....				7,853 03	18,698 89		7,679 78	34,231 70
1871.....				34,773 72	12,018 98			46,792 70
1872.....				20,049 50	12,208 76			32,258 26
1873.....				36,891 74	12,099 44		6,889 20	55,880 38
1874.....				40,098 84	12,959 25		5,428 98	58,487 07
1875.....				35,579 24	12,047 43		5,620 17	53,246 84
1876.....				42,920 10	86 08		5,690 28	48,696 46
1877.....					51 87	43,639 97		43,691 84
1878.....		1,860 00			556 00		34,388 59	36,804 59
1879.....								
1880.....		2,561 55			323 16			2,884 71
1881.....		2,338 41			5,535 22			7,873 63
1882.....					9,826 23			9,826 23
1883.....		11,781 27			6,978 54			18,759 81
1884.....		7,486 62	62,256 58		8,305 41			78,048 61
1885.....		16,725 47	11,063 38		1,210 61			28,999 46
1886.....		20,323 62	10,383 59		776 39			31,483 51
1887.....		20,873 21	23,545 34		649 04			45,067 59
1888.....		34,533 07	22,898 90		5,799 83			63,231 80
1889.....		10,091 87	16,552 64		5,297 64			31,852 15
1890.....		16,426 69	50,909 74		49,550 21			116,886 64
1891.....		16,925 31	16,314 41		56,922 05			90,161 77
1892.....		6,540 49	19,062 51		65,074 07			90,677 07
1893.....		8,498 41	4,313 73	28,640 93	63,965 54			105,418 61
1894.....		4,178 85	4,855 11	15,746 31	60,265 22			85,045 49
1895.....		10,695 48	13,221 27	19,304 87	60,769 56			103,991 18
1896.....	1,290 31	10,893 40	5,271 89	25,194 21	70,349 22			112,990 03
1897.....		2,937 47	5,118 99	25,142 90	62,777 12		597 39	96,573 87
1898.....		1,719 69	8,327 96	28,042 10	56,284 42	1,400 00		95,774 17
1899.....		1,318 79	67,095 86	22,085 19	66,850 29			137,260 13
1900.....		11,873 35	33,496 99	22,802 18	58,836 57			127,009 09
1901.....		12,267 99	28,658 78	33,986 68	61,938 61			136,852 06
1902.....		3,658 23	21,752 58	34,138 50	65,770 65			125,319 96
1903.....		2,491 84	15,570 43	35,398 00	63,175 19			116,635 46
	1,290 31	239,001 08	440,520 68	523,321 22	1,011,858 40	45,039 97	69,711 05	2,330,742 71

S. LEONARD SHANNON,  
*Accountant.*

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, October 31, 1903.

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## RECAPITULATION—RAILWAYS AND CANALS, TO JUNE 30, 1903.

## EXPENDITURE.

<i>Chargeable to Capital Account—</i>			
Railways, <i>see</i> Statement page 43.....		\$ 140,030,269	54
Canals " " 27.....		85,342,377	47
		<u>                    </u>	<u>\$ 225,372,647 01</u>
<i>Chargeable to Consolidated Fund—</i>			
*Railway Subsidies as per Statement No. 3, page 47.....		\$ 29,295,052	71
<i>Income Account—</i>			
Intercolonial Railway, <i>see</i> page 32.....	\$	280,000	00
Add transferred from Capital " 32.....		296,872	90
Railways, <i>see</i> " 45.....		440,520	68
Canals, " " 28.....		3,362,407	41
" " " 45.....		239,001	08
General, Railways and Canals, " 45.....		523,321	22
		<u>                    </u>	<u>\$ 5,142,123 29</u>
<i>Revenue Account—</i>			
Canals—Operating and maintaining Staff, <i>see</i> page 28.....	\$	8,641,002	03
Canals—Repairs, <i>see</i> page 28.....		6,736,339	33
" " " 45.....		1,011,858	40
Railways—Working Expenses, <i>see</i> page 44.....		99,465,757	39
" " " 45.....		45,039	97
General—Railways and Canals, " 45.....		69,711	05
		<u>                    </u>	<u>\$ 115,969,708 17</u>
			<u>\$ 150,406,884 17</u>
Total expenditure on Railways and Canals.....			<u>\$ 375,779,531 18</u>

## EXPENDITURE AS ABOVE, SEPARATED AS BETWEEN RAILWAYS AND CANALS.

## RAILWAYS.

Capital Account.....	\$ 140,030,269	54
Consolidated Fund.....	129,823,243	65
	<u>                    </u>	<u>\$ 269,853,513 19</u>

## CANALS.

Capital Account.....	\$ 85,342,377	47
Consolidated Fund.....	19,990,608	25
	<u>                    </u>	<u>\$ 105,332,985 72</u>

## GENERAL, COMMON TO BOTH.

Consolidated Fund.....	\$ 593,032	27
Total expenditure on Railways and Canals.....		<u>\$ 375,779,531 18</u>

## REVENUE.

Railways—Revenue received from July 1, 1867, to June 30, 1903, (for details <i>see</i> page 44)	\$ 90,942,352	60
Canals " " " " " " " 28).	13,247,969	84
Total Revenue, Railways and Canals.....		<u>\$ 104,190,322 44</u>

\*This amount does not include the subsidy of \$25,000,000 to the Canadian Pacific Railway, nor the amount \$660,683.09 expended on the Annapolis and Digby Railway, both of which are included in Capital Account, nor the annual payment of \$119,700 to the Provincial Government of Quebec, being interest at the rate of 5 per cent on the sum of \$2,394,000 granted by 47 Vic., ch. 8 (1884) for the line between Ottawa and Quebec, which sum was transferred to the Public Debt as a liability, and is dealt with by the Finance Department, *see* Public Accounts, 1898-99, page x.

S. LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, October 31, 1903.





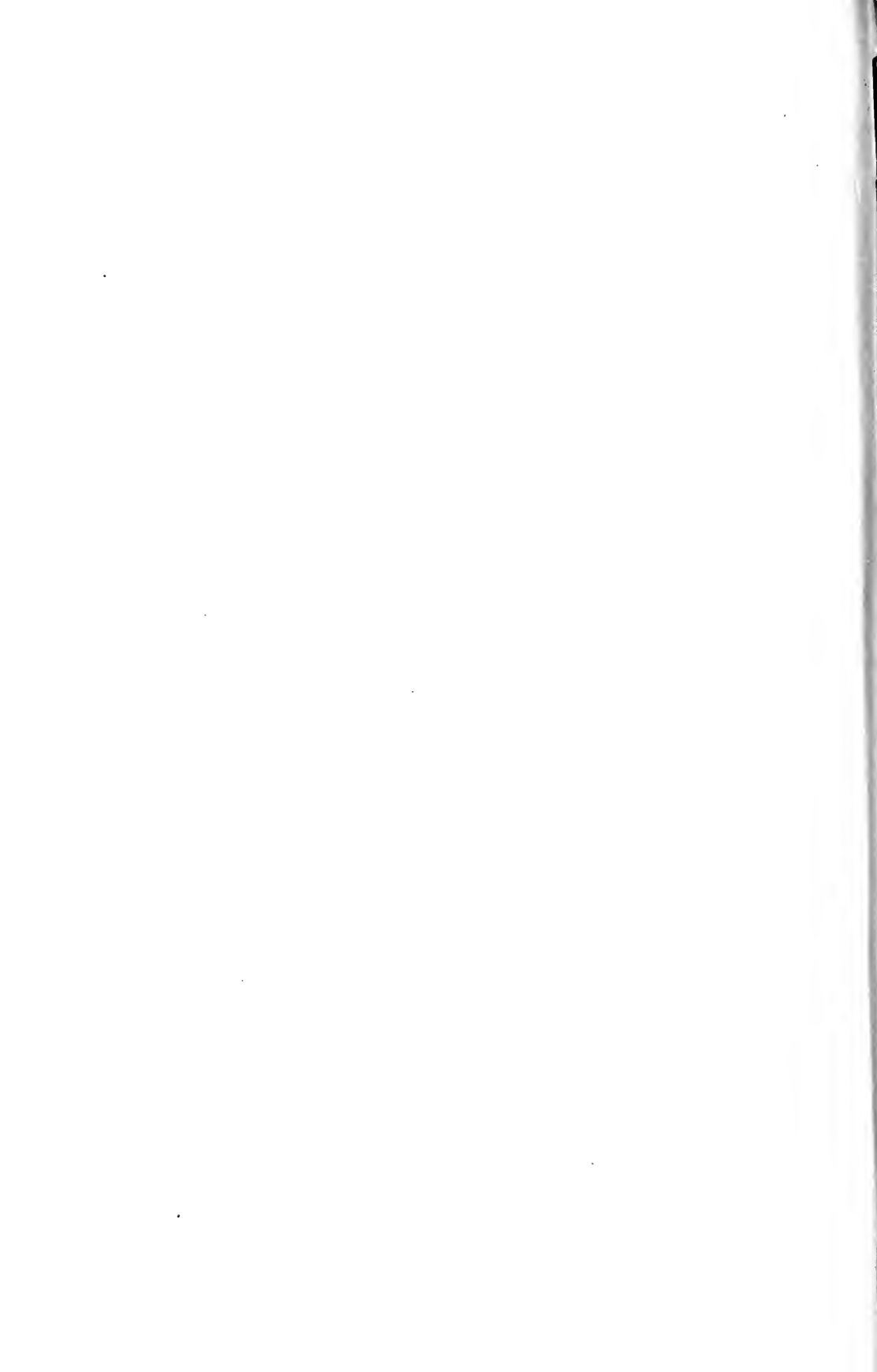






PART III

RAILWAY SUBSIDIES



## No. 1.

## RAILWAY SUBSIDIES.

TABLE of per mile Cash Subsidies paid in aid of Railway Construction, showing amount of Subsidy granted for same Railways.

Number.	Name of Railway.	No.	No.	Subsidy paid and available at June 30, 1903.	Subsidy paid to June 30, 1903.	Subsidy paid to September 30, 1903.
		of miles built up to June 30, 1903.	of miles paid and provided for.			
				§ cts.	§ cts.	§ cts.
1	Albert Southern.....	16	16	50,460 00	50,460 00	50,460 00
2	†Atlantic and Lake Superior.....	Bridge..	30	96,000 00	67,153 98	67,153 98
3	†Algoma Central and Hudson Bay..	77	91	748,800 00	583,536 00	583,536 00
4	Baie des Chaleurs.....	70	70	620,000 00	620,000 00	620,000 00
5	Bay of Quinté.....	6	6	22,400 00	19,200 00	25,600 00
6	Beauharnois Junction.....	19 50	19 50	62,400 00	62,400 00	62,400 00
7	Belleville and North Hastings.....	6 84	6 84	21,888 00	21,888 00	21,888 00
8	Brantford, Waterloo and Lake Erie..	18	18	57,600 00	57,600 00	57,600 00
9	Brockville, Westport and Sault Ste. Marie.....	44 50	44 50	105,200 00	105,200 00	105,200 00
10	Bruce Mines and Algoma.....	9	9	28,800 00	28,800 00	28,800 00
11	Buctouche and Moncton.....	31 75	31 75	101,600 00	101,600 00	101,600 00
12	Canada Atlantic.....	54 05	54 05	282,355 20	282,355 20	282,355 20
13	Canada Central.....	120	120	1,525,250 00	1,525,250 00	1,525,250 00
14	†Canada Eastern.....	107	107	350,400 00	350,400 00	350,400 00
15	†Canadian Pacific.....	1,905	1,905	25,000,000 00	25,000,000 00	25,000,000 00
16	" (extension)*.....	555 83	559 83	5,380,496 00	5,343,507 00	5,343,507 00
17	†Cape Breton extension.....	30	30	192,000 00	65,280 00	182,400 00
18	Caraguet.....	67	67	224,000 00	224,000 00	224,000 00
19	Central (of New Brunswick).....	45 66	89 50	238,400 00	142,400 00	142,400 00
20	Cornwallis Valley.....	14	14	44,800 00	44,800 00	44,800 00
21	Columbia and Kootenay.....	27 75	27 75	88,800 00	88,800 00	88,800 00
22	†Canadian Northern.....	267 86	290	1,632,000 00	1,534,976 00	1,534,976 00
23	Cap de la Madeleine.....	2 32	2 32	7,424 00	7,424 00	7,424 00
24	†Coast of Nova Scotia (now Halifax and Yarmouth).....	59	61	195,200 00	150,400 00	150,400 00
25	†Central Ontario.....	21	21	67,200 00	67,200 00	67,200 00
26	Cumberland.....	14	14	39,850 00	39,850 00	39,850 00
27	Dominion Line Co.....	4 80	4 80	15,360 00	15,360 00	15,360 00
28	Dominion Coal Co.....	27 44	27 44	87,808 00	87,808 00	87,808 00
29	†Drummond Counties.....	133 00	135 60	423,936 00	423,936 00	423,936 00
30	†East Richelieu Valley.....	21 86	21 86	69,952 00	69,952 00	69,952 00
31	Elgin, Petibodiac and Havelock.....	12	12	38,400 00	38,400 00	38,400 00
32	Erie and Huron.....	30	30	96,000 00	96,000 00	96,000 00
33	Esquimalt and Nanaimo.....	71	71	750,000 00	750,000 00	750,000 00
34	Fredericton and St. Mary's Bridge Co.....	1 33	1 33	30,000 00	30,000 00	30,000 00
35	Grand Trunk, Georgian Bay and Lake Erie.....	12 42	12 42	39,744 00	39,744 00	39,744 00
36	Grand Trunk.....	Bridge	Bridge	500,000 00	500,000 00	500,000 00
37	Great Eastern.....	12 50	12 50	40,345 00	40,345 00	40,345 00
38	†Great Northern.....	140 42	143 59	557,788 31	557,788 31	557,788 31
39	Guelph Junction.....	15 25	15 25	46,000 00	46,000 00	46,000 00
40	†Gulf Shore.....	16 78	16 78	53,699 20	53,699 20	53,699 20
Carried forward.....		4,082 89	4,209 61	39,932,355 71	39,333,512 69	39,457,082 69

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TABLE of per mile Cash Subsidies granted and paid in aid of Railway Construction, &amp;c.—Continued.

Number.	Name of Railway.	No. of miles built up to June 30, 1903.	No. of miles paid and provided for.	Subsidy paid and available at June 30, 1903.	Subsidy paid to June 30, 1903.	Subsidy paid to September 30, 1903.
				§ cts.	§ cts.	§ cts.
	Brought forward.....	4,082·89	4,209·61	39,932,355 71	39,333,512 69	39,457,032 69
41	Harvey Branch.....	3	3	5,553 57	5,553 57	5,553 57
42	Hereford.....	48·50	48·50	155,200 00	155,200 00	155,200 00
43	Irondale, Bancroft & Ottawa.....	45	50	160,000 00	144,000 00	144,000 00
44	International.....	49	49	156,800 00	156,800 00	156,800 00
45	Inverness and Richmond.....	53	53	339,200 00	311,375 53	311,375 53
46	Joggins.....	12	12	37,500 00	37,500 00	37,500 00
47	Kingston and Pembroke.....	15	15	48,000 00	48,000 00	48,000 00
48	Kingston, Napanee and Western.....	61·35	61·35	208,732 80	208,732 80	208,732 80
49	L'Assomption.....	3·50	3·50	11,200 00	11,200 00	11,200 00
50	Lake Erie and Detroit River.....	126·90	128·05	475,851 00	475,851 00	475,851 00
51	Lake Temiscamingue Colonization.....	45·84	45·84	310,335 95	310,335 95	310,335 95
52	Leamington and Lake St. Clair.....	16	16	51,200 00	51,200 00	51,200 00
53	Lotbiniere and Megantic.....	30	30	96,000 00	96,000 00	96,000 00
54	Manitoulin and North Shore.....	12·60	12·60	204,800 00	32,000 00	32,000 00
55	Montreal & Sorel (now South Shore).....	61·50	126·67	507,322 00	213,047 76	213,047 76
56	Montreal and Lake Champlain.....	83	83	103,600 00	103,600 00	103,600 00
57	Montreal and Western.....	70	70	361,270 00	361,270 00	361,270 00
58	Montreal and Lake Maskinongé.....	12·90	12·90	41,280 00	41,280 00	41,280 00
59	Montreal and Ottawa.....	60	60	192,000 00	192,000 00	192,000 00
60	Montreal and Province Line.....	18·3	18·3	58,560 00	58,560 00	58,560 00
61	Montreal Colonization.....	32·20	32·20	167,440 00	167,440 00	167,440 00
62	Magan-tawan River.....	1·11	1·11	3,552 06	3,552 00	3,552 00
63	Massawippi Valley.....	1·68	1·68	5,376 00	5,376 00	5,376 00
64	Midland (Nova Scotia).....	57·18	58	365,418 00	360,450 30	360,450 30
65	Nakusp and Slocan.....	36·80	36·80	117,760 00	117,760 00	117,760 00
66	New Brunswick and P. E. Island.....	35·45	35·45	113,440 00	113,440 00	113,440 00
67	New Glasgow Iron and Coal Co.....	12·45	12·45	39,840 00	39,840 00	39,840 00
68	Northern Pacific Junction.....	110	110	1,320,000 00	1,320,000 00	1,320,000 00
69	Nova Scotia Central.....	73·50	73·50	235,200 00	235,200 00	235,200 00
70	Ontario, Belmont and Northern.....	9·60	9·60	30,720 00	30,720 00	30,720 00
71	Ontario and Quebec.....	61·25	61·25	196,000 00	196,000 00	196,000 00
72	Orford Mountain.....	26·50	26·50	84,800 00	84,800 00	84,800 00
73	Oshawa Railway and Navigation Co.....	7	7	22,400 00	22,400 00	22,400 00
74	Ottawa, Northern and Western (formerly Ottawa & Gatineau Valley).....	55·28	55·28	292,320 00	292,320 00	292,320 00
75	Ottawa and New York.....	53·87	53·87	262,384 00	262,384 00	262,384 00
76	Ottawa, Arnprior and Parry Sound.....	159·58	159·58	779,712 00	779,712 00	779,712 00
77	Parry Sound Colonization.....	47·75	47·75	152,800 00	152,800 00	152,800 00
78	Pontiac and Pacific Junction.....	70	70	193,578 00	193,578 00	193,578 00
79	Phillipsburg Junction.....	7·41	7·41	23,712 00	23,712 00	23,712 00
80	Pontiac and Renfrew.....	4·25	4·25	13,600 00	13,600 00	13,600 00
81	Pontiac and Pacific and Ottawa and Gatineau.....	Bridge.	Bridge.	212,500 00	212,500 00	212,500 00
82	Penbrooke Southern.....	20	20	64,000 00	64,000 00	64,000 00
83	Port Arthur, Duluth and Renfrew.....	84·75	84·75	271,200 00	271,200 00	271,200 00
84	Quebec Central.....	74·86	74·86	348,342 00	348,342 00	348,342 00
85	Quebec Bridge Co.....	Bridge.	Bridge.	374,353 33	374,353 33	374,353 33
86	Quebec and Lake St. John.....	245·85	245·85	1,006,743 50	1,006,743 50	1,006,743 50
87	Quebec, Montmorency & Charlevoix.....	30	30	96,000 00	96,000 00	96,000 00
88	Restigouche and Western.....	19	20	78,930 00	46,930 00	46,930 00
89	Shuswap and Okanagan.....	51	51	163,200 00	163,200 00	163,200 00
90	South Norfolk.....	17	17	54,400 00	54,400 00	54,400 00
91	St. Catharines and Niagara Central.....	12	12	38,400 00	38,400 00	38,400 00
92	St. Clair Frontier Tunnel.....	2·23	2·23	375,000 00	375,000 00	375,000 00
93	St. Lawrence and Lower Laurentian.....	38·85	38·85	217,600 00	217,600 00	217,600 00
94	St. Louis, Richibucto & Buctouche.....	7	7	22,400 00	22,400 00	22,400 00
95	St. Lawrence and Adirondack.....	33·51	33·51	149,481 60	149,481 60	149,481 60
96	St. Mary River.....	30	30	75,000 00	75,000 00	75,000 00
97	St. Stephen and Milltown.....	4·64	4·64	14,848 00	14,848 00	14,848 00
	Carried forward.....	6,434·83	6,643·69	51,439,211 46	50,292,502 03	50,416,022 03

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TABLE of per mile Cash Subsidies granted and paid in aid of Railway Construction, &c.—*Concluded.*

Number.	Name of Railway.	No. of miles built up to June 30, 1903.	No. of miles paid and provided for.	Subsidy paid and available at	Subsidy paid to	Subsidy paid to
				June 30, 1903.	June 30, 1903.	September 30, 1903.
				\$ cts.	\$ cts.	\$ cts.
	Brought forward.....	6,434 83	6,643 69	51,439,211 46	50,292,502 03	50,416,022 03
98	Temiscouata .....	112 95	112 95	645,950 00	645,950 00	645,950 00
99	†Thousand Islands.....	5 19	5 19	29,840 00	29,840 00	29,840 00
100	†Tilsonburg, Lake Erie and Pacific..	33 96	47 41	158,871 48	113,431 48	113,431 48
101	Tobique Valley .....	27 88	27 88	134,016 00	134,016 00	134,016 00
102	Toronto, Grey and Bruce.....	4 58	4 58	14,656 00	14,656 00	14,656 00
103	†United Counties.....	59	59	188,816 00	188,816 00	188,816 00
104	Waterloo Junction.....	10 25	10 25	32,800 00	32,800 00	32,800 00
105	Western Counties.....	20	20	500,000 00	500,000 00	500,000 00
106	West Ontario Pacific.....	18 75	18 75	60,000 00	60,000 00	60,000 00
107	†York and Carleton .....	5 73	5 73	18,336 00	18,336 00	18,336 00
	Total .....	6,733 12	6,955 43	53,222,496 94	52,030,347 51	52,153,867 51

‡ Add subsidy of used rails as per statement, part iii, page 7, \$152,305.20, and Atlantic and North-Western, \$2,612,400, less subsidy Canadian Pacific Railway, main line, \$25,000,000, and Western Counties Railway, \$500,000, which will then agree with statement of subsidies in part ii, page 47, viz., \$29,295,052.71.

\* Includes the mileage of the North Shore Railway, 160 miles.

† By 60-61 Vic., cap. 4, 62-63 Vic., cap. 7, 63-64 Vic., cap. 8, and 1 Edward VII, cap. 7, a subsidy was authorized on certain mileage of this railway, specified in the Act of Parliament, of \$3,200 per mile and a further subsidy beyond the sum of \$3,200 per mile, of 50 per cent on so much of the *average cost* of the said specified mileage subsidized as is in excess of \$15,000 per mile, such subsidy not exceeding in the whole the sum of \$6,400 per mile.

The amount of certain of the subsidies authorized by Parliament, given in this statement, includes the determined portion of the subsidies under 60-61 Vic., cap. 4, 62-63 Vic., cap. 7, 63-64 Vic., cap. 8, and 1 Edward VII, cap. 7, viz.: The amount produced by the \$3,200 per mile, but the other portion is now an undetermined amount, and therefore cannot be shown here.

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The following is the mileage of certain of the railways shown in this statement and subsidized under 60-61 Vic., cap. 4, 62-63 Vic., cap. 7, and 63-64 Vic., cap. 8:—

	Miles.
Ottawa, Arnprior and Parry Sound.....	56
Phillipsburg Junction.....	6 66
St. Lawrence and Adirondack.....	13 50
Tilsonburg, Lake Erie and Pacific.....	3 50
United Counties.....	1
Great Northern.....	44
Gulf Shore.....	5 50
St. Stephen's and Milltown.....	1 14
Drummond County.....	42 50
Coast (of Nova Scotia).....	61
Ottawa and New York.....	53 87
Restigouche and Western.....	40
East Richelieu Valley.....	24
Ottawa and Gatineau.....	86
Pembroke and Southern.....	40
Massawippi Valley.....	2 50
Inverness and Richmond.....	93
Canadian Northern.....	490
Central Ontario.....	41
Midland (Nova Scotia).....	58
Pontiac and Pacific Junction.....	9
Canada Eastern.....	2 25
Canadian Pacific (Extension).....	70
Cape Breton Extension.....	30 80
Algoma Central and Hudson Bay.....	90
Atlantic and Lake Superior.....	100
Manitoulin and North Shore.....	13
Bay of Quinté.....	8
Bruce Mines and Algoma.....	9
Magametawan River.....	1 11

STATEMENT showing Railways receiving Cash Subsidies of fixed amounts, payable Annually or Semi-annually for fixed periods of years.

No.	Name of Railway.	Miles Subsidized.	Amount of Instalment.	Amount paid up to June 30, 1901.
				\$ cts.
1	International (Atlantic and North-west) Railway Co.....	252	\$93,300 per $\frac{1}{2}$ year for 20 years.	2,612,400
2	Kingston, Smith's Falls and Ottawa Railway Co.....	56	\$ 3,136 " 21 "	Nil.
	Total.....	308		2,612,400

STATEMENT showing Railways aided by the Grant of Loans.

No.	Name of Railway.	Amount of Loans authorized.	Amount loaned.
		\$	\$ cts.
1	Albert Railway Co.....	15,000	14,725 56
2	Fredericton and St. Mary's Bridge Co.....	300,000	300,000 00
3	St. John Bridge and Railway Extension Co.....	500,000	433,900 00
	Total.....	815,000	748,625 56

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STATEMENT showing Railways subsidized by the Grant of used Iron Rails valued at the amount set forth.

No.	Name of Railway.	Tons of used Rails.	Subsidy on value of Rails.		Subsidy on used Rails paid.	
			\$	cts.	\$	cts.
1	Central Railway Co. of New Brunswick. . . . .	4,052	83,612	54	83,612	54
2	Elgin, Petitediac and Havelock Ry. Co. . . . .	2,201	44,252	82	44,252	82
3	Chatham Branch Railway Co. . . . .	958	24,439	84	24,439	84
Total. . . . .		7,211	152,305	20	152,305	20

STATEMENT showing Railways aided by the Loan of used Iron Rails valued at the amount set forth.

No.	Name of Railway.	Tons of used Rails.	Value of used Rails loaned.		Remarks.
			\$	cts.	
1	Kent Northern Railway Co. . . . .	2,549	58,334	27	By 51 Victoria, chapter 3, these used rails will be granted as a subsidy (the section of road to be first laid with new steel rails weighing not less than 50 lbs. per lin. yard and after an O.C. had been passed authorizing transfer.)
2	Halifax Cotton Co. . . . .	233	4,335	00	
3	Steel Company of Canada . . . . .	597	11,964	66	
4	Albert Railway Company. . . . .	726	14,665	45	
Total. . . . .		4,105	89,299	38	

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## STATEMENT showing Railways subsidized by Grants of Land.

No.	Act authorizing Subsidy.	Name of Railway Company.	Mileage Subsidized.	Acres granted per Mile.	Total Area granted.
1	48-49 Vic., c. 60 50-51 Vic., c. 22 52 Vic., c. 4...	Alberta Railway and Coal Co.—Dunmore to Lethbridge. ....	109 50	6,400	700,800
		Alberta Railway and Coal Co. Lethbridge to International Boundary. ....	61 42	6,400	413,569
2	53 Vic., c. 4.....	Calgary and Edmonton Railway Co.—			
		Calgary to Edmonton and Calgary to Macleod.....	190 97 104 10	6,400 6,400	1,222,208 666,240
3	47 Vic., c. 25, 53 Vic., c. 4... 62-63 Vic., c. 57	Canadian Northern Railway Company ...	818 61	{ 6,400 in Manitoba 12,800 in N.W.T. }	8,580,928
4	44 Vic., c. 1. ....	Canadian Pacific Railway Co.—Main Line.....			18,206,986
5	53 Vic., c. 4... 54-55 Vic., c. 10	C. P. R.—Souris Branch—			
		Glenboro to Souris.....	45 24	6,400	289,536
		Napinka to Deloraine.....	18 01	6,400	115,264
		Kemnay to Estevan.....	156 86	6,400	1,003,904
6	57-58 Vic., c. 6... ..	C. P. R.—Pipestone Extension of Souris Branch— Souris to Pipestone Valley. ....	31 30	6,400	200,320
7	49 Vic., c. 11.....	Great North-west Central Railway Co....	50 00	6,400	320,000
8	48-49 Vic., c. 60 49 Vic., c. 11... }	Manitoba and North-western Ry Co.—			
		Main line.....	223 09	6,400	1,427,776
		Russell branch.....	11 50	6,400	73,600
9	53 Vic., c. 4... ..	Manitoba and South-eastern Ry. Co.....	98 00	6,400	627,200
10	48-49 Vic., c. 60 54-55 Vic., c. 10 }	Manitoba South-western Colonization Ry. Co.....	218 25	6,400	1,396,800
11	48-49 Vic., c. 60 50-51 Vic., c. 23 }	Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Co.....	253 96	6,400	1,625,344
12	57-58 Vic., c. 6... ..	Saskatchewan and Western Ry. Co.....	15 45	6,400	98,880
		Total.....	2,409 25		36,969,354

NOTE.—By 62-63 Victoria (Session 1899) chapter 57, the Lake Manitoba Railway and Colonization Company and the Winnipeg Great Northern Railway were amalgamated under the title of the Canadian Northern Railway, all the rights of the two companies being vested in the new company.



## No. 2

## LIST OF RAILWAY SUBSIDY ACTS PASSED IN EACH YEAR.

NOTE.—The marginal number opposite each subsidy has reference to the alphabetical list in the Deputy Minister's report showing the action taken in cases where a contract for work has been made with any company.

By the Acts of Parliament below specified, authority has been placed in the hands of the Governor in Council to grant, upon certain conditions, aid towards the construction of various lines of railway throughout the Dominion, as follows, namely :—

By the Acts of 45 Vic., cap. 14, 1882 (*Assented to 17th May, 1882*) :—

- |    |  |           |
|----|--|-----------|
| 1. | For a railway from Gravenhurst to Callander, both in the province of Ontario, a subsidy not exceeding \$6,000 per mile, nor exceeding in the whole .....   | \$660,000 |
| 2. | For a railway from St. Raymond to Lake St. John, both in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....   | 384,000   |
| 3. | For a railway from a point on the Intercolonial Railway at Rivière du Loup or Rivière Ouelle, in the province of Quebec, or between them, to Edmundston, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 240,000   |
| 4. | For a railway from Oxford to New Glasgow, both in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....   | 224,000   |

“The said subsidies to be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to complete the said railways respectively, within a reasonable time, to be fixed by Order in Council, and according to descriptions and specifications to be approved by the Governor in Council on the report of the Minister of Railways and Canals, and specified in an agreement to be made by the company with the Government, and which the Government is empowered to make, and to be payable out of the Consolidated Revenue Fund of Canada, by instalments on the completion of each ten miles of railway, proportionate to the value of the portion so completed in comparison with the whole work undertaken, such proportion to be established by the report of the said Minister; provided always, that the granting of such bonuses or subsidies shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting therewith, as the Governor in Council may determine.”

By the special Act 45 Vic., cap. 55, 1882 (*Assented to 17th May, 1882*) :—

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|----|---|-----------|
| 5. | A subsidy authorized in favour of “The Chignecto Marine Transport Railway Company,” provided that they construct and thereafter maintain and operate a ship railway, to be approved by the Government, across the Isthmus of Chignecto, from the Gulf of St. Lawrence to the Bay of Fundy, per year, for twenty-five years..... | \$150,000 |
|----|---|-----------|

By the Act 46 Vic., cap. 25, 1883 (*Assented to 25th May, 1883*) :—

- |    |   |         |
|----|---|---------|
| 6. | To the Baie des Chaleurs Railway Company, for 100 miles of their railway, from Métapediac, on the Intercolonial Railway, to Paspebiac, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 320,000 |
|----|---|---------|

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7.	To the Caraquet Railway Company, for 30 miles of their railway, from a point near Bathurst to Caraquet, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$115,200
8.	To the Gatineau Valley Railway Company, for the first 50-mile section of their railway, from Hull station, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	160,000
9.	To the Great American and European Short Line Railway Company, for 80 miles of their railway, from Canso to Louisburg or Sydney, in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	256,000
10.	To the International Railway Company, for 49 miles of their railway, from Sherbrooke, in the province of Quebec, to the international boundary line, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	156,800
11.	To the Northern and Western Railway Company, for 32 miles of their railway, from the Intercolonial Railway, near the Miramichi, to Moran's, near Demphy village, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	102,400
12.	To the Montreal and Western Railway Company, for the first 50-mile section of their railway, out of St. Jérôme, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	160,000
13.	To the Napanee, Tamworth and Quebec Railway Company, for 28 miles of their railway, from Napanee to Tamworth, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	89,600
14.	To the Quebec and Lake St. John Railway Company, for 25 miles of their railway, from St. Raymond to Lake St. John, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
	In addition to the subsidy granted by the Act forty-fifth Victoria, chapter fourteen.	
15.	For a railway from the International Railway at Petitcodiac to Havelock Corner, in the province of New Brunswick, 12 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
16.	For a railway from Gravenhurst to Callander, 110 miles, a subsidy not exceeding \$6,000 per mile, nor exceeding in the whole.....	660,000
	In addition to the subsidy granted by the Act forty-fifth Victoria, chapter fourteen.	

"The nine subsidies first mentioned to be granted to the companies hereinbefore named respectively; and the two subsidies last mentioned to be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to complete the said railways, respectively; and all the eleven lines above mentioned, and also the lines of railway in respect of which it is provided by the Act of forty-fifth Victoria, chapter fourteen, that subsidies may be granted, shall be commenced within two years from the first day of July next, and completed within a reasonable time, not to exceed four years from and after the passing of this Act, to be fixed by Order in Council, and according to descriptions and specifications to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made by each company with the Government, and which the Government is empowered to make; and all the said subsidies authorized by this Act, respectively, to be paid out of the Consolidated Revenue Fund of Canada by instalments, on the completion of each section of not less than ten miles of railway, proportionate to the value of the portion so completed in comparison with the whole work undertaken, to be established by the report of the said Minister; Provided always, that the granting of such subsidies shall be subject to such conditions for securing such running powers

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or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized as the Governor in Council may determine."

By the special Act 46 Vic., cap. 26, 1883 (*Assented to 25th May, 1883*):—

- 17.** An advance authorized in favour of the "St. John Bridge and Railway Extension Company," to enable them to build a railway bridge across the River St. John, N.B., with railway connection with the Intercolonial, such advance to be secured by a mortgage on their entire property, not to exceed 80 per cent of the expenditure on the work, nor a total sum of.....\$ 500,000

By the Act 47 Vic., cap. 8, 1884 (*Assented to 19th April, 1884*):—

- 18.** To the Government of the province of Quebec, in consideration of their having constructed the railway from Quebec to Ottawa, forming a connecting line between the Atlantic and Pacific coasts via the Intercolonial and Canadian Pacific Railways, and being as such a work of national and not merely provincial utility, a subsidy not exceeding \$6,000 per mile for the portion between Quebec and Montreal, 159 miles, nor exceeding in the whole..... 954,000
- 19.** And for the portion between Montreal and Ottawa, 120 miles, \$12,000 per mile, nor exceeding in the whole.....1,440,000
- 20.** For the construction of a line of railway connecting Montreal with the harbours of St. John and Halifax by the shortest and best practicable route, after the report of competent engineers, a subsidy not exceeding \$170,000 per annum, for fifteen years, or a guarantee of a like sum for a like period as interest on bonds of the company undertaking the work.
- 21.** For the construction of a line of railway from Oxford station, on the Intercolonial Railway, to Sydney or Louisburg, a subsidy not exceeding \$30,000 per annum for fifteen years or a guarantee of a like sum for a like period as interest on the bonds of the company undertaking the work, in addition to the subsidies previously granted, and also a lease or transfer to such company of the Eastern Extension Railway, from New Glasgow to Canso, with its present equipment.
- 22.** To the Quebec Central Railway Company, for a line of railway from Beauce Junction to the international boundary line, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 211,200
- 23.** For the extension of the Canadian Pacific Railway, from its terminus at St. Martin's Junction, near Montreal, or some other point on the Canadian Pacific Railway, to the harbour of Quebec, in such manner as may be approved by the Governor in Council, a subsidy not exceeding \$6,000 per mile, nor exceeding in the whole..... 960,000
- 24.** To the Irondale, Bancroft and Ottawa Railway Company, for a line of railway from the Victoria branch of the Midland Railway to the village of Bancroft, in the township of 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 Kazubazua to Le Désert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 160,000
- 27.** To the Napanee, Tamworth and Quebec Railway Company, for a line of railway from Tamworth to Bogart and Bridgewater, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 70,400

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<b>28.</b>	To the Montreal and Western Railway Company, for a line of railway from the end of the line subsidized in the now last session of Parliament, towards Le Désert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$160,000
<b>29.</b>	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
<b>30.</b>	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
<b>31.</b>	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
<b>32.</b>	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
<b>33.</b>	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
<b>34.</b>	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
<b>35.</b>	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
<b>36.</b>	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
<b>37.</b>	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
<b>38.</b>	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
<b>39.</b>	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
<b>40.</b>	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
<b>41.</b>	To the Caraque Railway Company, for the extension of their line of railway from Caraque to Shippegan Harbour, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	76,800
<b>42.</b>	For a branch of the Intercolonial Railway, from Metapedia eastward towards Paspébiac, twenty miles, in the province of Quebec, a sum not exceeding in the whole.....	300,000
<b>43.</b>	For a branch of the Intercolonial Railway, from Derby Station to Indian-town, fourteen miles, a sum not exceeding in the whole.....	140,000

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies, respectively; the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to construct and complete the said railways respectively. All the lines for the construction of which subsidies are

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granted shall be commenced within two years from the first day of July next and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, except the line mentioned in the fourth section of this Act,\* which shall be commenced within one year, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister. The subsidies to the province of Quebec shall be capitalized, and the interest shall be payable at such time and in such manner as the Government of Canada shall agree upon with the Government of the said province. The two subsidies last mentioned in the list are for works to be constructed by the Government of Canada.

“Provided, always, that the granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council may determine.”

By the special Act 47 Vic., cap. 6, 1884 (*Assented to 19th April, 1884*):

- 44.** Relating to an agreement with the province of British Columbia, authority was given, *inter alia*, for the grant of a subsidy to the “Esquimalt and Nanaimo Railway Company” in aid of the construction of a line of railway and telegraph between the points named; such subsidy to be in lands *en bloc* on Vancouver Island, the boundaries being fixed by the Act, and in money..... \$750,000

By the Act 48-49 Vic., cap. 59, 1885 (*Assented to 20th July, 1885*):

- 45.** To the Ottawa, Waddington and New York Railway and Bridge Company, for a line of railway from Ottawa to Waddington, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 166,400
- 46.** To the New Brunswick and Prince Edward Island Railway Company, for a line of railway from Sackville to the Straits of Northumberland, at or near Cape Tormentine, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 118,400
- 47.** To the Montreal and Sorel Railway Company, for a line of railway from St. Lambert to Sorel, a subsidy not exceeding \$1,600 per mile, nor exceeding in the whole..... 72,000
- 48.** To the Brockville, Westport and Sault Ste. Marie Railway Company, for a line of railway from Brockville to Westport, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 128,000
- 49.** To the Quebec and Lake St. John Railway Company, for a line of railway from its junction on the North Shore Railway to St. Raymond, upon condition of the company extending their road to a point 50 miles north of St. Raymond, a subsidy not exceeding \$3,200 per mile nor exceeding in the whole..... 96,000
- 50.** To the Northern and Western Railway Company, for a line of railway from the northern end of the 40 miles subsidized between Fredericton and the Miramichi River by 47 Victoria, chapter 8, to Boiestown, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 19,200

\* The extension of the Canadian Pacific Railway from its terminus at St. Martin's Junction, or some other point on the said railway to the harbour of Quebec.

<b>51.</b>	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
<b>52.</b>	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
<b>53.</b>	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
<b>54.</b>	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
<b>55.</b>	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
<b>56.</b>	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
<b>57.</b>	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
<b>58.</b>	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
<b>59.</b>	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
<b>60.</b>	To the Canada Atlantic Railway Company, for a line of railway from Valleyfield to a point one and a half miles west of Johnston's, a subsidy not exceeding \$1,600 per mile, and from one and a half miles west of Johnston's to Lacolle; also from the present terminus at Ottawa, to the Chaudiere Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	96,000
<b>61.</b>	For a line of railway from Indiantown via the Miramichi Valley, to its junction with the Northern and Western Railway at or near Boiestown, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	140,800

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies, respectively; the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways, respectively. All the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council; and shall also be constructed according to descriptions, specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also, of every line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister.

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“ Provided always, that the granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connected with those so subsidized, as the Governor in Council may determine.”

By the Act 48-49 Vic., cap. 58, 1885 (*Assented to 20th July, 1885*):—

- 62.** For a railway from a point on the Intercolonial Railway at Rivière du Loup or Rivière Ouelle, in the province of Quebec, to Edmundston, in the province of New Brunswick, a subsidy not exceeding two thousand eight hundred dollars per mile for seventy-five miles, and six thousand dollars per mile for eight miles, nor exceeding in the whole two hundred and fifty-eight thousand dollars; the said subsidy to be in addition to the subsidy authorized to be granted in aid of the construction of the said railway by the Act forty-fifth Victoria, chapter fourteen, and constituting with the subsidy so authorized, a subsidy not exceeding in the whole four hundred and ninety-eight thousand dollars, and to be granted for the said railway upon the terms and conditions specified in the said Act, and payable out of the Consolidated Revenue Fund of Canada; and for the purpose of incorporating the persons undertaking the construction of the said railway and those who shall be associated with them in the undertaking, the Governor may grant to them, under such corporate name as he shall deem expedient, a charter conferring upon them the franchises, privileges and powers requisite for the said purposes, which shall be similar to such of the franchises, privileges and powers granted to railway companies during the present session as the Governor shall deem most useful or appropriate to the said undertaking; and such charter being published in the *Canada Gazette*, with any Order or Orders in Council relating to it, shall have force and effect as if it were an Act of the Parliament of Canada.
- 63.** For a line of railway from the south bank of the St. Lawrence river, opposite or near Montreal, to the harbours of St. Andrew's, St. John and Halifax, via Sherbrooke, Moosehead Lake, Mattawamkeag, Harvey, Fredericton and Salisbury, a subsidy not exceeding eighty thousand dollars per annum for twenty years, forming in the whole, together with the subsidy authorized by the Act forty-seventh Victoria, chapter eight, for a line of railway connecting Montreal with the said harbours of St. John and Halifax by the shortest and best practicable route, which the line above described is found to be, a subsidy not exceeding two hundred and fifty thousand dollars per annum, the whole of which shall be paid in aid of the construction of such a line of railway for a period of twenty years, or a guarantee bond of a like sum for a like period as interest on the bonds of the company undertaking the work; the said subsidy to be so granted upon the terms and conditions of and payable out of the Consolidated Revenue Fund in the manner specified in the said last mentioned Act in respect of the subsidy thereby authorized in aid of the said line of railway.
- 64.** The Governor in Council may grant a further subsidy as an aid towards procuring free access as hereinafter described for the trains and traffic of the Canadian Pacific Railway Company from St. Martin's Junction, near Montreal, or from some other point on their railway to be selected by the said company, to the harbour of Quebec, in such a manner as shall be approved by the Governor in Council, that is to say: an additional subsidy not exceeding three hundred and forty thousand dollars, constituting, together with the subsidy authorized by the said last mentioned Act, to aid in procuring the extension of

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the Canadian Pacific Railway to Quebec, and the subsidy also thereby authorized to aid in constructing a line connecting the Canadian Pacific Railway at the Jacques Cartier Union Junction with the North Shore Railway proper (which subsidies shall be applicable to the said first mentioned purpose) a sum not exceeding in the whole the sum of one million five hundred thousand dollars, payable out of the Consolidated Revenue Fund of Canada.

The said Act further provided as follows in relation to this matter:—

“If it should be expedient so to do in order to facilitate such access, the Governor in Council may acquire the North Shore Railway, and may apply the said sum of one million five hundred thousand dollars, or any part thereof, in aid of such acquisition and upon such acquisition may transfer and convey or lease the said railway to the Canadian Pacific Railway Company, subject to such obligation as the Government shall have assumed in acquiring it.”

By the Act 49 Vic., cap. 10, 1886 (*Assented to 2nd June, 1886*):—

<b>65.</b>	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
<b>66.</b>	For a railway from Ingersoll via London to Chatham, in the province of Ontario, eighty miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	256,000
<b>67.</b>	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 Frederickton 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
<b>68.</b>	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
<b>69.</b>	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
<b>70.</b>	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
<b>71.</b>	To the Parry Sound Colonization Railway Company, for forty miles of their railway, from the village of Parry Sound to the village of Sundridge, on the line of the Northern Pacific Junction Railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	128,000
<b>72.</b>	For a railway from a point at or near New Glasgow or St. Lin, to or near Montcalm, in the province of Quebec, eighteen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
<b>73.</b>	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
<b>74.</b>	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
<b>75.</b>	For a railway from Glenannan to Wingham, in the province of Ontario, five miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	16,000



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<b>76.</b> 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
<b>77.</b> 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
<b>78.</b> 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
<b>79.</b> 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
<b>80.</b> 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
<b>81.</b> 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
<b>82.</b> 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
<b>83.</b> 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
<b>84.</b> 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
<b>85.</b> To the Gananoque, Perth and James Bay Railway Company, seventeen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	54,400
<b>86.</b> 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
<b>87.</b> 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
<b>88.</b> 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
<b>89.</b> For a railway from Perth Centre station, on the New Brunswick Railway, to a point near Plaister Rock Island, in the province of New Brunswick, twenty-eight miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	89,600
<b>90.</b> 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

<b>91.</b>	For a railway from a point on the Intercolonial Railway near Newcastle or via Douglstown to a point on the River Miramichi, opposite the town of Chatham, in the province of New Brunswick, six miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$19,200
<b>92.</b>	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
<b>93.</b>	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
<b>94.</b>	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
<b>95.</b>	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*).

<b>96.</b>	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
<b>97.</b>	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
<b>98.</b>	To the Richmond Hill Junction Railway Company, for five miles of their railway from Richmond Hill Junction, on the Northern Railway of Canada, to Richmond Hill village, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	16,000

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<b>99.</b>	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
<b>100.</b>	To the Jogzins 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
<b>101.</b>	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
<b>102.</b>	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
<b>103.</b>	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
<b>104.</b>	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
<b>105.</b>	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
<b>106.</b>	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
<b>107.</b>	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
<b>108.</b>	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
<b>109.</b>	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
<b>110.</b>	To the Jacques Cartier Union Railway Company, extending and completing their railway, a subsidy of.....	20,000
<b>111.</b>	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
<b>112.</b>	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
<b>113.</b>	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

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<b>114.</b>	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
<b>115.</b>	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
<b>116.</b>	To the Caraquet Railway Company, for seven miles of their railway from Lower Caraquet to Shippegan, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding in the whole..	32,000
<b>117.</b>	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
<b>118.</b>	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
<b>119.</b>	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
<b>120.</b>	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
<b>121.</b>	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
<b>122.</b>	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
<b>123.</b>	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
<b>124.</b>	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

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<b>125.</b>	To the Montreal and Champlain Junction Railway Company, a subsidy of.....	\$ 64,000
<b>126.</b>	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
<b>127.</b>	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
<b>128.</b>	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
<b>129.</b>	To the Nova Scotia Central Railway Company, for thirty-four miles of their railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	108,800
<b>130.</b>	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
<b>131.</b>	For a railway from Woodstock towards Centreville, twenty miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	64,000
<b>132.</b>	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
<b>133.</b>	To the Lake Erie, Essex and Detroit River Railway Company, for twenty-seven miles of their railway, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding.....	118,400

“For the purpose of granting corporate powers to persons or companies undertaking the construction of railways or parts of railways, mentioned in the next preceding section, for the construction of which no corporate powers exist at the time of the passing of this Act, the Governor in Council may grant to them, under such corporate name as he shall deem expedient, a charter conferring upon them the franchises, privileges and powers requisite for the said purposes, as the Governor in Council shall deem most useful or appropriate to the said undertaking; and such charter being published in the *Canada Gazette*, with any Order or Orders in Council relating to it, shall have force and effect as if it were an Act of the Parliament of Canada.

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies respectively: the other subsidies, including subsidies granted for railways over a line extending beyond a point to which any company hereinbefore mentioned by name is authorized to construct their railway, shall be granted to such companies as shall be approved by the Governor in Council, as having established, to his satisfaction, their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council; and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon completion of the work subsidized, except as regards the subsidy for the bridge over the

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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*):—

<b>134.</b>	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
<b>135.</b>	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
<b>136.</b>	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
<b>137.</b>	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
<b>138.</b>	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
<b>139.</b>	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
<b>140.</b>	To the Quebec and Lake St. John Railway Company, for 30 miles of their railway from Lake St. John towards Chicoutimi, or from Chicoutimi towards Lake St. John, being a transfer made at the request of the Saguenay and Lake St. John Railway Company of the subsidy granted to them by 50-51 Victoria, chapter 24, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	96,000 00

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<b>141.</b> 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
<b>142.</b> 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
<b>143.</b> 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
<b>144.</b> 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
<b>145.</b> 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
<b>146.</b> 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
<b>147.</b> 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
<b>148.</b> To the Albert Railway Company of New Brunswick, a grant as a subsidy (the section of road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 726 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for .....	14,665 45

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<b>149.</b> 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
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“ 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*):—

<b>150.</b> 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
<b>151.</b> To the Ottawa and Gatineau Railway Company, for a line of railway from Hull station towards Le Défert, a distance of sixty-two miles, a subsidy not exceeding in the whole.....	320,000 00
<b>152.</b> 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
<b>153.</b> 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
<b>154.</b> 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
<b>155.</b> 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
<b>156.</b> 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
<b>157.</b> To the Albert Southern Railway Company, the balance remaining unpaid of the subsidy granted by the Act 47th Victoria, chapter 8, not exceeding in the whole.....	31,771 43
<b>158.</b> To the Baie des Chaleurs Railway Company, the balance remaining unpaid of the subsidy mentioned in the Act 49th Victoria, chapter 17, not exceeding in the whole.....	244,500 00



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<b>159.</b>	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
<b>160.</b>	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
<b>161.</b>	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
<b>162.</b>	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
<b>163.</b>	To the Pontiac and Renfrew Railway Company, for six miles of their railway from the north bank of the Ottawa River, opposite Braeside, or from Bristol Iron Mines, to the Pontiac Pacific Junction Railway, near the Quyon River, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	19,200 00
<b>164.</b>	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
<b>165.</b>	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
<b>166.</b>	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
<b>167.</b>	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
<b>168.</b>	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
<b>169.</b>	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
<b>170.</b>	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

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<b>171.</b>	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
<b>172.</b>	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
<b>173.</b>	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
<b>174.</b>	To the Great Eastern Railway Company, for twenty miles of their railway, from the east end of the line subsidized by the Act 50-51 Victoria, chapter 24, at St. Grégoire, towards the Chaudière Junction station on the Intercolonial Railway, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000 00
<b>175.</b>	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
<b>176.</b>	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
<b>177.</b>	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
<b>178.</b>	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
<b>179.</b>	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
<b>180.</b>	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
<b>181.</b>	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
<b>182.</b>	To the Thousand Islands Railway Company, for four miles of their railway, from a point near the St. Lawrence River, in Gananoque village, to Gananoque Junction of the Grand Trunk Railway, and for thirteen miles of their railway, from Gananoque Junction of the Grand Trunk Railway to a junction with the Brockville, Westport and Sault Ste. Marie Railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	54,400 00

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- 183.** For a railway from Cape Tourmente towards Murray Bay, twenty miles, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... \$64,000 00
- 184.** To the Amherstburg, Lake Shore and Blenheim Railway Company, for twenty miles of their railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 64,000 00

\* So much of the subsidy of three thousand two hundred dollars per mile, which under the provisions of the Act forty-ninth Victoria, chapter seventeen, and of this Act, may be paid to the Baie des Chaleurs Railway Company in respect of the thirty miles of their railway, from the seventieth to the hundredth mile, eastward from Metapedia, shall be applicable to the section of the said railway, comprised between the fortieth and the seventieth mile thereof, eastward from Metapedia, 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 Metapedia within a reasonable time, not to exceed four years, to be fixed by Order in Council, and without any further subsidy from the Government of Canada, and that they deposit with the Minister of Railways and Canals, as security to the Crown that they will well and truly carry out their undertaking, their bonds to the amount of two hundred thousand dollars.

"The subsidies hereinbefore mentioned as to be granted to companies named for that purpose, shall be granted to such companies respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized, except as respects the tunnel under the St. Clair River, in which case there shall be paid fifteen per cent of the value of work done on monthly progress estimates, certified by the Chief Engineer, and upon the approval of the Minister of Railways and Canals.

"The granting of such subsidies, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights, as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

"And for the removal of doubts it is hereby declared and enacted that the provision in the Act passed in the fifty-first year of Her Majesty's reign, and chaptered three, relating to the Pontiac Pacific Junction Railway Company, extended and extends the several subsidies in aid of the said company for four years from the passing of the said Act, that is to say, from the twenty-second day of May, one thousand eight hundred and eighty-eight."

By the Special Act, 52 Vic., cap. 5, 1889 (*Assented to 2nd May, 1889*):—

- 185.** In order to enable the Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company to complete their railway from Regina to some point on the South Saskatchewan River at or near Saskatoon, and thence northward to Prince Albert, the Governor in Council may enter into a contract with such company for the transport of men, supplies, materials and mails,

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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*):—

<b>186.</b>	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
<b>187.</b>	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
<b>188.</b>	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
<b>189.</b>	For a railway from Woodstock via London to Chatham, in the province of Ontario, thirty miles in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, for a railway from Ingersoll via London to Chatham, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	256,000
<b>190.</b>	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
<b>191.</b>	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
<b>192.</b>	To the Erie and Huron Railway Company, for twenty-two miles of their railway from Petrolea via Oil Springs to Dresden, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
<b>193.</b>	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
<b>194.</b>	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
<b>195.</b>	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
<b>196.</b>	To the Lake Erie and Detroit River Railway Company, for fifty miles of their railway, on a line to be fixed by the Governor in Council, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	160,000

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<b>197.</b>	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
<b>198.</b>	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
<b>199.</b>	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
<b>200.</b>	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
<b>201.</b>	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
<b>202.</b>	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
<b>203.</b>	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
<b>204.</b>	For a railway from a point at or near Fredericton, via Oromocto and Gagetown, to a point on the New Brunswick Railway west of Westfield station, for thirty miles thereof, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
<b>205.</b>	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
<b>206.</b>	To the Montreal and Western Railway Company, for seventy miles of their railway, from St. Jérôme, north-westerly towards Désert, in the province of Quebec, in lieu of the subsidy granted by the Act 49 Vic., chap. 10, a subsidy not exceeding \$5,161 per mile, nor exceeding in the whole.....	361,270

“ Provided, that the subsidy hereby granted to the Montreal and Western Company may be paid by instalments on the completion of each section of the railway as follows, that is to say :—

SECTIONS.	Approximate length in miles.
St. Jérôme to Shawbridge.....	8
Shawbridge to St. Sauveur.....	4
St. Sauveur to Ste. Adèle.....	6
Ste. Adèle to Lac à la Fourche.....	6
Lac à la Fourche to Ste. Agathe.....	6½
Ste. Agathe to St. Faustin.....	14
St. Faustin to St. Jovite.....	7½
St. Jovite to Summit Lake.....	8
Summit Lake to La Chute aux Iroquois.....	7
La Chute aux Iroquois towards Désert.....	3

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“Such instalments to be proportionate to the value of the portions so completed in comparison with that of the whole work undertaken, to be established as aforesaid.”

<b>207.</b> 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
<b>208.</b> 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
<b>209.</b> To the International Railway Company, for a railway from Sherbrooke to the international boundary, the balance remaining unpaid of the subsidy granted by the Act 46 Vic., chapter 25, not exceeding in the whole.....	3,840
<b>210.</b> For completing the Montreal and Sorel Railway from St. Lambert to Sorel.....	40,000
<b>211.</b> 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
<b>212.</b> To the Montreal and Lake Maskinongé Railway Company, for three and a half miles of their railway, the distance which the subsidy granted by the Act 49 Vic., chapter 10, is short of covering from St. Félix to Lake Maskinongé, in the parish of St. Gabriel, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	10,200
<b>213.</b> 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
<b>214.</b> 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
<b>215.</b> 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
<b>216.</b> To the Lake Temiscamingue Colonization Railway Company, for twenty miles of their railway, from the northern end of the fifteen miles subsidized by the Act 52 Vic., chapter 3, to the Long Sault, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
<b>217.</b> 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
<b>218.</b> 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
<b>219.</b> To the Quebec Central Railway Company, for ninety miles of their railway, from St. Francis Station, on the Quebec Central Railway, to a point on the Atlantic and North-western Railway,	

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	near Moose River, or from a point on the Quebec Central Railway between the Chaudière River and Tring Station, to a point on the International Railway at or near Lake Megantic, in lieu of the subsidy granted by the Act 51 Victoria, chapter 3, a subsidy not exceeding \$21,191.54 per annum for twenty years, or a guarantee of a like sum for a like period, as interest on the bonds of the company, such annual subsidy for twenty years representing a grant in cash of.....	\$288,000
<b>220.</b>	To the Quebec and Lake St. John Railway Company, for a railway bridge over the St. Charles River, to give access to the city of Quebec, a subsidy not to exceed in the whole \$30,000; also for twelve miles of their railway from Lorette via Charlesbourg to Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$38,400.....	68,400
<b>221.</b>	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
<b>222.</b>	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
<b>223.</b>	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
<b>224.</b>	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
<b>225.</b>	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
<b>226.</b>	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
<b>227.</b>	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
<b>228.</b>	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
<b>229.</b>	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,

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including subsidies granted for railways over a line extending beyond a point to which any company hereinbefore mentioned by name is authorized to construct its railway, shall be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively. All the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of July next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council,—except the Erie and Huron Railway, which shall be completed within two years from the first day of July next. And they shall also be constructed according to descriptions and specifications, and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specifying an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make. The location, also, of every such line of railway shall be subject to the approval of the Governor in Council. And all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized—except as regards the Erie and Huron Railway Company, upon which payment shall be made only upon the completion of the work—except, also as regards the subsidies to the Inverness and Richmond Railway, which shall be paid on the completion of each ten mile section, in accordance, as nearly as practicable, with the agreement between the company and the municipality of Inverness, and with section four of the Act of the Legislature of Nova Scotia, 1890, intituled: An Act to enable the county of Inverness to borrow money—except, also, as regards the subsidies to the Great Eastern Railway Company for bridges over the Nicolet and St. Francis Rivers, and to the Quebec and Lake St. John Railway for the bridge over the St. Charles River, upon which shall be paid fifteen per cent of the value of work done, on monthly progress estimates certified by the Chief Engineer and upon the approval of the Minister of Railways and Canals—and except also the subsidy granted to the Quebec Central Railway Company, the first annual payment upon which shall be made at the end of twelve months from the date of the Chief Engineer's certificate of the completion of the work, and each subsequent payment at the end of each twelve months thereafter, for the term of twenty years.

“The granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing running powers or traffic arrangements or other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those subsidized, as the Governor in Council determines.”

By the special Act 53 Vic., ch. 5, 1890 (*Assented to 16th May, 1890*):—

**230.** In order to enable the Calgary and Edmonton Railway Company to construct so much of their railway as reaches from a point on the line of the Canadian Pacific Railway Company within the town of Calgary to a point on the North Saskatchewan River near Edmonton, the Governor in Council may enter into a contract with such company for the transport of men, supplies, materials and mails for twenty years, and may pay for such services during the said term, eighty thousand dollars per annum, in manner following, that is to say: the sum of eighty thousand dollars to be paid annually on the construction of the railway from Calgary to a point on the North Saskatchewan River near Edmonton,—such payment to be computed from the date of the completion of the railway between such points: Provided that the Governor General in Council may order such sums to be paid in semi-annual instalments, and may permit the company to assign the same by way of security for any bonds or securities which may be issued by the company in respect of the company's undertaking.

By 54-55 Victoria, ch. 8, 1891 (*Assented to 30th Sept., 1891*):—

**231.** To the Great Northern Railway Company, for a railway from a point at or near New Glasgow or St. Lin to or near to Montcalm, in the province of Quebec, eighteen miles, the balance



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	remaining unpaid of the subsidy, not exceeding \$3,200 per mile, granted by the Act forty-ninth Victoria, chapter ten, nor exceeding in the whole.....	\$ 28,100 00
<b>232.</b>	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
<b>233.</b>	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
<b>234.</b>	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
<b>235.</b>	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
<b>236.</b>	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
<b>237.</b>	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
<b>238.</b>	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
<b>239.</b>	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

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“ 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 Palmers Rapids.....	16

“ The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council; and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also of every such line of railway, shall be subject to the approval of the Governor in Council; and all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized—except as to the subsidy granted to the Kingston, Smith's Falls and Ottawa Railway Company, the first semi-annual payment upon which shall be made at the end of six months from the date of the Chief Engineer's certificate of the completion of twenty-eight miles of the railway, and each subsequent payment at the end of each six months thereafter, for the term of twenty years,—except also as to the Quebec and Lake St. John Railway Company, the subsidy to which shall be paid upon the completion of the work,—except also as to the Brockville, Westport and Sault Ste. Marie Railway Company, the subsidy to which shall be paid as follows: on the completion of that portion of the said road from, at or near Newboro' to Westport, a distance of four miles, the sum of twelve thousand eight hundred dollars, and on the completion of the remaining sixteen miles from Westport towards Palmer's Rapids, the sum of fifty-one thousand two hundred dollars.

“ Within one month after the commencement of each session of Parliament, whilst any of the said moneys are being paid out, there shall be laid before Parliament a statement showing all payments of such moneys during the then next preceding year, the names of the respective persons to whom such payments have been made, and the amounts paid them respectively, together with the engineer's report upon which pay-

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ments have been recommended, and copies of all contracts between the Government and the company under which the said subsidies are authorized to be paid.

"The granting of such subsidies respectively shall be subject to such conditions for securing such running power or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

By the Act 55-56 Victoria, chap. 5, 1892 (*Assented to 9th July, 1892*):—

<b>241.</b>	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
<b>242.</b>	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
<b>243.</b>	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
<b>244.</b>	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
<b>245.</b>	To the Montfort 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 Montfort and westward, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	67,200 00
<b>246.</b>	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
<b>247.</b>	To the Montreal and Champlain Junction Railway Company, the balance remaining unpaid of the subsidies granted by the Acts 50-51 Victoria, chapter 24, and 51 Victoria, chapter 3, a subsidy of.	15,100 00
<b>248.</b>	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
<b>249.</b>	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

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<b>250.</b>	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
<b>251.</b>	To the Inverness and Richmond Railway Company (or any other company undertaking the work), for twenty-five miles of their railway from a point on the Cape Breton Railway, at or near Orangedale, to Broadcove, a subsidy not exceeding \$3,200 per mile, in lieu of the subsidy of \$50,000 granted to the said railway company by 53 Victoria, chapter 2, and on the same conditions, not exceeding in the whole.....	80,000 00
<b>252.</b>	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
<b>253.</b>	To the Lotbinière and Megantic Railway Company, for fifteen miles of their railway from a point at or near St. Jean Deschailons towards Glen Lloyd, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
<b>254.</b>	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
<b>255.</b>	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
<b>256.</b>	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
<b>257.</b>	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
<b>258.</b>	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
<b>259.</b>	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
<b>260.</b>	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
<b>261.</b>	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
<b>262.</b>	For a railway to complete the connection between Sydney and Louisburg, in the county of Cape Breton, for twenty-eight miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	89,600 00

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**263.** To the Belleville and Lake Nipissing Railway Company, for thirty miles of their railway from Belleville to Tweed and thence to Bridgewater, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... \$ 96,000 00

**264.** To the Kingston, Smith's Falls and Ottawa Railway Company, for fifty-six miles of their railway from the city of Kingston to Smith's Falls, in lieu of the subsidies, not to exceed \$179,200, granted by the Acts 52 Victoria, chapter 3, and 53 Victoria, chapter 2, a subsidy calculated on a basis of three and a half per cent on the amount of such subsidies so granted, to be paid in semi-annual instalments for such period not exceeding twenty-one years, as the company may elect, which represents a grant in cash of..... 179,200 00

“ Provided, that upon the completion of twenty-eight miles of the said railway a semi-annual subsidy may be paid proportionate to the value of the portion so completed in comparison with that of the whole fifty-six miles : Provided also, that the company may deposit with the Minister of Finance and Receiver General, a sum not exceeding \$1,170,000, in consideration whereof there shall be paid to the company for such period not exceeding twenty years as the company may elect, a semi-annual annuity calculated on a basis of three and a half per cent on the amount so deposited. Provided further, that the Governor in Council may permit the company to assign the said subsidy and annuity to trustees by way of security for any bonds or securities which may be issued by the company in respect of their undertaking.”

**265.** To the St. Catharines and Niagara Central Railway Company, for thirty-four miles of their railway from the city of St. Catharines to the city of Hamilton, in lieu of the subsidies, not to exceed \$108,000, granted by the Acts 52 Victoria, chapter 3, and 53 Victoria, chapter 2, a subsidy calculated on a basis of three and a half per cent on the amount of the said subsidies, to be paid in semi-annual instalments for such period, not exceeding twenty years, as the company may elect, representing a grant in cash of \$108,000 : Provided that, upon the completion of ten miles of said railway, a semi-annual subsidy may be paid proportionate to the value of the portion so completed in comparison with that of the whole thirty-four miles. Provided also, that the company may deposit with the Minister of Finance and Receiver General a sum not exceeding \$400,000, in consideration whereof there shall be paid by the Government to the company, for such period not exceeding twenty years, as the company may elect, a semi-annual annuity, calculated on a basis of three and a half per cent on the amount so deposited, or a guarantee of a like sum, as interest on the bonds of the company : Provided further, that the company, with the approval of the Governor in Council, may assign the said subsidy and annuity to trustees by way of security for principal, or interest of any bonds or securities which may be issued by the company in respect of their undertaking, and the subsidy last above mentioned to the St. Catharines and Niagara Central Railway Company shall be paid in instalments, the first semi-annual payment upon which shall be made at the end of the six months from the date of the Chief Engineer's certificate of the completion of the first ten miles of railway, and each subsequent payment at the end of six months thereafter, for the term of twenty years or less. It is a condition of this subsidy that the sum not exceeding \$400,000 above mentioned shall be deposited with the Finance Minister before January 1st, 1893.

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<b>266.</b>	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
<b>267.</b>	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
<b>268.</b>	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
<b>269.</b>	To the Thousand Island Railway Company, for an extension of their railway to connect with the Brockville, Westport and Sault Ste. Marie Railway, the Kingston, Napanee and Western Railway, the Kingston, Smith's Falls and Ottawa Railway, or the waters of the Rideau Canal, and an extension across the mouth of the Gananoque River, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole. . . . .	44,000 00
	Payable, \$14,000 on the completion of the last named or southern extension, and the balance of said subsidy, being \$30,000, on the completion of the first named or northern extension of their railway.	
<b>270.</b>	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
<b>271.</b>	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
<b>272.</b>	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
<b>273.</b>	To the Kingston, Napanee and Western Railway Company, for twenty miles of their railway, being extensions or branches in the counties of Peterborough, Hastings, Addington, Frontenac or Leeds, towards iron deposits, a subsidy not exceeding \$3,200 per mile, payable in instalments regulated by the length of each of the said extensions, additions or branches, the subsidy not exceeding in the whole. . . . .	64,000 00
<b>274.</b>	To the St. John Valley and Rivière du Loup Railway Company, for ten miles of their railway from the north end of the line subsidized by the Act 53 Victoria, chapter 2, towards the town of Woodstock, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	48,000 00

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<b>275.</b>	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
<b>276.</b>	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
<b>277.</b>	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
<b>278.</b>	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
<b>279.</b>	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
<b>280.</b>	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
<b>281.</b>	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
<b>282.</b>	To the Lake Témiscamingue Colonization Railway Company, for 15 miles of their railway from the Long Sault to the crossing of the Kippewa River, a subsidy not exceeding \$3,200 per mile—and a subsidy of fifteen per cent on the value of a wooden truss bridge over the Ottawa River near Mattawa, not exceeding \$15,000,—nor exceeding in the whole.....	63,000 00
<b>283.</b>	To the Goderich and Wingham Railway Company, for thirty-one miles of their railway from Goderich to Wingham, via Port Albert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	99,200 00
<b>284.</b>	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
<b>285.</b>	To the Bracebridge and Baysville Railway Company, for fifteen miles of their railway from Bracebridge towards Baysville, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
<b>286.</b>	To the Nipissing and James Bay Railway Company, for twenty-five miles of their railway from, at or near North Bay station on	

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	the Canadian Pacific Railway towards James Bay, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	\$ 80,000 00
<b>287.</b>	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
<b>288.</b>	To the Ontario and Pacific Railway Company, for fifty-three and eighty-seven hundredths miles of their railway from Cornwall to Ottawa, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	172,400 00
<b>289.</b>	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
<b>290.</b>	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
<b>291.</b>	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
<b>292.</b>	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
<b>293.</b>	To the St. Lawrence and Adirondack Railway Company, for five and forty-two hundredths miles of their railway, from Huntingdon towards the international boundary, which, with the distance between Valleyfield and Huntingdon, twelve and fifty-eight hundredths miles, makes up the distance of eighteen miles named in the 53 Vic., chap. 2, granting a subsidy to this company, and for five and forty-hundredths miles from the east end of the eighteen miles referred to to the international boundary, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	25,024 00

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications, and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies respectively shall be payable out of the Consolidated



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Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized,—except as to subsidies with respect to which it is hereinbefore otherwise provided, and except also as to the subsidy granted to the Kingston, Smith's Falls and Ottawa Railway Company, and the subsidy granted to the St. Catharines and Niagara Central Railway Company, the first semi-annual payments upon both of which shall be made at the end of six months from the date of the Chief Engineer's certificate of the completion of their railways respectively, and each subsequent payment at the end of each six months thereafter, for the term of twenty years or less.

“The granting of such subsidies respectively shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.”

**294.** Notwithstanding the expiration of the time limited by the Act 47 Victoria, chapter 8, and by the contract entered into with the Pontiac Pacific Junction Railway Company, the Governor in Council may pay the balance remaining unpaid of the subsidy granted by the said Act to the said company, according as it becomes due and payable in accordance with the said contract, and subject to the terms and conditions applicable to the said subsidy under the terms of the said Act.

**295.** Notwithstanding the expiration of the time limited by the Act 52 Victoria, chapter 3, and by the contract entered into with the Quebec and Lake St. John Railway Company, the Governor in Council may pay the balance remaining unpaid of the subsidy granted by the said Act to the said company, according as it becomes due and payable in accordance with the said contract, and subject to the terms and conditions applicable to the said subsidy under the terms of the said Act; and notwithstanding anything contained in the Act 50-51 Victoria, chapter 24, the Governor in Council may also pay to the said company the balance remaining unpaid of the subsidy granted to the company by the said Act, amounting to \$12,800, on the four miles of their road from the north end of the main line subsidized towards Roberval.

By the Act 56 Vic., chap. 2, 1893 (*Assented to 1st April, 1893*):—

- |   |              |
|---|--------------|
| <b>296.</b> 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 |
| <b>297.</b> 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   |
| <b>298.</b> 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    |
| <b>299.</b> To the Central Ontario Railway Company, for twenty miles of their railway, from Coe Hill or Gilmore, or some point between  |              |

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	Coe Hill and Gilmore, to Bancroft, via L'Amable, or as near thereto as practicable, in lieu of the subsidy granted by the Act 48-49 Victoria, chapter 59, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 64,000 00
<b>300.</b>	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
<b>301.</b>	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
<b>302.</b>	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
<b>303.</b>	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
<b>304.</b>	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
<b>305.</b>	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
<b>306.</b>	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
<b>307.</b>	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
<b>308.</b>	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
<b>309.</b>	To the Great Northern Railway Company, for fifteen miles of their railway, from, at or near Montcalm to the Canadian Pacific	

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	Railway between Joliette and St. Felix 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
<b>310.</b>	To the Montfort Colonization Railway Company, for twenty-one miles of their three-feet gauge railway from Lachute, St. Jérôme, or a point at or near St. Sauveur, on the line of the Montreal and Western Railway, to Montfort and westward, in lieu of the subsidy granted by the Act 55-56 Victoria, chapter 5, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	67,200 00
<b>311.</b>	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
<b>312.</b>	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
<b>313.</b>	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
<b>314.</b>	To the Oshawa Railway Company, for seven miles of their railway and branches as follows: from Port Oshawa to a point at or near Edmondson's Falls mill site, near Mill Street, in the town of Oshawa (this portion being known as the "Lake" section of the said railway); thence to a point at or near the town hall in the town of Oshawa, and thence to the Oshawa station of the Grand Trunk Railway Company of Canada (this portion being known as the "Town" or "Northern" section of the said railway)—in lieu of the subsidy granted by the Act 54-55 Victoria, chapter 8, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	22,400 00

"All the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council.

"The granting of such subsidies respectively shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

"All the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed

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in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized,—except as follows:—

“(a.) The subsidy to the Ontario, Belmont and Ottawa Railway Company, which shall be paid as follows: on the completion of the first section, an instalment proportionate to the value of the said section in comparison with that of the ten miles hereby subsidized, to be established as aforesaid, and the balance of the said subsidy on the completion of the second section;

“(b.) The subsidy to the Oshawa Railway Company, which shall be paid as follows: on the completion of the “Town” or “Northern” section, an instalment proportionate to the value of the said section in comparison with that of the seven miles hereby subsidized, to be established as aforesaid, and the balance of the said subsidy, on the completion of the “Lake” section of the said railway.”

By the Act 57-58 Vic., cap. 4, 1894. (*Assented to, 23rd July, 1894*):—

<b>315.</b>	To the Bracebridge and Baysville Railway Company, for fifteen miles of their railway, from Bracebridge towards Baysville, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	\$ 48,000
<b>316.</b>	To the Brockville, Westport and Sault Ste. Marie Railway, the balance remaining unpaid of the subsidy granted by chapter 3 of 1889, not exceeding \$3,200 per mile, and also the balance remaining unpaid of the subsidy granted by chapter 2 of 1890, which was re-granted by chapter 5 of 1892; the whole not exceeding . . . . .	86,800
<b>317.</b>	To the Tilsonburg, Lake Erie and Pacific Railway Company, for sixteen miles of their railway, from Port Burwell to Tilsonburg, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . .	51,200
<b>318.</b>	To the Brantford, Waterloo and Lake Erie Railway Company, for eighteen miles of their railway, from the town of Brantford to the village of Hagarsville or the village of Waterford, or some intermediate point on the Canada Southern Railway, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, not exceeding \$3,200 per mile, nor exceeding in the whole . . . .	4,790
<b>319.</b>	To the St. Catharines and Niagara Central Railway Company, for 34 miles of their railway from the city of St. Catharines to the city of Hamilton, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole . . . . .	108,800
<b>320.</b>	To the Montreal and Ottawa Railway Company (formerly the Vaudreuil and Prescott Railway Company), for thirty miles of their railway from Vaudreuil towards Hawkesbury, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887; and for 30 miles of their railway from the western end of the 30 miles first mentioned towards Ottawa, the balance remaining unpaid of the subsidy granted by chapter 2 of 1890, not exceeding \$3,200 per mile; the whole not exceeding . . . . .	118,400
<b>321</b>	Notwithstanding the expiration of the time limited by chapter 2 of 1890, and by the contract entered into with the Quebec Central Railway Company, and notwithstanding anything otherwise in the said chapter 2 contained, the Governor in Council may pay the subsidy granted by the said chapter to the said company at the present worth of the twenty annual payments mentioned in the said chapter (interest computed at four per cent), for and upon the completion of its railway extending from a point between the Chaudière River and Tring Station to a point on the International Railway at or near Lake Megantic, and upon the inspection and acceptance of the same by the Chief Engineer of Railways and Canals, the sum in all of . . . . .	288,000

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<b>322.</b> To the Philipsburg Junction Railway and Quarry Company, for $\frac{67}{100}$ mile of their railway from Stanbridge Station to Philipsburg, in the county of Missisquoi and a branch to Missisquoi Bay, the balance remaining unpaid of the subsidy granted by chapter 5 of 1892, not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 2,912
<b>323.</b> To the Joliette and St. Jean de Matha Railway Company, for 8 miles of their railway from St. Félix de Valois to St. Jean de Matha, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	23,600
<b>324.</b> To the Lake Temiscamingue Colonization Railway Company, for their railway from Mattawa to the foot of the Kippewa Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$160,000,—also 15 per cent on the value of a wooden truss bridge over the Ottawa River near Mattawa, not to exceed \$15,000 in all, in lieu of the subsidies granted by chapter 5 of 1892,—also the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, for their railway from Long Sault to Lake Kippewa, a subsidy not exceeding \$3,200 per mile of railway and 15 per cent on the value of the bridges,—also, a sum of \$1,750 additional per mile on their said railway from Mattawa to the foot of the Kippewa Lake; the whole not exceeding.....	274,940
<b>325.</b> For a railway from St. Placide to St. Andrews, 8 miles, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	25,600
<b>326.</b> For a railway from St. Eustache to St. Placide, in the county of Two Mountains, for 18 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
<b>327.</b> For a railway from a point on the line of the Canadian Pacific Railway on Isle Jésus, in the county of Laval, towards St. Eustache, for 12 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, to the Carillon and Grenville Railway Company, for 12 miles of their railway, from St. Eustache to Sault au Récollet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
<b>328.</b> For a railway from the parish of St. Rémi, in the county of Napierville, to St. Cyprien, in the said county, for 12 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
<b>329.</b> To the Pontiac Pacific Junction Railway Company, for bridging the several channels of the Ottawa River at Culbute and west thereof, a subsidy of \$31,500, to be paid out monthly as the work progresses, upon the certificate of the chief engineer of government railways, in the proportion which the value of the work executed bears to the value of the whole work undertaken; and for 3 miles of their railway extending from a point 3 miles east of Pembroke to Pembroke, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$9,600, in lieu of the subsidy granted by chapter 3 of 1888; provided that the entire work subsidized upon this railway shall be completed within 4 years from the passing of this Act; the subsidy granted by this Act not to exceed in the whole.....	41,100

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<b>330.</b>	To the Pontiac Pacific Junction Railway Company, for the construction or acquisition of $7\frac{1}{2}$ miles of railway, from Hull to Aylmer, in lieu of the subsidy granted by chapter 2 of 1890, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$ 24,000
<b>331.</b>	To the Pontiac Pacific Junction Railway Company, for 85 miles of their railway from Aylmer to Pembroke, the balance remaining unpaid of the subsidy granted by chapter 8 of 1884, less the subsidy granted for the line from Hull to Aylmer, provided the Ottawa River is crossed at some point not east of Lapasse, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	73,172
<b>332.</b>	To the Harvey Branch Railway Company, for 3 miles of their railway from the southern terminus of the Albert Railway to Harvey Bank, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, not exceeding \$3,200 per mile, nor exceeding in the whole.	4,046
<b>333.</b>	For a railway from a point on the Intercolonial Railway near Newcastle via Douglastown, to a point on the River Miramichi opposite the town of Chatham, in the province of New Brunswick, 6 miles, in lieu of the subsidy granted by chapter 10 of 1886, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	19,200
<b>334.</b>	For a railway from some point on the Joggins Railway, near the Hebert River, to Young's Mills, in the province of Nova Scotia, a distance of 5 miles, in lieu of the subsidy granted by chapter 3 of 1889, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	16,000
<b>335.</b>	To the Woodstock and Centreville Railway Company, for a railway from Woodstock to the international boundary between the province of New Brunswick and the state of Maine, 26 miles, in lieu of the subsidies granted by chapter 24 of 1887 and chapter 2 of 1890 a subsidy not exceeding \$3,200 per mile nor exceeding in the whole.	83,200
<b>336.</b>	For 90 miles of the railway from Newport or Windsor to Truro, or to a point between Truro and Stewiacke, and from a point on the said railway to a point at or near Eastville, and from Eastville through the valley of the Musquodoboit River towards a point on the proposed Dartmouth branch of the Intercolonial, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile; and also for a railway bridge over the Shubenacadie River on the line of the said railway, a subsidy of 15 per cent on the value of the structure; the whole not exceeding	300,000
<b>337.</b>	To the Nipissing and James Bay Railway Company, for 25 miles of their railway from, at or near North Bay Station on the Canadian Pacific Railway towards James Bay, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile; also for 43 miles of their railway from North Bay towards Lake Tamagaming, a subsidy not exceeding \$3,200 per mile; the whole not exceeding	217,000
<b>338.</b>	To the Lotbinière and Mégantic Railway Company, for 15 miles of their railway, in addition to the 15 miles already subsidized and built, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	48,000
<b>339.</b>	To the Drummond County Railway Company, for 30 miles of their railway from St. Leonard northerly towards a junction with the Intercolonial Railway at Chaudière Junction, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	96,000

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<b>340.</b>	For a railway from Lime Ridge, in the county of Wolfe, in the province of Quebec, northerly through the county of Wolfe and into the county of Megantic, a distance not exceeding 50 miles from Lime Ridge, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 160,000
<b>341.</b>	To the Strathroy and Western Counties Railway Company, for 25 miles of their railway from St. Thomas through the counties of Elgin and Middlesex, towards Forest Station or Park Hill, on the Grand Trunk Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
<b>342.</b>	To the Parry Sound Colonization Railway Company, for 20 miles of their railway east from Parry Sound, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
<b>343.</b>	To the Manitoulin and North Shore Railway Company, for 10 miles of their railway from Little Current to Nelson, on the Algoma Branch of the Canadian Pacific Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
<b>344.</b>	To the United Counties Railway Company for 32 miles of their railway from Iberville to Sorel, in addition to the 32 miles already subsidized, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	102,400
<b>345.</b>	To the Joliette and St. Jean de Matha Railway Company, for 12 miles of their railway from St. Jean de Matha to Ste. Emelie de L'Energie, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
<b>346.</b>	To the Great Northern Railway Company, for 22 miles of their railway, from the eastern end of the 15 miles subsidized by chapter 2 of 1893 to a point between Joliette and St. Félix de Valois, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
<b>347.</b>	To the Quebec and Lake St. John Railway Company, for 2 miles of the Chicoutimi branch of their railway, from the east end of the 50 miles already subsidized and built eastward to deep water at Chicoutimi, a subsidy not exceeding \$3,200 per mile; also for 12 miles from the 52nd mile on the Chicoutimi branch to Ha Ha Bay, a subsidy not exceeding \$3,200 per mile; the whole not exceeding.....	44,800
<b>348.</b>	To the Pontiac and Ottawa Railway Company, for 23 miles of their railway from the point of divergence from the Pontiac Railway to Ferguson's Point, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	> 73,600
<b>349.</b>	To the Ottawa and Gatineau Valley Railway Company, for 20 miles of their railway from the eastern end of the 62 miles already subsidized towards Désert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
<b>350.</b>	To the Canada Eastern Railway Company for 6 miles of their railway from the town of Chatham to Black Brook, a subsidy not exceeding \$3,200 per mile; also for 4 miles of their railway for a branch to the village of Nelson, a subsidy not exceeding \$3,200 per mile; the whole not exceeding.....	32,000
<b>351.</b>	For a railway from Cross Creek Station, on the Canada Eastern Railway to Stanley village, in the county of York, in the province of New Brunswick, 6 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200
<b>352.</b>	To the Restigouche and Victoria Railway Company, for 20 miles of their railway from the western end of the 15 miles subsidized by chapter 5 of 1892, towards Grand Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000

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<b>353.</b>	To the Central Railway Company of New Brunswick, for 15 miles of their railway from Chipman station to the Newcastle coal fields, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	\$ 48,000
<b>354.</b>	To the Tobique Valley Railway Company, for 15 miles of their railway from the present terminus at Plaister Rock easterly, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	48,000
<b>355.</b>	Towards the restoration or renewal of the railway bridge on the South-eastern Railway over the Yamaska River at Yamaska, a subsidy equal to one-third of the actual cost of the renewal of the bridge, but the grant not to exceed in the whole. . . . .	50,000
<b>356.</b>	To the Boston and Nova Scotia Coal and Railway Company, for 10½ miles of their railway from the north end of the section already subsidized to Broad Cove, a subsidy not exceeding \$3,200 per mile; also for 25 miles of their railway from a point on the Cape Breton Railway at or near Orangedale towards Broad Cove, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile; the whole not exceeding	113,600
<b>357.</b>	For a railway from Port Hawkesbury towards Cheticamp, 25 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	80,000
<b>358.</b>	To the Manitoba North-western Railway Company, for 100 miles of the extension of their main line from its present western terminus towards Prince Albert,—the company relinquishing 3,200 acres of the land grant per mile, and the whole road to be operated as a continuous line of railway under one management, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	320,000
<b>359.</b>	For a line of railway from the junction of the Elk and Kootenay Rivers to Coal Creek, a distance of 34 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	108,800
<b>360.</b>	For a railway from Abbotsford Station on the Mission Branch of the Canadian Pacific Railway to the town of Chilliwack, 21 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	67,200
<b>361.</b>	To the Nicola Valley Railway Company, for 28 miles of their railway from the western end of the section of their road subsidized by chapter 5, of 1892, towards Nicola Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	89,600
<b>362.</b>	To the Nakusp and Slocan Railway Company, for 38 miles of their railway from the town of Nakusp to a point at or near the Forks of Carpenter Creek, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	121,600
<b>363.</b>	To the Pontiac and Kingston Railway Company, for 22 miles of a railway from Portage du Fort to Upper Thorne Centre, via Shawville, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	70,400
<b>364.</b>	To the New Glasgow Iron, Coal and Railway Company, for 5 miles of their railway, from Stunynbrae to Kerrogare, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	16,000 00
<b>365.</b>	To the South Shore Railway Company, for 35 miles of their railway from Yarmouth towards Shelburne and Lockport, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	112,000 00
<b>366.</b>	To the Cape Breton Railway Extension Company, for 30 miles of railway from Port Hawkesbury to St. Peter's, on their line of railway from Port Hawkesbury to Louisbourg, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . . .	96,000 00



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<b>367.</b>	For a railway from a point on the Intercolonial Railway between Norton and Sussex Stations towards Havelock, 20 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$ 64,000 00
<b>368.</b>	For a railway from St. John to Barneville, for a distance of 10 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	32,000 00
<b>369.</b>	For a line of railway from Cap de la Magdeleine to connect with the Piles Branch of the Canadian Pacific Railway, 3 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	9,600 00
<b>370.</b>	To the Canada Eastern Railway Company, for an extension of one mile from the western end of their railway, to connect with the Canadian Pacific Railway, a subsidy not exceeding.	3,200 00
<b>371.</b>	To the Great Northern Railway Company, for 30 miles of their railway from its junction with the Lower Laurentian Railway near St. Tite, in the vicinity of the River St. Maurice, westward, in lieu of the subsidy granted to the Maskinongé and Nipissing Railway Company by chapter 2 of 1893, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	96,000 00
<b>372.</b>	To the Lindsay, Bobcaygeon and Pontypool Railway Company, for 16 miles of their railway from Bobcaygeon to the Midland Railway, and for another 16 miles from the end of the first mentioned 16 miles to Pontypool, in lieu of the subsidies granted by chapter 2 of 1890, and chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	102,400 00
<b>373.</b>	To the Montfort Colonization Railway Company, for 12 miles of their railway from the end of the 21 miles already subsidized westward to a point on the Rouge River, in the county of Argenteuil, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	38,400 00
<b>374.</b>	For a railway from a point on the Caraqueet Railway, at or near Pokemouche siding, towards Tracadie village, 12 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	38,400 00

The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively: all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railway and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council.

The granting of such subsidies respectively shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

The said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized,—except as to subsidies with respect to which it is hereinbefore otherwise provided, and except also as to the

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subsidy granted to the Great Northern Railway Company by chapter two of 1893, for fifteen miles from Montcalm to the Canadian Pacific Railway, which shall be paid as follows: on the completion of the eighteen miles from New Glasgow to Montcalm and of two miles out of the fifteen miles from Montcalm to the Canadian Pacific Railway, an instalment proportionate to the value of the ten miles out of the total mileage subsidized by chapter two of 1893, to be established as aforesaid, and the balance of the said subsidy on the completion of the remaining thirteen miles of the said railway.

No subsidies were authorized by 58-59 Vict. (1895), nor by 59 Vict. (1896).

By the Act 60-61, chapter 4, 1897 (*Assented to 29th June, 1897*).

**1.** In this Act, unless the context otherwise requires, the expression "cost" means the actual, necessary and reasonable cost, and includes the amount expended upon any bridge up to and not exceeding twenty-five thousand dollars, forming part of the line of railway subsidized not otherwise receiving any bonus, but shall not include the cost of equipping the railway, nor the cost of terminals and right of way of the railway in any city or incorporated town; and such actual, necessary and reasonable cost shall be determined by the Governor in Council, upon the recommendation of the Minister of Railways and Canals and upon the report of the Chief Engineer of Government Railways, certifying that he has made or caused to be made an inspection of the line of railway for which payment of subsidy is asked, and careful inquiry into the cost thereof, and that in his opinion the amount upon which the subsidy is claimed is reasonable, and does not exceed the true, actual and proper cost of the construction of such railway.

**2.** The Governor in Council may grant a subsidy of \$3,200 per mile towards the construction of each of the undermentioned lines of railway (not exceeding in any case the number of miles hereinafter respectively stated), which shall not cost more on the average than \$15,000 per mile for the mileage subsidized, and towards the construction of each of the said lines of railway not exceeding the mileage hereinafter stated, which shall cost more on the average than \$15,000 per mile for the mileage subsidized, a further subsidy beyond the sum of \$3,200 per mile of fifty per cent on so much of the average cost of the mileage subsidized as is in excess of \$15,000 per mile, such subsidy not exceeding in the whole the sum of \$6,400 per mile:—

- 375.** To the Ottawa and New York Railway Company, for  $53\frac{87}{100}$  miles of their railway from Cornwall to Ottawa, in lieu of the subsidy granted by chapter 5 of the statutes of 1892;
- 376.** To the Kingston, Smith's Falls and Ottawa Railway Company, for 101 miles of their railway from Kingston, or a junction with the Grand Trunk Railway at Rideau or some other point near Kingston, to Ottawa, in lieu of the subsidy granted by chapter 5 of 1892;
- 377.** For a railway from a point on the Canadian Pacific Railway, at or near either Welsford or Westfield, or between the said two points, to Gagetown, in the county of Queen's, New Brunswick, not exceeding 30 miles, in lieu of the subsidy granted by chapter 2 of 1890;
- 378.** To the Cobourg, Northumberland and Pacific Railway Company, for 50 miles of their railway from Cobourg to the Ontario and Quebec Railway, in lieu of the subsidies granted by chapter 5 of 1892;
- 379.** To the Ottawa and Gatineau Railway Company, for 20 miles of their railway from the end of the 62nd mile subsidized towards Désert, in lieu of the subsidies granted by chapter 4 of 1894;
- 380.** To the Great Northern Railway Company, for 9 miles of their railway, being shortage in distance between Montcalm and St. Tite;
- 381.** To the St. Gabriel de Brandon and Ste. Emélie de l'Energie Railway Company, for 15 miles of their railway from St. Gabriel to Ste. Emélie de l'Energie, and 5 miles from a point on the main line to St. Jean de Matha, making in all 20 miles, in lieu of the subsidy granted by chapter 4 of 1894;
- 382.** To the Central Railway Company of New Brunswick, for 15 miles of their railway from Chipman Station to Newcastle Coal Fields, county of Queen's, in lieu of the subsidy granted by chapter 4 of 1894;

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- 383.** To the Gulf Shore Railway Company, for  $5\frac{1}{2}$  miles of their railway from the end of the section subsidized to Tracadie and thence to Big Tracadie, New Brunswick ;
- 384.** For a railway from Campbellton, on the Intercolonial Railway, towards Grand Falls, New Brunswick, a distance of 20 miles, commencing at Campbellton, in lieu of the subsidy granted by chapter 4 of 1894 ;
- 385.** To the Pontiac Pacific Junction Railway Company, for  $7\frac{1}{2}$  miles of their railway from Hull to Aylmer, in lieu of the subsidy granted by chapter 2 of 1890 ;
- 386.** To the Schomberg and Aurora Railway Company, for 15 miles of their railway from a point on the Grand Trunk Railway between King and Newmarket to Schomberg, in the province of Ontario ;
- 387.** To the Tilsonburg, Lake Erie and Pacific Railway Company, for  $3\frac{5}{10}$  miles of their railway from the present terminus, through Tilsonburg to the Michigan Central Railway, in the province of Ontario.
- 388.** To the Ottawa, Arnprior and Parry Sound Railway Company, for 52 miles of their railway, from the crossing of the Northern Pacific Junction Railway to 55 miles west of Barry's Bay, and also for 4 miles of their railway across Parry Island ;
- 389.** To the Pembroke Southern Railway Company, for 20 miles of their railway from Pembroke to Golden Lake, in the province of Ontario ;
- 390.** To the Ontario and Rainy River Railway Company, for 80 miles of their railway from the Port Arthur, Duluth and Western Railway to Rainy Lake, in the province of Ontario ;
- 391.** To the Strathroy and Western Counties Railway Company, for 7 miles of their railway, commencing at a point at or near Caradoc Station on the Canadian Pacific Railway and extending to the town of Strathroy ;
- 392.** To the Phillipsburg Railway and Quarry Company, for  $\frac{6}{10}$  mile of their railway from the end of the subsidized section to the government wharf at Phillipsburg ;
- 393.** To the United Counties Railway Company, for 1 mile of their railway from Johnson to St. Grégoire Station, in the province of Quebec ;
- 394.** To the St. Lawrence and Adirondack Railway Company, for  $13\frac{1}{2}$  miles of their railway from Beauharnois to Caughnawaga, in the province of Quebec ;
- 395.** To the East Richelieu Valley Railway Company, for 24 miles of their railway from Iberville to St. Thomas, boundary of Missisquoi County, in the province of Quebec ;
- 396.** To the Portage du Fort and Bristol Branch Railway Company, for 15 miles of their railway to a point at or near Shawville, in the county of Pontiac ;
- 397.** For a railway from a point at or near Windsor Junction, on the Intercolonial Railway, to Upper Musquodoboit, for a distance of 40 miles ;
- 398.** To the St. Stephens and Milltown Railway Company, for  $1\frac{4}{10}$  mile of their railway from Milltown to St. Stephen, in the province of New Brunswick ;
- 399.** For a railway from Sunny Brae to Country Harbour, and from a point at or near Country Harbour Cross Roads to Guysboro', in the province of Nova Scotia, a distance of 65 miles ;
- 400.** For a railway from Port Hawkesbury, Nova Scotia, to Port Hood and Broad Cove, 53 miles, in lieu of the subsidy granted by chapter 4 of 1894 ;
- 401.** For a railway from a point on the Central Railway in the county of Lunenburg, Nova Scotia, to the town of Liverpool, via the village of Caledonia, or to the village of Caledonia via Liverpool, or for any part thereof, the whole distance not exceeding 62 miles ;
- 402.** For a railway from Indian Garden on the line of the Central Railway, to Shelburne, in the province of Nova Scotia, a distance of 35 miles ;
- 403.** To the Coast Railway Company of Nova Scotia, for 61 miles of their railway from Yarmouth to Port Clyde, in the province of Nova Scotia ;
- 404.** For a railway from Brookfield Station on the Intercolonial Railway to Eastville, 30 miles ;

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- 405.** To the Great Northern Railway Company, for 35 miles of their railway from St. Jérôme, in the province of Quebec, to Hawkesbury, in the province of Ontario;
- 406.** To the Drummond County Railway Company, for 42½ miles of their railway from Moose Park to Chaudière River, provided that the amount of the said subsidy shall be refunded to the Government of Canada in the event of the company's railway from Ste. Rosalie to Chaudière River being purchased or leased for a term of years by the government.

**3.** The Governor in Council may grant the subsidies hereinafter mentioned to the railway companies and towards the construction of the railways also hereinafter mentioned, that is to say:—

<b>407.</b> To the Great Northern Railway Company, for 67 miles of their railway between Montcalm and its junction with the Lower Laurentian Railway near St. Tite, in the vicinity of the St. Maurice River, the balance remaining unpaid of the subsidies granted by chapter 2 of 1893, and by chapter 4 of 1894, between these points, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 182,400 00
<b>408.</b> To the Pontiac Pacific Junction Railway Company, for 85 miles of their railway from Aylmer to Pembroke, also for bridging the Ottawa River, the balance remaining unpaid of the subsidy granted by chapter 8 of 1884, and by chapter 4 of 1894, not exceeding.....	114,272 00
<b>409.</b> To the Ottawa and Gatineau Railway Company, for 62 miles of their railway from Hull towards Désert, in the province of Quebec, the balance remaining unpaid of the subsidy granted by chapter 2 of 1893, not exceeding in the whole.....	35,872 00
<b>410.</b> To the Grand Trunk Railway Company of Canada, for a subsidy towards the rebuilding and enlargement of the Victoria Bridge at Montreal over the St. Lawrence River, 15 per cent upon the amount expended thereon, not exceeding.....	300,000 00
<b>411.</b> To the Montfort Colonization Railway Company, for 33 miles of their railway from Montfort Junction to Arundel, in the province of Quebec, a subsidy not exceeding \$2,000 per mile, nor exceeding in the whole.....	66,000 00
<b>412.</b> To the Irondale, Bancroft and Ottawa Railway Company, the balance remaining unpaid of the subsidy for the last five miles of the company's railway; the eastern terminus to be either at the village of Bancroft or at some point near the Hastings Road, in the township of Herschell, in lieu of the subsidy granted by chapter 2 of 1893, not exceeding in the whole.....	16,000 00
<b>413.</b> To the Great Northern Railway Company, towards the construction of a railway bridge over the Ottawa River at Hawkesbury, 15 per cent upon the amount expended thereon, not exceeding.....	52,500 00
<b>414.</b> For a railway and traffic bridge over the Ottawa River at Nepean Point, between the city of Ottawa and the city of Hull, 15 per cent upon the amount expended thereon, not exceeding.....	112,500 00

**4.** 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 are 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 from the said first day of August, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and

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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.

5. 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.

6. 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 of which it is hereinbefore otherwise provided.

7. Any company receiving a subsidy as aforesaid, in excess of \$3,200 per mile, shall be bound to carry Her Majesty's mails for a term of ten years free of charge over the portion of railway subsidized.

By the Special Act 60-61 Victoria, Chapter 5, 1897. (*Assented to 29th June, 1897.*)

1. Subject to the conditions hereinafter mentioned, the Governor in Council may grant to the Canadian Pacific Railway Company a subsidy towards the construction of a railway from Lethbridge, in the district of Alberta, through the Crow's Nest Pass to Nelson, in the province of British Columbia (which railway is hereinafter called "the Crow's Nest Line,") to the extent of eleven thousand dollars per mile thereof, and not exceeding in the whole the sum of three million six hundred and thirty thousand dollars, payable by instalments on the completion of each of the several sections of the said railway of the length respectively of not less than ten miles, and the remainder on the completion of the whole of the said railway; provided that an agreement between the Government and the company is first entered into in such form as the Governor in Council thinks fit, containing covenants to the following effect, that is to say:—

On the part of the company:

(a.) That the company will construct or cause to be constructed, the said railway upon such route and according to such descriptions and specifications and within such time or times as are provided for in the said agreement, and, when completed, will operate the said railway for ever;

(b.) That the said line of railway shall be constructed through the town of Macleod, and a station shall be established therein, unless the Governor in Council is satisfied by the company that there is good cause for constructing the railway outside the limits of the said town, in which case the said line of railway shall be located and a station established at a distance not greater than five hundred yards from the limits of the said town;

(c.) That so soon as the said railway is opened for traffic to Kootenay Lake, the local rates and tolls on the railway and on any other railway used in connection therewith and now or hereafter owned or leased by or operated on account of the company south of the company's main line in British Columbia, as well as the rates and tolls between any point on any such line or lines of railway and any point on the main line of the company throughout Canada, or any other railway owned or leased by or operated on account of the company, including its lines of steamers in British Columbia, shall be first approved by the Governor in Council or by a railway commission, if and when such commission is established by law, and shall at all times thereafter and from time to time be subject to revision and control in the manner aforesaid;

(d.) That a reduction shall be made in the general rates and tolls of the company as now charged, or as contained in its present freight tariff, whichever rates are now the lowest, for carloads or otherwise, upon the classes of merchandise hereinafter mentioned, westbound, from and including Fort William and all points east of Fort

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William on the company's railway to all points west of Fort William on the company's main line, or on any line of railway throughout Canada owned or leased by or operated on account of the company, whether the shipment is by all rail line or by lake and rail, such reduction to be to the extent of the following percentages respectively, namely:—

- Upon all green and fresh fruits, 33 $\frac{1}{3}$  per cent ;
- Coal oil, 20 per cent ;
- Cordage and binder twine, 10 per cent ;
- Agricultural implements of all kinds, set up or in parts, 10 per cent ;
- Iron, including bar, band, Canada plates, galvanized, sheet, pipe, pipe-fittings, nails, spikes and horse shoes, 10 per cent ;
- All kinds of wire, 10 per cent ;
- Window glass, 10 per cent ;
- Paper for building and roofing purposes, 10 per cent ;
- Roofing felt, box and packing, 10 per cent ;
- Paints of all kinds and oils, 10 per cent ;
- Live stock, 10 per cent ;
- Wooden ware, 10 per cent ;
- Household furniture, 10 per cent ;

And that no higher rates than such reduced rates or tolls shall be hereafter charged by the company upon any such merchandise carried by the company between the points aforesaid ; such reductions to take effect on or before the first of January, one thousand eight hundred and ninety-eight ;

(*e.*) That there shall be a reduction in the company's present rates and tolls on grain and flour from all points on its main line, branches or connections, west of Fort William to Fort William and Port Arthur and all points east, of three cents per one hundred pounds, to take effect in the following manner:—One and one-half cent per one hundred pounds on or before the first day of September, one thousand eight hundred and ninety-eight, and an additional one and one-half cent per one hundred pounds on or before the first day of September, one thousand eight hundred and ninety-nine ; and that no higher rates than such reduced rates or tolls shall be charged after the dates mentioned on such merchandise from the points aforesaid ;

(*f.*) That the Railway Committee of the Privy Council may grant running powers over the said line of railway and all its branches and connections, or any portions thereof, and all lines of railway now or hereafter owned or leased by or operated on account of the company in British Columbia south of the company's main line of railway, and the necessary use of its tracks, stations and station grounds, to any other railway company applying for such grant upon such terms as such committee may fix and determine, and according to the provisions of The Railway Act and of such other general Acts relating to railways as are from time to time passed by Parliament ; but nothing herein shall be held to imply that such running powers might not be so granted without the special provision herein contained ;

(*g.*) That the said railway, when constructed, together with that portion of the company's railway from Dunmore to Lethbridge, and all lines of railway, branches, connections and extensions in British Columbia south of the main line of the company in British Columbia shall be subject to the provisions of The Railway Act and of such other general Acts relating to railways as are from time to time passed by Parliament ;

(*h.*) That if the company or any other company with whom it shall have any arrangement on the subject shall, by constructing the said railway or any part of it, as stipulated for in the said agreement, become entitled to and shall get any land as a subsidy from the Government of British Columbia, then such lands, excepting therefrom those which in the opinion of the Director of the Geological Survey of Canada (expressed in writing) are coal-bearing lands, shall be disposed of by the company or by such other company to the public according to regulations and at prices not exceeding these prescribed from time to time by the Governor in Council, having regard to the then existing provincial regulations applicable thereto ; the expression "lands" including all mineral and timber thereon which shall be disposed of as aforesaid, either with or without the land, as the Governor in Council may direct ;

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(i.) That if the company or any other company with whom it shall have any arrangement on the subject shall, by constructing the said railway or any part of it as stipulated for in the said agreement, become entitled to and shall get any lands as a subsidy from the Government of British Columbia which in the opinion of the Director of the Geological Survey of Canada (expressed in writing) are coal-bearing lands, then the company will cause to be conveyed to the Crown, in the interest of Canada, a portion thereof to the extent of fifty thousand acres, the same to be of equal value per acre as coal lands with the residue of such lands. The said fifty thousand acres to be selected by the Government in such fair and equitable manner as may be determined by the Governor in Council, and to be thereafter held or disposed of or otherwise dealt with by the Government as it may think fit on such conditions, if any, as may be prescribed by the Governor in Council, for the purpose of securing a sufficient and suitable supply of coal to the public at reasonable prices, not exceeding two dollars per ton of two thousand pounds free on board cars at the mines.

And on the part of the Government, to pay the said subsidy by instalments as aforesaid.

**2.** The company shall be bound to carry out in all respects the said agreement, and may do whatever is necessary for that purpose.

**3.** In order to facilitate such financial arrangements as will enable the company to complete the railway as aforesaid without delay and to acquire and consolidate with it the railway from Dunmore to Lethbridge, hereinafter called "the Alberta Branch," which, under the authority of chapter thirty-eight of the statutes of 1893, it now operates as lessee, and is under covenant to purchase, the company may issue bonds which will be a first lien and charge and be secured exclusively upon the said Alberta Branch and Crow's Nest Line together in the same way and with the same effect as if both the said pieces of railway to be so consolidated were being built by the company as one branch of its railway within the meaning of section one of chapter fifty-one of the statutes of 1888, and that section shall apply accordingly, such first lien to be subject to the payment of the purchase money of the Alberta Branch, as provided for in the said covenant to purchase.

By the Act 62-63 Vic., chapter 7 (*Assented to 11th August, 1899*).

**1.** In this Act, unless the context otherwise requires, the expression "cost" means the actual, necessary and reasonable cost and shall include the amount expended upon any bridge, up to and not exceeding \$25,000, forming part of the line of railway subsidized not otherwise receiving any bonus, but shall not include the cost of equipping the railway, nor the cost of terminals and right of way of the railway in any city or incorporated town; and such actual, necessary and reasonable cost shall be determined by the Governor in Council, upon the recommendation of the Minister of Railways and Canals, and upon the report of the Chief Engineer of Government Railways, certifying that he has made or caused to be made an inspection of the line of railway for which payment of subsidy is asked, and careful inquiry into the cost thereof, and that in his opinion the amount upon which the subsidy is claimed is reasonable, and does not exceed the true, actual and proper cost of the construction of such railway.

**2.** The Governor in Council may grant a subsidy of \$3,200 per mile towards the construction of each of the undermentioned lines of railway (not exceeding in any case the number of miles hereinafter respectively stated) which shall not cost more on the average than \$15,000 per mile for the mileage subsidized, and towards the construction of each of the said lines of railway not exceeding the mileage hereinafter stated, which shall cost more on the average than \$15,000 per mile for the mileage subsidized, a further subsidy beyond the sum of \$3,200 per mile of fifty per cent on so much of the average cost of the mileage subsidized as is in excess of \$15,000 per mile, such subsidy not exceeding in the whole the sum of \$6,400 per mile:—

**415.** To the Central Ontario Railway Company, for an extension of their railway from, or from near, either Coe Hill or Rathbun Station on the company's railway to, or near to Bancroft, not exceeding 21 miles, in lieu of the subsidy granted by chapter 5 of 1892;

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- 416.** To the Great Northern Railway Company, for a railway between Montcalm and St. Tite Junction, on the Lower Laurentian Railway, Quebec, not exceeding  $53\frac{1}{2}$  miles; and for a branch from their main line to Shawenegan Falls, Quebec, not exceeding  $6\frac{1}{2}$  miles.
- 417.** To the Phillipsburg Railway and Quarry Company, shortage in the extension of their railway from a point on the company's line at or near the end of the subsidized section, to the government wharf at Phillipsburg, Quebec, not exceeding  $\frac{66}{100}$  of a mile;
- 418.** To the Strathroy and Western Counties Railway Company, for a line from Strathroy, Ontario, via Adelaide and Arkona, to either Forest, Tedford, or Park Hill, not exceeding 24 miles, in lieu of the subsidy granted by chapter 4 of 1894;
- 419.** To the St. John Valley and Rivière du Loup Railway Company, for a line of railway from Fredericton, in the county of York, New Brunswick, to Woodstock, in the county of Carleton, not exceeding 59 miles;
- 420.** For a railway from Port Hawkesbury, on the Strait of Canso, Nova Scotia, to St. Peter's, not exceeding thirty miles;
- 421.** For a railway from Windsor, Nova Scotia, to Truro, via the township of Clifton, not exceeding 58 miles, in lieu of the subsidy granted by chapter 4 of 1894;
- 422.** For a railway from a point at or near Brookfield Station, Nova Scotia, on the Intercolonial Railway, to Eastville, not exceeding 25 miles, in lieu of the subsidy granted by chapter 4 of 1897;
- 423.** For a railway from Cross Creek Station, on the Canada Eastern Railway, to Stanley Village, New Brunswick, not exceeding 6 miles;
- 424.** For a railway from the village of St. Rémi to Stottville or some point on the Delaware and Hudson Railway (Grand Trunk) in the parish of St. Paul de l'Île aux Noix, not exceeding 19 miles;
- 425.** For a railway between Pontypool and Bobcaygeon, via Lindsay, Ontario, not exceeding 40 miles.
- 426.** To the Pontiac Pacific Junction Railway Company, for a railway from Aylmer to Hull, Quebec, not exceeding 9 miles, in lieu of the subsidy granted by chapter 4 of 1897;
- 427.** To the Portage du Fort and Bristol Branch Railway Company, for a branch line from a point on the Pontiac Pacific Junction Railway at or near the village of Quyon, towards the village of Portage du Fort, Quebec, not exceeding 15 miles, in lieu of the subsidy granted by chapter 4 of 1897;
- 428.** To the Orford Mountain Railway Company, for a branch from their railway from a point between Lawrenceville and Eastman to Waterloo, not exceeding 13 miles;
- 429.** To the Atlantic and Lake Superior Railway Company, for an extension of their railway from Caplin to Paspebiac, Quebec, not exceeding 30 miles;
- 430.** To the United Counties Railway Company, for a railway from St. Robert Junction to Sorel,  $6\frac{1}{2}$  miles, (this subsidy to be payable only in the event of adequate running rights over the South-eastern Railway between the two points above mentioned not being granted to the first mentioned Company on terms to be approved by the Railway Committee of the Privy Council,) and from Mount Johnson to St. Grégoire Station, 1 mile, not exceeding  $7\frac{1}{2}$  miles.
- 431.** For a railway from a point on the Central Railway in the county of Lunenburg, Nova Scotia, to the town of Liverpool, via the village of Caledonia, or to the village of Caledonia, via Liverpool, or for any part thereof, the whole distance not exceeding 62 miles;
- 432.** For a railway from Indian Gardens, Queen's County, Nova Scotia, to Shelburne, in the said province, a distance of 35 miles;
- 433.** The subsidy which the Ontario and Rainy River Railway Company is entitled to receive under chapter 4 of 1897, shall be \$6,400 per mile for the 80 miles mentioned in the said Act; not exceeding in all \$512,000.



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- 434.** To the Bay of Quinté Railway Company, for such extensions, branches or additions to their system as will enable the said Company to connect their lines of railway or connecting lines with iron or other mines or mineral or wood lands in the counties of Peterborough, Northumberland, Hastings, Lennox and Addington, Frontenac or Leeds, payable in instalments regulated by the length of each of the said extensions or branches or additions, as the case may be, in lieu of part of the balance remaining unpaid of the subsidy granted to the Kingston, Napanee and Western Railway Company, by chapter 5 of 1892, but not exceeding \$3,200 per mile for 10 miles, nor exceeding in the whole \$32,000 ;
- 435.** To the Quebec and Lake St. John Railway Company, for 12 miles of their railway from the end of their line at deep water on the Chicoutimi branch of their railway, to Ha Ha Bay, in the lieu of the subsidy for the 12 miles granted by chapter 4 of 1894 ;
- 436.** For a line of railway from Hawkesbury, Ontario, to South Indian, not exceeding 35 miles ;
- 437.** For a railway from Sault Ste. Marie, Ontario, towards Michipicoten River and harbour and towards the main line of the Canadian Pacific Railway, not exceeding 40 miles ;
- 438.** For a branch line of railway from the main line of the Ottawa, Arnprior and Parry Sound Railway to the town of Parry Sound, Ontario, not exceeding 5 miles ;
- 439.** For a railway from the village of Haliburton, via the village of Whitney, towards the town of Mattawa, Ontario, not exceeding 20 miles ;
- 440.** For an extension of the Tilsonburg, Lake Erie and Pacific Railway, from Tilsonburg to Ingersoll or Woodstock, Ontario, not exceeding 28 miles ;
- 441.** To the South Shore Railway Company, from Sorel Junction along the South Shore to Lotbinière, Quebec, a distance not exceeding 82 miles ;
- 442.** To the Massawippi Valley Railway Company for an extension of their railway to the village of Stanstead Plain, Quebec, not exceeding  $2\frac{1}{2}$  miles ;
- 443.** For a railway from Port Hawkesbury on the Strait of Canso, to Caribou Cove, Nova Scotia, a distance of 10 miles ;
- 444.** For a railway from Fort Frances, Ontario, westerly to a point at or near the mouth of Rainy River, a distance not exceeding 70 miles ;
- 445.** To the Central Railway Company of New Brunswick, for an extension of their line of railway from Newcastle Coal Fields to Gibson, New Brunswick, not exceeding 30 miles ;
- 446.** To the Canadian Northern Railway Company, for a railway from a point on the present line of the Winnipeg Great Northern Railway north of Swan River to Prince Albert, North-west Territories, not exceeding 100 miles ;
- 447.** For a railway from some point near Antler Station to a point near Moose Mountain, Manitoba, not exceeding 50 miles ;
- 448.** For a railway from Sunnybrae to Country Harbour, and from a point at or near Country Harbour Cross Roads to Guysborough, Nova Scotia, to make up the deficiency in mileage between points mentioned and subsidized by chapter 4 of 1897, additional mileage not exceeding 15 miles ;
- 449.** For a railway from Port Clyde towards Lockeport, in the province of Nova Scotia, not exceeding 20 miles ;
- 450.** For a railway from a point on the Intercolonial Railway at or near Halifax towards the Central Railway in the county of Lunenburg, not exceeding 20 miles ;
- 451.** For a railway from Labelle, in the province of Quebec, in a north-westerly direction, to Nominingue, via Notre Dame de l'Annonciation, a distance not exceeding 22 miles ;
- 452.** For a railway from Owen Sound, in the province of Ontario, to Meaford, not exceeding 21 miles ;
- 453.** To the Ottawa and Gatineau Railway Company, for their line of railway in and through the city of Hull, Quebec, not exceeding 4 miles ;

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- 454.** To the Western Alberta Railway Company, from a point on the United States boundary, west of Range 27, north-westerly towards Anthracite, in the district of Alberta, not exceeding 50 miles ;
- 455.** To the Edmonton, Yukon and Pacific Railway Company, for a railway from the town of South Edmonton, North-west Territories, to North Edmonton, and thence westerly towards the Yellow Head Pass, a distance not exceeding 50 miles ;
- 456.** To the Restigouche and Western Railway Company, in addition to the 20 miles subsidized by chapter 4 of 1897, and in continuation from the westerly end of the said 20 miles towards the St. John River, a further distance not exceeding 15 miles, and for the company's railway from a point on the St. John River, New Brunswick, at or near Grand Falls, or St. Leonard, or between Grand Falls and St. Leonard, and extending easterly towards Campbellton, such point to be approved by the Governor in Council, a distance of 12 miles ; in all not exceeding 27 miles ;
- 457.** For a railway in extension of the St. Francis branch of the Temiscouata Railway to the mouth of the St. Francis River, a distance not exceeding 3 miles ;
- 458.** To the Canada Eastern Railway Company, for a line of railway from Nelson, New Brunswick, to connect with the company's main line running into Chatham, to complete the connection from Nelson to such main line, not exceeding in the whole  $2\frac{1}{2}$  miles ;
- 459.** To the Bay of Quinté Railway Company, for an extension of their line in a westerly direction from a point at or near Richmond boundary road near Deseronto for a distance not exceeding 2 miles ; also for an extension of their line from its present terminus at Tweed in a northerly direction for a distance of 2 miles, and for an extension of their line from the end of the last 2 miles mentioned in a northerly direction for a distance not exceeding 3 miles—in all 7 miles ; subsidies payable on each of the sections mentioned as each of such sections is completed ;
- 460.** To the Ontario, Belmont and Northern Railway Company, for an extension of their railway from its present terminus at Iron Mines in a north-westerly direction, a distance not exceeding 5 miles ; and also for an extension of the company's railway southerly, from the present southern terminus thereof to the Central Ontario Junction of the Canadian Pacific Railway, a distance not exceeding 2 miles ; but the last mentioned aid for the said 2 miles of railway shall not be granted in case the Railway Committee of the Privy Council finds that adequate running powers on fair terms can be secured to the company over that portion of the line of the Central Ontario Railway between the present southerly end of the Ontario, Belmont and Northern Railway and the Canadian Pacific Railway Company's line at Central Ontario Junction ; subsidies payable on each of the sections mentioned as each of such sections is completed ;
- 461.** For a line of railway from a point on the Pembroke Southern Railway at or near Golden Lake, Ontario, towards a point on the Irondale, Bancroft and Ottawa Railway at or near Bancroft, not exceeding 20 miles ;
- 462.** For a line of railway from Paspébiac, Quebec, to Gaspé in the said province, a distance not exceeding 82 miles ;
- 463.** To the Lake Erie and Detroit River Railway Company, for a line of railway from Ridgetown, Ontario, to St. Thomas, in the said province, a distance not exceeding 44 miles ; this subsidy to be payable only in the event of adequate running rights over the Canada Southern Railway between the two points above mentioned not being granted to the first mentioned company on terms to be approved by the Railway Committee of the Privy Council ;
- 464.** To the Kingston and Pembroke Railway Company, for the construction of branches from the Company's main line to the iron mine at Bluff Point and to the Martele mine in the county of Renfrew, not exceeding 5 miles ;

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**465.** For a railway from the town of Parry Sound extending northerly towards Sudbury, a distance not exceeding 20 miles.

**3.** The Governor in Council may grant the subsidies hereinafter mentioned towards the construction of the railways also hereinafter mentioned, that is to say :—

<b>466.</b> The Ontario and Rainy River Railway Company, for a railway from a point 80 miles west of Stanley Station, on the Port Arthur, Duluth and Western Railway, to Fort Frances, for a distance of 140 miles, at \$6,400 per mile, not exceeding in the whole .....	\$ 896,000 00
<b>467.</b> To the Quebec Bridge Company, towards the construction of a railway bridge over the St. Lawrence River, at Chaudière Basin, near Quebec, one million dollars, 40 per cent of which amount may be paid on monthly progress estimates, approved by the Government engineers, of materials delivered and work done. . .	1,000,000 00
<b>468.</b> To the South Shore Railway Company, towards the restoration and renewal of the railway bridge over the Yamaska River at Yamaska, Quebec.....	50,000 00
<b>469.</b> Towards the construction of a bridge over the Richelieu River at Sorel, 15 per cent upon the amount expended thereon, not exceeding.....	35,000 00
<b>470.</b> Towards the construction of a bridge across the St. Francis River, 15 per cent of the amount expended thereon, not exceeding....	50,000 00
<b>471.</b> Towards the construction of a bridge across the Nicolet River, 15 per cent upon the amount expended thereon, not exceeding....	15,000 00
<b>472.</b> To the Midland Railway Company, Limited, towards the construction of a bridge across the Shubenacadie River, 15 per cent upon the amount expended thereon, not exceeding.....	33,750 00
<b>473.</b> To the Great Northern Railway Company, towards the construction of a bridge across the St. Maurice River, 15 per cent upon the amount expended thereon, not exceeding.....	16,425 00
<b>474.</b> Also towards the construction of a bridge across the Rivière du Loup, 15 per cent upon the amount expended thereon, not exceeding .....	15,000 00
<b>475.</b> Also towards the construction of a steel bridge and viaduct at the Maskinongé River, 15 per cent upon the amount expended thereon, not exceeding.....	15,000 00

**4.** The subsidies granted to the Ontario and Rainy River Railway Company, the Canadian Northern Railway Company and the Edmonton, Yukon and Pacific Railway Company are granted upon the condition, and, if received and paid under the authority of this Act to the above mentioned companies respectively, shall be received upon the condition, that the said companies shall not, nor shall any of them, at any time amalgamate with, or lease its line or lines to, any railway company other than those mentioned in this section, except as may be authorized by Parliament; nor shall any of the said railways be leased to or operated by any other company; nor shall any of the said companies make an agreement for a common fund or for pooling its receipts with any other railway company; and any such lease, amalgamation or agreement shall be absolutely void, excepting in so far as such agreement may extend to traffic or running arrangements which have been approved by the Governor in Council.

**5.** 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 are 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

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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 from the said first day of August, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council.

**6.** The granting of such subsidies, and the receipt thereof by the respective companies, shall be subject to the condition that the Governor in Council may at all times provide and secure to other companies such running powers, traffic arrangements and other rights as will afford to all railways connecting with those so subsidized reasonable and proper facilities in exercising such running powers, fair and reasonable traffic arrangements with connecting companies, and equal mileage rates between all such connecting railways; and the Governor in Council shall have absolute control at all times over the rates and tolls to be levied and imposed by any of the companies or upon any of the railways hereby subsidized.

**7.** 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.

**8.** Every company receiving a subsidy under this Act, its successors or assigns, and any person or company controlling or operating the railway or portion of railway subsidized under this Act, shall each year furnish to the Government of Canada transportation for men, supplies, material and mails over the portion of its line in respect of which it has received such subsidy, and, whenever required, shall furnish mail cars, properly equipped, for such mail service; and such transportation and service shall be performed at such rates as are agreed upon between the Minister of the department of the Government for which such service is being performed and the company performing it, and in case of disagreement, then at such rates as are approved by the Governor in Council; and in or towards payment for such charges the Government of Canada shall be credited by the company with a sum equal to three per cent per annum on the amount of subsidy received by the company under this Act.

**9.** As respects all railways for which subsidies are granted by this Act, the company at any time owning or operating any of the said railways shall, when required, produce and exhibit to the Minister of Railways and Canals, or any person appointed by him, all books, accounts and vouchers showing the cost of constructing the railway, the cost of operating it, and the earnings thereof.

By the Act 63-64 Vic., chapter 8 (*Assented to July 18, 1900*).

**1.** In this Act, unless the context otherwise requires, the expression 'cost' means the actual, necessary and reasonable cost and shall include the amount expended upon any bridge, up to and not exceeding \$25,000, forming part of the line of railway subsidized not otherwise receiving any bonus, but shall not include the cost of equipping the railway nor the cost of terminals and right of way of the railway in any city or incorporated town; and such actual, necessary and reasonable cost shall be determined by the Governor in Council, upon the recommendation of the Minister of Railways and Canals, and upon the report of the Chief Engineer of Government Railways, certifying that he has made or caused to be made an inspection of the line of railway for which payment of subsidy is asked, and careful inquiry into the cost thereof, and that in his

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opinion the amount upon which the subsidy is claimed is reasonable, and does not exceed the true, actual and proper cost of the construction of such railway.

2. The Governor in Council may grant a subsidy of \$3,200 per mile towards the construction of each of the undermentioned lines of railway (not exceeding in any case the number of miles hereinafter respectively stated) which shall not cost more on the average than \$15,000 per mile for the mileage subsidized, and towards the construction of each of the said lines of railway not exceeding the mileage hereinafter stated, which shall cost more on the average than \$15,000 per mile for the mileage subsidized, a further subsidy beyond the sum of \$3,200 per mile of fifty per cent on so much of the average cost of the mileage subsidized as is in excess of \$15,000 per mile, such subsidy not exceeding in the whole the sum of \$6,400 per mile :—

- 476.** For a railway from a point at or near the junction of the Irondale, Bancroft and Ottawa Railway and the Grand Trunk Railway to the village of Minden, in the county of Haliburton, Ontario, not exceeding 12 miles.
- 477.** To the Strathroy and Western Counties Railway Company, for a railway commencing at a point at or near Caradoc station, on the Canadian Pacific Railway, and extending to the town of Strathroy, Ontario, not exceeding 7 miles.
- 478.** For a line of railway from a point on the Pembroke Southern Railway at or near Golden Lake, towards a point on the Irondale, Bancroft and Ottawa Railway at or near Bancroft, Ontario, for the further extension of such railway westerly from the western terminus of the 20 miles subsidized by chapter 4 of 1897, for a distance not exceeding 20 miles.
- 479.** To the Algoma Central Railway Company for 25 miles of its line of railway from its terminus at Michipicoten Harbour, Lake Superior, towards the main line of the Canadian Pacific Railway, and for a further extension of this company's line of railway from Sault Ste. Marie towards Michipicoten River and Harbour, Ontario, towards the main line of the Canadian Pacific Railway, 25 miles in all, not exceeding 50 miles.
- 480.** To the Central Ontario Railway Company, for a further extension of their railway from, at or near Bancroft to a point on the Canada Atlantic Railway between Whitney and Barry's Bay, Ontario, not exceeding 20 miles.
- 481.** To the Manitoulin and North Shore Railway Company, for a line of railway between Little Current, on Manitoulin Island, and Sudbury, Ontario, on the Canadian Pacific Railway, the company undertaking to bridge between Little Current and the main land, the bridge to be so constructed and maintained as to afford suitable facilities, in the opinion of the Minister of Railways and Canals, for free vehicular and passenger traffic, the same as upon a public highway, the work to be begun and prosecuted from Little Current and Sudbury, one-half of the subsidy to be applicable, as earned, in respect of the work beginning at Little Current and carried on towards Sudbury, and one-half thereof to be applicable, as earned, in respect of the work beginning at Sudbury and carried on towards Little Current, the course of the line of railway to cross the Sault Ste. Marie branch of the Canadian Pacific Railway, not exceeding 66 miles.
- 482.** For a railway from Bracebridge, in Muskoka, to a point at or near Baysville, Ontario, not exceeding 15 miles.
- 483.** For a railway beginning at a point northerly 20 miles from Parry Sound, and extending from that point to the French River, Ontario, not exceeding 35 miles.
- 484.** For a railway from a point 20 miles north-easterly from the village of Haliburton, via the village of Whitney, towards the village of Mattawa, Ontario, not exceeding 40 miles.
- 485.** To the Kingston and Pembroke Railway Company, for a branch line of railway to iron mines in Bedford township, Ontario, not exceeding 12 miles.
- 486.** To the Thousand Islands Railway Company for an extension of their railway from the present northerly terminus to a point easterly thereof, not exceeding 2 miles ;

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And also for an extension from a point on the railway to connect their railway with the Brockville, Westport and Sault Ste. Marie Railway, the Bay of Quinté Railway, the Kingston, Smith's Falls and Ottawa Railway, or the waters of the Rideau Canal, the balance remaining of the subsidy granted by chapter 5 of 1892, not exceeding  $9\frac{1}{2}$  miles.

- 487.** For a railway from Dymont, on the Canadian Pacific Railway, to the New Klondike mining district, Ontario, not exceeding 7 miles.
- 488.** To the Schomberg and Aurora Railway Company, for an extension of their line from its easterly terminus to a point at or near Bond's Lake, Ontario, not exceeding 4 miles.
- 489.** To the Nipissing and James Bay Railway Company, for a railway from, at or near North Bay station, on the Canadian Pacific Railway, towards James Bay, or Lake Tamagaming, Ontario, not exceeding 20 miles.
- 490.** In aid of the Ottawa and New York Railway Company's bridge over the St. Lawrence River, and for the Canadian portion of such bridge, a sum not exceeding \$90,000.
- 491.** To the Grand Trunk Railway Company of Canada, towards the cost of the rebuilding and enlargement of the Victoria Bridge over the St. Lawrence River, Quebec, in addition to the amount received by the company on account of the subsidy granted by chapter 4 of 1897, viz: \$270,000, to make up the grant in aid of the undertaking to \$500,000, upon condition that the tolls upon the bridge for passenger and vehicular traffic shall be subject to the approval of the Governor in Council, a sum not exceeding \$230,000.
- 492.** For a railway and traffic bridge over the Ottawa River at Nepean Point, between the city of Ottawa, Ontario, and the city of Hull, Quebec, upon condition that the bridge be so constructed as to provide suitable facilities, to the satisfaction of the Minister of Railways and Canals, for free vehicular and foot passenger traffic, the same as upon a public highway, in addition to the \$112,500 already granted,—and, notwithstanding anything in the said Act, the subsidy hereby granted, together with the grant of \$112,500 under chapter 4 of 1897, shall be paid upon the completion of the bridge and its approaches, upon the Chief Engineer's report of such completion, and the recommendation of the Minister,—a sum not exceeding \$100,000.
- 493.** To the Canadian Northern Railway Company, in further extension of their railway north of Swan River towards Prince Albert, North-west Territories, in addition to the grant by chapter 7 of 1899, a further mileage not exceeding 100 miles.
- 494.** For a railway from the westerly end of the Waskada branch of the Canadian Pacific Railway, Manitoba, further westward, not exceeding 20 miles.
- 495.** For a railway from a point on the Alberta Railway and Coal Company's Railway towards Cardston, Alberta, N.W.T., for 30 miles of railway at \$2,500 per mile.
- 496.** To the Kaslo and Lardo-Duncan Railway Company, for a railway from Duncan Lake towards Lardo or Arrow Lake, British Columbia, or from Lardo to Arrow Lake, not exceeding 30 miles.
- 497.** To the Restigouche and Western Railway Company, for the company's railway, in addition to the 15 miles subsidized by chapter 7 of 1899, on the easterly section of the line, and in continuation from the westerly end of the said 15 miles, a further distance of 15 miles towards the St. John River; and for the said railway, in addition to the 12 miles subsidized by the said chapter on the westerly section of the said line, a further distance from the easterly end thereof of 15 miles, towards Campbellton, N.B., not exceeding 30 miles.
- 498.** For a line of railway from St. Charles Junction on the Intercolonial Railway towards the St. Francis branch of the Temiscouata Railway, Quebec, not exceeding 45 miles, and from the mouth of the St. Francis River, N.B., westerly towards St. Charles Junction, 15 miles, in all not exceeding 60 miles.
- 499.** For a line of railway from Bristol, in the county of Carleton, New Brunswick, on the Canadian Pacific Railway, easterly, a distance not exceeding 17 miles.

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- 500.** For a line of railway from Shediac, county of Westmorland, New Brunswick, to Shemogue, and towards Cape Tormentine, in the said county, a distance not exceeding 38 miles.
- 501.** For a railway from Lockeport, Nova Scotia, to Sable River, or other convenient point of railway connection, not exceeding 20 miles.
- 502.** To the Inverness and Richmond Railway Company, for a railway in extension of the company's line northward from Broad Cove to Cheticamp, C.B., Nova Scotia, not exceeding 40 miles.
- 503.** For a railway from Bridgetown to Victoria Beach, Nova Scotia, not exceeding 30 miles.
- 504.** For a railway from a point on the Intercolonial Railway, Pictou branch, to Kempt Town, county of Colchester, Nova Scotia, not exceeding  $4\frac{1}{2}$  miles.
- 505.** For a railway from Brazil Lake, on the Dominion Atlantic Railway, to Kemptville, Nova Scotia, not exceeding 11 miles.
- 506.** To the Montfort and Gatineau Colonization Railway Company, to enable it to extend its railway from Arundel to a point in the municipality of the united townships of Preston and Hartwell, province of Quebec, not exceeding 30 miles.
- 507.** To the Chateauguay and Northern Railway Company, for a railway from a point in Hochelaga ward, Montreal, to a point on the Great Northern Railway, in or near the town of Joliette, passing near the town of L'Assomption, Quebec, together with a spur into the said town, not exceeding 42 miles.
- 508.** To the Chateauguay and Northern Railway Company, for a single-track standard railway bridge, with two roadways 10 feet wide, for free vehicular and foot passenger traffic, the same as upon a public highway, from Bout L'Isle to Charlemagne, at the junction of the Ottawa and St. Lawrence rivers, \$150,000.
- 509.** To the Chateauguay and Northern Railway Company, towards the construction of a bridge across the Lac Ouareau River, \$15,000.
- 510.** To the Arthabaska Railway Company, for a railway from Victoriaville to West Chester, province of Quebec, a distance not exceeding 12 miles.
- 511.** To the Great Northern Railway Company, for a branch line from the town or from near the town of Joliette towards Ste. Emélie, touching the parishes of Ste. Beatrix and Ste. Jean de Matha, not exceeding 20 miles.
- 512.** For a railway from Farnham, province of Quebec, to Frelighsburg and the International Boundary Line, not exceeding 21 miles.
- 513.** Towards the construction of a railway bridge over the St. Francis River, in lieu of the grant under chapter 7 of 1899, at St. François du Lac, on the condition that the bridge, with approaches, be built so as to allow the municipalities to make use thereof, to establish and maintain a suitable roadway for the free passage of foot passengers, vehicles and animals, to be approved by the Minister of Railways and Canals, \$50,000.
- 514.** Towards the construction of a railway bridge over the Nicolet River at Nicolet, in lieu of the grant under chapter 7 of 1899, \$15,000.
- 515.** For a line of railway from Halifax towards a point on the Central Railway of Nova Scotia, in the county of Lunenburg, in addition to and in extension of the 20 miles subsidized by chapter 7 of 1899, not exceeding 20 miles.

**3.** The subsidies hereby granted and any subsidies heretofore granted under any Act of the Parliament of Canada, still in force, but not fully paid, towards the construction of any railway or bridge, shall be payable out of the Consolidated Revenue Fund of Canada, and may, unless in this Act otherwise expressly provided, at the option of the Governor in Council, on the report of the Minister of Railways and Canals, be paid as follows :

(a) upon the completion of the work subsidized ; or

(b) by instalments on the completion of each ten-mile section of the railway, in the proportion which the cost of such completed section bears to that of the whole work undertaken ; or

(c.) upon progress estimates on the certificate of the Chief Engineer of Railways and Canals, that in his opinion, having regard to the whole work undertaken and the aid granted, the progress made justifies the payment of a sum not less than sixty thousand dollars; or

(d.) with respect to (b) and (c), part one way, part the other.

4. 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 are 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 from the said first day of August, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the government, which agreement the government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council.

5. The granting of such subsidies, and the receipt thereof by the respective companies, shall be subject to the condition that the Governor in Council may at all times provide and secure to other companies such running powers, traffic arrangements and other rights as will afford to all railways connecting with those so subsidized reasonable and proper facilities in exercising such running powers, fair and reasonable traffic arrangements with connecting companies, and equal mileage rates between all such connecting railways; and the Governor in Council shall have absolute control at all times over the rates and tolls to be levied and imposed by any of the companies or upon any of the railways hereby subsidized.

6. The Governor in Council may make it a condition of the subsidies hereby granted, or of any heretofore granted by any Act of Parliament as to which a contract has not yet been entered into between Her Majesty and the company for the construction of the railway, that the company shall lay its road with new steel rails made in Canada, if such rails are procurable in Canada of suitable quality upon terms as favourable as other rails can be obtained upon, of which the Minister of Railways and Canals shall be the judge.

7. Every company receiving a subsidy under this Act, its successors or assigns, and any person or company controlling or operating the railway or portion of railway subsidized under this Act, shall each year furnish to the government of Canada transportation for men, supplies, material and mails over the portion of its line in respect of which it has received such subsidy, and, whenever required, shall furnish mail cars, properly equipped, for such mail service; and such transportation and service shall be performed at such rates as are agreed upon between the minister of the department of the government for which such service is being performed and the company performing it, and in case of disagreement then at such rates as are approved by the Governor in Council; and in or towards payment for such charges the government of Canada shall be credited by the company with a sum equal to three per cent per annum on the amount of subsidy received by the company under this Act.

8. As respects all railways for which subsidies are granted by this Act, the company at any time owning or operating any of the said railways shall, when required, produce and exhibit to the Minister of Railways and Canals, or any person appointed by him, all books, accounts and vouchers showing the cost of constructing the railway, the cost of operating it, and the earnings thereof.



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9. Paragraph 20 of section 2 of chapter 7 of the statutes of 1899 is amended by inserting after the word 'railway,' in the third line, the words 'or to connect the said lines.'

10. The subsidy provided for by chapter 7 of the statutes of 1899 towards the construction of a railway bridge over the St. Lawrence River at Chaudière Basin, near Quebec, shall be deemed to be applicable, as to one-third thereof, to the substructure and approaches, and as to two-thirds thereof to the superstructure, and the said subsidy may be paid upon that basis by authority of the Governor in Council, upon progress estimates to be furnished from time to time by the Chief Engineer of Government Railways and Canals, so that one-third of such subsidy, and no more, may be paid in respect of and upon completion of the masonry of the substructure and approaches of the said bridge, one-third, and no more, upon the work and material of one-half of the superstructure being done and supplied, in respect of such work and material, and the remaining one-third upon the completion of the whole work.

By the Act 1st Edward VII., chapter 7 (*Assented to May 23, 1901.*)

1. In this Act, unless the context otherwise requires, the expression 'cost' means the actual, necessary and reasonable cost, and shall include the amount expended upon any bridge, up to and not exceeding \$25,000, forming part of the line of railway subsidized not otherwise receiving any bonus, but shall not include the cost of terminals and right of way of the railway in any city or incorporated town; and such actual, necessary and reasonable cost shall be determined by the Governor in Council, upon the recommendation of the Minister of Railways and Canals, and upon the report of the Chief Engineer of Government Railways, certifying that he has made or caused to be made an inspection of the line of railway for which payment of subsidy is asked, and careful inquiry into the cost thereof, and that in his opinion the amount upon which the subsidy is claimed is reasonable, and does not exceed the true, actual and proper cost of the construction of such railway.

2. The Governor in Council may grant a subsidy of \$3,200 per mile towards the construction of each of the undermentioned lines of railway (not exceeding in any case the number of miles hereinafter respectively stated) which shall not cost more on the average than \$15,000 per mile for the mileage subsidized, and towards the construction of each of the said lines of railway not exceeding the mileage hereinafter stated, which shall cost more on the average than \$15,000 per mile for the mileage subsidized, a further subsidy beyond the sum of \$3,200 per mile of fifty per cent on so much of the average cost of the mileage subsidized as is in excess of \$15,000 per mile, such subsidy not exceeding in the whole the sum of \$6,400 per mile;—

516. For a line of railway from a point on the Intercolonial Railway at or near New Glasgow to Country Harbour, Nova Scotia, and from a point at or near Country Harbour Cross Roads to Guysborough, in lieu of the subsidies granted by 1897, cap. 4, and 1899, cap. 7, sec. 2, paragraph 34, not exceeding 80 miles.

517. To the Quebec and New Brunswick Railway Company, for a line of railway from a point at or near St. Charles or at or near Chaudière Junction or a point on the Quebec Central Railway, near St. Anselme, Quebec, towards the present terminus of the St. Francis Branch of the Témiscouata Railway, New Brunswick, not exceeding 45 miles, and for a line of railway from the mouth of the St. Francis River, New Brunswick, westerly towards Chaudière Junction, not exceeding 15 miles, in lieu of the subsidy granted by 1900, cap. 8, sec. 2, paragraph 23; also for a line of railway in extension of the St. Francis Branch of the Témiscouata Railway to the mouth of the St. Francis River, New Brunswick, in lieu of the subsidy granted by 1899, cap. 7, sec. 2, paragraph 43, not exceeding 3 miles; in all not exceeding 63 miles.

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- 518.** To the Montreal and Province Line Railway Company, for a line of railway from Farnham, Quebec, to Frelighsburg, in lieu of the subsidy granted by 1900, cap. 8, sec. 2, paragraph 37, not exceeding 19 miles.
- 519.** For a line of railway from a point on the Intercolonial Railway at or near Windsor Junction to Upper Musquodoboit, in lieu of 1897, cap. 4, sec. 2, paragraph 23, not exceeding 40 miles.
- 520.** For a line of railway from Pubnico, Nova Scotia, to Port Clyde or Clyde River, in lieu of the unexpended balance of subsidy granted by 1897, cap. 4, sec. 2, paragraph 29, not exceeding 31 miles.
- 521.** To the Toronto, Lindsay and Pembroke Railway Company, for a line of railway from the western terminus of the 20 miles subsidized by 1899, cap. 7, sec. 2, paragraph 47, westerly towards Bancroft, not exceeding 20 miles, in lieu of the subsidy granted by 1900, cap. 8, sec. 2, paragraph 3; also from the terminus of previously subsidized lines at a point about 40 miles west of Golden Lake, westerly to Bancroft, not exceeding 11 miles; in all not exceeding 31 miles.
- 522.** For a line of railway from Chipman Station, New Brunswick, to Gibson, in lieu of the subsidies granted by 1897, cap. 4, and 1899, cap. 7, sec. 2, paragraph 31, not exceeding 45 miles.
- 523.** To the Inverness and Richmond Railway Company, for a line of railway from a point at or near Point Tupper on the Intercolonial Railway, to Broad Cove and Cheticamp, Nova Scotia, in lieu of the subsidies granted by 1897, cap. 4, 1899, cap. 7, sec. 2, paragraph 29, and 1900, cap. 8, sec. 2, paragraph 27, not exceeding 98 miles.
- 524.** For a line of railway from Caplin to Paspebiac, Quebec, in lieu of the subsidy granted by 1899, cap. 7, sec. 2, paragraph 15, the subsidy contract to be entered into with the trustees or receivers under mortgage from the Atlantic and Lake Superior Railway Company, and to contain the conditions that the subsidy when earned shall be paid in the following manner:—
- 1st. To the Hamilton Bridge Works Company in payment for bridge superstructures on the said section of railway, when furnished and erected by that company, not to exceed \$35,000;
  - 2nd. For the completion of the road-bed and works incidental thereto;
  - 3rd. Towards payment of overdue balances, pro rata, in settlement of claims for labour, boarding-house claims, and material and supplies furnished in connection with the construction of the said section of railway; in all not exceeding 30 miles.
- 525.** To the Schomberg and Aurora Railway Company, for a line of railway from a point on the Grand Trunk Railway between King and Newmarket, Ontario, to Schomberg, in lieu of the subsidy granted by 1897, cap. 4, not exceeding 15 miles.
- 526.** To the Ottawa and Gatineau Railway Company, for a line of railway from the end of the 62nd mile subsidized, towards Désert, in lieu of the subsidy granted by 1897, cap. 4, sec. 2, paragraph 5, not exceeding 20 miles.
- 527.** To the Restigouche and Western Railway Company, for its line of railway from Campbellton on the Intercolonial Railway, New Brunswick, towards Grand Falls, in lieu of the subsidy granted by 1897, cap. 4, sec. 2, paragraph 10, not exceeding 20 miles.
- 528.** To the Pontiac Pacific Junction Railway Company, for 36 miles of its railway from a point at or near Shawville, crossing the Ottawa River via Calumet Island to Pembroke, including the bridging of both channels of the Ottawa River at Calumet Island, 14 miles of which shall be in lieu of the unexpended balance of subsidy granted by 1897, cap. 4, sec. 3, paragraph 2, not exceeding \$115,200.
- 529.** To the Manitoulin and North Shore Railway Company, for its line of railway, from a point on its line of railway between Sudbury and Little Current to its junction with the line of the Algoma Central and Hudson Bay Railway, at or

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near Goulais River, in addition to and in further extension of its railway subsidized by 1900, cap. 8, sec. 2, paragraph 6, an additional mileage not exceeding 130 miles.

- 530.** For a line of railway from Grandique Ferry, Nova Scotia, to Arichat, not exceeding 8 miles.
- 531.** To the Central Ontario Railway Company, for a further extension of its line of railway, subsidized by 1900, cap. 8, sec. 2, paragraph 5, northward, to a junction with the Canada Atlantic Railway, at or near Whitney, Ontario, not exceeding 20 miles.
- 532.** To the Kingston and Pembroke Railway Company, for a line of railway from a point at or near Sharbot Lake, Ontario, via Lanark, to Carleton Place, not exceeding 41 miles.
- 533.** To the Norwood and Apsley Railway Company, for a line of railway from Norwood, Ontario, to the village of Apsley, not exceeding 30 miles.
- 534.** For a line of railway from a point on the Dominion Atlantic Railway at or near Wolfville, Nova Scotia, to the Government pier on the Basin of Minas, not exceeding one mile.
- 535.** To the Algoma Central and Hudson Bay Railway Company, for a line of railway from Sault Ste. Marie to a point on the Canadian Pacific Railway at or near White River, in the district of Algoma, in extension of the subsidy granted to the Algoma Central Railway by 1899, cap. 8, sec. 2, paragraph 23, and by 1900, cap. 8, sec. 2, paragraph 4, a further and additional mileage not exceeding 135 miles.
- 536.** For a line of railway from Bridgetown, Nova Scotia, to Middleton, in extension of the line subsidized by 1900, cap. 8, sec. 2, paragraph 28, not exceeding 11 miles.
- 537.** For a line of railway from a point on the Grand Trunk Railway at or near Burk's Falls, Ontario, to the Maganetawan River, not exceeding two miles.
- 538.** For a line of railway between Halifax and the Central Railway, Nova Scotia, from the end of the 40th mile from Halifax, subsidized by 1900, cap. 8, sec. 2, paragraph 40, to a junction with the Central Railway, Nova Scotia, not exceeding 30 miles.
- 539.** For a line of railway from a point on the Algoma branch of the Canadian Pacific Railway at or near Bruce Lake Station, northerly to a point at or near Rock Lake, in the district of Algoma, not exceeding 9 miles.
- 540.** For a line of railway from Roberval, Quebec, westward towards James Bay, not exceeding 60 miles.
- 541.** For a line of railway from a point upon the Stonewall branch or the Selkirk branch of the Canadian Pacific Railway to Icelandic River by way of Gimli, not exceeding 35 miles.
- 542.** To the Restigouche and Western Railway Company, for an extension of its line of railway from the 50th mile from Campbellton already subsidized, westward, to effect a junction with its line of railway subsidized 27 miles east from the St. John River, not exceeding 33 miles.
- 543.** For a line of railway from Duncan Lake towards Lardo or Arrow Lake, British Columbia, or from Lardo to Arrow Lake, in lieu of the subsidy granted by 1900, cap. 8, sec. 2, paragraph 21, not exceeding 30 miles.

**3.** The Governor in Council may grant to the Ottawa and Gatineau Railway, for its unearned balance of subsidy upon the 62 miles of its line of railway from Hull towards Désert, granted by 1897, chap. 4, sec. 3, paragraph 3, a sum not exceeding \$35,872.

**4.** The subsidies hereby authorized, and any subsidies heretofore authorized under any Act of Parliament of Canada still in force but not fully paid, towards the construction of any railway or bridge, shall be payable out of the Consolidated Revenue Fund of Canada, and may, unless otherwise expressly provided in this Act, at the option of the

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Governor in Council, on the report of the Minister of Railways and Canals, be paid as follows:—

(a.) upon the completion of the work subsidized; or

(b.) by instalments, on the completion of each ten-mile section of the railway, in the proportion which the cost of such completed section bears to that of the whole work undertaken; or

(c.) upon progress estimates on the certificate of the Chief Engineer of Government Railways, that, in his opinion, having regard to the whole work undertaken and the aid granted, the progress made justifies the payment of a sum not less than sixty thousand dollars; or

(d.) with respect to (b.) and (c.), part one way, part the other.

5. The subsidy of 66 miles granted to the Manitoulin and North Shore Railway Company for a line of railway between Little Current, on Manitoulin Island, and Sudbury, Ontario, by paragraph 6 of section 2 of chapter 8 of the statutes of 1900, may be contracted for with the company and paid, and the work may be begun and prosecuted in two sections, the first beginning at or near Victoria Mines, in the township of Denison, and extending to Sudbury, and thence north-easterly towards Lake Wahnapiatae, not exceeding 33 miles; the second section beginning at Little Current and extending to and connecting with the Canadian Pacific Railway at or near Stanley, in the township of Baldwin, on the Canadian Pacific Railway, not exceeding 31 miles; subject, however, to the company carrying out the undertakings contained in paragraph 6 of section 2 of chapter 8 of the statutes of 1900.

6. The subsidies hereinbefore authorized to be granted to companies named, shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as establish to the satisfaction of the Governor in Council 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, 1901, and completed within a reasonable time, not to exceed four years from the said first day of August, to be fixed by the Governor in Council, and shall also be constructed upon a location, and according to descriptions, conditions, and specifications approved by the Governor in Council on the report of the Minister of Railways and Canals, and specified in each case in a contract between the company and the said Minister, which contract the Minister, with the approval of the Governor in Council, is hereby empowered to make.

7. The granting of such subsidies, and the receipt thereof by the respective companies, shall be subject to the condition that the Governor in Council may at all times provide and secure to other companies such running powers, traffic arrangements, and other rights, as will afford to all railways connecting with those so subsidized, reasonable and proper facilities in exercising such running powers, fair and reasonable traffic arrangements with connecting companies, and equal mileage rates between all such connecting railways; and the Governor in Council shall have absolute control, at all times, over the rates and tolls to be levied and taken by any of the companies, or upon any of the railways hereby subsidized.

8. Every company receiving a subsidy under this Act, its successors and assigns, and any person or company controlling or operating the railway or portion of railway subsidized under this Act, shall each year furnish to the Government of Canada transportation for men, supplies, materials and mails over the portion of the line in respect of which it has received such subsidy, and, whenever required, shall furnish mail cars properly equipped for such mail service; and such transportation and service shall be performed at such rates as are agreed upon between the Minister of the Department of the Government for which such service is being performed and the company performing it, and, in case of disagreement, then at such rates as are approved by the Governor in Council; and in or towards payment for such charges the Government of Canada shall

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be credited by the company with a sum equal to three per cent per annum on the amount of the subsidy received by the company under this Act.

**9.** As respects all railways for which subsidies are granted by this Act, the company at any time owning or operating any of the railways shall, when required, produce and exhibit to the Minister of Railways and Canals, or any person appointed by him, all books, accounts and vouchers, showing the cost of constructing the railway, the cost of operating it, and the earnings thereof.

**10.** The Governor in Council may make it a condition of the grant of the subsidies herein provided, or any heretofore authorized by any Act of Parliament as to which a contract has not yet been entered into with the company for the construction of the railway, that the company shall lay its road with new steel rails, made in Canada, if they are procurable in Canada of suitable quality, upon terms as favourable as other rails can be obtained, of which the Minister of Railways and Canals shall be the judge.

*By the Act 3rd Edward VII., chap. 57 (assented to 24th October, 1903.)*

**1.** In this Act, unless the context otherwise requires, the expression 'cost' means the actual, necessary and reasonable cost and shall include the amount expended upon any bridge, up to and not exceeding \$25,000, forming part of the line of railway subsidized not otherwise receiving any bonus, but shall not include the cost of terminals and right of way of the railway in any city or incorporated town: and such actual, necessary and reasonable cost shall be determined by the Governor in Council, upon the recommendation of the Minister of Railways and Canals, and upon the report of the Chief Engineer of Government Railways, certifying that he has made or caused to be made an inspection of the line of railway for which payment of subsidy is asked, and careful inquiry into the cost thereof, and that in his opinion the amount upon which the subsidy is claimed is reasonable, and does not exceed the true, actual and proper cost of the construction of such railway.

**2.** The Governor in Council may grant a subsidy of \$3,200 per mile towards the construction of each of the undermentioned lines of railway (not exceeding in any case the number of miles hereinafter respectively stated) which shall not cost more on the average than \$15,000 per mile for the mileage subsidized, and towards the construction of each of the said lines of railway not exceeding the mileage hereinafter stated, which shall cost more on the average than \$15,000 per mile for the mileage subsidized, a further subsidy beyond the sum of \$3,200 per mile of fifty per cent on so much of the average cost of the mileage subsidized as is in excess of \$15,000 per mile, such subsidy not exceeding in the whole the sum of \$6,400 per mile:—

- 544.** To the Tilsonburg, Lake Erie and Pacific Railway Company, for a line of railway from the present terminus at Ingersoll to Woodstock, not exceeding 9 miles, in lieu of the subsidy granted by item 26 of section 2 of chapter 7 of 1899.
- 545.** To the Lindsay, Bobcaygeon and Pontypool Railway Company, for a line of railway from Burketon to Bobcaygeon, not exceeding 40 miles, in lieu of the subsidy granted by item 11 of section 2 of chapter 7 of 1899.
- 546.** To the Toronto, Lindsay and Pembroke Railway Company, for a line of railway from Golden Lake to Bancroft, not exceeding 51 miles, in lieu of the subsidy granted by item 6 of section 2 of chapter 7, 1901.
- 547.** To the Central Ontario Railway, for a further extension of its railway from a point at or near Bancroft to a point on the Canada Atlantic Railway at or near Whitney, not exceeding 40 miles, in lieu of the subsidies granted by item 5 of section 2 of chapter 8 of 1900, and item 16 of section 2 of chapter 7 of 1901, respectively.

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- 548.** To the Strathroy and Western Counties Railway Company, for a line of railway from a point at Lambeth to Strathroy, via the villages of Delaware, Mount Brydges and Caradoc Station on the Canadian Pacific Railway, and from Strathroy northerly to Forest, Thedford or Parkhill, not exceeding in all 31 miles, in lieu of subsidies granted by item 4 of section 2 of chapter 7, 1899, and item 2 of section 2 of chapter 8 of 1900, respectively.
- 549.** To the Montfort and Gatineau Colonization Railway Company, to extend its railway from Arundel to a point in the municipality of the united townships of Preston and Hartwell, not exceeding 30 miles, in lieu of the subsidy granted by item 31 of section 2 of chapter 8 of 1900.
- 550.** For a line of railway from Jonquières to La Baie des Ha Ha, not exceeding 20 miles, in lieu of the subsidy of 12 miles granted by item 21 of section 2 of chapter 7 of 1899.
- 551.** For a line of railway from Lime Ridge northerly through the county of Wolfe in the county of Megantic, not exceeding 50 miles, being a revote of the subsidy granted by chapter 4 of 1894.
- 552.** For a line of railway from Joliette to or near Lake Manuan, a distance not exceeding 60 miles, being a revote and in lieu of subsidies granted by chapter 4 of 1897 and chapter 8 of 1900.
- 553.** For a line of railway from St. Eustache to St. Placide in the county of Two Mountains, not to exceed 18 miles; from St. Eustache to Sault au Recollet, 12 miles; and from St. Placide to St. Andrews, 8 miles—not exceeding in all 38 miles; being a revote of subsidies granted by chapter 24 of 1887 and chapter 5 of 1892, respectively.
- 554.** For a line of railway from Roberval westward towards James Bay, not exceeding 60 miles, in lieu of the subsidy granted by item 25 of section 2 of chapter 7 of 1901.
- 556.** For a line of railway from Yamaska to Lotbinière, a distance not exceeding 70 miles, in lieu of the subsidy granted by item 27 of section 2 of chapter 7 of 1899.
- 557.** To the Ottawa, Northern and Western Railway Company, for that portion of its line from a point at the east end of the Hull station yard of the Canadian Pacific Railway to a point of junction with the Interprovincial Bridge approach in the city of Hull, not exceeding one mile; and for a line of railway to the boundary line of the city of Hull from a point on the Ottawa and Gatineau Railway, now the Ottawa, Northern and Western Railway, not exceeding one-quarter of a mile; in lieu of any balance of mileage subsidized by items 12 and 39 respectively of section 2 of chapter 7 of 1899.
- 558.** To the International Railway Company of New Brunswick (formerly the Restigouche and Western Railway Company), for a line of railway from the western end of the ten miles of its railway, as already constructed from Campbellton towards a point on the St. John River between Grand Falls and Edmundston, not exceeding 67 miles, being a revote, and in lieu of subsidies granted by chapter 4 of 1897, item 42 of section 2 of chapter 7 of 1899, and item 22 of section 2 of chapter 8 of 1900.
- 559.** For a line of railway from Woodstock to the International Boundary, not exceeding 26 miles, being a revote of the subsidy granted by chapter 4 of 1894.
- 560.** To the St. John Valley Railway Company, for a line of railway from a point on the Canadian Pacific Railway at or near Welsford or Westfield, or between the said two points, to Gagetown, not exceeding 30 miles, being a revote of the subsidy granted by chapter 4 of 1897.
- 561.** To the Shediac and Coast Railway Company, for a line of railway from Shediac to Shemogue and towards Cape Tormentine, in Westmoreland County, not exceeding 38 miles, in lieu of the subsidy granted by item 25 of section 2 of chapter 8 of 1900.

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- 562.** To the Mabou and Gulf Railway Company, Limited, for a line of railway from Mabou Coal Mines to a point at or near Glendyer, thence to Orangedale on the Intercolonial Railway, not exceeding 34 miles, a revote of the subsidy granted by chapter 4 of 1894, and in substitution of the 25 miles subsidized thereby from Orangedale to Broad Cove.
- 563.** To the Nova Scotia Eastern Railway Company, Limited, for a line of railway from New Glasgow to Cross Roads, Country Harbour, thence to the town of Guysborough, and thence to the Strait of Canso; with a branch from Cross Roads, Country Harbour, aforesaid, down the Country Harbour River to the Deep Waters thereof, not exceeding 116 miles; in lieu of subsidies for 40 and 80 miles granted by items 4 and 1, respectively, of section 2 of chapter 7 of 1901.
- 564.** For a line of railway from Debert Station on the Intercolonial Railway to Debert Coal Mine, not exceeding  $4\frac{1}{2}$  miles, in lieu of the subsidy granted by item 29 of section 2 of chapter 8 of 1900.
- 565.** For a line of railway from a point on the Joggins Railway near River Hebert Railway Bridge to the village of Minudie, not exceeding 6 miles, being a revote and in substitution of subsidy granted by chapter 4 of 1894.
- 566.** To the Middleton and Victoria Beach Railway Company, Limited, for a line of railway from Victoria Beach to Middleton, not exceeding 41 miles, in lieu of subsidies granted by item 28 of section 2 of chapter 8 of 1900, and by item 21 of section 2 of chapter 7 of 1901.
- 567.** To the Halifax and South-western Railway Company, for the following lines of railway:—
- (a.) A line of railway from a point at or near Halifax to a point on the Central Railway at or near Mahone Bay, not exceeding 68 miles.
  - (b.) A line of railway from a point on the Central Railway at or near Bridgewater towards Barrington Passage, not exceeding 77 miles.
  - (c.) A line of railway from a point at or near New Germany on the Central Railway to a point at or near Caledonia, not exceeding 22 miles.
  - (d.) A line of railway from a point at or near Caledonia to Liverpool, not exceeding 29 miles.
- The subsidies to the said lines of railway being granted in lieu of subsidies granted by items 17, 18, 35 and 36 of section 2 of chapter 7, 1899 by items 26 and 40 of section 2 of chapter 8 of 1900, and items 5 and 23 of section 2 of chapter 7 of 1901, respectively.
- 568.** To the Inverness Railway and Coal Company, formerly the Inverness and Richmond Railway Company, Limited, for 8 miles of railway between Point Tupper and Broad Cove; and for a line of railway not exceeding 37 miles, from Cheticamp to a point on the line already built between Broad Cove and Point Tupper, being a revote and in substitution of the subsidy granted by chapter 4 of 1897.
- 569.** For a line of railway from a point at or near Wolfville on the Dominion Atlantic Railway to the Government pier on the Basin of Minas, not exceeding one mile, in lieu of the subsidy granted by item 19 of section 2 of chapter 7 of 1901.
- 570.** To the Nicola, Kamloops and Similkameen Coal and Railway Company, for a line of railway from a point at or near Spence's Bridge on the Canadian Pacific Railway to Nicola Lake, not exceeding 45 miles, being a revote of subsidies granted by chapter 5 of 1892 and chapter 4 of 1894.
- 571.** For a line of railway from Winnipeg Beach or Teulon to a point on Icelandic River, by way of Gimli, not exceeding 35 miles, in lieu of the subsidy granted by item 26 of section 2 of chapter 7 of 1901.

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- 572.** To the Edmonton, Yukon and Pacific Railway Company, for a line of railway from the town of Strathcona to Edmonton, and thence westerly towards the Yellow Head Pass, a distance not exceeding 50 miles, in lieu of the subsidy granted by item 41 of section 2 of chapter 7 of 1899.
- 573.** To the St. John Valley and Rivière du Loup Railway Company, for a line of railway from Fredericton to Woodstock, not exceeding 59 miles, in lieu of the subsidy granted by item 5 of section 2 of chapter 7 of 1899.
- 574.** For a line of railway from Hawkesbury, Ontario, to South Indian, not exceeding 35 miles, in lieu of the subsidy granted by item 22 of section 2 of chapter 7 of 1899.
- 575.** To the Tilsonburg, Lake Erie and Pacific Railway Company, for a line of railway from Woodstock northerly to a point on the Grand Trunk Railway at Berlin, or from Ingersoll to Stratford, or to any point on the Grand Trunk Railway between these places, not exceeding 35 miles, being in addition to and continuation of the 9 miles mentioned in item 1 of this section (544).
- 576.** To the Irondale, Bancroft and Ottawa Railway Company, for a line of railway from the present terminus of its railway, near Baptiste, easterly to a point at or near Renfrew, not exceeding 75 miles.
- 577.** To the Nipigon Railway Company, for a line of railway from Lake Superior to Lake Nipigon, and from a point on the north shore of Lake Nipigon northerly, not exceeding 80 miles.
- 578.** To the Manitoulin and North Shore Railway Company, for a line of railway from Little Current on its present line, to Sudbury, and thence towards the main line of the Canadian Pacific Railway Company, not exceeding 30 miles, in lieu of the subsidy for 21 miles granted by item 38 of section 2 of chapter 7 of 1899.
- 579.** To the Thunder Bay, Nipigon and St. Joe Railway Company, for a line of railway from Port Arthur north-easterly, not exceeding 50 miles.
- 580.** To the Timagami Railway Company, for a line of railway from a point at or near Sturgeon Falls in a north-westerly direction to a point on the westerly shore of Lake Timagami in the district of Nipissing, not exceeding 50 miles.
- 581.** To the Bay of Quinté Railway Company, for further extension of its line of railway, from the northern terminus thereof, commencing from a point at or near Actinolite, thence in a north-westerly direction, via the villages of Queensboro' and Bamockburn, to a point in the township of Marmora or Lake in Hastings County, not exceeding 20 miles in all.
- 582.** To the Bruce Mines and Algoma Railway Company, for 21 miles from the end of its line, as subsidized by chapter 7 of 1901, northward, not exceeding 21 miles.
- 583.** To the James Bay Railway Company, for a line of railway from Toronto, via the east side of Lake Simcoe, to a point at, near, or beyond Sudbury, through Parry Sound, not exceeding 265 miles, in lieu of two subsidies granted by chapter 8 of 1900, for 35 and 20 miles, respectively, from Parry Sound towards James Bay.
- 584.** To the Quebec and Lake St. John Railway Company, for one mile of railway from Roberval to the Government wharf at Lake St. John.
- 585.** To the Montfort and Gatineau Colonization Railway Company, for the extension of its line of railway from Morin Flats to St. Jerome, to connect with the Great Northern Railway, not exceeding 22 miles.
- 586.** To the Interprovincial and James Bay Railway Company, for a line of railway from Lake Timiskaming at the present terminus of the Canadian Pacific Railway line, in a northerly direction, not to exceed 50 miles.
- 587.** For a line of railway from Waltham Station to Ferguson Point, in the county of Pontiac, not exceeding 20 miles.
- 588.** For a line of railway from Lake Nominigüe to Le Lièvre, not exceeding 35 miles.



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- 589.** For a line of railway in extension of the line from Lime Ridge into the county of Megantic to the bridge over the St. Lawrence at or near Quebec, not exceeding 30 miles.
- 590.** To the Quebec Central Railway Company, for an extension of its line of railway from St. François to St. George, not exceeding 9 miles; also for a railway from Scott Junction to the Quebec bridge, not exceeding 22 miles.
- 591.** For a line of railway from the station of Lac Bouchette on the Quebec and Lake St. John Railway to St. André, not exceeding 13 miles.
- 592.** For a line of railway from Quebec towards Seven Islands, including branches to Murray Bay and Baie St. Paul, not exceeding 200 miles.
- 593.** For a branch line from a point at or near the intersection of the Canadian Pacific Railway and the Great Northern Railway between St. Philippe d'Argenteuil and Lachute, thence in a northerly direction, passing through the village of Brownsburg, not exceeding 3 miles.
- 594.** To the Orford Mountain Railway Company, for a line of railway from a point on its main line between Lawrenceville and Eastman to Lake Bonella, 5 miles; from Kingsbury to Windsor Mills, 10 miles; and from Eastman to the town line between the township of Bolton, east part, and the township of Potton, 12 miles—not exceeding in the whole 27 miles.
- 595.** To the Atlantic, Quebec and Western Railway Company, for a line of railway from Gaspé to a point at or near Causapscal on the Intercolonial Railway, and from that point to Edmundston, not exceeding 260 miles; and for a line of railway from Paspébiac to Gaspé as near the shore as practicable, not exceeding 102 miles.
- 596.** For a line of railway, in addition to and in extension of the line mentioned in item 11 (554) of this section, from Roberval towards James Bay, not exceeding 40 miles.
- 597.** For a branch line from a point near the bridge at Trois Pistoles River on the Intercolonial Railway in a south-easterly direction to Mackenzie and Renouf Falls, on the Trois Pistoles River, not exceeding  $2\frac{1}{2}$  miles.
- 598.** To the Matane and Gaspé Railway Company, for a line of railway from a point at or near St. Octave on the Intercolonial Railway to Matane, not exceeding 30 miles.
- 599.** To the Chateauguay and Northern Railway Company, for a line of railway from a point on its main line at or near L'Épiphanie, passing by way of the parish of St. Jacques de l'Achigan to the village of Rawdon, not exceeding 16 miles.
- 600.** For a line of railway from the line of the Montreal and Atlantic Railway Company at St. Guillaume to the River Yamaska to join with the South Shore Railway, a distance not exceeding 12 miles.
- 601.** For a line of railway from La Tuque on the St. Maurice River to a point on the Lake St. John Railway near the River Jeannotte, not exceeding 35 miles.
- 602.** To the Montreal Northern Railway Company, for a line of railway from a point at or near Ste. Agathe des Monts station towards the township of Howard, in the county of Argenteuil, passing near Lakes St. Joseph and Ste. Marie, in a southerly direction, a distance not exceeding 15 miles.
- 603.** To the International Railway Company of New Brunswick, for a line of railway, in addition to and in extension of the line of 67 miles mentioned in item 14 of this section, to a point on the St. John River between Grand Falls and Edmundston, not exceeding 33 miles.
- 604.** To the Beersville Coal and Railway Company, for a line of railway from Adamsville on the Intercolonial Railway to a point at or near Brown's Landing or Beersville, not exceeding 7 miles.

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- 605.** To the York and Carleton Railway Company, for a line of railway from its present terminus westerly, not exceeding 5 miles.
- 606.** To the Mabou and Gulf Railway Company, Limited, for a line of railway from a point on the Intercolonial Railway at or near Mine Road Station to the wharf at Caribou Cove, not exceeding 4 miles, being in addition to subsidy mentioned in item 18 (562) of this section.
- 607.** To the Nova Scotia Eastern Railway Company, Limited, for a line of railway from Dartmouth through the Musquodoboit Valley to a point at or near Melrose to connect there with the railway mentioned in item 19 (563) of this section, not exceeding 120 miles.
- 608.** To the Midland Railway Company, Limited, for a line of railway from Truro northerly towards Brule, not exceeding 34 miles.
- 609.** For a line of railway from St. Peters to Louisburg, not exceeding 50 miles.
- 610.** To the Koctenay Central Railway Company, for a line of railway from Golden to the International Boundary Line, via Windermere and Fort Steele, and crossing the Crow's Nest Railway at or near Elko, not exceeding 186 miles.
- 611.** To the Kettle River Valley Railway Company, for a line of railway from Grand Forks to a point 50 miles up the North Fork and West Fork of the North Fork of Kettle River, not exceeding 50 miles.
- 612.** For a line of railway from Wellington to Union Bay, not exceeding 55 miles.
- 613.** For a line of railway from Midway to Vernon, not exceeding 150 miles.
- 614.** To the St. Mary's River Railway Company, for a line of railway from Spring Coulee, crossing St. Mary's River to Cardston, 16 miles, and from a point on this line to or near the intake of the irrigation canal, about 16 miles, in all not exceeding 32 miles.
- 615.** For a line of railway from Dawson to Stewart River, passing at or near Grand Forks, not exceeding 84 miles.
- 616.** To the Canadian Pacific Railway Company, for a branch line from a point on the main line between Moosomin and Elkhorn, north-westerly to a point in the neighbourhood of the Pheasant Hills, not exceeding 136 miles.
- 617.** For a line of railway from a point at or near Medicine Hat on the Canadian Pacific Railway to the coal fields in or near townships 12 and 13, range 6, west of the fourth principal meridian, not exceeding 8 miles.
- 618.** To the Great Northern Railway of Canada, for a line of railway from Garneau Junction to the Quebec bridge, not exceeding 70 miles.
- 619.** To the Halifax and South-western Railway Company, for a line of railway to Barrington Passage, in addition to and in continuation of the 77 miles mentioned in paragraph (b) of item 23 (567) of this section, not exceeding 35 miles.
- 620.** To the Lake Superior, Long Lake and Albany Railway Company, for a line of railway from Peninsula Harbour in a northerly direction, not exceeding 10 miles.
- 621.** To the Cumberland Railway and Coal Company, for a line of railway from Parrsboro' Station to Riverside Wharf, not exceeding 1 mile.
- 622.** To the Indian River Railway Company, for a line of railway from a point at or near the north end of Lake Megantic, thence southerly along the said lake to a point on the International Boundary, not exceeding 19 miles.

**3.** The Governor in Council may grant the subsidies hereinafter mentioned towards the construction of the bridges also hereinafter mentioned, that is to say:—

1. Towards the construction and completion of a railway bridge and approaches over the Nicolet River at Nicolet, in lieu of the grant under item 39 of section 2 of chapter 8 of 1900, \$15,000.

2. Towards the construction of the steel superstructure of a railway bridge on the St. Francis River, in the county of Yamaska, in lieu of the grant under item 38 of section 2 of chapter 8 of 1900, but subject to the same conditions as expressed therein, payable to the Canadian Bridge Company of Walkerville, as their claim may appear for work already done on the said bridge, \$50,000.

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3. To the Canadian Bridge Company of Walkerville, to strengthen and complete the foundation and approaches to the bridge over the St. Francis River subsidized in favour of the South Shore Railway Company by section 3 of chapter 7 of 1899, \$35,000, which amount shall remain the first charge on the road, and shall be recouped to the Treasury out of subsidies earned or to be earned, \$35,000.

4. To the Cauteauguay and Northern Railway Company, in addition to the subsidy for the Bout de l'Île bridge granted by item 33 of section 2 of chapter 8 of 1900, \$50,000.

4. The subsidies hereby authorized towards the construction of any railway or bridge shall be payable out of the Consolidated Revenue Fund of Canada, and may, unless otherwise expressly provided in this Act, at the option of the Governor in Council, on the report of the Minister of Railways and Canals, be paid as follows :—

(a.) upon the completion of the work subsidized ; or

(b.) by instalments, on the completion of each ten-mile section of the railway, in the proportion which the cost of such completed section bears to that of the whole work undertaken ; or

(c.) upon the progress estimates on the certificate of the Chief Engineer of the Department of Railways and Canals, that, in his opinion, having regard to the whole work undertaken and the aid granted, the progress made justifies the payment of a sum not less than thirty thousand dollars ; or

(d.) with respect to (b) and (c), part one way, part the other.

5. The subsidies hereinbefore authorized to be granted to companies named shall, if granted by the Governor in Council, be granted to such companies respectively : the other subsidies may be granted to such companies as establish to the satisfaction of the Governor in Council their ability to construct and complete the said railways and bridges respectively ; all the lines and bridges 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, 1903, and completed within a reasonable time, not to exceed four years from the said first day of August, to be fixed by the Governor in Council, and shall also be constructed according to descriptions, conditions and specifications approved by the Governor in Council on the report of the Minister of Railways and Canals, and specified in each case in a contract between the Company and the said Minister, which contract the Minister, with the approval of the Governor in Council, is hereby empowered to make. The location also of such subsidized lines and bridges shall be subject to the approval of the Governor in Council.

6. The granting of such subsidies, and the receipt thereof by the respective companies, shall be subject to the condition that the Governor in Council may at all times provide and secure to other companies such running powers, traffic arrangements and other rights, as will afford to all railways connecting with the railways and bridges so subsidized, reasonable and proper facilities in exercising such running powers, fair and reasonable traffic arrangements with connecting companies, and equal mileage rates between all such connecting railways : and the Governor in Council shall have absolute control, at all times, over the rates and tolls to be levied and taken by any of the companies, or upon any of the railways and bridges hereby subsidized.

7. Every company receiving a subsidy under this Act, its successors and assigns, and any person or company controlling or operating the railway or portion of railway subsidized under this Act, shall each year furnish to the Government of Canada transportation for men, supplies, materials and mails over the portion of the line in respect of which it has received such subsidy, and whenever required, shall furnish mail cars properly equipped for such mail service : and such transportation and service shall be performed at such rates as are agreed upon between the Minister of the department of the Government for which such service is being performed and the company performing it, and, in case of disagreement, then at such rates as are approved by the Governor in

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Council : and in or towards payment for such charges the Government of Canada shall be credited by the company with a sum equal to three per cent per annum on the amount of the subsidy received by the company under this Act.

5. As respects all railways and bridges for which subsidies are granted by this Act, the company at any time owning or operating any of the railways shall, when required, produce an exhibit to the Minister of Railways and Canals, or any person appointed by him, all books, accounts and vouchers, showing the cost of constructing the railway or bridge, the cost of operating it, and the earnings thereof.

9. The Governor in Council may make it a condition of the grant of the subsidies herein provided, or any heretofore authorized by any Act of Parliament as to which a contract has not yet been entered into with the company for the construction of the railway, that the company shall lay its road with new steel rails, made in Canada, if they are procurable in Canada of suitable quality, upon terms as favourable as other rails can be obtained, of which the Minister of Railways and Canals shall be judge.

#### LAND SUBSIDIES.

By 47 Vic, chap. 25, clause 7, 1884 (*Assented to April 19, 1884*):—

1. The Governor in Council is hereby authorized in aid of the construction of a railway from some point on the Canadian Pacific Railway to Hudson's Bay, to make a free grant of not more than six thousand four hundred acres for each mile of railway within Manitoba, and not more than twelve thousand eight hundred acres for each mile in the North-west Territories.

By 48-49 Vic, chap. 60, 1885 (*Assented to July 20, 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 June 2, 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 com-

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pany'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 cash on the issue of the patents therefor.'

By section 5 of this Act authority was given for the incorporation by the Governor in Council of a company to construct the line from Brandon, or other point indicated, to Battleford, subsidized by this Act.

By 50-51 Vic., cap. 22, 1887 (*Assented to June 23, 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 June 23, 1887*):—

†10. To the Alberta and Athabasca Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from some point on the Bow River or Canadian Pacific Railway, at or between Calgary and Crowfoot Creek, to a point near the town plot of Edmonton, about three hundred miles.

†11. To the Qu'Appelle, Long Lake and Saskatchewan Railway and Steamboat Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway, from a point near the northern terminus of the completed portion of that railway, at or near Long Laketon, on the navigable waters of Long Lake, to a point at or near where the fifty-second parallel of latitude crosses the South Saskatchewan River, thence to a point at or near the elbow of the North Saskatchewan River, with branches to Prince Albert and Battleford, about three hundred and twenty-five miles.

†12. To the Medicine Hat Railway and Coal Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway, from a point at or near Medicine Hat, on the line of the Canadian Pacific Railway, to the coal field in or near townships twelve and thirteen.

\*Lapsed except for the subsidy earned for the 50 miles constructed.

†The subsidies in land grants for the Wood Mountain and Qu'Appelle, the Alberta and Athabasca and the Medicine Hat railways have lapsed.

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range six, west of the fourth principal meridian, a distance of about eight miles to be selected out of such lands as are at the disposal of the Government in the proximity of the line of the company's railway.

'The said grants, and each of them may be so made in aid of the construction of the said railways respectively, in the proportions and upon the conditions fixed by the Orders in Council made in respect thereof, each of the said enterprises being respectively subject to any modification thereof which may hereafter be made by the Governor in Council; and, except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively, of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash on the issue of the patents therefor.'

By 52 Vic., chap. 4, 1889 (*Assented to May 2, 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.'

\*The North-western Railway of Canada land grant subsidy has lapsed.

## SESSIONAL PAPER No. 20

By the Act 53 Vic., cap. 4, 1890 (*Assented to May 16, 1890*) :—

- 17.** To the Canadian Pacific Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a branch line to be constructed from Glenboro' westerly a distance of about sixty miles to a point on the proposed branch railway of the said company running from Brandon south-westerly.
- 18.** To the Canadian Pacific Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a branch line of railway from a point at or near Brandon, on the main line of the Canadian Pacific Railway, south-westerly to or near township three, range twenty-seven, west of the first principal meridian, and thence westerly, a total distance of one hundred miles; and also a similar grant, at the same rate per mile, for the said company's proposed branch railway from a point on the line just described at or near township three, range twenty-seven, west of the first principal meridian, easterly to Deloraine, a distance of about twenty-five miles, making the total length of railway to which this grant is applicable one hundred and twenty-five miles.
- \*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 land grant subsidy to the Brandon and South-western, the Lac Seul and North-western Coal and Navigation railways has lapsed.

3-4 EDWARD VII., A. 1904

The lands by this Act authorized to be granted to the Canadian Pacific Railway Company shall be taken and held, and may be disposed of, free and clear of any encumbrance on the lands or property of the said company created before the passing of this Act.

By the special Act 53 Vic., cap. 3, 1890 (*Assented to March 26, 1890*):—

**25.** The Act 52 Victoria, chapter 4, authorizing, in error, the grant of land to the North-western Coal and Navigation Company, for fifty miles from Lethbridge to the international boundary, was amended—the said grant being made to the Alberta Railway and Coal Company.

By 54-55 Vic., cap. 9, 1891 (*Assented to September 30, 1891*):—

**26.** In lieu of the subsidy in land authorized by the Act 52 Victoria, chapter 4, to be granted to the Red Deer Valley Railway and Coal Company, and subject to the conditions in the said Act mentioned, the Governor in Council may grant Dominion lands to the said company to an extent not exceeding six thousand four hundred acres for each mile of the said company's railway, from the town of Calgary, in the district of Alberta, in the North-west Territories, to a point in or near township twenty-nine, range twenty-three, west of the fourth meridian, a distance of about fifty-five miles.

By 54-55 Vic., cap. 10, 1891 (*Assented to September 30, 1891*):—

**27.** To the Manitoba South-western Colonization Railway Company, in addition to the subsidy for one hundred and fifty miles of railway authorized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter sixty, Dominion lands to the extent of six thousand four hundred acres per mile for the balance of the two hundred and twelve miles of railway which have been constructed and are in operation, that is to say, for a distance of sixty-two miles.

**28.** Also, to the Manitoba South-western Colonization Railway Company, Dominion lands to the extent of six thousand four hundred acres for each mile of the company's branch line of railway from Carmen to Barnsley, a distance of about six and one-quarter miles.

**29.** To the Canadian Pacific Railway Company, in addition to the subsidy authorized by the Act 53 Victoria, chapter 4, for the company's branch line running in a south-westerly and westerly direction from a point at or near Brandon for a distance of one hundred miles, Dominion lands to the extent of six thousand four hundred acres for each mile of the extension westward of the said branch line, from the western limit of the said one hundred miles to a point at or near La Roche Percée, situated in township one, range six, west of the second meridian, a distance of about sixty miles.

'The said grants and each of them shall be made in aid of the construction of the said railways respectively, in the proportion and upon the conditions fixed by the Orders in Council made in respect thereof, and, except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively, of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash, on the issue of the patents therefor.'

By the Act 57-58 Vic., cap. 6, 1894 (*Assented to July 23, 1894*):—

**\*30.** To the Rocky Mountain Railway and Coal Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point at or near Olds Station on the line of the Calgary and Edmonton Railway in a westerly direction to the Red Deer River and thence along the said river in a westerly direction to the coal fields, a distance of about sixty miles.

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\*The land grant subsidy to the Rocky Mountain Railway and Coal Company has lapsed.



## SESSIONAL PAPER No. 20

- 31.** To the Canadian Pacific Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point at or near Souris on the Souris Branch of the Canadian Pacific Railway, in a westerly direction to the Pipestone Valley, a distance of about thirty-two miles.
- \*32.** To the Brandon and South-western Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point in township one, in either range twenty-three or twenty-four west of the first principal meridian, to a point at or near Deloraine, a distance of about seventeen miles.
- 33.** To the Saskatchewan and Western Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from Minnedosa to Rapid City, a distance of about fifteen miles.

The said grants and each of them may be made in aid of the construction of the said railways respectively in the proportion and upon the conditions fixed by the Orders in Council made with respect thereto; and, except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively of the cost of the survey of the lands and incidental expenses at the rate of ten cents per acre in cash on the issue of the patents therefor.

The lands authorized by this Act to be granted to the Canadian Pacific Railway Company shall be taken and held, and may be disposed of, free and clear of any encumbrance on the lands and property of the said company created before the passing of this Act.

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\*The land grant subsidy to the Brandon and South-western Railway Company has lapsed.



PART IV

MISCELLANEOUS STATEMENTS

3-4 EDWARD VII. A. 1904

No.

## SUBSIDY Agreements for the Construction of Railways

Number of Contract.	Date of Signature.	Name of Railway.	Line of Railway to be Constructed.	AUTHORITY FOR EXECUTION.	
				Act of Parliament.	Order in Council.
14712	Oct. 15, 1902.	Algoma Central and Hudson Bay Ry. Co.	From Sault Ste. Marie on C. P. Ry. at or near White River, Algoma District.	1 Edw. VII, c. 7.	Oct. 7, 1902.
14806	Dec. 30, 1902.	Bay of Quinté Ry. Co.	For railway connecting Deseronto lines with Tweed lines of Co.	62-3 Vic., c. 7, 63-4 Vic., c. 8.	Oct. 3, 1901. Aug. 25, 1902. Dec. 22, 1902.
14814	" 31, 1902.	" "	Extension of line at Tweed, north.	62-3 Vic., c. 7.	Oct. 30, 1902. Nov. 7, 1902. Dec. 22, 1902.
14815	" 31, 1902.	" "	Extension from point at or near Richmond Boundary Road near Deseronto, Ont.	62-3 Vic., c. 7.	Aug. 30, 1902. Dec. 22, 1902.
14828	" 30, 1902.	Bracebridge & Trading Lake Ry. Co.	From Bracebridge, in Muskoka, to a point near Baysville, Ont.	63-4 Vic., c. 8.	Oct. 31, 1902.
14556	July 8, 1902.	La Compagnie de chemins de fer de Colonisation du Nord.	From Lavelle, Que., to Nominin-gue.	62-3 Vic., c. 7.	June 12, 1902.
14680	Aug. 28, 1902	Canadian Pacific Ry. Co.	From Dymont, on C. P. Ry., to New Klondyke Mining District, Ont.	63-4 Vic., c. 8.	Feb. 1, 1901. April 4, 1901 June 4, 1902
14881	Mar. 1, 1903.	Halifax & Yarmouth Ry. Co.	From Pubnico to Port Clyde or Clyde River, N.S.	1 Edw. VII, c. 7.	Feb. 3, 1903.
14650	July 30, 1902.	Montfort & Gatineau Colonization Ry. Co.	From Arundel to a point in ships of Preston and Hartwell, Que.	63-4 Vic., c. 8.	July 16, 1902.
*14690	May 15, 1902.	Manitoulin & North Shore Ry. Co.	From Victoria Mines to Sudbury &c.	63-4 Vic., c. 8, 1 Edw. VII, c. 7.	April 28, 1902.
14885	Mar. 19, 1903	Maganetawan River Ry. Co.	From a point on G. T. Ry. at or near Burk's Falls, Ont., to Maganetawan River.	1 Edw. VII, c. 7.	Jan. 23, 1903. Mar. 11, 1903
14853	Feb. 19, 1903.	Nova Scotia Eastern Ry. Co.	From New Glasgow to Country Harbour and to Guysboro', etc.	1 Edw. VII, c. 7.	Feb. 13, 1903.
*14964	June 30, 1902.	New Brunswick Coal and Ry. Co.	From Chipman Station, N.B. to Gibson.	1 Edw. VII, c. 7.	Nov. 30, 1901. June 5, 1902 April 30, 1903
14670	Aug. 25, 1902	Quebec and New Brunswick Ry. Co.	Extension of St. Francis Branch of Temisconata Ry. to mouth of St. Francis River.	1 Edw. VII, c. 7.	Aug. 13, 1902.
14652	July 30, 1902.	Schomberg & Aurora Ry. Co.	Extension from its easterly terminus to point at or near Bond's Lake, Ont.	63-4 Vic., c. 8.	April 26, 1902
14825	Jan. 19, 1903.	Trans-Canada Ry. Co.	From Roberval, Que., westward towards James Bay.	1 Edw. VII, c. 7.	Feb. 8, 1902

\* Too late for last year's report.

## SESSIONAL PAPER No. 20

1.

entered into during the Fiscal Year ended June 30, 1903.

AMOUNT OF SUBSIDY,		Number of Miles Subsidized.	Maximum Grade, Feet per Mile.	Radius of Curvature not less than.	Width of Clearing each side.	Width of Cutting.	Embankment.	Steel Rails, lbs., per Lateral Yard.	Date for Completion.
Per Mile.	Not exceeding.								
3,200	6,400 p. mile.	135	80	478	50	20	15	56	Oct. 1, 1904.
3,200		10	52·80	955	50	20	15	56	Dec. 31, 1903.
3,200	6,400 "	5	28·5	450	50	20	15	56	Dec. 1, 1903.
3,200	6,400 "	2	46	1,146	50	20	15	56	Dec. 31, 1903.
3,200	6,400 "	15	106	716	50	20	15	56	Dec. 1, 1903.
3,200	6,400 "	22	52·80	573	50	20	15	56	Dec. 31, 1903.
3,200	6,400 "	7	116	573	33, 50	14	12	56	July 1, 1904.
3,200	6,400 "	31	80	716	50	20	15	56	Jan. 1, 1904.
3,200	6,400 "	20	132	537	50	20	15	56	Aug. 1, 1904.
3,200	6,400 "	64	79	478 105,6	50	20	15	56	Dec. 1, 1903.
3,200	6,400 "	2	116·16	636	50	20	15	56	July 1, 1903.
3,200	6,400 "	120	52·80	955	50	20	15	56	July 31, 1903.
3,200	6,400 "	45	66	955 764 574	50	20	15	56	Nov. 1, 1903.
3,200	6,400 "	3	58	955	50	20	15	56	Aug. 31, 1903.
3,200	6,400 "	4	88	1,146	50	20	15	56	Oct. 1, 1903.
3,200	6,400 "	60	52·80	818	50	20	15	56	Dec. 1, 1903.

GERARD RUEL,  
*Law Clerk.*

3-4 EDWARD VII., A. 1904

## No. 2.

CONTRACTS entered into during the Fiscal Year ended June 30, 1903.

## 1. INTERCOLONIAL RAILWAY.

No. of Contract.	Date of Signature.	Contractors.	General Description.
14678	Aug. 15	J. M. Clarke & Co.	Erect station at Georgetown, and build additions to Morell and Mount Stewart stations.
14681	" 28	William Currie Co.	Erect station at Eel River, N.B.
14687	" 28	Alexis Belanger	Remodel station at St. Philippe de Neri, Que.
14688	" 28	John A. Wheaton	Remove part of rock forming hill known as Gilbert's Island, St. John, N.B.
14689	" 28	Auguste Lavoie	Erect dwelling and station at St. Anaclet, Que.
14694	" 23	Dussault & Lemieux	Repair part of Princess Pier at Pt. Lewis, Que.
14701	July 20	Town of Truro	Supply water at Truro, N.S.
14732	Nov. 8	Purell & Fallou	Construct branch line of railway from Riviere Ouelle station to St. Denis wharf.
14733	Oct. 24	H. Copp & Co.	Erect stations at Boundary Creek and Pollet River, N.B.
14740	Sept. 9	Rhodes, Curry & Co.	Supply 2,500 33-inch car wheels.
14741	Oct. 21	Theo. M. Leblanc	Erect addition to blacksmith shop at Moncton, N.B.
14742	May 8	Rathbun Co.	Deliver 200 platform cars.
14746	Nov. 24	MacKay & Livingston	Extend cribwork wharf at North Sydney, N.S.
14760	Sept. 9	Jno. McDougall & Co.	Supply 2,000 33-inch car wheels.
14762	June 18	A. Belanger	Remodel station at Old Lake Road.
14795	Dec. 6	Dominion Bridge Co.	Erect superstructure of S. W. Miramichi bridge.
14802	Aug. 1	Chas. Cannell & Co., Ltd.	Supply 5,000 tons of steel rails. (Cancels No. 14,215 of June 24, 1901.)
14808	Dec. 17	Dominion Bridge Co.	Deliver 2 turntables.
14809	" 27	Charles Forbes	Erect station, &c., at Milford, N.S.
14810	" 30	Stephien Veniot	Painting between Truro and Pictou Landing, &c.
14811	" 30	Joseph Gosselin	Construct double windows for Lewis station.
14812	" 20	Dominion Bridge Co.	Erect bridges at Lydia Brook, Scott's Public Crossing, &c.
14813	" 30	McDonald & Simms	baggage building at Sydney, N.S.
14818	" 13	Nathan E. Montgomery	passenger station at Nicolet, Que.
14823	Jan. 7	Rathbun Co.	Deliver 70 box cars.
14824	" 7	"	" 21 stock cars.
14827	" 19	Hamilton Bridge Works Co.	Erect bridges at Pomquet, Pollet River, &c.
14837	" 21	Dominion Bridge Co.	" Drummondville, Que., &c.
14838	" 24	Auguste Lavoie	dwelling for station master at Trois Pistoles, Que.
14839	" 27	D. W. B. Reid	abutments and pile foundations for railway bridge on west branch of Pomquet River.
14840	" 24	Flood & Bates	engine house and machine shop at St. John, N.B.
14841	" 24	Rhodes, Curry & Co.	Deliver 300 box cars.
14851	" 28	J. B. McManus	Erect cribwork protection walls between Bedford and Rockingham, N.S.
14855	" 27	Amos S. Goyang	Erect extension to car shop at Moncton, N.B.
14856	Feb. 5	Hugh McDonald	cribwork protection walls between McKimmon's Harbour and Sydney, C.B.
14859	" 9	Joseph Gosselin	Erect engine house at Chaudiere junction.
14864	Mar. 3	Joseph Treen	station, &c., at Metapsia, Que.
14865	" 1	Rhodes, Curry & Co.	Deliver 9 auxiliary cars.
14867	Feb. 3	R. P. P. Fraser	Excavate materials for freight yard and new main line at Pt. Tupper, C.B.

\*Too late for last year's report.

## SESSIONAL PAPER No. 20

CONTRACTS entered into during the Fiscal Year ended June 30, 1903—*Continued.*1.—INTERCOLONIAL RAILWAY—*Concluded.*

No. of Contract.	Date of Signature.	Contractors.	General Description.
1903.			
14870	Mar.	Jos. A. Likely	Deliver Southern hard pitch pine.
14875	"	9 Rhodes, Curry & Co.	" 70 box cars.
14884	"	18 "	" 8 refrigerator cars.
14887	"	16 T. M. Leblanc	" coal handling plant at Moncton, N.B.
14924	May	5 Canadian Bridge Co.	Restigouche River bridge.
14937	"	6 A. G. Kilston & Co.	Deliver 25,000 tons steel rails.
14951	"	22 Willard Kitchen	Erect freight shed, &c., at Elmsdale, N.S.
14952	"	22 "	" station, &c., at Brown's Point, N.S.
14959	"	23 J. B. McManus	" freight shed at Sydney, N.S.
14960	"	28 Robb Engineering Co.	Deliver steel smoke stack at North Street, Halifax, N.S.
15006	June	16 Crepeault & Bernier	Improvements at St. Charles Junction.

## 2.—PRINCE EDWARD ISLAND RAILWAY.

1903.			
14882	Mar.	17 Willard Kitchen	Construct wharf at Murray Harbour, P.E.I.
14953	May	18 Dominion Bridge Co.	Deliver steel swing span, and steel work for floor and sidewalks, Hillsborough Bridge.

## 3.—CHAMBLY CANAL.

1902.			
14791	Dec.	10 Joseph Côté	Construct stone walls around head of Ste. Therèse Island

## 4.—CORNWALL CANAL.

1903.			
14922	April 25	M. P. Davis	Mechanism for operating lock gates, valves and work-shops of canal.

## 5.—LACHINE CANAL.

1902.			
14733	Oct.	29 Coulson, Quinlan & Robertson	Rebuild portions of and extend locks Nos. 1 and 2 at Montreal.
14737	"	25 Dominion Bridge Co.	Erect swing bridge near head of lock No. 2.
1903.			
14893	Mar.	30 O. L. Henault	Construct concrete retaining wall in waste weir tailrace at Côte St. Paul.
14923	April 18	Thos. Robertson & Co., Ltd.	Deliver boiler tubes and fittings for new tag.
14954	May 23	Alcarn & Soper, Ltd.	" electric cables.
14989	Mar.	30 R. E. T. Pringle Co., Ltd.	" " plant for canal.
15005	June 2	Dominion Bridge Co., Ltd.	Erect bridge over tail race of waste weir No. 2 on Mill Street, Montreal.
15009	"	5 Loftus & Company	Cover roofs of flour sheds Nos. 2 and 3.

3-4 EDWARD VII., A. 1904

CONTRACTS entered into during the Fiscal Year ended June 30, 1903—*Concluded.*

## 6.—RIDEAU CANAL.

No. of Contract.	Date of Signature.	Contractors.	General Description.
	1902.		
14661	July 31	Dominion Bridge Co., Ltd.	Erect bridges at Brass Point and Beckett's Landing.
14675	Aug. 27	Hamilton Bridge Works Co., Ltd.	" bridge at Kingston Mills Lock Station.
14676	" 27	Bellhouse, Dillon & Co.	Deliver 900 brls. cement.
*14700	April 12	M. Ryan	" timber for 1902-03.
	1903.		
14961	June 1	"	" " 1903-04.

## 7.—TRENT CANAL.

No. of Contract.	Date of Signature.	Contractors.	General Description.
	1902.		
14651	July 29	Canadian Portland Cement Co., Ltd.	Deliver 14,000 brls. cement.
	1903.		
14955	May 4	"	" 10,000 "
14956	April 22	Lakefield Portland Cement Co., Ltd.	" 6,000 "
15003	May 29	D. Conroy	Sodding in connection with lift lock No. 1, Peterborough, Ont.

## 8.—WELLAND CANAL.

No. of Contract.	Date of Signature.	Contractors.	General Description.
	1902.		
14716	Oct. 17	Hamilton Bridge Works Co., Ltd.	Erect bridges at the "Junction," near Welland, and at "Stone Bridge" in Humberstone.
14785	Nov. 8	Joseph Battle	Construct substructure of swing bridge at the "Junction."
14736	" 8	"	" " " "Stone Bridge."
	1903.		
14817	Jan. 7	Magann & Phin	Removal of centre pier work at Junction Bridge.
14821	" 9	Hogan & MacDonell	" " " Stone Bridge.
14858	" 24	Mason, Gordon & Co.	Supply timber.
14860	" 28	Cunningham & Cuthbert	" iron castings, &c.
14926	May 6	McCleary & McLean	" timber, lumber, &c.
14964	" 22	Joseph Battle	" 1,500 cedar poles.
15035	June 27	The Lincoln Electric Light & Power Co., Ltd.	" electric current for needs of canal, &c.

\*Too late for last year's report.

GERARD RUEL,  
*Law Clerk.*DEPARTMENT OF RAILWAYS AND CANALS,  
August 24, 1903.



WATER POWER AND OTHER PUBLIC PROPERTY LEASED BY THE  
DEPARTMENT OF RAILWAYS AND CANALS

3-4 EDWARD VII., A. 1904

No.

## WATER POWER and other Public Property leased by the Department

## 1.—INTERCOLONIAL

No. of Lease.	Date of Signature.	Lessee.	Property Leased.
1902.			
14743	Nov. 15.	Town of Amherst	Privilege to lay sewer pipes across railway lands at Amherst, N.S.
14753	" 28.	Strathcona Coal Co., Ltd.	Land at Shediac, N.B.
1903.			
14861	Feb. 10.	J. H. Langis	Land at Ste. Luce, Que.
14863	" 6.	R. Dand	Land at New Glasgow, N.S.
14869	" 1.	Rev. G. Howeroft	Land at Mulgrave, N.S.
14900	Jan. 30.	Imperial Oil Co., Ltd.	Land at Shediac, N.B.
14901	" 30.	" "	Land at Montmagny, Que.
14904	April 8.	M. Pelrine	Land at Harbour au Bouche, N.S.
14907	" 9.	A. Gallant	Land at Millstream, Que.
14962	May 27.	Imperial Oil Co., Ltd.	Land at Campbellton, N.B.
14970	" 12.	Canada Railway News Co.	Privilege to sell newspapers, books, &c., on all passenger trains.
14987	April 17.	Mary E. McManus to His Majesty.	Premises Nos. 131 and 133 on east side of Hollis St., Halifax, N.S.

## 2.—BEAUHARNOIS

1902.			
14703	Sept. 25.	School Commissioners of Parish of St. Stanislas de Kotska.	Lot No. 12 and parts of lots Nos. 1 & 2, in Parish of St. Stanislas de Kotska.
14731	Nov. 7.	Z. Grenier	House at lock No. 7
1903.			
14891	Mar. 30.	Theo. Groulx	" 9
14896	" 30.	O. Gendron	House above lock No. 10
14897	" 30.	N. Poirier	House between locks 6 and 7
14898	" 30.	Alp. Daoust	Half of house 200 ft. below lock No. 11
14899	" 30.	Wm. Doucet	Half of house between locks 9 and 10
14906	" 30.	P. Hogue	Half of house below lock No. 11
14986	June 6.	Montreal Cotton Co.	Privilege to erect a coal unloading plant on government dam at Valleyfield.

## 3.—CARILLON

1903.			
14966	May 15.	Wm. Brierton	Pt. Cad. lot No. 142, in 1st range of Township of Chatham, County of Argenteuil.

## 4.—CHAMBLY

1903.			
14969	May 4.	Montreal Light, Heat & Power Co.	Land above lock No. 3

## SESSIONAL PAPER No. 20

3.

of Railways and Canals during the Fiscal Year ended June 30, 1903.

## RAILWAY.

Area.	Amount of Water Power.	Term.	Commence- ment of Term.	TERMS OF PAYMENT.		
				Annual Rental.	Due each year.	First Instalment due.
				s cts.		
		During pleasure....	Sept. 1, 1902	1 00	Sept. 1....	Sept. 1, '02
560 sq. ft.....		"	Oct. 1, 1902	1 00	June 30....	June 30, '02
1,260 sq. ft.....		"	Feb. 1, 1903	5 00	" 30....	Feb. 1, '03
1.06 acre .....		"	July 1, 1902	5 00	" 30....	" 6, '03
0.03 " .....		"	Jan. 1, 1903	1 00	" 30....	" 1, '03
800 sq. ft.....		"	Oct. 1, 1902	5 00	" 30....	Jan. 30, '03
1,000 sq. ft.....		"	" 1, 1902	5 00	" 30....	" 30, '03
80 sq. ft.....		"	Dec. 1, 1902	1 00	" 30....	Dec. 1, '02
3,750 sq. ft.....		"	1, 1902	1 00	" 30....	" 1, '02
1,000 " .....		"	Aug. 1, 1902	5 00	" 30....	May 27, '03
		3 years.....	May 1, 1903	6,000 00	Monthly....	
		5 " .....	" 1, 1903	1,600 00	Quarterly....	

## CANAL.

25,185 sq. ft.....		During pleasure....	Sept. 1, 1902	1 00	Sept. 1....	Sept. 1, '02
		"	Nov. 1, 1902	1 00	Per month....	
		"	Feb. 1, 1903	2 00	"	
		"	Jan. 1, 1903	2 00	"	
		"	" 1, 1903	1 00	"	
		"	" 1, 1903	1 50	"	
		"	" 1, 1903	2 00	"	
		"	" 1, 1903	1 50	"	
		"	June 1, 1903	10 00	June 1....	June 1, '03

## CANAL.

121,975 sq. ft.....		During pleasure....	May 1, 1903	5 00	May 1....	May 1, '03
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## CANAL.

37,350 sq. ft.....		During pleasure....	May 1, 1903	150 00	May 1....	May 1, '03
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SESSIONAL PAPER No. 20

Railways and Canals during the Fiscal Year ended June 30, 1903—Continued.

CANAL.

Area.	Amount of Water Power.	Term.	Commencement of Term.	TERMS OF PAYMENT.		
				Annual Rental.	Due each year.	First Instalment due.
		During pleasure....	May 1, 1902	1 00	May 1	May 1, '02
		"	Aug. 1, 1902	1 00	Aug. 1	Aug. 1, '02

CANAL.

		During pleasure	Sept. 1, 1902	5 00	Sept. 1	Sept. 1, '02
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CANAL.

9½ acre		During pleasure	July 1, 1902	5 00	July 1	July 1, '02
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CANAL.

57,276 sq. ft.	250 h. p.	21 years, renewable.	Jan. 1, 1902	2,220 00	Semi-annually.	Jan. 1, '02
22,400 "	550 h. p.	"	Jan. 1, 1902	3,780 00	"	Jan. 1, '02
		During pleasure	June 1, 1902	65 00	June 1	June 1, '02
		"	May 1, 1902	120 00	May 1	May 1, '02
15,480 sq. ft.		"	Jan. 1, 1902	50 00	"	Jan. 1, '02
		During pleasure	July 1, 1902	1 00	July 1	July 1, '02
		"	June 1, 1902	120 00	June 1	June 1, '02
		"	Aug. 1, 1902	75 00	Semi-annually.	Aug. 1, '02
		21 years	Sept. 1, 1902	1 00	Sept. 1	Sept. 1, '02
11,697 sq. ft.		During pleasure	May 1, 1902	145 00	May 1	May 1, '02
		"	Jan. 1, 1903	300 00	Jan. 1	Jan. 1, '03
		"	March 1, 1903	1 00	March 1	March 1, '03
		5 years	May 1, 1902	2,200 00	Quarterly	Aug. 1, '02

3-4 EDWARD VII., A. 1904

## No. 3.—Water Power and other Public Property leased by the Department of

8.—LACHINE

No. of Lease.	Date of Signature.	Lessee.	Property Leased.
	1903.		
14892	Mar. 23	G. E. Jaques	Sheds Nos. 4 and 5 on S. side of basin No. 2
14911	April 7	Hector Bourgouin	Storage lot No. 7 between St. Gabriel basins Nos. 3 and 4, St. Ann's Ward.
14913	" 21	Montreal Rolling Mills Co.	Old channel of canal between island No. 5 and N. bank of canal, &c.
14914	" 21	Canada Switch & Spring Co.	Privilege to lay a 10-in. pipe and draw water from canal near St. Etienne St.
14943	Mar. 30	S. H. Phippen <i>et al.</i> to His Majesty.	Pt. lot 10, con. 9, Township of Huntingdon, County of Hastings, Ont.
14967	May 4	Tremblay & Riendeau	Lot No. 6 between St. Gabriel basins Nos. 3 and 4, St. Ann's Ward, Montreal.

9.—MURRAY

	1903.		
15007	May 1	Lenora Bonten	Land on N. bank of canal, con. 'B,' Township of Murray, Ont.

10.—RAPIDE PLAT

	1903.		
14822	Jan. 2	Marine & Fisheries Dept.	Pt. lot No. 30, 1st con. of the Township of Williamsburg.

11.—RIDEAU

	1902.		
14635	July 21	Wm. E. Beaton	Privilege to place a wharf on canal lands between lots 'H' and 'I,' con. 'C,' Nepean.
14636	" 21	Alex. Graham	" " " " " " " " " " " "
14648	" 29	Consumers Electric Co. Ltd.	Privilege to erect a line of 10 poles
14696	Sept. 9	Lawrence Kilroe	Land in front of N. half of lot 8 in con. 1 and 2, Township of Nepean.
	1903.		
14873	Feb. 5	James P. Ryan	Lots 2 and 3 at Hogsback lock station
14936	April 7	Dominion Supply Co. Ltd.	Land on S. side of basin at Ottawa
14942	May 22	Ottawa East	Privilege to lay an 18-in. sewer pipe from William St. to Rideau river.
14968	" 4	The Silicate Brick Co. of Ottawa, Ltd.	Pt. lot 'G,' con. 'C,' Rideau front, Township of Nepean.
14990	June 12	H. Patterson	" " " " " "

## SESSIONAL PAPER No. 20

Railways and Canals during the Fiscal Year ended June 30, 1903—*Continued.*

## CANAL.

Area.	Amount of Water Power.	Term.	Commencement of term.	TERMS OF PAYMENT.		
				Annual Rental.	Due each year.	First instalment due.
				\$ cts.		
		During pleasure	March 1, 1903	150 00	Semi-annually.	March 1, '03
11,607 sq. ft.		"	July 15, 1902	145 09	July 15, . . . .	July 15, '02
		"	April 1, 1903	1 00	April 1, . . . .	April 1, '03
		"	May 1, 1903	100 00	May 1, . . . .	May 1, '03
2 acres		2 years	April 1, 1903			
11,607 sq. ft.		During pleasure	May 1, 1903	145 09	May 1, . . . .	May 1, '03

## CANAL.

0.145 acre		During pleasure	March 1, 1903	5 00	March 1, . . . .	March 1, '03
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## CANAL.

0.06 acre		During pleasure	Jan. 1, 1903	1 00	Jan. 1, . . . .	Jan. 1, '03
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## CANAL.

1,200 sq. ft.		During pleasure	June 1, 1901	1 00	June 1, . . . .	June 1, '02
3,412½ sq. ft.		"	" 1, 1901	3 00	" 1, . . . .	" 1, '02
		"	July 1, 1902	1 00	July 1, . . . .	July 1, '02
11 acres		"	Jan. 1, 1895	8 25	Jan. 1, . . . .	Jan. 1, '95
4.80 and 5.73 sq. chains.		"	Feb. 1, 1903	6 00	Feb. 1, . . . .	Feb. 1, '03
2,250 sq. ft.		"	April 1, 1903	60 00	April 1, . . . .	April 1, '03
		"	June 1, 1903	1 00	June 1, . . . .	June 1, '03
2.38 acre		21 years	May 1, 1903	100 00	May 1, . . . .	May 1, '03
0.13 acre		During pleasure	" 1, 1903	5 00	" 1, . . . .	" 1, '03

3-4 EDWARD VII., A. 1904

No. 3.—WATER POWER and other Public Property leased by the Department of

12.—SAULT STE. MARIE

No. of Lease.	Date of Signature.	Lessee.	Property Leased.
1902.			
14714	Aug. 22.	Queen City Oil Co., Ltd.	Land N. of Lower Entrance Pier, Sault Ste. Marie.
14797	Dec. 18.	Union Petroleum Co. of Canada, Ltd.	Land in Sault Ste. Marie.
*14879	Mar. 29.	Algoma Central & Hudson Bay Ry. Co.	Pt. of St. Mary's island and adjacent waters in Sault Ste. Marie.
13.—ST. PETER'S			
1902.			
14757	Nov. 28.	Cape Breton Ry. Co.	Privilege to lay tracks on canal reserve.
1903.			
14876	Feb. 1.	"	Land in County of Richmond, N.S.
14.—TRENT			
1903.			
14965	April 23.	Wm. MacKenzie.	Pts. lots 51 and 52, 9th con., Township of Eldon, County of Victoria, Ont.
15.—WELLAND			
1902.			
14660	July 29.	Bell Telephone Co. of Canada.	Privilege to lay a cable across canal near swing bridge at St. Catharines.
14682	Aug. 28.	Penman Manufacturing Co., Ltd.	Water power at lock 22
14697	Sept. 9.	H. Dawdy.	Pt. lot 247, Welland, Ont.
14744	Nov. 8.	Merritt Water Commissioners.	Privilege to lay a 4-in. pipe above lock No. 9.
14792	Dec. 10.	R. W. Campbell	Land W. of W. pier at Port Dalhousie, Ont.
14793	" 10.	M. Beatty & Sons.	Pt. lot 247 in Township of Thorold, Ont., &c.
14816	" 31.	Hamilton Electric Light & Cataract Power Co., Ltd.	Water power from Lake Erie level.
1903.			
14826	Jan. 16.	Helen Campbell.	Land in Welland, Ont.
14868	Mar. 1	Wm. P. Dixon.	Pt. lots 31 and 49 in Township of Thorold, Ont.
14902	April 7.	Donner, Wilson & Co.	Land in Port Colborne, Ont.

\* Too late for last year's report.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, August 24, 1903.



SESSIONAL PAPER No. 20

Railways and Canals during the Fiscal Year ended June 30, 1903—Continued.

CANAL.

Area.	Amount of Water Power.	Term.	Commencement of term.	TERMS OF PAYMENT.		
				Annual Rental.	Due each year.	First instalment due.
				\$	cts.	
2,500 sq. ft.		During pleasure	July 1, 1902	10 00	July 1	July 1, '02
6,000 sq. ft.		"	Dec. 1, 1902	10 00	Dec. 1	Dec. 1, '02
17.68 acre.		21 years	April 1, 1902	400 00	April 1	April 1, '02

CANAL.

		21 years, renewable	July 1, 1902	2 00	July 1	July 1, '02
1.72 acre.		"	Jan. 1, 1903	30 00	Jan. 1	Feb. 1, '03

CANAL.

4½ acres.		During pleasure	April 1, 1903	8 00	April 1	April 1, '03
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CANAL.

		During pleasure	July 1, 1902	1 00	July 1	July 1, '02
	150 h. p.	21 years	" 1, 1902	4 00	Semi-annually.	" 1, '02
1.06 acre.		During pleasure	Aug. 1, 1902	1 00	Aug. 1	Aug. 1, '02
		"	May 1, 1902	5 00	May 1	May 1, '02
0.34 acre.		"	Nov. 1, 1902	5 00	Nov. 1	Nov. 1, '02
0.65 acre.		"	" 1, 1902	40 00	" 1	" 1, '02
	700 cu. per sec.	21 years	Jan. 1, 1903	30 00	Semi-annually.	
				per cu. ft.		
0.03 acre.		During pleasure	" 1, 1903	10 00	Jan. 1	Jan. 1, '03
2.4 acres.		"	March 1, 1903	10 00	March 1	March 1, '03
0.45 acre.		"	April 1, 1903	10 00	April 1	April 1, '03

GERARD RUEL,  
*Law Clerk.*

3-4 EDWARD VII., A, 1904

No.

PROPERTY conveyed and Damages released to the Department of

1.—CANADIAN

No. of Deed.	Date of Signature.	Grantor.	Lot.	District.
14803	Mar. 18, '96	John Morton.....	Pt. No. 165, Group 111, and pt. No. 410, Group 1, Tp. 17.	New Westminster.....
*14805	May 5, '02	F. Hussey <i>et al</i> .....	Pts. Nos. 64, 65 and 66, Group 1.	Yale.....

2.—INTERCOLONIAL

*14672	June 21, '02	F. Demers.....	Pt. Lot No. 611.....	St. Nicholas.....
*14673	Dec. 6, '01	L. A. Gilbert <i>et al</i> .....	Land in.....	St. John.....
*14674	May 6, '02	A. M. Bent <i>et al</i> .....	Land on N. side of Park St., and damages.	Amherst.....
*14711	Jan. 4, '02	Jos. A. Likely <i>et ux</i> .....	Land in.....	St. John.....
14715	Nov. 19, '00	Laura Murphy.....	Pt. Cad. Lot No. 25, St. Lawrence Ward.	Lévis.....
14764	Sept. 16, '02	David Lemoine.....	Pt. Lot No. 1323.....	Grantham.....
14835	Nov. 24, '02	John Fraser.....	Land at.....	Middle River.....
14915	April 14, '03	Dept. Indian Affairs.....	".....	Sydney.....
14925	Aug. 16, '02	M. Trail <i>et al</i> .....	".....	Halifax.....
14944	April 20, '03	G. H. McFetridge <i>et ux</i> .....	".....	Milford.....
14945	" 20, '03	J. G. Kerr <i>et ux</i> .....	".....	".....
14957	May 2, '03	E. L. Carter <i>et ux</i> .....	".....	Londonderry.....
14958	" 5, '03	F. D. Sibley <i>et ux</i> .....	".....	Alton.....
14971	" 11, '03	F. Chisholm <i>et ux</i> .....	".....	James River.....
*14975	Mar. 25, '02	R. McDonald <i>et al</i> .....	".....	Estuere Siding.....
*14976	Nov. 29, '01	J. A. Dickey <i>et al</i> .....	".....	Oxley's Siding.....
*14977	May 26, '02	John Adams.....	".....	Frosty Hollow.....
*14978	Feb. 1, '02	C. B. Langille.....	".....	Landsburg Siding.....
*14979	June 25, '02	A. W. Wilson <i>et ux</i> .....	".....	Belmont.....
*14980	Nov. 22, '01	Ann M. Brown.....	".....	Sydney.....
*14981	Sept. 22, '02	Geo. K. Etter.....	".....	Anlac.....
*14982	Oct. 8, '02	G. L. McCully.....	".....	Cardwell Parish.....
*14983	June 29, '01	Sarah E. Hazen.....	".....	St. John.....
14984	Jan. 19, '03	P. Fontaine.....	".....	Chaudière Junction.....
14988	April 20, '03	D. Anand <i>et ux</i> .....	".....	Milford.....
14801	Dec. 3, '02	Thomas Carson.....	".....	".....
14888	Mar. 26, '03	Rogers & Taylor.....	".....	".....
15147	" 5, '03	Ed. Keays.....	".....	".....

3.—PRINCE EDWARD

14973	May 5, '03	Eleanor Bain <i>et al</i> .....	Pt. Lot No. 190 on Right of Way Plan for Murray Harbour Branch.....	.....
14933	April 23, '03	Thos. Campbell.....	.....	.....

\* Too late for last year's report.

## SESSIONAL PAPER No. 20

## 4.

Railways and Canals during the Fiscal Year ended June 30, 1903.

## PACIFIC RAILWAY.

County.	Area.	Amount.	Remarks.
		\$	
		cts.	
		1,030 42	
	30 55 acres.....	448 70	

## RAILWAY.

Lévis, Que.....	2,640 sq. ft.....	25 00	
St. John, N.B.....	38 81 acres.....	17,557 00	
Cumberland, N.S.....	412 sq. ft.....	400 00	
St. John, N.B.....	8,000 ".....	\$13,680.48 and in-	
		terest at 5 p. c.	
		from Oct. 15, 1900	
Lévis, Que.....	8,908 ".....	15,589 00	
Drummond, Que.....	0 0723 acres.....	200 00	
Pictou, N.S.....	31,680 sq. ft.....	60 00	
Cape Breton, N.S.....	0 66 acres.....	550 00	
Halifax, N.S.....	6,536 sq. ft.....	1,706 19	Interest on \$3,000 also allowed.
Hants, N.S.....	0 25 acres.....	650 00	
".....	0 292 ".....	241 32	
Colchester, N.S.....	1 5 ".....	125 00	
".....	0 358 ".....	10 00	
Antigonish, N.S.....	0 118 ".....	115 00	
Victoria, N.S.....	0 417 ".....	45 00	
Cumberland, N.S.....	3 45 ".....	1 00	
Westmoreland, N.B.....	0 25 ".....	30 00	
Pictou, N.S.....	0 104 ".....	50 00	
Colchester, N.S.....	0 73 ".....	25 00	
Cape Breton, N.S.....	0 2 ".....	100 00	
Westmoreland, N.B.....	1 965 ".....	100 00	
King's, N.B.....	1 027 ".....	530 00	
St. John, N.B.....	1,425 sq. ft.....	750 00	
Lévis, Que.....	7 24 arps.....	1,520 40	
Hants, N.S.....	0 121 acres.....	100 00	
		75 00	Release, damages <i>re</i> closing of crossing.
		4,000 00	" hiring of plant.
		200 00	" all claims in connection with lands taken for right of way, &c.

## ISLAND RAILWAY.

	1 32 acres.....	150 00	
			Release, work done under contract No. 14361.

3-4 EDWARD VII., A. 1904

No. 4.—PROPERTY conveyed and Damages released to the Department of

4.—CHAMBLY

No. of Deed.	Date of Signature.	Grantor.	Lot.	District.
14830	Jan. 22, '03	N. Metivier	Lands at	Chamby Basin

5.—CORNWALL

14794	Nov. 10, '02	P. N. Tait <i>et al.</i>	Pt. Lot 8, Sheik's Island	Cornwall Township
14857	Feb. 17, '03	N. A. Sheets	Lots on Sheik's and Marshy Islands	" "
14946	May 16, '03	P. N. Tait	Pt. Lot 1, Sheik's Island	" "
15162	Mar. 7, '03	Sam. Moss <i>et al.</i>	N. pt. Lot 16	" "

5.—CORNWALL

14847	Feb. 2, '03	J. D. Rombough	Pt. Lot 27, Con 1	Cornwall Township
15165	Dec. 27, '02	The Gilbert Blasting and Dredging Co., Ltd.		

6.—CULBUTE

14663	July 31, '02	Rev. N. T. Lemoyne	Wilson's Island in Ottawa River	
14668	June 25, '02	M. Griffin	Griffin's Island in Ottawa River	
14669	" 24, '02	Wm. McVeigh, <i>et al.</i>	Lots 11 and 12, Range 1	Litchfield Township
14679	" 21, '02	Bryson Village	Front, George and Cobb Streets	

7.—FARRAN'S POINT

14720	Sept. 27, '02	R. S. & J. A. Sheets	Lots 15 and 16 in Farran's Point	
15160	July 16, '03	Ira Empy, <i>et al.</i>	W. $\frac{1}{2}$ of Lot 28, Con. 1	Osnabrick Township

8.—GALOPS

14702	July 30, '02	J. Wallace, <i>et al.</i>	Pts. E. $\frac{1}{2}$ Lot 34, Con. 1	Matilda Township
14952	Oct. 21, '02	A. Morrison	Pt. E. $\frac{1}{2}$ Lot 37, Con. 1	"
14710	Sept. 24, '02	H. Redmond	Lot 28, Con. 1	"
14721	" 24, '02	J. Kavanagh, <i>et al.</i>	Pts. Lots 5 and 6, Block 8	Troquois Village
15002	June 25, '03	Ann Lavis	Lot 3, Block 8	"

9.—MURRAY

1454	Jan. 10, '03	W. Goodrich	House, woodshed, &c	Murray Township
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## SESSIONAL PAPER No. 20

Railways and Canals during the Fiscal Year ended June 30, 1903—*Continued.*

## CANAL.

County.	Area.	Amount.	Remarks.
		8 cts	
		40 00	Release, damages by flooding, &c.

## CANAL.

Stormont, Ont.	15 acres	\$1,375 and interest on \$1,400 at 6 p.c.
"	8 67 "	945 56
"	62 "	6,250 00
"	10 85 "	2,007 85

## CANAL.

Stormont, Ont.	\$150 and interest.	Release, damages.
	16,480 00	Release, extra work, &c., <i>re</i> enlargement of sections 5, 6, 7 and 8 of canal.

## CANAL.

	75 00	Release, damages by flooding.
	50 00	" "
Pontiac, Que.	160 00	" "
"	250 60	" "

## CANAL.

Stormont.	200 00	Release, damages by depositing earth in front of lots.
"	150 00	Release, damages <i>re</i> deprivation of access to waters of St. Lawrence River.

## CANAL.

Dundas, Ont.	0 551 acres	94 30
"	0 87 "	960 00
"		360 00
"		350 00
"		455 47

## CANAL.

Northumberland, Ont.	500 00
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3-4 EDWARD VII., A. 1904

No. 4.—PROPERTY conveyed and Damages released to the Department of

10.—SOULANGES

No. of Deed.	Date of Signature.	Grantor.	Lot.	District.
15161	June 17, '03	Alex. Methot, . . . . .	Pts. Lots 16 and 24, . . . . .	St. Ignace Parish, . . . . .
14800	Dec. 27, '02	M. Beatty & Sons, . . . . .		

11.—ST. ANNE'S

14691	Sept. 4, '02	A. Lamarche, . . . . .		
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12.—TRENT

*14730	May 26, '02	P. Campbell, <i>et al.</i> , . . . . .	Pts. Lot 9, Con. 10, . . . . .	Thorah Township, . . . . .
14734	July 12, '02	H. Murray, . . . . .	Pt. E. $\frac{1}{2}$ Lot 3, Con. "A", . . . . .	Mara " " . . . . .
*14804	June 25, '02	D. McCuaig, <i>et al.</i> , . . . . .	Pts. Lot 9, Con. 10, . . . . .	Thorah " " . . . . .
14843	Jan. 27, '03	Jno. Barrett, <i>et al.</i> , . . . . .	Pt. W. $\frac{1}{2}$ Lot 2, Con. 7, . . . . .	Carden " " . . . . .
14880	Feb. 11, '03	R. Nelson, <i>et al.</i> , . . . . .	Pts. Lot. 11, Con. 8, . . . . .	Douro " " . . . . .
14894	Jan. 30, '03	Ed. Kennedy, . . . . .	Pt. Lot 14, Con. "C", . . . . .	Mara " " . . . . .
14895	Feb. 26, '03	Laura E. Wescott, . . . . .	Pt. S. $\frac{1}{2}$ Lot 10, Con. 10, . . . . .	Thora " " . . . . .
14912	Nov. 29, '02	G. McFadden, . . . . .	Pt. W. $\frac{1}{2}$ Lot 24, Con. 1, . . . . .	Eldon " " . . . . .
15146	June 3, '03	Sara Nelson, <i>et al.</i> , . . . . .	Pt. Lot 28, Con. 7; Pt. Block Smith "W," Lakefield, . . . . .	" " " " . . . . .
15175	Dec. 30, '02	Joseph Hodgson, . . . . .	Pt. Lot 14, Con. "C", . . . . .	Mara " " . . . . .
14756	Nov. 13, '02	C. D. Crawford, . . . . .	Lot 4, N. of Bridge St. and E. of Smith Water St., Lakefield, . . . . .	" " " " . . . . .
14912	" 29, '02	G. McFadden, . . . . .	W. $\frac{1}{2}$ Lot 24, Con. 1, . . . . .	Eldon " " . . . . .

13.—WELLAND

14836	Jan. 12, '03	C. J. Augustine, <i>et al.</i> , . . . . .	Pt. Lot 28, . . . . .	Humberstone Township, . . . . .
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\* Too late for last year's Report.

DEPARTMENT OF RAILWAYS AND CANALS,  
August 24, 1903.

SESSIONAL PAPER No. 20

Railways and Canals during the Fiscal Year ended June 30, 1903— *Concluded.*

CANAL.

County.	Area.	Amount.	Remarks.
		\$ cts.	
Soulanges, Que. ....	0.60 acres.....	187 69	Release, from all claims <i>ex</i> expropriation of Stewart's quarry.

LOCK.

		40 00	Release, damages <i>ex</i> injury to a team of horses.
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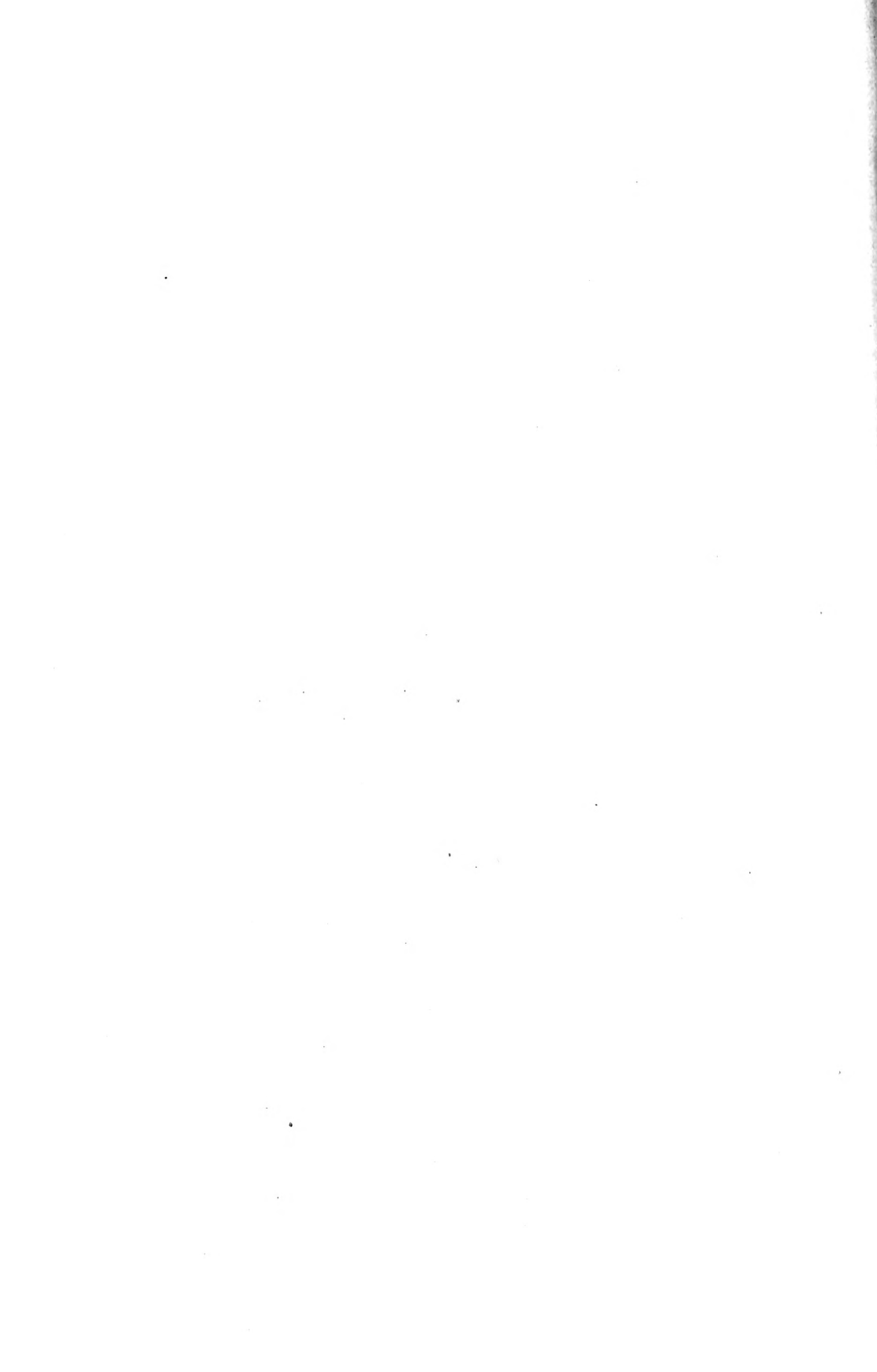
CANAL.

Ontario, Ont. ....	0.75 acres.....	100 00	
" .....	1.10 " .....	175 00	
" .....	0.088 " .....	7 90	
Victoria, Ont. ....	15.26 " .....	525 00	
Peterborough, Ont. ....	5.86 " .....	327 10	
Ontario, Ont. ....	0.08 " .....	20 00	
" .....	0.10 " .....	20 00	
Victoria, Ont. ....	1.20 " .....	120 00	
Peterborough, Ont. ....	2.65 " .....	82,500 and interest	
Ontario, Ont. ....	0.1 " .....	10 00	
Peterborough, Ont. ....		250 00	Release, damages <i>ex</i> raising highway.
Victoria, Ont. ....		120 00	Release, damages.

CANAL.

Welland, Ont. ....	0.02 acres.....	400 00	
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GERARD RUEL,  
*Law Clerk.*





PART V

CANAL STATISTICS

FOR THE

SEASON OF NAVIGATION

1902



# CANAL STATISTICS

FOR

SEASON OF NAVIGATION, 1902.

## REVENUE.

The total revenue, exclusive of hydraulic rents for two years, is as follows:—

For 1901.....	§ 250,949 57
For 1902.....	227,577 93

By comparing the statistics of 1901 with 1902, it will be seen that the gross revenue has decreased §23,371.64.

The increases and decreases are as follows:—

	Increase.	Decrease.
On the Welland Canal.....	§ 11,902 76	.....
“ St. Lawrence Canals.....	.....	§ 32,077 15
“ Chambly Canal.....	.....	2,151 21
“ Ottawa Canals.....	.....	800 07
“ Rideau Canal.....	.....	323 23
“ St. Peter's Canal.....	.....	264 98
“ Trent Valley Canals.....	270 64	.....
“ Murray Canal.....	21 60	.....
“ Sault Ste. Marie Canal.....	50 00	.....
Total.....	§ 12,245 00	§ 35,616 64
Total decrease.....	.....	23,371 64

STATEMENT of the Revenue, together with the increases and decreases of all the Canals for the seasons of Navigation from 1891 to 1902, inclusive.

Years.	Revenue.	Increase.	Decrease.
1891.....	§ 350,351 97	§ 2,292 46	.....
1892.....	358,711 04	8,359 07	.....
1893.....	348,012 00	.....	§ 10,699 04
1894.....	307,824 67	.....	40,187 33
1895.....	283,211 41	.....	24,613 26
1896.....	350,061 03	66,849 62	.....
1897.....	346,758 87	.....	3,302 16
1898.....	341,679 23	.....	5,079 64
1899.....	291,652 37	.....	50,026 86
1900.....	269,116 25	.....	22,536 12
1901.....	250,949 57	.....	18,166 68
1902.....	227,577 93	.....	23,371 64

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In compliance with the renewed request of forwarders and shippers of Montreal and the management of the Canada Atlantic Railway Co., for a reduction of tolls on certain agricultural products, His Excellency the Governor General in Council on April 1, 1902, authorized a reduction of canal tolls, as follows:—

For the season 1902 the canal tolls for the passage of the following food products, wheat, Indian corn, pease, barley, rye, oats, flax-seed and buckwheat for through passage eastward through the Welland Canal, shall be 10 cents per ton, and for through passage eastward through the St. Lawrence Canals only, 10 cents per ton, payment of the said tolls of 10 cents per ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals, or any portion thereof; further, in the case of any of the above named products brought down from Parry Sound over the line of the Canada Atlantic Railway Company to their elevator at Coteau Landing, the through rate thereon from that point to Montreal, to be 2½ cents per ton.

In consequence of the reduced rate of tolls, as above, being applicable to the said food products, irrespective of their destination, the reduced rate of 10 and 5 cents a ton respectively only was collected, and therefore no refunds were made on these articles for 1902.

It may be observed, however, that the reduction of tolls from 20 to 10 cents per ton on the articles referred to, for passage through the Welland Canal, amounts to \$31,216.60.

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 twenty-one years is as follows:—

QUANTITY PASSED DOWN TO MONTREAL.	QUANTITY ON WHICH FULL TOLLS WERE PAID.	
	To ports in Ontario.	Quantity from U. S. Ports to U. S. Ports.
	Tons.	Tons.
1882.....	180,694	63,881
1883.....	186,814	121,876
1884.....	142,194	104,537
1885.....	96,569	117,346
1886.....	203,940	151,551
1887.....	185,034	134,868
1888.....	160,358	169,664
1889.....	267,769	213,766
1890.....	288,513	245,932
1891.....	295,509	202,710
1892.....	261,954	201,540
1893.....	501,806	222,958
1894.....	273,651	203,979
1895.....	* 231,491	133,823
1896.....	461,049	160,372
1897.....	560,254	157,756
1898.....	519,532	144,612
1899.....	332,746	68,011
1900.....	244,661	84,589
1901.....	151,566	83,370
1902.....	208,215	81,164

\* Of the quantity of grain passed down to Montreal there were transhipped at Ogdensburg, in 1891, 17,817 tons; in 1892, 4,341 tons; in 1893, 71,445 tons; in 1894, 23,030 tons; in 1895, 18,987 tons; in 1896, 77,355 tons; in 1897, 89,659 tons; in 1898, 40,257 tons; in 1899, 48,828 tons; in 1900, 38,403 tons; in 1901, 17,387 tons, and 34,060 tons in 1902.

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The tolls on grain for passage through the Welland Canal prior to 1884 were 20 cents a ton; since that date, however, reductions have been made by Orders in Council from year to year as follows:—Upon the urgent request of forwarders and others interested in the grain trade, a reduction was made of one-half the usual rate of tolls on grain passing down the Welland Canal and the St. Lawrence Canals to Montreal; and in 1885 tolls were reduced to 2 cents a ton, and thereafter from year to year, including 1891.

In 1892 the tolls were reduced to 2 cents a ton on grain passed down the Welland and St. Lawrence Canals and exported, and in such cases only.

In 1893 by Order in Council of February 13, the tolls were reduced to 10 cents a ton on grain passing eastward through the Welland Canal, irrespective of its destination, and the same rate of tolls for 1894 were allowed by O.C., April 16, 1894.

For the year 1895 (O.C., April 1, 1895), the same rate of tolls was allowed as was granted for the year 1894.

For the year 1896 (O.C., April 23, 1896), the same rate of tolls was allowed as was granted for the year 1895.

For the year 1897 (O.C., April 17, 1897), the same rate of tolls was allowed as was granted for the year 1896.

For the year 1898 (O.C., June 1, 1898), the same rate of tolls was allowed as was granted for the year 1897.

For the year 1899 (O.C., April 10, 1899), the same rate of tolls was allowed as was granted for the year 1898.

For the year 1900 (O.C., February 20, 1900), the same rate of tolls was allowed as was granted for the year 1899.

For the year 1901 (O.C., May 3, 1901), the same rate of tolls was allowed as was granted for the year 1900.

For the year 1902 (O.C., April 1, 1902), the same rate of tolls was allowed as was granted for the year 1901.

The rate through the St. Lawrence Canals only, was 10 cents a ton.

It may be remarked that goods having paid full tolls on the Welland Canal are allowed to pass down the St. Lawrence Canals to Montreal free from payment of any further tolls.

During the last decade the quantity of agricultural products as above, passed down the Welland and St. Lawrence Canals to Montreal, has decreased from 501,806 tons in 1893 to 208,215 tons in 1902; and the quantity passed down the Welland Canal from United States ports to United States, has decreased from 222,958 to 81,164 tons for the same years.

The quantity of barley, buckwheat, corn, oats, pease, rye and wheat, arrived at Montreal via Grand Trunk and Canadian Pacific Railways for a period of 13 years, is reported as follows:—

	Tons.
For 1890 . . . . .	119,208
1891 . . . . .	184,410
1892 . . . . .	291,680
1893 . . . . .	147,610
1894 . . . . .	60,666
1895 . . . . .	51,114
1896 . . . . .	153,717
1897 . . . . .	228,611
1898 . . . . .	293,391
1899 . . . . .	209,170
1900 . . . . .	229,624
1901 . . . . .	227,700
1902 . . . . .	263,861

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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 1890 . . . . .	242,571
1891 . . . . .	320,434
1892 . . . . .	302,899
1893 . . . . .	532,084
1894 . . . . .	288,015
1895 . . . . .	247,550
1896 . . . . .	495,898
1897 . . . . .	604,200
1898 . . . . .	575,097
1899 . . . . .	372,291
1900 . . . . .	295,928
1901 . . . . .	203,316
1902 . . . . .	242,225

Comparative shipments of grain by the St. Lawrence route, and rail and water via the State of New York, are as follows :—

QUANTITY OF GRAIN TO SEA-BOARD BY COMPETING ROUTES.

The quantity of grain and pease passed down the whole length of the St. Lawrence Canal to Montreal, is as follows :—

	Tons.
For 1901 . . . . .	203,316
1902 . . . . .	242,225
Showing an increase of . . . . .	38,909

The quantity of grain and pease carried to Montreal via Canadian Pacific and Grand Trunk Railways, is reported as follows :—

	Tons.
For 1901 . . . . .	227,700
1902 . . . . .	263,861
Showing an increase of . . . . .	36,161

The quantity of grain arrived at tide-water by New York Canals, is reported as follows :—

	Tons.
For 1901 . . . . .	355,760
1902 . . . . .	318,677
Showing a decrease of . . . . .	37,083

The quantity of grain carried to tide-water by the New York railways, is reported as follows :—

	Tons.
For 1901 . . . . .	4,630,479
1902 . . . . .	4,558,536
Showing a decrease of . . . . .	71,943

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The increases and decreases for 1902 as compared with 1901 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.....	38,909		19.14	
" Canadian Pacific and Grand Trunk Railways.....	36,161		15.89	
" New York Canals.....		37,083		10.43
" " Railways.....		71,943		1.56

By reference to Appendix U, it will be seen that the quantity of freight from ports west of Port Colborne to the United States ports, Oswego, Ogdensburg, &c., has decreased from 299,392 tons in 1891, to 261,078 tons in 1902, and the quantity to Ontario ports, between Port Dalhousie and Cornwall, and an increase from 54,315 tons in 1891 to 55,733 tons in 1902. The quantity passed down to Montreal shows a decrease from 309,593 tons in 1891 to 250,475 tons in 1902.

## TRANSHIPMENT OF GRAIN.

The quantity of grain passed down the Welland Canal in Canadian and United States vessels to Kingston and Prescott for fifteen years, is as follows:—

In Canadian vessels there were in—

	Tons.
1888, 182 Cargoes, with an aggregate quantity of.....	143,025
1889, 208 " " .....	165,117
1890, 203 " " .....	184,275
1891, 209 " " .....	190,664
1892, 158 " " .....	159,018
1893, 146 " " .....	148,962
1894, 125 " " .....	159,145
1895, 123 " " .....	136,617
1896, 196 " " .....	227,912
1897, 180 " " .....	229,265
1898, 166 " " .....	224,021
1899, 162 " " .....	221,306
1900, 325 " " .....	183,200
1901, 112 " " .....	132,558
1902, 131 " " .....	175,514

In the United States vessels there were in—

	Tons.
1888, 60 Cargoes, with an aggregate quantity of.....	43,667
1889, 114 " " .....	108,358
1890, 35 " " .....	35,560
1891, 77 " " .....	90,153
1892, 89 " " .....	109,812
1893, 257 " " .....	328,269
1894, 84 " " .....	106,236
1895, 56 " " .....	73,987
1896, 158 " " .....	217,978
1897, 197 " " .....	285,847
1898, 339 " " .....	464,852
1899, 167 " " .....	205,571
1900, 259 " " .....	163,575
1901, 135 " " .....	123,229
1902, 135 " " .....	136,652

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Nineteen Canadian and 17 American vessels took cargoes of 34,804 tons in 1902, 23 Canadian and 2 American of 17,303 tons through to Montreal intact in 1901, 15 of 7,924 tons in 1900, 2 of 558 tons in 1899, 7 of 2,426 in 1898, 7 of 2,324 in 1897, 3 of 1,176 in 1896, 4 of 1,344 tons in 1895, 2 cargoes of 810 tons in 1894, none in 1893, 2 in 1892 of 924 tons, and 3 in 1891 of 1,441 tons. Three vessels lightened a portion of their cargoes in 1901, 9 in 1900, 11 in 1899, 25 in 1898, 11 in 1897, 16 in 1896, 6 in 1895, 19 in 1894, 34 in 1893, 25 in 1892, and 44 in 1891; 222 vessels discharged the whole of their cargoes at Kingston in 1901, 540 in 1900, 316 in 1899, 473 in 1898, 359 in 1897, 335 in 1896, 169 in 1895, 188 in 1894, 369 in 1893, 220 in 1892, and 293 in 1891.

The quantity of grain transhipped at Port Colborne in 1902 and the four previous years is given below.

The total number of grain laden vessels lightened at this port in 1902 was 99, against 98 the previous year.

The quantity of grain lightened was as follows:—

Articles.	1898.	1899.	1900.	1901.	1902.
	Bush.	Bush.	Bush.	Bush.	Bush.
Wheat .....	239,518	390,162	272,609	393,490	577,697
Corn .....	313,689	638,143	448,256	556,911	529,651
Rye .....	37,380	7,065	Nil.	Nil.	Nil.
Oats .....	Nil.	Nil.	Nil.	76,236	5,824
Barley .....	5,669	Nil.	Nil.	27,115	Nil.

## WELLAND CANAL

The total quantity of freight passed on the Welland Canal during the season of 1902 was 665,387 tons: of this quantity 19,290 tons were way or local freight.

There were 580,633 tons of freight passed eastwards, and 84,754 tons passed westwards.

*East and west bound Through Freight.*

The total quantity of through freight passed through the whole length of the Welland Canal during the season of 1902 was 646,097 tons.

Of this quantity 567,286 tons were east bound and 78,811 west bound freight.

Of the east bound through freight, Canadian vessels carried 293,230 tons and United States vessels carried 274,056 tons; and of the west bound through freight Canadian vessels carried 33,877 tons and United States vessels carried 44,934 tons, or a total of 327,107 tons for Canadian and 318,990 tons for American vessels.

## ST. LAWRENCE CANALS.

The total quantity of freight passed through these canals during 1902 was 1,093,133 tons; of this quantity 802,684 tons passed eastward and 290,449 passed westward.

*East and west bound Through Freight.*

The total quantity of through freight was 481,822 tons; of this quantity 388,771 tons were east bound and 93,051 tons were west bound.

*Way Freight.*

Of the total quantity of (way) or local freight 413,913 tons were east bound and 197,398 tons west bound freight.



## SESSIONAL PAPER No. 20

## THROUGH TRAFFIC BETWEEN MONTREAL AND PORTS ON LAKE ERIE, MICHIGAN, ETC.

The total quantity of through freights passed eastward and westward through the Welland and St. Lawrence Canals, from Lake Erie to Montreal, during fifteen years, is as follows :—

	Eastward to Montreal. Tons.	Westward from Montreal. Tons.
1888.....	183,899	19,310
1889.....	298,197	25,370
1890.....	231,746	13,951
1891.....	309,593	14,060
1892.....	263,144	9,452
1893.....	508,016	16,545
1894.....	292,191	9,439
1895.....	266,659	10,555
1896.....	489,077	10,050
1897.....	584,246	4,542
1898.....	538,108	4,436
1899.....	354,933	5,991
1900.....	288,251	6,217
1901.....	184,420	13,714
1902.....	250,475	25,289

## THROUGH FREIGHT FROM UNITED STATES PORTS TO UNITED STATES PORTS.

The total quantity of through freight passed eastward and westward through the Welland Canal, from United States ports to United States ports, for a period of fifteen years, is as follows :—

	Eastward. Tons.	Westward. Tons.	Total. Tons.
1888.....	221,062	213,689	434,751
1889.....	297,353	266,231	563,584
1890.....	318,259	215,698	533,957
1891.....	306,257	247,543	553,800
1892.....	300,733	240,332	541,065
1893.....	384,559	247,108	631,667
1894.....	361,319	230,948	592,267
1895.....	255,259	214,520	469,779
1896.....	385,695	267,518	653,213
1897.....	353,863	210,831	564,694
1898.....	277,023	210,516	487,539
1899.....	225,491	135,038	360,529
1900.....	218,969	99,560	318,529
1901.....	190,476	83,543	274,019
1902.....	224,110	44,919	269,029

The total quantity of freight passed through the Welland Canal from United States ports to United States ports shows a decrease of 4,990 tons, as compared with the previous year: and a decrease of 165,722 tons as compared with 1888.

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The following statement shows the aggregate number of vessels, and the total quantity of freight passed through the Welland Canal, and the quantity passed between United States ports during the years 1867 to 1902 inclusive:—

Fiscal Year.	Aggregate number of Vessels.	Total quantity transported on the Welland Canal.	Quantity passed from United States ports to United States ports.
	Number.	Tons.	Tons.
1867	5,405	933,260	458,386
1868	6,157	1,161,821	641,711
1869	6,069	1,231,903	688,706
1870	7,356	1,311,956	747,567
1871	7,729	1,478,122	772,756
<i>Season of navigation.</i>			
1872	6,063	1,333,104	606,627
1873	6,425	1,506,484	656,208
1874	5,814	1,389,173	748,557
1875	4,242	1,038,050	477,809
1876	4,789	1,099,810	488,815
1877	5,129	1,175,398	493,841
1878	4,429	968,758	373,738
1879	3,960	865,664	284,043
1880	4,104	819,934	179,605
1881	3,332	686,506	194,173
1882	3,334	790,643	282,806
1883	3,267	1,005,156	432,611
1884	3,138	837,811	407,079
1885	2,738	784,928	384,509
1886	3,589	980,135	464,478
1887	2,785	777,918	340,501
1888	2,647	878,800	434,753
1889	2,975	1,085,273	593,584
1890	2,883	1,016,165	533,957
1891	2,594	975,013	553,800
1892	2,615	955,554	541,065
1893	2,843	1,294,823	631,667
1894	2,412	1,008,221	592,267
1895	2,222	869,595	469,779
1896	2,766	1,279,987	653,213
1897	2,725	1,274,292	564,694
1898	2,384	1,140,977	487,539
1899	2,202	789,770	360,529
1900	2,399	719,360	318,529
1901	1,547	620,209	274,019
1902	1,568	665,387	269,029

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The total quantity of freight passed through the several divisions of the canals during the season of 1902 is as follows:—

	Farm Stock.	Forest Produce of Wood.	Manufactures.	Merchandise.	Agricultural Products.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Welland.....		141,041	46,764	121,710	355,872	665,387
St. Lawrence.....	1,218	192,430	116,007	292,808	580,670	1,093,133
Chambly.....	409	225,084	14,185	105,280	34,484	379,442
Ottawa.....	1,490	433,245	310	2,353	7,284	444,682
Rideau.....	26	27,296	3,005	15,929	4,623	59,879
St. Peters.....	18	15,676	7,152	40,874	9,818	73,538
Murray.....	8	10,823	6,515	12,537	5,295	35,178
Trent Valley.....	183	39,293	416	131	1,667	41,690
Sault Ste. Marie.....	591	118,753	81,266	3,315,685	1,213,063	4,729,268

The total quantity of freight moved on the Welland Canal was 665,387 tons, of which 355,872 tons were agricultural products.

On the St. Lawrence Canals the total quantity of freight moved was 1,093,133 tons, of which 580,670 were agricultural products, and 292,808 tons were merchandise.

On the Ottawa Canals the total quantity of freight moved was 444,682 tons; of this quantity 433,245 tons were the produce of the forest.

## STATISTICAL COMPARISON OF VARIOUS UNITED STATES ROUTES.

The statistical comparisons heretofore given in respect to the quantities of the principal articles carried through the Welland Canal, and those carried over routes in the United States, in competition with that work, have been continued to date.

By reference to statement H, as to the quantity of vegetable food carried to tide-water, it will be observed that the quantity carried by the New York Canals was 489,053 tons in 1902, 557,099 in 1901, 472,857 in 1900, 577,486 in 1899, 653,027 in 1898, 744,575 in 1897, 957,182 in 1896, 606,505 in 1895, 1,400,129 in 1894, 1,450,116 in 1893, 937,999 in 1892, and 1,092,385 in 1891.

The quantities of vegetable food carried by the New York Central, Erie and New York, West Shore and Buffalo Railways being:—

In	Tons.	In	Tons.
1902.....	6,532,263	1887.....	*3,847,766
1901.....	6,334,001	1886.....	*3,802,262
1900.....	6,053,005	1885.....	4,105,594
1899.....	6,211,827	1884.....	3,639,895
1898.....	7,060,542	1883.....	4,422,461
1897.....	5,673,638	1882.....	3,885,557
1896.....	5,183,540	1880.....	4,732,385
1895.....	3,798,574	1869.....	1,087,809
1894.....	4,281,056		
1893.....	*5,107,426		
1892.....	5,913,013		
1891.....	3,565,381		
1890.....	4,336,199		
1889.....	3,654,984		
1888.....	3,197,734		

\* Flour and grain only.

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The following figures are an abstract of the quantities of vegetable food carried to tide-water by the canals and railways of the State of New York during thirty-four years:—

—	Canals.	Railways.	Total.	Proportions by canals.
	Tons.	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	3,563,381	4,655,736	234
1892.	937,999	5,913,013	6,851,012	137
1893.	1,452,563	5,107,426	6,599,989	284
1894.	1,490,129	4,281,056	5,681,185	327
1895.	602,505	3,798,574	4,401,079	159
1896.	957,182	5,183,540	6,140,722	156
1897.	744,575	5,673,638	6,418,213	116
1898.	653,027	7,060,542	7,713,569	085
1899.	577,486	6,211,827	6,789,313	086
1900.	472,857	6,053,005	6,525,862	073
1901.	537,099	6,334,001	6,891,100	081
1902.	489,053	6,532,263	7,021,316	088

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 1886.	16.9
1869.	47.0	1887.	16.3
1870.	38.9	1888.	18.8
1871.	38.9	1889.	15.1
1872.	40.1	1890.	13.9
1873.	34.9	1891.	13.4
1874.	31.7	1892.	9.8
1875.	28.4	1893.	10.1
1876.	24.6	1894.	10.2
1877.	28.3	1895.	9.7
1878.	27.1	1896.	8.5
1879.	23.7	1897.	8.3
1880.	25.1	1898.	6.9
1881.	18.5	1899.	7.2
1882.	19.0	1900.	5.2
1883.	18.7	1901.	5.1
1884.	19.0	1902.	5.5
1885.	17.1		

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The quantity of freight carried by the canals and railways was greater in 1902 by 6,434,937 tons than the quantity carried in 1901, and an increase of 59,622,600 tons over 1869.

The quantities carried were as follows :—

	Total Tonnage.	Proportion by canals.
In 1859 .....	5,485,076	·6890
1869 .....	12,453,174	·4705
1870 .....	15,148,274	·3895
1871 .....	15,844,152	·3896
1872 .....	16,631,609	·4012
1873 .....	18,200,208	·3497
1874 .....	18,283,547	·3174
1875 .....	17,101,758	·2841
1876 .....	16,948,627	·2462
1877 .....	17,489,770	·2833
1878 .....	19,017,301	·2719
1879 .....	22,590,766	·2373
1880 .....	25,706,586	·2512
1881 .....	27,857,394	·1859
1882 .....	28,693,054	·1905
1883 .....	30,167,119	·1877
1884 .....	26,293,844	·1905
1885 .....	27,543,948	·1718
1886 .....	31,168,744	·1698
1887 .....	34,029,791	·1632
1888 .....	26,244,610	·1883
1889 .....	35,466,042	·1514
1890 .....	37,624,199	·1394
1891 .....	38,524,179	·1343
1892 .....	43,618,569	·0982
1893 .....	42,953,233	·1009
1894 .....	37,916,412	·1024
1895 .....	36,170,339	·0967
1896 .....	43,756,051	·0849
1897 .....	43,711,512	·0828
1898 .....	49,311,030	·0682
1899 .....	51,702,761	·0713
1900 .....	65,433,541	·0512
1901 .....	65,640,837	·0506
1902 .....	72,075,774	·0549

Average freight rates, grain, Chicago to Buffalo :—(as reported by the Secretary Merchants' Exchange, Buffalo).

Year.	Wheat.	Year.	Wheat.
1881.....	3·2	1893.....	1·6
1882.....	2·5	1894.....	1·2
1883.....	3·5	1895.....	1·9
1884.....	2·1	1896.....	1·7
1885.....	2·0	1897.....	1·5
1886.....	3·6	1898.....	1·5
1887.....	4·1	1899.....	2·5
1888.....	2·7	1900.....	1·8
1889.....	2·5	1901.....	1·6
1890.....	1·9	1902.....	1·5
1891.....	2·5		
1892.....	2·2	Average twenty-two years.	2·3

STATEMENT of the Quantity of Grain and Rolling Freight passed down the St. Lawrence Canals from Coteau Landing to Montreal during the Years 1898, 1899, 1900, 1901 and 1902.

	1898.		1899.		1900.		1901.		1902.	
	Tons.	Bushels.	Tons.	Bushels.	Tons.	Bushels.	Tons.	Bushels.	Tons.	Bushels.
Barley			8,133	338,538	600	24,967				
Buckwheat					11	460				
Corn	149,169	5,327,465	174,982	6,176,145	154,815	5,525,845	71,459	2,552,167	11,732	418,791
Oats	3,281	193,000	8,357	491,589	16,803	1,005,029	7,831	400,043	3,899	229,262
Pease			237	7,900	142	4,700				
Rye	1,812	64,715	1,474	52,613	3,925	140,434	5,141	193,607	11,552	395,297
Wheat	59,063	1,968,767	66,635	2,221,167	126,963	4,215,721	267,403	6,913,434	216,305	7,298,486
Total	213,325	7,563,947	259,768	9,287,980	303,259	10,917,156	291,834	10,119,191	243,488	8,251,746

	1898.		1899.		1900.		1901.		1902.	
	Tons.	Bushels.	Tons.	Bushels.	Tons.	Bushels.	Tons.	Bushels.	Tons.	Bushels.
Flax seed	13,981		20,290		3,779		17,298		11,606	
Flax and hemp					941					
Flour	19,930		20,745		8,255		7,290		10,615	
Furniture					1					
Lard and lard oil	1,244		617		1,695				689	
Meats	2,058		779		448		388			
Oil cake	4,091		2,539				1,255		5,900	
Meats	340									
Pork	1,744		1,259		418		372			
Seeds, all kinds	215		1,763						283	
All other vegetables	767									
Nails										
Oils										
Sugar			806				28			
Tallow										
Merchandise	294				373					
Barrels, empty			762		696		1		5	
Firewood			420				1,435		180	



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The United States canal was open to navigation during the season of—

1889.....	234 days.
1890.....	228 "
1891.....	225 "
1892.....	233 "
1893.....	219 "
1894.....	234 "
1895.....	231 "
1896.....	232 "
1897.....	234 "
1898.....	241 "
1899.....	231 "
1900.....	238 "
1901.....	230 "
1902.....	256 "

The Canadian canal was open to navigation during the season of—

1895.....	87 days.
1896.....	218 "
1897.....	238 "
1898.....	243 "
1899.....	239 "
1900.....	238 "
1901.....	246 "
1902.....	264 "

The average number of vessels passing per day through the two canals for the season of 1902, was eighty-five.

R. DEVLIN,  
*Compiler of Canal Statistics.*

OTTAWA, August 12, 1903.

EXPORTS by Lake from Chicago to Canada during the Season of Navigation in 1902.

(From Report of Board of Trade of Chicago.)

Commodities.	Quantity.	Value.
		\$ cts.
Wheat.....	Bushels 3,027,846	2,218,874 00
Corn.....	" 500,932	304,754 00
Oats.....	" 194,100	79,401 00
Rye.....	" 323,870	179,757 00
Flaxseed.....	" 50,800	68,104 00
Flour.....	Barrels 41,334	132,887 00
Grass seed.....	Sacks 3,545	7,722 00
Oil cake.....	" 35,344	133,284 00
Pork.....	Barrels 5,119	88,397 00
Beef.....	" 200	2,299 00
Cured meats.....	Boxes 2	60 00
Nails.....	Kegs 28	156 00
Manufactures of iron.....	Tons 691	19,906 00
Agricultural implements.....	Machines 1,354	59,976 00
Cordage.....	Bales 3,600	21,600 00
Unclassified.....	Tons 7,043	29,959 00
Total.....		3,347,130 00



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GRAIN FREIGHTS BY LAKE, SEASON OF 1902.

The following were the current rates on Wheat and Corn from Chicago to Buffalo, Ogdensburg and Depot Harbour; also to New York by Lake and Erie Canal, for each week during the season of navigation in 1902.

1902.	To BUFFALO.		To OGDENSBURG.		To DEPOT HARBOUR.		ERIE CANAL, BUFFALO TO NEW YORK.		CHICAGO TO NEW YORK, LAKE AND CANAL.	
	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.
April 5	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 12	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 19	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 26	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
May 3	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 10	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 17	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 24	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 31	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
June 7	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 14	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 21	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 28	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
July 5	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 12	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 19	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 26	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
Aug. 2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 9	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 16	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 23	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 30	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
Sept. 6	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 13	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 20	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 27	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
Oct. 4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 11	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 18	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 25	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
Nov. 1	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 8	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 15	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 22	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 29	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
Dec. 6	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
" 13	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2

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LAKE FREIGHTS FROM CHICAGO TO BUFFALO, ON WHEAT AND CORN.

STATEMENT showing the dates of the changes of the ruling rates of Lake Freights on Wheat and Corn from Chicago to Buffalo, during 1902, (as reported by the Secretary of the Merchants Exchange, Buffalo).

1902		Wheat, Bushels.	Corn, Bushels.	1902.		Wheat, Bushels.	Corn, Bushels.
		cts.	cts.			cts.	cts.
Mar.	15	1 1/2		Aug.	9	1 1/2	1 1/2
"	27	1 1/2	1 1/2	"	12	1 1/2	1 1/2
April	3	1 1/2	1 1/2	"	14	1 1/2	1 1/2
"	7	1 1/2	1 1/2	"	18	1 1/2	1 1/2
"	15	1 1/2	1 1/2	"	23	1 1/2	1 1/2
"	16	1 1/2 to 1 1/2	1 1/2 to 1 1/2	"	26	1 1/2	1 1/2
"	17	1 1/2	1 1/2	"	30	1 1/2	1 1/2
"	29		1 to 1 1/2	Sept.	1	1 1/2	1 1/2
"	30		1 1/2	"	3	1 1/2	1 1/2
May	1	1 1/2		"	5	1 1/2	1 1/2
"	2	1 1/2	1 1/2	"	10	1 1/2	1 1/2
"	3	1 1/2	1 1/2	"	11	1 1/2	1 1/2 to 1 1/2
"	6	1 1/2	1 1/2	"	13	1 1/2	1 1/2
"	21	1 1/2	1 1/2	"	15	1 1/2	1 1/2
"	24	1 1/2	1 1/2	"	16	1 1/2	1 1/2
June	5	1 1/2	1 1/2	"	19		1 1/2
"	9	1 1/2	1 1/2	"	20	1 1/2	1 1/2
"	11	1 1/2	1 1/2	Oct.	4		1 1/2
July	26		1	"	6		1 1/2
"	28		1 to 1 1/2	"	8	1 1/2	1 1/2
"	29	1 1/2	1	"	14		1 1/2 to 1 1/2
"	31	1 1/2	1 1/2	"	15		1 1/2
Aug.	4		1 1/2 to 1 1/2	"	18	1 1/2	1 1/2
"	5	1 1/2	1 1/2	"	21		1 1/2 to 1 1/2
"	8	1 1/2 to 1 1/2	1 1/2 to 1 1/2	"	22		1 1/2

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AVERAGE LAKE FREIGHTS.

The following statement shows the average rates of lake freights on wheat and corn between Chicago and Buffalo during each month in the past ten years, the highest and lowest rate on wheat in each year, and the average rate on wheat each year in cents, per bushel:—

(Per Report of the Secretary of Merchants' Exchange, Buffalo.)

	May.	June.	July.	Aug.	Sept.	Oct.	Nov.
Grain, bushels.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
1893 } Wheat . . . . .	1 3	1 8	1 2	1 3	1 7	2 1	2 0
} Corn . . . . .	1 2	1 6	1 1	1 2	1 5	1 9	1 8
Highest rate, wheat, 1893, 2½c.; lowest, 1c.; average for the season, 1 6c.							
1894 } Wheat . . . . .	1 4	1 2	0 9	1 0	1 4	1 1	1 3
} Corn . . . . .	1 2	1 1	0 9	0 9	1 3	1 0	1 3
Highest rate, wheat, 1894, 3c.; lowest, ½c.; average for the season, 1 2c.							
1895 } Wheat . . . . .	1 2	1 2	1 1	1 6	2 1	3 0	3 0
} Corn . . . . .	1 1	1 1	1 0	1 4	1 9	2 9	2 7
Highest rate, wheat, 1895, 3c.; lowest, 1c.; average for the season, 1 9c.							
1896 } Wheat . . . . .	1 6	1 5	1 2	1 3	1 4	2 0	2 1
} Corn . . . . .	1 4	1 3	1 1	1 2	1 2	1 9	1 9
Highest rate, wheat, 1896, 2½c.; lowest, 1¼c.; average for the season, 1 7c.							
1897 } Wheat . . . . .	1 3	1 2	1 3	1 5	2 0	1 8	1 5
} Corn . . . . .	1 2	1 1	1 2	1 4	1 8	1 7	1 4
Highest rate, wheat, 1897, 2½c.; lowest, 1c.; average for the season, 1 5c.							
1898 } Wheat . . . . .	1 3	0 1	0 9	1 2	1 4	2 3	2 3
} Corn . . . . .	1 2	0 8	0 8	1 1	1 3	2 3	2 1
Highest rate, wheat, 1898, 3¼c.; lowest, 1¼c.; average for the season, 1 5c.							
1899 } Wheat . . . . .	2 0	2 0	2 2	2 5	3 1	3 5	2 5
} Corn . . . . .	1 8	1 9	2 0	2 3	3 2	3 4	2 3
Highest rate, wheat, 1899, 3¾c.; lowest, 1½c.; average for the season, 2 5c.							
1900 } Wheat . . . . .	1 8	1 9	2 1	1 6	1 7	1 7	2 0
} Corn . . . . .	1 6	1 7	2 0	1 5	1 6	1 5	1 8
Highest rate, wheat, 1900, 3c.; lowest, 1¼c.; average for the season, 1 8c.							
1901 } Wheat . . . . .	1 9	1 5	1 6	1 3	1 6	1 3	2 0
} Corn . . . . .	1 8	1 3	1 4	1 2	1 5	1 2	1 2
Highest rate, wheat, 1901, 2½c.; lowest, 1¼c.; average for the season, 1 60c.							
1902 } Wheat . . . . .	1 3	1 3	1 2	1 6	1 5	1 7	1 9
} Corn . . . . .	1 2	1 1	1 1	1 4	1 4	1 6	1 7
Highest rate, wheat, 1902, 2½c.; lowest, 1½c.; average for the season, 1 5c.							

LAKE FREIGHTS FROM DULUTH TO BUFFALO ON WHEAT (AS REPORTED BY THE SECRETARY OF THE MERCHANTS' EXCHANGE, BUFFALO, N. Y.)

The following statement shows the Lake Freight rates on Wheat from Duluth to Buffalo, during the season of 1902:—

1902.	Wheat. Bushels.	1902.	Wheat. Bushels.
	Cts.		Cts.
March 31 . . . . .	21	June 14 . . . . .	1
April 1 . . . . .	24	" 15 . . . . .	1½
" 7 . . . . .	21	" 20 . . . . .	1
" 19 . . . . .	2	July 15 . . . . .	1½
" 21 . . . . .	1½	" 17 . . . . .	1½
" 22 . . . . .	1½	August 1 . . . . .	1½
" 28 . . . . .	1½	Sept 2 . . . . .	2
May 21 . . . . .	1½	October 18 to close . . . . .	2½
June 6 . . . . .	1½		

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In 1885 the range of freights on wheat, Duluth to Buffalo, was  $1\frac{1}{2}$  to 5c.; in 1886,  $3\frac{1}{4}$  to 8c.; in 1887, 5 to 8c.; in 1888, 2 to 5c.; in 1889, 2 to 5c.; in 1890, 2 to 5c.; in 1891,  $1\frac{1}{4}$  to  $9\frac{1}{2}$ c.; in 1892,  $2\frac{1}{4}$  to 4c.; in 1893,  $1\frac{1}{4}$  to  $3\frac{1}{2}$ c.; in 1894,  $1\frac{1}{4}$  to 3c.; in 1895, 2 to 6c.; in 1896,  $1\frac{1}{4}$  to 3c.; in 1897, 1 to  $2\frac{1}{2}$ c.; in 1898, 1 to  $3\frac{1}{2}$ c.; in 1899,  $2\frac{1}{2}$  to 6c.; in 1900,  $1\frac{1}{2}$  to  $3\frac{3}{4}$ c.; in 1901,  $1\frac{1}{8}$  to  $3\frac{3}{4}$ c., and in 1902, 1 to  $2\frac{1}{4}$ c. per bushel.

The first departure by lake, at Duluth in 1902 was on March 31; in 1901 was on May 6; in 1900 was on April 22; in 1899, on April 29; in 1898, was on April 16; in 1896, on April 22, and in 1895, on April 21. In 1894 season opened on April 19; in 1893, on May 8; in 1892, on April 21; in 1891, on April 30; in 1890, on March 26; in 1889, on April 20; in 1888, on May 12; in 1887, May 4; in 1886, on May 7.

Wheat was shipped at Kingston, Canada, per bushel, during the season of 1887, at  $6\frac{1}{4}$  to  $7\frac{3}{4}$ c.; in 1888, at 4 to 5c.; in 1889, at —; in 1890,  $5\frac{3}{4}$ ,  $5\frac{1}{2}$ ,  $4\frac{1}{2}$ ,  $4\frac{1}{4}$ , 4c.; in 1891, during May,  $3\frac{3}{4}$ ,  $3\frac{1}{2}$ ,  $2\frac{1}{2}$ c.; during June, 3c.; and on July 25,  $2\frac{1}{2}$ c.; in 1892, 5c. in April; 5 to  $5\frac{1}{4}$ c. in May; 4c. in June;  $4\frac{1}{2}$ c. in July; 3c. in August; 6 to  $6\frac{1}{4}$ c. in October; in 1893, ranged from  $5\frac{1}{2}$  to  $4\frac{1}{2}$ c. in April;  $4\frac{1}{2}$  to  $4\frac{3}{4}$ c. in May; 4 to  $3\frac{1}{2}$ c. in June;  $2\frac{3}{4}$  to 3c. in July;  $3\frac{1}{4}$  to  $3\frac{3}{4}$ c. in September; no figures quoted after that date. In 1894 ranged from  $3\frac{1}{4}$  to  $3\frac{1}{2}$ c. in May;  $3\frac{1}{2}$ c. in June;  $2\frac{1}{2}$ c. in July;  $2\frac{1}{2}$  to  $3\frac{1}{4}$ c. in August; 4c. in September, and  $4\frac{1}{4}$ c. in October. On August 25 and November 3, 1894, wheat to Ogdensburg, at  $3\frac{1}{4}$ c. and  $4\frac{1}{2}$ c., respectively. In 1895, wheat to Kingston from 3c. to 5c. In 1896, wheat to Kingston from 3c. to  $5\frac{1}{2}$ c.; and in 1897, wheat to Kingston 3c. to  $3\frac{1}{8}$ c., according to time of year; 1898 and 1899 not given.

## LAKE FREIGHTS FROM TOLEDO TO BUFFALO ON WHEAT.

The following statements show the ruling rates of lake freights on wheat from Toledo to Buffalo, during the season of 1902 on the dates specified, as reported by the Secretary Merchants Exchange, Buffalo.

Date, 1902.	Wheat and Corn per Bushel.	Date, 1902.	Wheat, Bushels.
	Cts.		Cts.
Opening to July 29.....	$1\frac{1}{4}$	October 29 to December.....	$1\frac{1}{2}$
July 29 to August 9.....	$1\frac{1}{8}$	December 1 to December 19.....	2
August 9 to October 29.....	$1\frac{1}{4}$		

The range for 1886 was  $1\frac{3}{4}$  to 3c.; for 1887,  $2\frac{1}{4}$  to 3c.; for 1888,  $1\frac{1}{2}$  to  $2\frac{1}{2}$ c.; for 1889,  $1\frac{3}{4}$  to 2c.; for 1890,  $1\frac{1}{2}$  to 2c.; for 1891, 1 to 3c.; for 1892,  $1\frac{1}{2}$  to  $2\frac{1}{2}$ c.; for 1893, 1 to 2c., for 1894, 1 to 2c.; for 1895, 1 to  $2\frac{1}{4}$ c.; for 1896,  $1\frac{1}{4}$  to  $1\frac{3}{4}$ c.; for 1897, 1 to  $1\frac{1}{4}$ c., and for 1898, 1 to  $1\frac{1}{2}$ c.; for 1899,  $1\frac{1}{2}$  to 2c.; for 1900,  $1\frac{1}{2}$  to 2c. for 1901,  $1\frac{1}{4}$  to  $1\frac{1}{2}$ c., and for 1902,  $1\frac{1}{8}$  to 2c. per bushel.

From Toledo to Ogdensburg, wheat and corn shipped at 6 to 7c. in 1887; at  $4\frac{1}{2}$  to 6c. for wheat and 5c. for corn in 1888; and 5 to  $5\frac{1}{2}$ c. for wheat in 1889 per bushel. From Toledo, on October 8, 1887, corn shipped to Kingston at  $3\frac{1}{2}$ c., and on November 12, at  $4\frac{1}{2}$ c. per bushel. In 1888, corn Toledo to Kingston,  $4\frac{1}{4}$  to 3c.; and wheat at  $3\frac{1}{2}$  to 3c. per bushel. In 1889, wheat Toledo to Kingston, 3c.; and in 1891, rye Toledo to Kingston at 3c. per bushel. From Toledo, on June 2, 1887, wheat shipped to Montreal by propeller at  $6\frac{1}{2}$ c.; on June 14, corn at same price; but on September 26, the rate on corn was only 5c. per bushel. In 1888, corn Toledo to Montreal, at 6 to  $5\frac{3}{4}$ c. and wheat at  $5\frac{1}{2}$ c. per bushel. From 1889 to 1899, no shipments to Montreal or other places in Canada reported.

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CANAL FREIGHT FROM BUFFALO TO NEW YORK.

The following shows the changes in the ruling rates of freight to New York from Buffalo, on the days specified in 1902 (as reported by the Secretary, Merchants' Exchange, Buffalo).

Date, 1902.	Wheat, Bushels.	Corn, Bushels.	Date, 1902.	Wheat, Bushels.	Corn, Bushels.
	Cts.	Cts.		Cts.	Cts.
April 24.....	4	3½	October 11.....	3¼	3½
June 21.....	3½	3½	October 15.....	4	3½
September 9.....	4	3¾	Nov. 1 to close.....	4½	3½
October 3.....	3½	3½			

The freight on oats varied from 2¾ to 3c. per bushel. Pine lumber, per 1,000 feet, was carried from Buffalo to Tonawanda to New York as follows: Opened at \$2.00; June, \$2.00; July, \$1.85; August, \$1.80; September, \$1.75; October, \$2 to close \$2.25. Rates to Albany opened \$1.50; June, \$1.50; July, August, September, \$1.40; October, \$1.50 to close \$1.75.

AVERAGE CANAL FREIGHTS.

BUFFALO TO NEW YORK.

The following statement shows the average rates of canal freights on wheat and corn between Buffalo and New York during each month in the past ten years, and the highest and lowest rates on wheat and average rate on wheat in each:—

(Reported by Sec. Merchants' Exchange, Buffalo.)

Grain.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
1893 {Wheat.....	4.8	4.8	4.6	4.6	4.0	4.7	4.8
{Corn.....	4.4	4.4	4.3	4.2	3.6	4.3	4.5
Highest rate, wheat, 1893, 5c.; lowest, 2.6c.; average for the season, 4.6c.							
1894 {Wheat.....	3.1	2.9	3.3	3.4	3.6	2.9	3.0
{Corn.....	2.8	2.6	3.0	3.1	3.3	2.6	2.7
Highest rate, wheat, 1894, 4c.; lowest, 3.6c.; average for the season, 3.2c.							
1895 {Wheat.....	1.9	1.7	2.0	2.0	2.1	2.5	2.7
{Corn.....	1.7	1.5	1.7	1.7	2.0	2.2	2.5
Highest rate, wheat, 1895, 3c.; lowest, 1.9c.; average for the season, 2.2c.							
1896 {Wheat.....	3.7	3.7	3.7	3.7	3.7	3.7	3.8
{Corn.....	3.5	3.5	3.5	3.5	3.5	3.5	3.6
Highest rate, wheat, 1896, 4c.; lowest, 3.1c.; average for the season, 3.7c.							
1897 {Wheat.....	2.6	2.2	2.3	2.5	3.3	3.1	3.5
{Corn.....	2.2	1.8	2.0	2.2	2.8	2.6	3.0
Highest rate, wheat, 1897, 3.5c.; lowest, 2c.; average for the season, 2.8.							
1898 {Wheat.....	3.0	2.9	2.8	2.7	2.6	3.0	3.0
{Corn.....	2.5	2.3	2.4	2.1	2.2	2.6	2.6
Highest rate, wheat, 1898, 3.4c.; lowest, 2.5c.; average for the season, 2.8c.							
1899 {Wheat.....	2.5	2.7	2.4	2.5	2.5	3.6	4.2
{Corn.....	2.3	2.3	2.1	2.1	2.2	3.0	3.5
Highest rate, wheat, 1899, 4.5c.; lowest, 2.5c.; average for the season, 3c.							
1900 {Wheat.....	2.4	2.2	2.3	2.3	2.2	2.7	3.5
{Corn.....	2.1	2.0	2.1	2.0	2.0	2.4	3.0
Highest rate, wheat, 1900, 3½c.; lowest, 2c.; average for the season, 2.5c.							
1901 {Wheat.....	3.4	3.2	3.2	3.2	3.3	4.0	4.1
{Corn.....	2.7	2.8	2.8	2.9	3.1	3.7	3.8
Highest rate, wheat, 1901, 4½c.; lowest, 3½c.; average for the season, 3.5c.							
1902 {Wheat.....	4.0	3.8	3.3	3.3	3.8	4.0	4.1
{Corn.....	3.6	3.4	3.1	3.1	3.5	3.7	3.8
Highest rate, wheat, 1902, 4½c.; lowest, 3½c.; average for season, 3.8c.							

NOTE.—Canal free of tolls since 1882.

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FREIGHT, TOLLS, ELEVATING AND STORAGE RATES COMPARED.

The following statement shows the receipts of grain and flax seed at Buffalo, the average canal freight on wheat, and the tolls on wheat to New York, and the elevating and storage rates at Buffalo for a series of years (as reported by Secretary, Merchants' Exchange, Buffalo):—

Year.	Average Canal Freight on Wheat.		Tolls on Wheat.	Elevating, including Storage.
	Grain received.			
	Bush.	Cts.	Cts.	Cts.
1870	32,208,639	11.2	3.1	1 1/2
1871	61,319,313	12.6	3.1	1 1/2
1872	58,703,666	13.0	3.1	1 1/2
1873	65,498,955	11.4	3.1	1 1/2
1874	55,660,198	10.0	3.1	1 1/2
1875	52,833,451	7.9	2.0	1
1876	44,207,121	6.6	2.0	1
1877	61,822,292	7.4	1.0	1
1878	78,828,443	6.0	1.0	1
1879	75,089,768	6.8	1.0	1
1880	105,133,009	6.5	1.0	1
1881	56,389,827	4.7	1.0	1
1882	51,501,503	5.4	1.0	1
1883	65,722,080	4.9	None.	1
1884*	58,011,800	4.2	do	1
1885*	52,671,090	3.8	do	1
1886*	75,570,850	5.0	do	1
1887*	87,073,570	4.6	do	1
1888*	73,977,390	3.4	do	1
1889*	92,290,550	4.8	do	1
1890*	91,994,680	3.8	do	1
1891*	135,315,510	3.5	do	1
1892*	138,872,560	3.5	do	1
1893*	140,796,410	4.6	do	1
1894*	105,433,577	3.2	do	1
1895*	121,225,497	2.2	do	1
1896*	172,474,664	3.7	do	1
1897*	204,964,103	2.8	do	1
1898*	221,383,945	2.8	do	1
1899*	158,393,184	3.0	do	1
1900*	157,655,968	2.5	do	1
1901	132,646,828	3.5	do	1
1902	124,62,4386	3.8	do	1

NOTE.—Prior to 1870 tolls 6.21 cents per bushel, and the elevating charge 2 cents per bushel.

\* Including flax seed.

SESSIONAL PAPER No. 20

## AVERAGE FREIGHT CHARGES PER BUSHEL.

For the transportation of Wheat and Corn from Chicago to New York for a series of years.

*(From Report of Board of Trade, Chicago.)*

Year.	CORN.			WHEAT.		
	By lake and canal.	By lake and rail.	By all rail.	By lake and canal.	By lake and rail.	By all rail.
1858	127		3619	1550		3861
1859	1570		3248	1663		3480
1860	a 0833		3248	a 095		3480
1861	a 1062		3881	a 1210		4158
1862	a 0957		4480	a 1062		4800
1863	a 063		4592	a 072		4920
1864	a 09		5600	a 0952		60
1865	a 0864		4188	a 0894		4488
1866	a 1075		4312	a 1377		4620
1867	a 0511		4176	a 08		4475
1868	a 0604		3532	a 0802		3784
1869	a 0584	2355	3320	a 0651	2520	3557
1870	a 16	2220	28	a 0677	2250	30
1871	a 0754	2372	2968	a 0687	2542	3180
1872	a 1072	2660	3266	a 1110	2950	3499
1873	a 0816	2298	2893	a 0917	2461	3102
1874	a 0382	1388	2450	a 0400	1709	2625
1875	a 034	1303	2240	a 0378	1389	2400
1876	b 0875	1079	1574	b 0982	1186	1686
1877	b 0959	1406	1890	b 1109	1546	2050
1878	b 0883	1053	1652	b 0996	1209	1770
1879	b 1049	1220	1456	b 1187	1313	1774
1880	b 1341	1443	1748	b 1313	1580	1980
1881	b 0777	0942	1340	b 0867	1049	1440
1882	b 0672	1028	1350	b 0723	1091	1447
1883	b 0803	11	1512	b 0901	1163	1620
1884	b 0655	085	1232	b 07	10	1320
1885	b 063	0801	1232	b 0654	0902	1320
1886	b 0845	1120	14	b 0910	12	1500
1887	b 0850	1120	1470	b 0950	12	1575
1888	b 0671	1026	1354	b 0705	1114	1450
1889	b 0682	0819	126	b 0692	0897	1500
1890	b 0593	0732	1136	b 0676	0852	1430
1891	b 0632	0753	1400	b 0695	0857	1500
1892	b 0595	0721	1296	b 0645	0759	1380
1893	b 0718	0797	1365	b 0766	0848	1463
1894	b 0493	0650	1232	b 0511	0700	1320
1895	b 0450	0640	1029	b 0486	0696	1189
1896	b 0575	0615	1050	b 0619	0661	1200
1897	b 0453	0692	1143	b 0522	0742	1250
1898	+ 0381	0441	0980	+ 0445	0491	1200
1899	+ 0508	0583	1008	+ 0581	0663	1160
1900	+ 0407	0472	0919	+ 0449	0510	0996
1901	+ 0461	0516	0921	+ 0511	0554	0988
1902	+ 0483	0551	0994	+ 0526	0589	1062

a To Buffalo only. b Including Buffalo charges and tolls. ‡ Exclusive of Buffalo charges.

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## FOREIGN FREIGHT RATES.

ANNUAL average Freight Rates on Grain, Flour and Provisions (per 100 lbs.) from Chicago to European Ports, by all Rail to Sea-board and thence by steamers.

Shipped to	Articles.	1902.	1901.	1900.	1899.	1898.
		£	£	£	£	£
Liverpool	Grain	2985	2147	2498	2972	3435
"	Sacked flour	2350	2300	2790	3012	3766
"	Provisions	3625	3600	4884	4050	4715
Glasgow	Grain	2175	2410	3098	3235	3600
"	Sacked flour	2275	2438	3156	3125	3906
"	Provisions	4188	4516	5331	4469	5250
London	Grain	2175	2323	3110	3060	3500
"	Sacked flour	2400	2550	3501	3350	3725
"	Provisions	3906	4475	5587	4414	4969
Antwerp	"	4150	4625	5109	4750	5250
Hamburg	"	3900	4400	5000	4600	5200
Amsterdam	"	4000	4500	5100	4700	5250
Rotterdam	"	4000	4500	5100	4700	5250
Copenhagen	"	4200	4775	5531	5172	5813
Stockholm	"	4500	5325	6450	6297	6925
Stettin	"	4200	4775	5531	5172	5813
Bordeaux	"	5125	5425	6412	5912	6575

LAKE FREIGHTS ON COAL FROM BUFFALO TO CHICAGO AND  
OTHER PORTS.

The following statement shows the average freight rate on Coal per net ton, in cents' from Buffalo to the ports named, during the seasons of 1901 and 1902.

(*Buffalo Merchants' Exchange.*)

	1902.	1901.
Freight on hard Coal, Buffalo to Chicago, per ton	48	50
" " " Milwaukee "	54	50
" " " Duluth "	43	38



TOTAL VALUES OF MERCHANDISE RECEIVED FROM BRITISH NORTH AMERICA FOR IMMEDIATE TRANSIT ACROSS UNITED STATES TERRITORY, FOR IMMEDIATE TRANSHIPMENT IN PORTS OF THE UNITED STATES TO BRITISH NORTH AMERICA, AND SO SHIPPED, DURING EACH YEAR FROM 1873 TO 1902 INCLUSIVE.

YEAR ENDING JUNE 30.	COUNTRIES FROM WHICH RECEIVED.						COUNTRIES TO WHICH SHIPPED.					
	British North America.			Total.	British North America.			Total.	British North America.			
	Nova-Scotia, New Brunswick, and Prince Edward Island.	Quebec, Manito- baw, and the North-west Terri- tories.	British Columbia.		Newfound- land and Labrador.	Nova-Scotia, New Brunswick, and Prince Edward Island.	Quebec, Mani- toba, and the North-west Terri- tories.		British Columbia.	Newfound- land and Labrador.		
Value.	%	Value.	%	Value.	%	Value.	%	Value.	%	Value.	%	
1873	495,289	5.240	12,891,164	13,386,453	5,282,290	21,329,471	181,720	26,784,184				
1874	419,655	97,691	13,616,314	11,163,690	7,150,030	19,843,169	317,534	27,310,739				
1875	443,473	296,977	17,312,433	18,042,577	8,999,596	20,283,639	517,000	29,800,265				
1876	261,443	1,137	22,134,265	22,591,902	9,102,600	14,658,258	658,836	24,109,288				
1877	160,658	218,418	12,092,619	12,471,635	2,879,422	15,351,238	510,018	18,977,433				
1878	163,978	11,627,114	11,627,114	12,294,638	931,268	11,436,470	324,013	12,912,685				
1879	194,129	11,606,832	280,079	12,081,095	889,539	11,529,877	176,824	12,889,387				
1880	215,131	16,782,315	137,271	17,134,717	1,613,716	14,866,663	531,436	17,042,403				
1881	171,383	16,758,408	72,555	17,092,046	1,778,836	20,857,327	719,268	23,356,261				
1882	164,990	28,265,083	113,018	28,543,178	2,792,665	31,063,845	855,781	37,395,181				
1883	561,791	29,294,031	36,973	29,802,820	2,153,597	33,878,389	971,397	39,312,568				
1884	636,233	12,574,353	188,011	13,419,227	1,740,900	19,717,466	1,475,833	22,939,385				
1885	933,806	12,280,483	308,691	13,523,613	1,635,412	16,448,942	1,615,293	19,700,458				
1886	1,165,973	9,363,864	339,104	10,861,020	2,440,298	16,369,129	1,825,478	20,241,979				
1887	1,684,730	9,006,175	213,816	11,504,721	1,621,748	19,930,296	635,841	22,187,055				
1888	1,525,018	6,117,701	372,334	8,542,847	1,781,028	13,159,169	1,137	13,641,636				
1889	2,596,233	8,355,178	294,869	11,336,123	2,484,787	18,963,957	665,527	22,146,375				
1890	3,076,657	12,449,772	306,897	174,584	16,001,910	5,277,210	21,140,198	27,335,291				
1891	3,859,079	15,319,945	422,806	19,789,470	5,665,614	21,695,992	517,141	27,883,023				
1892	4,393,062	201,373	328,416	23,928,255	2,979,782	24,189,181	428,188	26,704,141				
1893	1,002,597	16,404,425	381,986	17,885,373	2,632,337	29,232,400	409,033	32,720,111				
1894	1,070,676	15,649,881	348,069	17,831,417	1,831,417	17,880,688	463,471	20,182,246				
1895	1,199,782	17,774,168	411,537	19,621,862	1,834,745	19,329,711	558,991	21,722,291				
1896	1,148,185	18,038,031	582,469	20,143,665	1,572,783	19,411,279	721,586	21,788,416				
1897	2,497,431	611,229	397,295	24,343,823	1,682,548	17,660,241	1,312,797	26,063,676				
1898	1,440,930	555,606,639	1,744,289	39,336,381	1,336,413	22,400,622	19,247	26,590,638				
1899	1,618,399	39,673,265	561,129	36,561,721	1,245,518	19,063,819	27,117	25,335,013				
1900	3,092,264	3,708,928	553,031	44,746,109	1,245,335	27,790,612	49,555	31,478,271				
1901	1,788,641	28,382,436	4,070,940	44,746,109	1,611,875	24,631,780	4,687,000	30,559,579				
1902	2,206,590	54,332,135	1,531,932	61,799,898	5,086,469	27,049,141	5,411,231	37,668,666				

TOTAL VALUE OF MERCHANDISE RECEIVED FROM THE PRINCIPAL AND OTHER FOREIGN COUNTRIES FOR IMMEDIATE TRANSIT ACROSS UNITED STATES TERRITORY OR FOR IMMEDIATE TRANSHIPMENT IN PORTS OF THE UNITED STATES TO OTHER FOREIGN COUNTRIES, AND SO SHIPPED, FOR EACH YEAR FROM 1868 TO 1902 INCLUSIVE.

Year ending June 30.	COUNTRIES FROM WHICH RECEIVED.										COUNTRIES TO WHICH SHIPPED.				Total Value of Merchandise received and shipped.
	Great Britain and Ireland.	Germany.	British North American Possessions.	Mexico.	Cuba.	Other Countries.	Great Britain and Ireland.	Germany.	British North American Possessions.	Mexico.	Cuba.	Other Countries.			
1868	10,661,576	137,071	1,861,209	11,367	1,963,621	1,576,157	2,023,023	3,212,123	11,375,419	181,615	116,321	1,300,873	21,516,601		
1869	10,891,698	130,382	3,832,978	69,715	2,373,174	1,767,057	2,033,325	1,317,609	13,033,821	118,300	172,873	1,299,801	21,065,981		
1870	10,910,155	309,806	7,451,973	163,977	3,909,227	2,019,129	2,166,035	2,166,035	16,689,057	321,331	153,915	983,575	23,191,860		
1871	13,423,931	399,110	7,451,060	311,479	1,367,573	1,913,900	1,031,319	3,633,307	18,406,475	316,857	315,291	1,211,840	25,375,037		
1872	17,633,251	297,232	9,376,039	171,101	2,207,122	1,875,162	2,513,191	2,263,819	21,012,730	338,131	179,370	1,375,196	31,383,329		
1873	19,111,815	266,701	13,891,693	286,607	3,737,901	1,811,625	3,111,175	3,622,225	26,718,181	233,115	319,471	1,393,617	40,099,185		
1874	18,832,900	211,967	11,163,690	141,399	3,663,869	993,390	3,301,901	8,806,612	27,310,739	663,211	329,193	1,499,357	38,530,676		
1875	18,657,376	375,618	18,019,367	115,397	1,739,308	1,783,917	7,299,102	1,195,285	29,800,293	1,136,001	248,338	1,735,129	40,686,283		
1876	11,301,197	290,189	69,391,902	246,315	9,969,963	1,686,789	11,791,200	2,958,338	71,419,888	1,129,110	609,061	1,163,308	12,062,659		
1877	13,732,085	337,897	12,171,095	158,832	1,093,151	1,466,795	6,738,301	1,108,298	18,977,135	329,577	306,311	776,333	20,236,773		
1878	10,081,510	378,768	13,891,638	116,822	3,011,357	1,181,635	9,577,650	2,903,330	12,912,685	316,661	319,611	1,300,308	27,335,148		
1879	8,735,310	321,917	12,081,095	222,390	1,521,133	1,321,133	8,173,351	2,252,572	12,880,367	339,968	171,737	1,272,682	23,095,819		
1880	10,311,139	639,704	17,131,717	239,635	3,606,099	1,912,165	10,826,957	3,638,317	17,012,165	300,148	221,848	1,173,519	33,837,419		
1881	11,898,652	721,511	17,069,016	171,411	2,612,350	2,229,129	9,729,079	2,729,216	23,336,261	671,008	177,340	1,618,131	37,701,048		
1882	18,911,637	753,360	28,313,178	380,100	5,632,926	3,812,638	11,392,806	3,336,361	37,595,181	800,025	319,257	2,121,526	38,665,159		
1883	30,212,222	1,119,126	29,809,829	281,369	3,120,669	1,276,712	11,089,865	2,738,391	39,312,368	2,282,173	332,337	3,081,873	38,878,327		
1884	11,638,691	918,991	13,119,227	408,127	3,653,968	1,315,878	5,288,389	2,900,188	22,339,365	27,18,131	221,661	2,636,645	36,811,392		
1885	11,064,186	1,110,548	13,323,615	308,293	1,833,351	3,513,311	7,235,319	3,171,321	19,700,158	1,265,515	119,376	2,316,116	31,435,538		
1886	13,112,611	1,462,411	10,861,029	216,078	6,797,879	1,568,229	8,310,997	3,803,365	20,210,079	1,32,700	1,32,700	2,731,123	37,668,261		
1887	17,477,290	1,670,932	11,301,721	111,625	6,780,823	1,730,760	10,632,219	1,353,922	22,187,955	2,002,176	608,121	3,361,358	42,766,121		
1888	13,767,210	1,817,311	8,312,817	120,197	1,829,816	1,331,298	6,833,195	2,331,013	13,611,666	3,766,180	363,339	3,397,336	33,343,269		
1889	19,080,617	2,282,156	11,336,133	296,631	9,031,736	3,052,610	11,288,389	1,681,661	22,146,957	1,781,110	892,138	3,768,287	47,403,233		
1890	20,631,137	2,735,416	16,069,381	639,030	9,739,256	3,898,765	10,656,165	3,097,131	27,333,653	1,911,419	1,215,399	1,300,301	35,699,126		
1891	20,879,851	2,819,258	19,780,170	365,338	6,977,901	6,175,119	11,968,308	3,610,910	37,883,025	3,032,318	966,821	7,383,977	37,197,917		
1892	21,331,783	2,930,571	23,928,575	1,483,435	11,054,115	8,936,228	18,511,287	6,986,637	22,701,111	1,933,911	1,472,080	9,299,131	69,567,737		
1893	20,387,339	3,466,884	3,466,884	1,632,200	10,131,171	11,126,669	98,341,287	7,986,637	22,701,111	1,607,319	2,031,761	12,689,192	67,919,837		
1894	19,611,622	3,717,710	17,312,693	1,838,367	9,916,172	19,031,011	18,391,865	11,113,333	30,182,216	1,513,435	2,386,319	16,613,187	71,307,375		
1895	18,531,083	4,122,899	20,149,862	2,315,091	10,120,577	10,463,981	20,362,325	6,681,512	37,478,261	1,321,295	1,931,985	10,243,560	63,677,193		
1896	19,129,751	3,460,189	19,143,665	1,797,161	11,668,213	13,272,321	20,029,221	7,912,814	21,728,416	3,210,067	1,890,765	12,907,362	69,792,717		
1897	17,313,321	3,183,300	21,393,823	1,303,921	11,899,829	13,275,829	21,809,259	3,333,840	20,663,676	3,329,263	2,958,431	11,871,297	70,060,105		
1898	18,431,296	3,775,038	39,339,984	1,625,291	1,763,859	2,627,069	33,276,696	3,807,811	26,230,628	5,513,813	1,728,780	10,511,697	81,019,357		
1899	16,391,043	1,069,828	30,361,721	3,319,912	8,372,130	10,910,462	29,635,060	3,711,338	25,533,013	5,669,211	2,760,686	10,657,165	80,028,166		
1900	23,132,000	1,681,616	14,127,809	2,125,635	9,316,066	13,793,957	37,388,132	6,188,526	31,478,221	6,196,160	3,181,221	12,751,623	106,361,162		
1901	21,471,391	3,654,635	17,116,169	1,659,259	13,689,902	11,821,842	37,306,210	11,291,010	30,553,579	8,110,116	3,337,329	12,407,213	106,361,162		
1902	22,782,333	1,826,666	61,709,898	3,363,165	10,398,013	13,305,227	30,307,083	6,791,303	37,648,666	8,083,313	3,128,375	11,696,390	118,225,840		

FOREIGN CARRYING TRADE.

Value of the Imports and Exports of the United States carried respectively in cargo and other land vehicles, in American vessels, and in foreign vessels during each fiscal year, from 1857 to 1907 inclusive with the percentage carried in American vessels (cargo and ballast) 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.				Imports and Exports.				Percentage carried in American vessels.
	In cargo and other land vehicles.		In American vessels.		In cargo and other land vehicles.		In American vessels.		In cargo and other land vehicles.		In American vessels.		
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	
1857	2,591,016,450	100	7,533,964		264,214,856	111.7	16,829		110,331,074		913,519,746	70.9	
1858	3,033,000,016	100	7,913,131		343,190,268	111.6	153,133		115,191,301		1,600,006,256	73.7	
1859	3,163,133,173	100	12,611,649		391,617,293	107.1	1,069		166,711,331		2,299,316,211	66.9	
1860	2,938,164,865	100	10,001,399		390,683,723	131.0	3,391		167,251,276		2,652,016,233	66.5	
1861	3,011,611,655	100	10,608,088		479,975,733	159.3	1,190		234,156,288		2,618,178,273	66.9	
1862	3,272,111,000	100	113,192,679		1,375,174,318	419.1	1,611		211,857,451		3,133,666,631	111.0	
1863	4,092,111,630	100	1,116,310		1,372,172,391	335.1	880,691		184,061,186		1,859,293,513	77.9	
1864	4,271,407,077	100	3,560,813		1,349,499,009	315.7	730		167,169,357		1,577,010,194	77.7	
1865	4,128,611,6	100	4,129,336		93,017,256	22.5	399,688		167,271,861		1,687,296,691	39.9	
1866	4,172,010,335	100	3,331,713		143,671,166	34.2	1,928		375,741,861		1,610,938,167	38.9	
1867	4,172,909,536	100	6,797,635		130,672,363	32.6	3,688		375,331,901		1,311,330,103	31.9	
1868	4,229,966,275	100	18,659,183		1,518,106,343	361.8	1,911		295,931,573		1,690,106,674	39.1	
1869	4,363,307,971	100	51,727,231		1,631,111,148	373.9	2,181		289,166,777		1,896,497,017	43.1	
1870	4,637,307,077	100	140,140,140		1,997,273,291	430.0	3,738		367,269,101		2,064,542,188	44.6	
1871	4,837,324,1	100	363,679,611		1,902,378,167	393.3	9,379		353,661,177		1,766,879,576	36.6	
1872	4,630,681,1	100	1,106,383		1,681,011,799	363.0	1,396		345,311,101		1,839,346,367	39.5	
1873	4,740,613,1	100	4,180,656		1,718,666,768	363.1	3,896		346,306,229		2,065,723,621	43.8	
1874	4,141,333,1	100	10,329,135		1,717,917,916	416.3	9,914		360,161,991		1,939,506,106	46.7	
1875	4,368,319,1	100	33,919,683		1,667,369,066	381.8	3,119		361,283,516		1,719,131,111	39.4	
1876	4,211,319,1	100	391,139,609		1,671,131,131	397.0	1,185		311,759,739		1,413,361,953	33.8	
1877	4,113,667,1	100	379,366,333		1,641,376,711	399.1	1,033		17,161,310		3,091,990,536	76.5	
1878	4,266,499,1	100	307,407,166		1,665,661,671	390.4	1,671		313,660,206		3,048,991,189	71.6	
1879	4,183,323,1	100	310,199,699		1,787,172,339	427.3	1,633		300,691,633		2,097,483,699	49.6	
1880	4,544,166,1	100	563,191,913		1,691,691,909	371.0	1,671		263,316,677		1,961,003,101	43.1	
1881	4,749,213,1	100	1,310,309,389		1,667,369,371	372.6	1,711		260,136,170		1,929,009,933	40.6	
1882	4,780,916,1	100	1,101,309,299		1,667,369,371	348.0	1,671		260,136,170		1,929,009,933	40.6	
1883	4,700,013,1	100	1,101,309,299		1,667,369,371	348.0	1,671		260,136,170		1,929,009,933	40.6	
1884	4,700,013,1	100	1,101,309,299		1,667,369,371	348.0	1,671		260,136,170		1,929,009,933	40.6	
1885	4,700,013,1	100	1,101,309,299		1,667,369,371	348.0	1,671		260,136,170		1,929,009,933	40.6	
1886	4,700,013,1	100	1,101,309,299		1,667,369,371	348.0	1,671		260,136,170		1,929,009,933	40.6	
1887	4,700,013,1	100	1,101,309,299		1,667,369,371	348.0	1,671		260,136,170		1,929,009,933	40.6	
1888	4,700,013,1	100	1,101,309,299		1,667,369,371	348.0	1,671		260,136,170		1,929,009,933	40.6	
1889	4,700,013,1	100	1,101,309,299		1,667,369,371	348.0	1,671		260,136,170		1,929,009,933	40.6	
1890	4,700,013,1	100	1,101,309,299		1,667,369,371	348.0	1,671		260,136,170		1,929,009,933	40.6	
1891	4,700,013,1	100	1,101,309,299		1,667,369,371	348.0	1,671		260,136,170		1,929,009,933	40.6	
1892	4,700,013,1	100	1,101,309,299		1,667,369,371	348.0	1,671		260,136,170		1,929,009,933	40.6	
1893	4,700,013,1	100	1,101,309,299		1,667,369,371	348.0	1,671		260,136,170		1,929,009,933	40.6	
1894	4,700,013,1	100	1,101,309,299		1,667,369,371	348.0	1,671		260,136,170		1,929,009,933	40.6	
1895	4,700,013,1	100	1,101,309,299		1,667,369,371	348.0	1,671		260,136,170		1,929,009,933	40.6	

VALUE OF THE IMPORTS AND EXPORTS OF THE UNITED STATES CARRIED RESPECTIVELY IN CARS AND OTHER LAND VEHICLES, &c.—*Continued*

Year ending June 30.	IMPORTS.				EXPORTS.				IMPORTS AND EXPORTS.				Percentage carried in American vessels.		
	In cars and other land vehicles.		In Foreign vessels.		In cars and other land vehicles.		In American vessels.		In cars and other land vehicles.		In American vessels.			In Foreign vessels.	
	Value.	%	Value.	%	Value.	%	Value.	%	Value.	%	Value.	%		Value.	%
1888.	32,299,459		123,525,298		22,147,368		67,332,175		54,356,827		190,857,473		1,419,911,621		13.44
1889.	38,227,861		120,782,910		28,436,517		83,022,198		66,661,378		203,805,108		1,217,063,541		13.70
1890.	40,621,361		121,948,318		32,343,302		77,502,138		73,576,263		202,431,086		1,571,116,734		12.29
1891.	40,932,755		127,471,678		31,923,139		78,968,017		72,856,191		206,439,725		1,729,397,066		11.91
1892.	39,726,565		130,139,891		33,229,629		81,653,844		916,123,675		290,173,735		1,564,539,651		11.85
1893.	41,121,094		127,095,134		33,862,917		79,070,073		87,984,174		197,765,507		1,714,066,116		12.2
1894.	29,623,095		121,561,193		49,221,427		73,707,023		78,841,322		195,268,216		1,273,022,456		13.3
1895.	33,201,988		108,229,615		49,902,754		62,277,581		83,101,742		170,367,196		1,589,508,130		11.7
1896.	35,535,079		117,299,074		61,131,125		70,392,813		96,666,204		187,691,887		1,662,331,612		12.00
1897.	35,812,620		109,133,154		65,082,365		79,111,823		100,891,925		189,075,277		1,815,723,968		11.00
1898.	30,427,781		93,535,867		73,283,704		67,792,130		103,711,488		167,328,017		1,582,492,479		9.30
1899.	33,421,821		82,050,118		83,879,907		78,562,088		1,064,390,307		117,295,728		1,646,263,857		8.9
1900.	41,412,509		101,304,940		110,483,111		90,779,252		1,193,290,689		151,895,650		1,891,111,424		9.3
1901.	47,100,841		93,055,493		111,960,351		81,313,122		1,291,329,358		159,001,715		1,971,536,796		8.2
1902.	56,366,711		102,188,002		123,824,357		83,631,985		1,171,263,079		180,191,018		1,919,029,311		8.8

NOTE. 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 1873, inclusive.

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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 1902.

Year ending June 30,	Received for transit and transshipment from British North American Possessions,			Shipped in transit to or transshipment for British North American Possessions,		
	By Land.	By Water.	Total.	By Land.	By Water.	Total.
	₳	₳	₳	₳	₳	₳
1871	6,035,585	1,918,475	7,954,060	15,624,591	2,781,884	18,406,475
1872	8,237,859	1,038,310	9,276,169	19,357,342	4,665,448	24,042,790
1873	11,700,787	1,693,906	13,394,693	20,178,666	6,605,518	26,784,184
1874	12,665,599	1,468,100	14,133,699	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	968,364	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	658,430	17,042,003
1881	15,200,967	1,801,079	17,002,046	22,828,270	527,994	23,356,264
1882	24,665,029	3,878,149	28,543,178	36,613,465	982,019	37,595,484
1883	26,382,370	3,420,450	29,802,820	38,389,318	923,250	39,312,568
1884	13,043,498	375,729	13,419,227	22,120,587	818,798	22,939,385
1885	12,755,686	767,927	13,523,613	19,105,476	594,982	19,700,458
1886	9,593,344	1,267,676	10,861,020	19,428,867	812,212	20,241,079
1887	9,377,041	2,127,680	11,504,721	20,178,365	2,009,590	22,187,955
1888	6,309,024	2,033,793	8,342,817	13,347,876	2,063,780	15,411,656
1889	8,303,171	3,032,952	11,336,123	19,299,966	2,849,263	22,149,229
1890	13,524,298	2,477,612	16,001,910	24,788,152	2,547,052	27,335,201
1891	18,065,925	1,714,545	19,780,470	25,185,796	2,697,317	27,883,023
1892	21,346,413	2,581,842	23,928,255	23,989,746	2,714,368	26,704,114
1893	13,807,662	4,077,911	17,885,573	20,151,432	2,568,679	22,720,111
1894	13,501,664	3,840,429	17,342,093	17,974,332	2,207,884	20,182,216
1895	14,068,922	5,552,940	19,621,862	18,752,226	2,970,068	21,722,294
1896	13,408,578	6,735,927	20,143,605	18,335,373	3,453,043	21,788,416
1897	17,665,422	6,928,401	24,593,823	18,430,841	2,232,835	20,663,676
1898	27,277,049	12,059,935	39,336,984	22,792,971	3,457,667	26,250,638
1899	28,248,739	8,312,962	36,561,721	22,593,761	2,941,282	25,535,043
1900	33,346,150	10,781,749	44,127,899	27,996,981	3,481,290	31,478,271
1901	37,680,071	7,066,038	44,746,109	27,899,903	2,655,676	30,555,579
1902	46,761,353	14,948,545	61,709,898	30,518,576	7,090,090	37,608,666

NOTE.—This movement forms no part of the import and export trade.

3-4 EDWARD VII., A. 1904

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	565,922	359,982	64,587	8,234	10,211	47,505
1886.....	9,005	993,129	354,765	62,854	7,278	3,073	59,782
1887.....	4,089	936,840	446,617	75,458	35,365	6,717	47,678
1888.....	3,287	491,419	499,218	41,100	70,315	12,532	49,087
1889.....	4,429	484,141	592,550	66,110	63,674	36,329	49,663
1890.....	3,489	353,738	616,702	90,754	48,438	21,657	33,123
1891.....	3,126	756,101	142,141	71,903	16,362	68,771	33,951
1892.....	4,879	620,768	150,269	51,596	72,444	4,236	33,897
1893.....	2,367	1,093,927	252,283	49,651	24,714	6,518	20,656
1894.....	2,900	903,361	275,377	89,700	100,874	5,288	22,620
1895.....	2,240	280,550	94,403	77,868	87,839	205	59,400
1896.....	7,963	408,872	100,227	109,967	197,713	77,210	55,230
1897.....	3,206	180,035	312,776	100,337	50,345	66,387	31,489
1898.....	1,854	69,986	364,248	89,906	76,244	7,745	43,044
1899.....	1,247	282,422	92,670	78,627	93,733	5,931	22,856
1900.....	1,171	138,302	189,013	63,204	36,435	10,478	34,254
1901.....	747	214,854	87,392	55,502	88,521	10,326	99,757
1902.....	1,328	291,938	33,001	75,314	44,678	18,503	24,291

\* Apples, meal all kinds, pease, potatoes.

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on all Canals in the State of New York, during a series of thirty-four 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	2,347,493
1,745,171	53,363	62,581	216,796	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	1,819,093
1,064,293	11,691	69,450	114,070	1,036,698	173,530	1,495,439
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	210,978	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	1,092,093	337,873	1,827,287
1,118,776	58,921	122,786	108,040	1,228,435	364,361	1,882,543
1,379,000	46,553	47,412	190,392	1,152,849	293,892	1,731,098
1,236,986	28,513	54,471	161,788	954,288	210,610	1,490,670
1,063,310	12,215	38,726	161,272	1,025,941	195,750	1,433,904
1,489,886	19,878	152,030	112,092	857,884	269,914	1,402,798
1,552,764	21,368	224,979	124,954	905,424	243,578	1,539,493
1,166,958	2,596	43,881	106,344	1,219,689	259,269	1,631,770
1,296,896	3,278	78,135	112,100	1,094,897	234,948	1,523,358
1,167,991	5,800	26,894	93,181	830,154	202,072	1,157,291
1,092,355	1,969	36,770	81,232	881,592	215,686	1,217,150
937,999	524	46,073	93,216	832,397	136,612	1,102,822
1,450,116	536	25,294	52,094	741,934	102,275	922,643
1,490,129	267	22,614	70,353	609,368	37,641	749,243
602,505	4,263	59,492	71,334	766,723	144,076	1,045,798
957,182	1,568	74,651	33,309	682,167	89,998	931,692
744,575	5,080	71,117	66,879	646,803	76,311	866,190
653,927	6,288	191,216	85,525	626,616	73,199	892,844
377,486	2,725	69,196	91,068	777,743	205,234	1,145,876
472,857	833	49,936	88,635	809,187	103,514	1,051,295
557,099	709	30,110	100,080	774,538	90,656	996,993
489,053	15	24,077	111,439	567,911	115,983	819,416

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D.—TABLE showing the total Tonnage of the undermentioned Articles moved Up and Down

Year.	VEGETABLE FOOD.						
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles. †
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869.....	45,674	313,825	120,599	20,951	.....	904	1,937
1872.....	26,651	239,998	254,902	6,035	7,752	64	2,745
1873.....	30,665	355,847	180,169	8,225	1,194	3	3,777
1874.....	24,019	413,212	181,151	18,871	5,954	513	8,677
1875.....	13,964	253,835	103,749	35,751	3,383	917	6,337
1876.....	15,778	201,906	144,501	18,455	24,496	1,454	3,198
1877.....	13,558	253,953	169,196	19,870	2,810	2,439	2,355
1878.....	9,121	191,982	185,931	10,979	3,088	.....	2,302
1879.....	10,710	274,570	144,506	4,655	1,239	440	2,444
1880.....	12,679	242,020	163,738	17,772	477	1,016	1,480
1881.....	9,959	127,832	101,075	24,509	.....	1,844	2,086
1882.....	12,261	215,056	54,799	20,126	611	3,226	403
1883.....	13,471	152,794	182,269	10,436	731	1,642	10,983
1884.....	13,683	144,851	118,811	7,155	10,746	1,320	9,168
1885.....	13,334	124,206	117,536	15,801	1,116	.....	1,912
1886.....	19,474	154,169	219,442	1,595	4,911	564	14,657
1887.....	23,949	221,927	114,938	9,574	12,050	.....	12,533
1888.....	16,983	160,963	194,886	5,906	26,629	811	13,608
1889.....	7,931	126,664	353,595	4,272	28,356	2,673	18,552
1890.....	14,461	118,002	327,394	10,830	27,728	1,549	20,876
1891.....	13,517	198,658	185,180	8,113	52,959	65,888	28,042
1892.....	17,046	232,019	192,548	6,433	37,173	9,392	32,815
1893.....	15,235	258,392	441,092	18,599	31,283	3,671	36,981
1894.....	33,628	270,993	160,233	28,353	27,962	567	60,673
1895.....	44,044	203,688	164,894	8,689	18,236	1,007	46,463
1896.....	42,425	320,563	329,444	11,368	28,178	9,405	56,591
1897.....	9,065	324,743	390,615	14,173	25,161	8,483	44,674
1898.....	5,578	207,647	437,861	12,286	17,502	16,127	23,182
1899.....	11,625	197,732	204,004	2,907	24,037	923	18,460
1900.....	10,968	137,800	163,509	4,035	41,055	3,538	14,815
1901.....	18,978	151,586	67,756	7,119	28,485	2,961	14,024
1902.....	22,282	225,171	67,647	7,418	11,232	4,079	12,963

\* Fiscal.

† Apples, meal all kinds, pease, potatoes.



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through the Welland Canal, during a period of thirty-two years, ended Dec. 31, 1902.

Total.	HEAVY GOODS.						Total.
	Railway Iron.	Other Iron.	Salt.	Iron and Salt having paid full tolls on St Lawrence Canals.	Coal.	Ores.	
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	3,678
579,880	6,923	20,754	40,850	17,157	339,016	118,685	43,387
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
403,493	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	169,986	34,139	176,983
269,395	4,585	7,013	10	30,682	128,113	18,785	189,188
306,482	.....	5,348	50	17,327	237,559	23,700	283,984
373,326	1,237	7,922	66	17,037	307,058	31,785	365,105
305,734	698	652	461	3,242	274,471	53,205	332,729
273,905	78	2,055	597	14,243	248,272	26,728	291,973
414,812	166	6,123	48	12,324	271,356	27,447	317,464
394,971	1,351	5,636	.....	6,715	145,193	13,866	172,761
419,786	93	3,220	316	13,617	223,871	16,872	257,989
542,043	47	2,479	1,254	20,269	268,305	2,435	294,789
519,291	.....	753	1,027	28,047	202,384	8,138	240,349
367,177	127	1,610	2,567	7,953	224,644	3,415	240,316
527,426	163	1,567	878	3,666	211,616	355	218,245
805,253	6	2,075	374	8,139	233,096	.....	243,690
591,409	.....	3,072	159	977	263,608	.....	267,816
486,421	185	6,245	54	2,819	158,866	1,140	169,309
788,974	1,192	6,332	82	3,264	223,445	1,158	235,473
816,914	7,206	17,012	227	590	176,226	.....	201,261
720,183	1,444	11,722	799	734	162,336	13,433	190,468
459,688	567	6,361	1,282	1,318	97,732	26,125	133,385
375,720	.....	8,190	533	4,800	47,392	58,400	119,315
290,909	83	6,094	327	8,773	49,480	99,487	164,244
350,792	64	7,488	.....	15,201	64,014	22,480	169,247

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E.—TABLE showing the tonnages of the undermentioned Articles cleared at Buffalo and Tonawanda, for transit through the Erie Canal, for a series of thirty-four years.

## VEGETABLE FOOD.

Year.	Flour.		Wheat.		Corn.		Barley.		Oats.		Rye.		Other Articles <sup>*</sup>		Total.		Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.				
1869.	5,609	490,904	219,874	1,978	63,728	2,150	2,193	786,436										
1870.	8,258	502,158	165,577	19,944	89,156	10,593	6,906	802,592									2 05	
1871.	5,607	570,849	579,709	19,810	106,391	27,622	5,705	1,315,693									67 59	
1872.		330,032	866,169	41,515	73,572	5,900	88	1,317,276									67 50	
1873.	6	737,167	611,675	8,636	51,615	22,441	634	1,432,174									82 10	
1874.		650,161	459,728	3,192	44,079	112	237	1,157,509									47 18	
1875.	5,859	695,315	273,906	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	197	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	1,149,984										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	953,597										21 23
1891.	1,071	733,967	137,679	43,779	14,803	66,278	2,594	1,000,171										27 18
1892.	2,485	611,177	141,506	37,570	70,363	3,997	3,472	870,570										10 69
1893.	424	1,086,834	240,707	38,986	21,981	6,156	243	1,395,391										77 43
1894.	327	887,908	265,947	69,707	99,898	5,191	2,123	1,331,101										69 26
1895.	98	271,957	83,611	71,185	85,597	295	15	508,596										35 32
1896.	6,971	402,114	89,726	101,154	194,442	77,162	5,575	877,144										11 53
1897.	1,665	168,870	303,761	88,293	48,591	65,400	11,965	688,635										12 44
1898.		64,700	354,917	85,359	74,336	7,367	20,818	607,557										22 74
1899.		271,848	84,370	72,892	92,919	5,839		527,868										32 89
1900.	629	129,683	184,996	53,472	33,564	10,478	25,621	438,434										44 11
1901.	3	211,317	86,240	45,624	87,357	10,326	32,862	473,729										39 76
1902.		289,207	30,293	50,500	43,162	18,503	5,278	436,943										44 44

\* Apples, meal all kinds, pease, potatoes.

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STATEMENT to Table E showing the shipment at Oswego during the same period.  
VEGETABLE FOOD.

Year.	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles.	Total.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
1869.....	7,361	141,360	28,585	69,794	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	..	21 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	6,919	10,739	131,765	..	50 80
1874.....	.....	108,288	46,127	77,007	1,103	7,053	3,747	243,325	..	9 14
1875.....	1,728	32,690	3,034	75,083	3,308	4,989	5,931	126,763	..	52 67
1876.....	967	21,890	1,324	63,336	117	5,703	6,638	99,975	..	62 67
1877.....	855	28,955	3,308	80,306	316	6,603	6,556	126,899	..	52 61
1878.....	1,394	24,171	1,383	50,381	.....	10,598	5,222	93,149	..	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	206	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	10,408	26,639	8	4,635	2,356	54,969	..	79 47
1891.....	292	4,298	1,632	27,418	.....	2,130	3,620	39,410	..	85 28
1892.....	273	4,806	5,657	5,283	.....	199	2,340	18,558	..	93 07
1893.....	119	2,036	3,968	8,476	.....	237	2,784	17,620	..	93 43
1894.....	8	10,293	19,514	17,160	.....	.....	2,609	40,584	..	84 84
1895.....	66	3,073	7,352	1,900	1,816	.....	258	14,465	..	94 23
1896.....	.....	1,825	7,778	7,532	.....	.....	2,468	19,623	..	93 01
1897.....	.....	6,588	5,550	7,349	498	219	245	20,449	..	92 37
1898.....	160	2,111	5,886	1,450	16	.....	784	10,407	..	96 12
1899.....	216	3,106 485	4,478	2,400	.....	.....	2,346	12,546	..	94 61
1900.....	214	.....	1,404	2,400	.....	.....	403	4,906	..	98 54
1901.....	245	526	.....	5,375	.....	.....	120	6,266	..	97 67
1902.....	159	.....	.....	3,678	3	.....	632	4,472	..	98 34

\* Apples, meal, all kinds, potatoes.

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F.—TABLE showing the Total Way and Through Tonnage of the undermentioned Articles cleared downward on the Welland Canal during a series of thirty-two years, ended December 31, 1902.

## VEGETABLE FOOD.

Year.	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles. †	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869*	44,110	310,090	119,541	3,920		680	1,541	479,882
1872	26,648	231,056	254,534	693	7,594	64	2,300	524,889
1873	30,660	345,720	180,042	643	1,188	3	3,557	563,813
1874	24,017	406,157	181,128	377	5,953		3,301	620,933
1875	13,930	248,555	103,477	813	3,383	500	4,304	374,962
1876	15,735	194,559	144,501	1,110	24,496	1,454	2,949	384,807
1877	13,588	248,894	169,185	10,216	2,810	2,405	1,833	448,931
1878	8,854	188,106	185,931	1,217	3,088		2,100	389,296
1879	10,588	271,545	114,276	803	1,196		2,387	430,795
1880	12,467	240,601	162,891		477		1,418	417,853
1881	9,655	121,393	103,075	252		6	1,371	235,752
1882	12,205	205,876	54,797	537		1,954	225	275,594
1883	13,256	146,741	182,143	975	731	518	10,971	355,335
1884	13,626	135,804	118,811	270	10,746	477	9,018	288,752
1885	13,322	114,090	117,536	618	1,116		1,628	248,310
1886	19,418	146,151	218,897		4,891		14,581	403,928
1887	23,940	210,755	114,938	1,711	12,050		12,149	375,543
1888	16,973	150,833	194,886	555	26,629	811	13,358	404,045
1889	7,922	120,498	353,595	197	28,356	1,918	18,273	530,759
1890	14,461	114,924	327,394	6,519	27,728	1,121	20,836	512,983
1891	13,517	196,326	185,177	8,113	52,959	65,071	27,895	549,058
1892	17,046	229,569	192,548	6,433	37,173	9,392	32,548	524,709
1893	15,232	257,203	441,092	18,461	31,283	3,671	36,981	803,923
1894	33,628	270,514	169,233	28,353	27,962		60,587	590,277
1895	43,895	202,636	164,894	8,689	18,236		46,435	484,785
1896	42,159	319,388	320,444	11,368	28,178	8,970	54,031	784,538
1897	9,025	322,993	390,615	14,173	25,127	8,483	44,651	815,067
1898	5,578	206,313	437,849	12,286	17,491	16,127	23,170	718,814
1899	11,025	197,732	204,004	2,424	23,541	923	18,440	458,689
1900	10,968	137,800	163,509	3,449	40,256	3,538	14,802	374,322
1901	18,937	151,325	67,756	7,119	28,281	2,961	14,021	290,400
1902	22,282	223,499	67,647	7,418	11,223	4,079	12,912	349,060

\* Fiscal. † Apples, meal, all kinds, pease, potatoes.

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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 thirty-two years, ended December 31, 1902.

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	.....	667	1,006	337,530	68,064	13,334	89,086	28,566	35,912	235,962	
1872	10,485	124,685	89,761	1,391	7,400	.....	608	254,347	24,040	13,229	49,843	95,741	59,401	242,264	
1873	10,805	127,727	101,329	1,920	1,188	3	392	243,366	1,650	13,826	40,507	170,242	62,942	292,176	
1874	8,230	229,053	125,627	.....	5,948	.....	5,308	374,226	5,742	8,941	22,888	202,673	19,651	260,895	
1875	1,881	113,822	54,188	2,641	2,946	500	1,320	177,908	11	4,123	12,931	193,767	34,616	244,451	
1876	5,187	96,247	58,138	.....	1,905	525	403	162,405	.....	5,351	29,365	172,868	25,808	227,844	
1877	3,342	107,386	65,260	1,603	2,314	258	341	128,361	8,976	3,892	3,892	150,583	41,107	239,975	
1878	1,316	67,542	60,026	859	277	.....	.....	.....	.....	6,318	6,318	118,573	17,737	148,711	
1879	159	53,791	33,401	464	.....	.....	11	87,826	2,465	3,648	3,892	150,583	13,535	178,723	
1880	.....	30,611	16,122	1,551	296	.....	.....	48,580	2,465	3,648	3,892	150,583	13,535	178,723	
1881	.....	34,320	30,031	524	.....	.....	10	65,285	4,743	3,515	371	65,945	18,380	92,354	
1882	107	30,227	32,433	537	.....	684	.....	65,285	4,743	3,515	371	65,945	18,380	92,354	
1883	2,041	54,382	66,128	735	731	.....	14	64,002	1,313	5,570	.....	83,858	6,464	97,265	
1884	1,715	40,956	53,707	.....	.....	.....	.....	64,002	1,313	5,570	.....	83,858	6,464	97,265	
1885	124	40,956	53,707	.....	9,874	.....	8,579	132,496	1,299	6,900	8	158,552	14,533	177,161	
1886	7,591	53,258	63,229	732	882	.....	8,170	114,422	698	599	.....	196,462	24,891	229,471	
1887	11,780	37,678	94,048	.....	1,790	.....	1	118,203	.....	1,594	.....	210,730	15,100	227,187	
1888	8,563	39,999	83,431	1,732	12,050	.....	13,201	172,888	156	1,594	.....	198,416	11,364	206,813	
1889	5,017	39,229	147,045	2	26,510	179	10,859	177,530	15	5,328	1	189,964	6,627	191,342	
1890	9,204	31,527	180,842	6,519	27,492	.....	17,225	189,825	63	4,466	.....	82,780	627	87,828	
1891	6,802	32,097	127,494	8,133	52,823	.....	20,497	236,208	.....	1,587	896	227,476	2,309	230,277	
1892	11,018	26,950	131,222	6,433	36,935	.....	26,115	275,619	.....	1,587	896	227,476	2,309	230,277	
1895	6,588	28,187	198,777	16,751	33,870	864	36,352	311,389	.....	504	298	162,531	1,620	164,563	
1894	17,476	53,846	105,329	28,095	27,621	.....	31,992	214,530	.....	504	298	162,531	1,620	164,563	
1895	10,169	27,881	100,512	7,901	17,029	.....	46,316	198,358	.....	576	705	183,895	1,775	184,473	
1896	16,224	34,878	175,094	11,128	16,137	490	46,316	209,802	181	344	.....	206,827	.....	207,171	
1897	7,257	28,919	169,057	14,173	14,969	.....	46,316	209,802	.....	344	.....	188,521	.....	188,818	
1898	4,212	11,268	150,667	14,173	14,969	490	46,316	209,802	.....	246	.....	149,490	.....	149,917	
1899	6,118	12,926	81,777	2,424	19,526	1,197	41,887	270,462	965	146	.....	207,348	.....	207,694	
1900	7,966	18,771	60,545	2,402	39,706	925	22,671	209,656	770	15	4	165,143	.....	166,123	
1901	17,165	23,557	55,531	2,449	26,344	2,149	14,248	145,787	351	1,646	553	88,931	.....	91,481	
1902	13,785	32,639	66,111	7,418	10,006	.....	14,016	143,732	85	933	165	46,024	.....	46,970	
							12,675	142,634		214		46,702		13,125	

\* Apples, meal, all kinds, potatoes.

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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 thirty-two years, ended December 31, 1902.

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	1,557,509	243,325	374,226
1875.....	1,305,550	417,936	2,343,241	1,017,559	126,763	177,968
1876.....	1,064,293	409,788	2,875,893	783,331	99,975	162,405
1877.....	1,498,984	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	253,444
1892.....	937,999	527,426	5,913,013	870,570	18,558	244,550
1893.....	1,452,563	805,253	5,107,426	1,395,391	17,620	311,389
1894.....	1,400,129	591,409	4,281,056	1,331,101	40,584	293,148
1895.....	602,505	486,421	3,798,574	508,596	14,465	209,802
1896.....	957,182	788,974	5,183,540	877,144	19,623	300,407
1897.....	744,575	816,914	5,673,638	688,635	20,449	276,242
1898.....	653,027	720,183	7,060,542	607,557	10,407	209,656
1899.....	577,486	459,688	6,211,827	527,868	12,546	141,892
1900.....	472,857	375,720	6,053,005	438,434	4,906	145,787
1901.....	557,099	290,909	6,334,001	473,729	6,266	143,732
1902.....	489,053	350,792	6,532,263	436,943	4,472	142,634

\* Fiscal.



3-4 EDWARD VII., A. 1904

I.—STATEMENT showing the Quantity of Through Freight passed Down the Welland Canal in Canadian and United States Vessels, &amp;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	104,649	112	57,668	287	279,621	144	63,770	742	505,708
1894.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat .....	98,586		54,444		79,715		37,095		268,840	
Corn .....	10,368		5,614		122,211		31,049		169,233	
Barley .....	258				28,095				28,353	
Oats .....	175		107		27,621				27,903	
Pease .....										
Rye .....										
Coal .....	1,483		1,892		61		11,109		14,545	
Miscellaneous merchandise ..	16,949		664		83,198		1,977		102,788	
Shingles, woodenware, &c. . .	22								22	
Sawed lumber.....Ft. B.M.	8,423,295		279,830		11,719,664		31,891,456		52,313,745	
Square timber.....Cub. ft.	771,328		1,578,981						2,350,309	
Staves.....No.										
Firewood.....Cords										
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	209	108,776	151	73,895	205	223,743	101	41,327	666	447,741
1895.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat .....	72,895		68,935		29,345		39,723		201,898	
Corn .....	16,854		3,724		126,943		17,369		164,890	
Barley .....	798		162		7,729				8,689	
Oats .....	1,531		246		16,442				18,219	
Pease .....										
Rye .....										
Coal .....	2		3,984				4,426		8,412	
Miscellaneous merchandise ..	37,356		2,361		67,705		1,324		108,746	
Shingles, woodenware, &c. . .	20				863		1,079		1,962	
Sawed lumber.....Ft. B.M.	1,057,146		248,071		9,385,890		14,929,734		25,620,841	
Square timber.....Cub. ft.	1,027,913		2,049,368				35,000		3,112,281	
Staves.....No.										
Firewood.....Cords.										
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	224	122,521	181	82,543	343	337,983	163	96,506	911	639,553
1896.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat .....	113,331		90,979		78,741		34,476		317,527	
Corn .....	9,360		3,855		218,315		88,914		320,440	
Barley .....	240				11,128				11,368	
Oats .....	441		1,270		24,847		1,620		28,178	
Pease .....	1,403		1,354				273		3,030	
Rye .....	5,035		644		2,837		454		8,970	
Coal .....	7		11,106		1,255		629		11,997	
Miscellaneous merchandise ..	29,820		1,452		82,319		4,374		117,965	
Shingles, woodenware, &c. . .	134				22				156	
Sawed lumber.....Ft. B.M.	2,123,213				18,259,810		27,796,146		48,179,169	
Square timber.....Cub. ft.	942,923		1,649,145				246,024		2,838,092	
Staves.....No.										
Firewood.....Cords.							55		55	



SESSIONAL PAPER No. 20

I.—STATEMENT showing the Quantity of Through 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.
	225 131,907	163 76,760	388 382,231	144 86,675	920 677,573
1897.	Tons.	Tons.	Tons.	Tons.	Tons.
Wheat .....	121,762	55,724	106,064	37,891	321,441
Corn! .....	33,694	15,244	274,855	66,822	390,615
Barley .....			14,173		14,173
Oats .....	223		23,515	1,168	24,906
Pease .....	1,851				1,851
Rye .....	2,047	919	5,517		8,483
Coal .....	3,873	3,947	368	1,615	9,803
Miscellaneous merchandise..	15,739	3,290	70,968	4,174	94,071
Shingles, woodenware, &c...	1,268	5	404		1,677
Sawed lumber . . . Ft. B.M.	1,573,447		20,284,446	20,673,202	42,531,095
Square timber. . . . Cub. ft.	1,327,823	2,217,629		616,093	4,161,545
Staves. . . . . No.	2,577,160				2,577,160
Firewood . . . . . Cords.	4				4
	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.
	216 126,398	104 59,532	354 355,702	195 108,720	869 650,352
1898.	Tons.	Tons.	Tons.	Tons.	Tons.
Wheat .....	95,567	36,157	54,934	18,355	205,013
Corn .....	56,538	30,455	284,059	66,761	437,813
Barley .....			9,465	2,821	12,286
Oats .....			17,329		17,329
Pease .....	260		45		305
Rye .....	3,564	1,480	9,135	1,948	16,127
Coal .....	375	1,916	759	2,620	5,870
Miscellaneous merchandise . .	19,385	4,104	47,271	8,758	79,518
Shingles, woodenware, &c...	2	9			11
Sawed lumber . . . . Ft. B.M.	4,910,669	1,641,783	16,220,972	24,484,283	47,257,707
Square timber. . . . Cub. ft.	825,545	1,183,821		388,410	2,397,776
Staves. . . . . No.					
Firewood. . . . . Cords.	249				249
	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.	No. Tonnage.
	191 100,242	129 73,777	201 212,027	78 36,962	599 425,008
1899	Tons.	Tons.	Tons.	Tons.	Tons.
Wheat .....	91,901	80,928	16,250	7,244	196,323
Corn .....	28,915	18,905	138,834	18,250	204,004
Barley .....			2,424		2,424
Oats .....	1,557		21,640		23,203
Pease .....					
Rye .....			923		923
Coal .....	435	6,736		3,398	10,569
Miscellaneous merchandise . .	25,203	18,651	49,522	1,567	94,943
Shingles, woodenware, &c...	485	916		100	1,501
Sawed lumber . . . . Ft. B.M.	2,077,748	772,739	14,855,338	19,949,079	37,654,904
Square timber. . . . Cub. ft.	322,138	585,780	20,802	328,806	1,257,526
Staves. . . . . No.		9			9
Firewood. . . . . Cords.					

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1.—STATEMENT showing the Quantity of Through Freight passed Down the Welland Canal in Canadian and United States Vessels, &c.—*Concluded.*

ARTICLES.	CANADIAN VESSELS.		UNITED STATES VESSELS.		TOTAL.					
	Steam.	Sail.	Steam.	Sail.	Steam and Sail					
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.				
	216	114,885	109	67,475	168	182,444	71	30,309	564	395,113
1900.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat .....	67,694	43,157	23,066	2,130	136,047					
Corn .....	39,597	31,248	78,701	13,963	163,509					
Barley .....	1,989	2,402	1,047	3,449						
Oats .....	723	637	39,706	407	40,113					
Pease .....	115	4	4	119						
Rye .....	1,989	2,149	2,149	3,538						
Coal .....	723	637	433	559	2,352					
Miscellaneous merchandise ..	53,649	31,536	43,344	3,564	152,093					
Shingles, woodenware, &c. ...	1,078	1,078	1,078	1,078						
Sawed lumber..... Ft. B.M.	6,847,279	5,344,258	14,984,483	18,770,405	45,946,425					
Square timber..... Cub. ft.	439,827	355,951	11,583	198,420	1,005,781					
Firewood..... Cords.	126	255	255	381						
Staves..... No.	1,000	1,000	1,000	1,000						
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	197	103,802	114	59,022	163	182,497	48	22,319	522	367,640
1901.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat .....	57,641	58,973	31,955	1,241	149,810					
Corn .....	7,350	4,689	55,717	67,756						
Barley .....	1,989	2,402	1,047	7,119						
Oats .....	944	27,197	27,197	28,141						
Pease .....	115	4	4	119						
Rye .....	2,961	2,961	2,961	2,961						
Coal .....	1,960	362	357	2,679						
Miscellaneous merchandise ..	71,300	32,312	12,874	7,469	123,955					
Shingles, woodenware, &c. ...	18	18	18	18						
Sawed lumber..... Ft. B.M.	6,533,423	4,060,251	11,089,806	13,092,940	34,776,420					
Square timber..... Cub. ft.	362,441	204,682	9,384	149,531	726,038					
Firewood..... Cords.	165	264	264	429						
Staves..... No.	1,000	1,000	1,000	1,000						
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	196	90,791	122	73,958	191	201,339	52	22,097	561	388,185
1902.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat .....	82,954	85,973	52,889	221,816						
Corn .....	148	1,388	66,111	67,647						
Barley .....	1,989	2,402	1,047	7,418						
Oats .....	1,200	43	9,963	11,206						
Pease .....	115	4	4	119						
Rye .....	3,868	271	271	4,079						
Coal .....	3,977	25,732	13,497	8,332	51,538					
Merchandise.....	33,111	8,723	38,351	1,594	81,779					
Shingles, woodenware, &c. ...	47	28	4	79						
Sawed lumber..... Ft. B.M.	13,218,960	3,256,157	25,437,287	19,540,426	61,452,860					
Square timber..... Cub. ft.	370,718	557,689	115,000	1,043,407						
Firewood..... Cords.	56	40	40	96						
Staves..... No.	1,000	14,000	14,000	14,000						

SESSIONAL PAPER No. 20

STATEMENT showing the Quantity of Through Freight passed UP the Welland Canal in Canadian and United States Vessels, during the Season of 1902.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	195	95,377	116	71,311	178	187,504	42	17,982	531	372,174
1902.	Tons.		Tons.		Tons.		Tons.		Tons.	
<i>Class 3.</i>										
Cement and water lime.....		178				784				962
Fish.....						45				45
Iron, railway.....		1,029		10,720						11,749
" pig.....		446				112				558
" all other.....		2,651		341		184				4,176
Salt.....		4								4
Steel.....		42								42
Articles not enumerated.....		281				1,220				1,501
<i>Class 4.</i>										
Crockery and earthenware.....		96								96
Marble.....						1,251				1,251
Manilla.....		1				39				40
Nails.....		1,997								1,997
Paint.....		110								110
Pitch and tar.....		34								34
Sugar.....		1,369				1,001				2,370
Tin.....		481		25		44				550
Merchandise not enumerated.....		4,449				27,021				31,470
<i>Class 5.</i>										
Produce of wood.....		2,334		6,224		223				8,781
<i>Special Class.</i>										
Unenumerated articles.....		65				12,392		618		13,075
Total.....		16,567		17,310		44,316		618		78,811

Canadian steam vessels carried.....	Tons.	16,567
" sail.....		17,310
United States steam vessels carried.....		44,316
" sail.....		618

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## WELLAND CANAL THROUGH FREIGHT—RECAPITULATION.

## WELLAND CANAL—WEST BOUND FREIGHT.

The total quantity of Through Freight passed up the Welland Canal in Canadian and United States vessels, during the season of navigation in 1902, is as follows:—

Summary.	Tons.	Tons.
In Canadian steam vessels.....	16,567	
"    sail    ".....	17,319	
Total quantity in Canadian vessels.....		33,877
In United States steam vessels.....	44,316	
"    sail    ".....	618	
Total in United States vessels.....		44,934
Grand total freight passed up the Welland Canal in Canadian and United States vessels.....		78,811

## STATEMENT of the quantity of Through Freight passed up and down the Welland Canal, during the season of navigation in 1902.

Summary.	Tons.	Tons.
In Canadian steam vessels up.....	16,567	
"    "    down.....	154,833	
Total in Canadian steam vessels.....		171,400
In Canadian sail vessels up.....	17,319	
"    "    down.....	133,397	
Total in Canadian sail vessels.....		155,707
Total quantity in Canadian vessels.....		327,107
In United States steam vessels up.....	44,316	
"    "    down.....	230,914	
Total in United States steam vessels.....		275,230
In United States sail vessels up.....	618	
"    "    down.....	43,142	
Total in United States sail vessels.....		43,760
Total quantity in United States vessels.....		318,990
Total in Canadian and United States vessels.....		646,097
	Down or East bound.	Up or West bound.
In Canadian vessels.....	293,230	33,877
In United States vessels.....	274,056	44,664
Total.....	567,286	78,541

STATISTICS of Large Class of Vessels Lightened at the Welland Railway Elevator at Port Oshborne, showing the Tonnage, Dimensions, Depth of Water, Number of Cargoes passed through the enlarged Welland Canal during the Season of Navigation 1931. CANADIAN STEAM VESSELS

Table with multiple columns: Name, Date, Tonnage, Dimensions, Depth of Water, etc. Includes sub-sections for 'Lightened at Welland Elevator' and 'Lightened at Welland Railway Elevator'.

CANADIAN VESSELS SAILED

Summary table for Canadian Vessels Sailed, showing totals for various categories.

UNITED STATES STEAM VESSELS

Main table for United States Steam Vessels, listing individual vessels with their names, dates, and tonnage.



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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 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, and 1902.

Articles.	Tons.												
	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
<i>Class 3.</i>													
Coconut and water lime.													
Clay, lime and sand.							12	38	52	15	15		
From railway.					195	79	5	7,561	6,217	5,963	508		50
From, pig.					1	1,766	2,020	375	1,351	3,000	4,292	1,178	5,785
" all other.						394	290				5,420		
Steel.							290						
Stones, for cutting.					50	28	1,263						
Apples.					258	959			3,960	596	1,288		
Barley.					60,661	70,255	182,330	267,583	310,198	150,999	100,359	11,319	1,719
Corn.								3,293	5,687			1,965	
Flaxseed.					16,563	30,916	11,961	1,029	653	4,229	1,595	1,400	6,755
Flour.					4	65						35	
Mead, all kinds.					175	1,654	12,373	6,847	3,975	10,250	8,927	1,584	1,412
Oats.									260		115		
Oil cake.								3,020	2,078				
Peanse.					3,669		8,323	8,135	15,488	923	3,078	2,961	1,079
Rye.								216	141			50	
Salt.							20			96	246		
Seeds, all kinds.					29								
Hay, pressed.								51				23	
Tobacco, raw.													
Wheat.					212,557	158,643	255,198	278,498	184,151	168,978	121,896	132,792	200,975
All other agricultural products, vegetable.									56				
Hides, skins, horns and hoofs.					29					32			
Horses.						20							
Lead and hard oil.					1	1	1	1	4	1		1,155	
Meats, all kinds.												141	
Pork.					717							34	
All other agricultural products, animal.													
Total, Class 3.	220,545	281,762	290,757	507,321	291,151	291,740	477,541	575,008	532,199	345,965	256,191	161,819	220,805
<i>Class 4.</i>													
Agricultural implements.												1,785	13
Ashes.					19	31	91	133	73	3	25	3	
Crockery.							5						









## SESSIONAL PAPER No. 20

M. STATEMENT showing the Quantity of Freight passed Eastward through the Welland Canal, from United States Ports to United States Ports, during the Season of Navigation from 1890 to 1902, inclusive.

Articles.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class A.</i>													
Bricks	4							845	300		18		
Cement and water lime													
Fish		1		5	5	181		965	770		714		30
Iron, railway						214			324		549		105
" do other		491		102			498		2,951		3,110		
Steel													
Stone for cutting													
Apples	6,519	8,113	6,433	16,751	28,095	7,904	11,128	14,173	6,909	2,421	2,402	7,119	7,118
Barley	180,812	127,494	131,222	198,777	105,329	100,512	175,091	169,057	190,607	81,777	60,545	55,531	66,111
Corn	9,201	6,802	11,018	6,588	17,795	10,169	16,224	7,237	4,212	6,118	7,966	17,108	13,785
Flour													
Hay, pressed								301					
Meal, all kinds	20,482	26,096	31,721	36,352	60,390	46,316	46,456	11,644	22,626	18,198	14,244	11,016	12,675
Oil cake					29						2,765	1,302	110
Oats	27,030	52,823	36,935	23,870	27,621	16,442	16,137	14,969	12,729	19,526	39,706	26,341	10,065
Pease									45				
Potatoes	1												
Rye				864					1,197	923	2,119		
Flaxseed		236	50	16						200			
Seeds, all kinds	135							299	44	11			10
Tobacco													
Wheat	31,527	32,097	26,950	28,187	53,846	27,881	34,878	28,919	11,268	12,926	18,771	23,557	32,639
Agricultural products, vegetables,	11	12										23	
Hides and skins, &c.						8	41	23			6	10	
Horses	1	3											
Lard and lard oil, &c.	30	10			1		3		2		4		
Meats, other than pork	15	2	29	1		6	1,348	1,444	3,671	864	1,588	1,680	2,443
Pork	88	75		52		56							
Sheep							390	243	1,271	343	117	970	632
Tallow													
Wool		1,257	70	80	1,484	1,536	900	197	339	201	631	119	752
Total, Class A.	275,863	255,553	244,431	311,617	294,651	211,340	303,665	280,319	219,434	158,720	154,680	147,917	116,581
<i>Class B.</i>													
Agricultural implements													300
Crockery and earthenware													
Furniture	21	7				2			2	7		3	17

3-4 EDWARD VII., A. 1904

M. STATEMENT showing the Quantity of Freight passed Eastward through the Welland Canal, from United States Ports to United States Ports, during the Season of Navigation from 1890 to 1902, inclusive—*Continued.*

Articles.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 4. Con.</i>													
Glass, all kinds.....		1										4	
Marble.....										8	57		
Molasses.....										11			
Nails.....				57						367	17	22	1,394
Oil, in barrels.....		1			30	1,065	198			2	36		
Paint.....	3		44							1			
Paper.....													
Soda ash.....													
Stone, wrought.....						59	165	31			154	448	280
Sugar.....						15							
White head.....	1		46	83									
Whisky, beer and all other spirits.....	228	167								168	1	1	
Merchandise.....	1,822	1,865	1,331	1,933	2,976	7,656	3,990	3,591	3,828	6,219	7,889	3,327	1,928
Total, Class 4.....	2,075	2,041	1,421	1,782	3,033	7,762	5,160	3,820	3,986	6,783	8,164	3,805	4,218
<i>Class 5.</i>													
Empty barrels.....				9			16					282	
Firewood, in vessels.....							165						4
Lumber, sawn, in vessels.....	38,030	45,504	54,173	68,985	62,905	41,974	75,515	68,280	52,844	57,695	55,128	38,085	72,806
Masts and spars, in vessels.....								403					
Hoops.....													
Railway ties, in vessels.....													
Staples.....				13									
Staves, barrel.....													
Timber, square, in vessels.....						500		1,040					
Woodenware, &c.....	8	4	54				12	1					
Total, Class 5.....	38,038	45,508	54,227	69,007	62,905	42,920	75,702	69,724	52,844	57,695	55,133	38,367	72,810
<i>Special Class.</i>													
Coal.....	615	1,382	651	2,123	727	603	1,255		759	2,293	992	357	501
Stone, not suitable for cutting.....	18												
Kryolite.....	1,020	1,773											
Total, Special Class.....	2,553	3,155	651	2,123	727	603	1,255		759	2,293	992	357	501
Grand total.....	318,259	306,257	300,733	384,359	361,319	262,585	385,782	353,863	277,023	225,491	218,969	190,476	224,110

## SESSIONAL PAPER No. 20

N.—STATEMENT showing the Number of Vessels which took their Cargoes of Wheat through the Welland Canal from Ports west of Port Colborne: the quantity transhipped at Kingston and Prescott, and the quantity of each cargo through the St. Lawrence Canals to Montreal, during the Season of Navigation in 1902.

Name of Vessel	Original Quantity through the Welland Canal.	Quantity tranship- ped at Kingston and Prescott.	Cargo through the St. Lawrence Canals to Montreal
	Tons.	Tons.	Tons.
Canadian Steamer Arabian.....	1,170		1,170
" " " ".....	1,200		1,200
" " " ".....	1,200		1,200
" " " ".....	1,200		1,200
" " " ".....	1,200		1,200
" " " Advance.....	300	77	223
" " " Bothnia.....	1,200		1,200
United States " Brittanica.....	1,230		1,230
" " " ".....	810		810
" " " ".....	1,200		1,200
Canadian " Cuba.....	480		480
United States " John Duncan.....	1,237		1,237
" " " ".....	1,230		1,230
" " " J. H. Farwell.....	1,020		1,020
" " " ".....	600		600
" " " ".....	150		150
" " " ".....	1,020		1,020
Canadian " Glengarry.....	630		630
" " " ".....	630		630
" " " ".....	615		615
United States " Ionia.....	1,253		1,253
" " " ".....	450		450
" " " ".....	1,320		1,320
" " " ".....	1,350		1,350
Canadian " Lake Michigan.....	480		480
" " " ".....	493		493
" " " ".....	489		489
" " " ".....	435		435
" " " ".....	390		390
" " " ".....	420		420
United States " Monteagle.....	1,200		1,200
" " " ".....	1,200		1,200
" " " ".....	1,200		1,200
" " " ".....	780		780
Canadian " Myles.....	1,200	60	1,140
" Barge Dunmore.....	1,260		1,260
" " Melrose.....	1,515	315	1,200
" " Hamilton.....	1,800		1,800
Total.....	35,557	452	35,105

Number of cargoes of wheat ..... 38  
Quantity through Welland Canals to Kingston and Prescott ..... 35,557 tons.  
" transhipped at Kingston and Prescott ..... 452 "  
" taken to Montreal in vessels in which it arrived at Kingston and  
Prescott..... 35,105 "

3-4 EDWARD VII., A. 1904

N.—STATEMENT showing the Number of Vessels which took their Cargoes of Corn through the Welland Canal from Ports west of Port Colborne; the quantity transhipped at Kingston and Prescott, and the quantity of each Cargo through the St. Lawrence Canals to Montreal, during the Season of Navigation in 1902.

Name of Vessel.	Original Quantity through the Welland.	Quantity transhipped at Kingston and Prescott.	Cargo through the St. Lawrence Canals to Montreal.
Cuba .....	148		148

Number of cargoes of corn .....	1
Quantity through Welland Canal to Kingston and Prescott .....	148 tons.
" transhipped at Kingston and Prescott .....	
" taken to Montreal in vessels in which it arrived at Kingston and Prescott .....	148 "

RECAPITULATION of the Number of Vessels passed Down the Welland Canal with Cargoes of Grain for Montreal, the quantity transhipped at Kingston and Prescott, and the quantity taken to Montreal, for the Season of Navigation in 1902.

	Number of Cargoes.	Total Number.
Wheat .....	38	
Corn .....	1	
Total .....		39
	Tons.	Tons.
Quantity of wheat through the Welland Canal, bound for Montreal .....	35,557	
" corn .....	148	
Total through Welland Canal .....		35,705
Quantity of the above transhipped at Kingston and Prescott—		
Wheat .....	452	
Corn .....		
Total transhipped .....		452
Quantity of the above cargoes taken to Montreal in vessels in which it arrived at Kingston and Prescott—		
Wheat .....	35,105	
Corn .....	148	
Total quantity to Montreal .....		35,253
Grand total .....		35,705



3-4 EDWARD VII., A. 1904

P.—STATEMENT of the Quantity of Grain arrived at Kingston, Prescott and Ogdensburg in Vessels which passed Down the Welland Canal, during the Season of Navigation in 1902.

Summary.	Tons.	Tons.
Canadian steam vessels—73 cargoes of grain .....	88,110	
"    sail    "    58    "    .....	87,404	
Total in Canadian vessels .....		175,514
United States steam vessels—135 cargoes of grain .....	136,652	
"    sail    "    .....		
Total in United States vessels.....		136,652
Total in Canadian and United States vessels.....		312,166
Distributed as follows:—		
22 Canadian and 17 United States vessels arrived at Kingston and discharged part of their cargoes, taking the balance to Montreal .....		35,253
227 vessels arrived at Kingston, Ogdensburg and other ports and discharged all their cargoes as follows:—		
109 cargoes in Canadian vessels .....	156,459	
118    "    United States vessels .....	119,550	
Quantity discharged by the 3 Canadian vessels which took the balance to Montreal.....	452	
Total quantity discharged .....	276,461	
Total quantity of above transhipped from Kingston and Ogdensburg to Montreal.....		*166,866
Quantity transhipped from Kingston and Ogdensburg to Cardinal.....		9,999
"    remaining at Kingston, Ogdensburg and other American ports.....		166,048
Total .....		312,166

\* Of this quantity 5,589 tons were transhipped from Kingston, and 597 from Ogdensburg, being grain of 1901.



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Q.—COMPARATIVE STATEMENT of the Quantity of Grain passed Down the Welland Canal to Kingston, Prescott and Ogdensburg, during the Seasons of Navigation in 1901 and 1902.

	1901.		1902.	
	No. of Cargoes.	Tons.	No. of Cargoes.	Tons.
Quantity arrived at Kingston and Prescott in Canadian vessels..	112	132,558	131	175,514
Quantity arrived at Kingston, Prescott and Ogdensburg in United States vessels.....	135	123,229	135	136,652
Total.....	247	255,787	266	312,166
Quantity transhipped at Kingston, Prescott and Ogdensburg in Canadian vessels for Montreal. . . . .		124,939		166,866
Quantity taken to Montreal in vessels in which it arrived at Kingston and Prescott.....		17,303		35,253
Quantity remaining at Kingston, Prescott, Ogdensburg and Cardinal.....		113,545		110,047
Total.....		255,787		312,166

\* Of this quantity 6,096 tons were transhipped to Montreal in 1902.  
 36 vessels took their cargoes through in 1902, against 22 in 1901.  
 3 " discharged part of their cargo in 1902, against 3 in 1901.  
 227 " " all their cargo in 1902, against 222 "

R.—STATEMENT showing the Number of Vessels, their Tonnage, Number of Passengers and Tons of Freight passed down the Rapids of the St. Lawrence Canals, during the Season of Navigation in 1902.

Destination.	Number of Sections.	Number of Vessels.	Tonnage of Vessels.	Number of passengers.					Tolls.
				Class Three.	Class Four.	Class Five.	Special Class.		
			Tons.	Tons.	Tons.	Tons.	Tons.	8 cts.	
Prescott to Montreal.....	4	119	61,816	10,717	329	793		1,743 59	
" Lachine.....	3	45	24,466	2,418	977	1,336		629 31	
Soulanges to Montreal.....	2	2	773					2 90	
" Lachine.....	1	140	21,381	3,997	1,678	191	34	194 65	
Lachine to Montreal . . . . .	1	243	51,782	16,766	817	625	4	571 55	
Total . . . . .		549	160,217	32,998	3,801	2,945	38	3,142 00	

3-4 EDWARD VII., A. 1904

S.—The quantity of Coal passed through the Welland Canal during a series of years from 1885 to 1902, 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 — Rate 20 cents a ton.
	Up.	Down.	Up.	Down.	Up.	Down.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
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.			185,199	1,382	17,374	20,698	224,644	44,928 20
1892.			183,244	651	12,391	15,330	211,616	42,284 13
1893.			204,704	2,123	8,325	17,944	233,096	46,619 20
1894.			187,794	727	1,269	13,947	203,737	40,789 93
1895.	4		148,887	603	1,565	7,807	158,866	31,773 05
1896.	20	210	206,093	1,255	4,127	11,740	223,445	44,668 20
1897.		4	165,143		1,277	9,799	176,223	35,244 60
1898.			156,055	759	986	4,536	162,336	32,467 20
1899.			86,638	2,293	525	8,276	97,732	19,546 40
1900.	8		45,032	992		1,360	47,392	9,478 40
1901.			46,345	357	456	2,322	49,480	9,896 00
1902.			12,410	501	65	51,037	64,013	12,845 60

NOTE.—Tolls on soft coal passed down the Welland Canal, during the season of 1890, were reduced from 20 to 10 cents a ton, per O. C. 11th May, 1890, for the season of 1890 only, the rate for 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901 and 1902 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 Canal during the seasons of 1885 to 1902, inclusive.

Years.	Quantity passed up	Quantity passed down	Total	Amount
	Free of Tolls.	to Montreal.	Quantity passed up and down.	of Tolls on Quantity passed down to Montreal.
	Tons.	Tons.	Tons.	¢ cts.
1885.	5,035	122,829	127,864	18,424 35
1886.	3,301	118,802	122,103	17,820 70
1887.	7,579	121,618	129,197	18,242 70
1888.	8,341	123,050	131,391	18,423 90
1889.	5,360	124,290	129,650	18,604 90
1890.	6,538	135,168	141,706	20,275 20
1891.	7,951	141,701	149,652	21,255 15
1892.	7,543	157,134	164,677	23,570 10
1893.	2,285	147,139	149,424	22,070 85
1894.	16,213	169,552	185,765	25,432 80
1895.		165,151	165,151	24,772 65
1896.	689	161,551	162,240	24,232 65
1897.	40	164,963	165,003	24,722 37
1898.	400	175,609	176,009	26,341 05
1899.	448	201,546	201,994	30,231 80
1900.	10	280,169	280,179	42,025 35
1901.	2,765	298,245	301,010	44,732 55
1902.	9,231	95,702	104,933	11,958 90

NOTE.—Coal is allowed to pass free up the St. Lawrence Canals.

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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 1891 to 1902, 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.
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		8,802
Fish			1
Furniture	2	2	7
Glass	1		1
Horses	2	2	3
Hay		21	
Iron, pig	371	128	
" all other		1,036	19
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		78
Rags			60
Rye	64,978	969	
Seeds, all kinds	2		256
Salt		1,861	494
Stone for cutting		6,692	
" wrought		7	
Tobacco	1		
Tallow		9	8
Wheat	159,785	692	32,097
Staves, pipe		8	
Whisky and all other liquors	105	57	197
Wool			1,237
Merchandise	278	6	1,779
Kryolite		1,098	1,773
Lumber, in vessels	2,991	1,300	56,456
" in rafts	917		
Timber, square, in rafts	5,689	14,638	
Barrels			4
<hr/>			
Wheat	12,169	291,776	54,315
Corn	5,648		317,209
<hr/>			
		17,817	17,817
<hr/>			
Total	309,593	54,315	299,392

\* This quantity of grain was transhiped 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, March, 25, 1891.

3-4 EDWARD VII., A. 1904

U. — COMPARATIVE STATEMENT of the Quantity of Through 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.
1892.			
Ashes, pot and pearl. ....	17	2	
Apples.....	54		
Barley.....			6,433
Corn.....	53,689	7,637	131,222
Coal.....		14,830	651
Flour.....	2,874		11,018
Fish.....	9		
Furniture.....	1		7
Hides.....	20		
Horses.....	2		
Iron, railway.....		100	
" 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	26,550
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	410
Staves and headings, pipe.....	8	80	
" 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, flaxseed and buckwheat which passed down the whole length of the Welland and St. Lawrence Canals, to Montréal, or any port east of Montréal, and such products exported out of the country, and in such cases only.

## SESSIONAL PAPER No. 20

U.—COMPARATIVE STATEMENT of the Quantity of Through Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to	
		Canadian Ports Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1893.	Tons.	Tons.	Tons.
Ashes, pot and pearl.	23		
Barley	600	1,110	16,751
Bricks		1,251	
Corn	278,564	5,752	156,776
Coal		17,344	2,123
Flour	5,514		6,588
Fish			5
Furniture			6
Horses	1	1	2
Iron, pig.			100
" all other.			2
Meal, all kinds		1,025	36,352
Meats, other than pork			1
Oats	9,761	1,090	20,313
Pork			52
Rye	3,639	1	1
Salt		286	
Seeds, all kinds			16
Wheat	209,212	17,602	29,117
Whisky, beer, &c.	1		83
Wool			80
Merchandise not enumerated.	4	2	1,693
Barrels, empty			9
Firewood (in rafts)		15	
Lumber, sawn, in vessels	667	1,981	123,665
Shingles			13
Square timber		45,605	
Staves and headings, barrel		12	
" pipe		7	
" West India		53	
Total	508,016	93,737	393,748

There was no rebate allowed of the Welland Canal toll on grain passed down to Montreal during the season of navigation in 1893.

The tolls were, however, reduced by Order in Council of 13th February, 1893, as follows:—"For the season of 1893, the canal toll for the passage of the following food products: wheat, Indian corn, pease, barley, rye, oats, flaxseed and buckwheat, for passage eastward through the Welland Canal be ten cents per ton; and for passage eastward through the St. Lawrence Canals only, ten cents per ton, payment of the said toll of ten cents a ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canal."

3-4 EDWARD VII., A. 1904

U.—COMPARATIVE STATEMENT of the Quantity of Through Freight passed down the Welland Canal, &c. *Continued.*

Articles.	Quantity passed	Quantity passed	
	down to Montreal.	down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1894.	Tons.	Tons.	Tons.
Apples.....	50		
Ashes.....	19		
Barley.....	258		28,095
Bricks.....		552	
Coal.....		13,818	727
Corn.....	60,661	3,243	105,329
Dye woods and dye stuffs.....		4	2
Fish.....			5
Flour.....	16,503	41	16,880
Furniture.....	2	3	
Horses.....	1	2	4
Iron, pig.....	195	2,170	
" all other.....	1	183	
Meals.....	4		60,390
Nails.....			57
Oats.....	175	107	27,621
Oil cake.....	29		
" in barrels.....		27	
Pork.....	717		56
Salt.....		133	
Spirits, beer, &c.....		3	
Sugar.....			52
Wheat.....	212,557	13,349	42,934
White lead.....	16		
Wool.....			1,484
Merchandise not enumerated.....	314		2,889
Barrels, empty.....		16	
Sawn lumber, in vessels.....	683		86,545
Square timber.....		47,030	
Woodenware.....	6		
Total.....	292,191	80,681	373,070

There was no rebate allowed of the Welland Canal toll on grain passed down to Montreal during the season of navigation in 1894.

The tolls were, however, reduced by Order in Council of 16th April, 1894, as follows:—For the season of 1894, the canal tolls for the passage of the following food products: wheat, Indian corn, pease, barley, rye, oats, flaxseed and buckwheat, for passage eastward through the Welland Canal be ten cents per ton; and for passage eastward through the St. Lawrence Canals only, ten cents per ton, payment of the said toll of ten cents a ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals.

## SESSIONAL PAPER No. 20

U.—COMPARATIVE STATEMENT of the Quantity of Through 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.
1895.	Tons.	Tons.	Tons.
Apples.....	28		
Ashes.....	34	15	
Barley.....	959		7,730
Bricks.....		651	
Coal.....		7,809	603
Corn.....	70,235	2,912	91,743
Flour.....	30,916	1,824	10,265
Furniture.....		12	2
Glass.....		1	
Horses.....	1	1	
Hides, skins, &c.....			8
Iron, railway.....			181
" pig.....	79	1,994	
" all other.....	1,766	1,408	214
Lard and lard oil.....			6
Meal, all kinds.....	65		46,316
Meats other than pork.....			30
Molasses.....	100		
Oats.....	1,654	123	16,442
Oil, in barrels.....	6	41	30
Pork.....			87
Paint.....	2		
Salt.....		36	
Stone, for cutting.....		430	
Seeds, all kinds.....			14
Steel.....	394		462
Sugar.....			59
Spirits, beer, &c.....	101	84	15
Tobacco.....		16	
Wheat.....	7158,643	29,061	17,908
Wool.....			1,536
Merchandise not enumerated.....	558	1,302	7,656
Barrels, empty.....	1		
Sawn lumber, in vessels.....	1,117	492	43,286
Railway ties.....			1,942
Shingles.....		19	
Square timber, in vessels.....		63,715	500
Total.....	266,659	111,946	247,035

\* Of this amount 3,469 tons came down to Kingston in 1894, were stored there and taken to Montreal in 1895; and 245 tons came down to Ogdensburg in 1894, stored there, and transhipped to Montreal in 1895.

3-4 EDWARD VII., A. 1904

U.—COMPARATIVE STATEMENT of the Quantity of Through 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.
1896.	Tons.	Tons.	Tons.
All other (vegetable).....	29		
Apples.....	41,263		
Ashes.....	94		
Barley.....	240		11,128
Cement and water lime.....	12		
Coal.....		11,742	1,255
Corn.....	182,530	19,688	118,426
Crockery.....	5		
Fish.....		2	
Flour.....	11,964	13,846	16,224
Furniture.....		3	
Glass.....	9	3	
Hay, pressed.....		563	
Hides, skins, &c.....			41
Horses.....	1	1	3
Iron, railway.....		1,192	
" pig.....	5	1,559	
" all other.....	2,020	1,725	
Lard and lard oil.....			1,348
Meal, all kinds.....		500	46,456
Molasses.....	167		
Oats.....	12,373	1,454	14,351
Oil, in barrels.....	23		1,005
Pease.....	3,020	10	
Pork.....	1		390
Rags.....	4		
Rye.....	8,323	647	
Salt.....		80	
Seeds, all kinds.....	20		78
Steel.....	542	11,317	498
Sugar.....	1		165
Tobacco.....		1	
Wheat.....	*254,763	51,587	16,467
Wool.....		8	900
Merchandise not enumerated.....	376	54	3,990
Barrels, empty.....			10
Firewood, in vessels.....			165
Sawn lumber.....	657	1,286	78,397
Shingles.....		94	40
Square timber, in vessels.....		55,588	
" rafts.....	1,200		
Woodenware.....			12
Total.....	479,442	172,950	311,349

\* 523 tons of this quantity of apples paid full tolls by sections on the Welland Canal, and consequently does not appear on the Welland Through Statement.

† Of this amount 5,290 tons came down to Kingston in 1895, were stored there and transhipped to Montreal in 1896.



## SESSIONAL PAPER No. 20

U.—COMPARATIVE STATEMENT of the Quantity of Through 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.	Tons.
Agricultural products, vegetable.....				32
Ashes.....	133			
Barley.....				14,173
Bricks.....			739	845
Clay, lime and sand.....	38		430	
Coal.....			9,803	
Corn.....	*264,396		11,163	115,689
Flaxseed.....	3,293		169	
Flour.....	1,029		211	7,237
Furniture.....	1		5	
Glass.....	53		9	
Hay, pressed.....				301
Horses.....	1		1	3
Hides and skins, &c.....				23
Iron, railway.....			6,241	965
" pig.....			2,828	
" all other.....	7,564		6,143	
Lard and lard oil.....				1,444
Meal, all kinds.....			699	41,644
Molasses.....	9			
Oats.....	*6,847		3,046	15,233
Oil, in barrels.....	112		51	198
Pease.....	*2,078		3	
Pork.....				243
Rye.....	8,435		48	
Salt.....	216			
Stone for cutting.....			330	
Seeds, all kinds.....				299
Steel.....	375		4,680	
Sugar.....				31
Spirits, beer, &c.....	46			
Tobacco.....	51			
Wheat.....	*278,498		†39,057	12,661
Wool.....				197
Merchandise not enumerated.....	1,214		347	3,591
Firewood, in vessels.....			12	
Hoops.....	257		8	
Lumber, sawn, in vessels.....	478		1,158	69,719
Masts.....				403
"    "    rafts.....				5
Railway ties, in vessels.....			999	
Split posts.....			4	
Timber, square.....	1,297		81,117	1,040
Staves and headings, salt barrel.....	4,716			
Woodenware.....				1
Total.....	581,047		169,246	285,963

\* Of this quantity of corn 573 tons came down to Ogdensburg and Prescott in 1896, were stored there and transhipped to Montreal in 1897.

† Of this quantity of oats 59 tons came down to Prescott in 1896 and passed down to Montreal in 1897, and 170 tons passed through on St. Catharines Reports; 136 tons of which passed down to Montreal.

‡ Of this quantity of pease 230 tons were transhipped and passed through on St. Catharines Reports.

§ Of this quantity of wheat 624 tons were transhipped and passed through on St. Catharines Reports, and 7,072 tons came down to Kingston and Prescott in 1896 and passed down to Montreal in 1897.

¶ Of this quantity, 1,079 tons were transhipped and passed through on St. Catharines Reports.

3-4 EDWARD VII., A. 1904

U.—COMPARATIVE STATEMENT of the Quantity of Through 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.
1898.			
Agricultural products, vegetable.....	56		
Ashes.....	73		
Barley.....	3,966	1,417	6,969
Cement and water-lime.....			366
Clay, lime and sand.....	52	1	
Coal.....		4,536	759
Corn.....	*310,498	13,338	116,317
Flaxseed.....	5,687	9	
Flour.....	653		4,212
Furniture.....			2
Glass.....	75		
Horses.....	4		
Iron, railway.....		674	770
" pig.....		4,187	
" all other.....	6,217	257	324
" ore.....		13,433	
Lard and lard oil.....			3,671
Meal, all kinds.....			22,626
Molasses.....	56		
Oats.....	3,975	625	12,729
Oil, in barrels.....	1,141	15	119
Paint.....			3
Pease.....	260		45
Pork.....			1,271
Rye.....	*16,133	39	
Salt.....	141	644	
Seeds, all kinds.....			44
Spirits, beer, &c.....	4		34
Steel.....	1,351	3,122	2,951
Stone for cutting.....		551	
Tallow.....			359
Wheat.....	*184,706	15,860	8,612
Wool.....			89
Merchandise, not enumerated.....	866	25	3,828
Firewood, in vessels.....		747	
Lumber, sawn, in vessels.....	3,065	2,840	72,897
Railway ties.....		190	
Shingles.....		11	
Square timber.....	329	48,369	
Total.....	539,305	119,893	258,571

\* Of this quantity of corn 2,340 tons, came down to Ogdensburg and Prescott in 1897, were stored there, and transhipped to Montreal in 1898.

\* Of this quantity of rye 45 tons came down to Prescott in 1897, were stored there, and transhipped to Montreal in 1898.

\* Of this quantity of wheat 4,165 tons came down to Kingston in 1897, were stored there, and transhipped to Montreal in 1898.

## SESSIONAL PAPER No. 20

U.—COMPARATIVE STATEMENT of the Quantity of Through 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.
1899.	Tons.	Tons.	Tons.
Agricultural products, vegetable .....	32		
Ashes .....	58		
Barley .....	596		1,828
Clay, lime and sand .....	15		
Coal .....		8,276	2,293
Corn .....	*150,999	16,594	43,854
Flax seed .....	200		
Flour .....	4,229	1,889	4,404
Furniture .....		2	7
Glass .....	16		
Horses .....	1		
Iron ore .....		26,125	
" all other .....	5,063		294
Lard and lard oil .....		3	864
Meal, all kinds .....			18,198
Molasses .....	159		8
Nails .....	1	1	11
Oats .....	*10,250	1	13,139
Oil, in barrels .....	7,143	2	254
Paint .....			2
Pork .....			343
Rags .....			1
Rye .....	923		
Salt .....	183	479	549
Seeds, all kinds .....			11
Spirits, beer, &c. ....	74	71	168
Steel .....	3,000	1,562	11,802
Stone for cutting .....		429	
Tallow .....			201
Tobacco .....	96		
Wheat .....	*169,978	23,602	9,190
Wool .....			130
Merchandise, not enumerated .....	518	126	6,219
Barrels, empty .....	1		
Fire-wood, in vessels .....		27	
Hop poles .....		100	
Lumber, sawn, in vessels .....	924	4,583	57,695
Masts and spars .....		3	
Railway ties .....		74	1,273
Shingles .....		50	
Square timber, in vessels .....	26	24,959	
Total .....	354,485	108,958	172,738

\* Of this quantity of corn 7,443 tons came down to Ogdeensburg and Prescott in 1898, were stored there, and transhipped to Montreal in 1899.

\* Of this quantity of oats 187 tons passed down on Dannyville pass to Montreal.

\* Of this quantity of wheat 6,447 tons passed down to Kingston in 1898, were stored there, and transhipped to Montreal in 1899.

3-4 EDWARD VII., A. 1904

U.—COMPARATIVE STATEMENT of the Quantity of Through 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.
1900.	Tons.	Tons.	Tons.
Agricultural products, vegetable .....		1	6
Ashes.....	25	15	
Barley.....	1,288	563	1,598
Cement and water-lime.....			18
Clay, lime and sand .....	15		
Coal.....		1,360	992
Corn.....	*109,359	9,844	44,306
Flour.....	1,595	990	6,371
Furniture.....	1		
Glass, all kinds.....	6	4	
Horses.....			4
Iron, pig.....	508	1,284	
" all other.....	4,292	1,044	714
" ore.....		58,400	
Lard and lard oil.....			1,588
Meal (all kinds).....			14,244
Molasses.....		21	57
Oats.....	*8,925	348	30,840
Oil, in barrels.....	15,647	4,288	17
Oil-cake.....			2,705
Paint.....		2	36
Pease.....	115		4
Pitch and tar.....		24	
Pork.....			117
Rye.....	3,078	160	300
Salt.....		467	
Soda ash.....		15	
Steel.....	5,420		2,601
Sugar.....			154
Tallow.....			631
Wheat.....	121,896	6,610	7,541
White lead.....	16		
Merchandise not enumerated.....	103	154	7,899
Barrels, empty.....	182	407	5
Fire-wood, in vessels.....		1,143	
Lumber, sawn, in vessels.....	15,760	5,701	55,128
Shingles.....		90	
Square timber, in vessels.....		26,267	
Staves.....		3	
Total.....	288,231	113,205	177,876

\*Of this quantity of corn 751 tons came to Ogdensburg, Kingston and Prescott in 1899, were stored there, and transhipped to Montreal in 1900.

\*Of this quantity of oats 585 tons came down to Ogdensburg, Kingston and Prescott in 1899, were stored there, and transhipped to Montreal in 1900.

\*Of this quantity of wheat 10,835 tons came down to Ogdensburg, Kingston and Prescott in 1900, were stored there, and transhipped to Montreal in 1900.

## SESSIONAL PAPER No. 20

U.—COMPARATIVE STATEMENT of the Quantity of Through 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.	
1901.	Tons.	Tons.	Tons.	Tons.
Agricultural implements.....	1,785			
" products, vegetable.....				10
Ashes.....	3			
Barley.....				7,119
Coal.....		2,322		357
Corn.....	14,319	4,828		48,609
Flaxseed.....	4,965	2		
Flour.....	1,400	218		15,768
Furniture.....	5			
Glass (all kinds).....	1			
Hay, pressed.....	246			
Iron, pig.....		1,790		
" all other.....	1,178	589		
" ore.....		98,452		
Lard and lard oil.....	1,155	827		525
Meal (all kinds).....	35			13,981
Meats.....	114	7		
Molasses.....		17		
Oats.....	1,584	853		25,704
Oil (in barrels).....	14,987	2,971		22
Oil-cake.....	1,083	113		219
Paint.....	17	6		
Pitch and tar.....		17		
Pork.....	34	970		10
Rye.....	2,961			
Salt.....	50	165		105
Soda ash.....	4			
Spirits, &c.....	32			
Sugar.....	112			448
Tallow.....				119
Tabacco, raw.....	23			
Wheat.....	132,702	8,051		9,057
Wool.....				3
Merchandise not enumerated.....	2,420	1,395		966
Barrels, empty.....	66			216
Firewood, in vessels.....		1,287		
Lumber, sawn, in vessels.....	2,635	3,412		51,931
Mast spars, &c.....		13		
Shingles.....		18		
Square timber, in vessels.....	504	14,023		
Total.....	184,420	142,346		175,169

\* Of this quantity 9,324 tons came to Ogdensburg in 1900, were stored there, and transhipped to Montreal in 1901.

3-4 EDWARD VII. A. 1904

U.—COMPARATIVE STATEMENT of the Quantity of Through Freight passed down the Welland Canal, &c,—*Continued.*

Articles.	Quantity	Quantity passed	Quantity
	passed down to Montreal.	down to Canadian Ports between Port Dalhousie and Cornwall.	passed down to United States Ports.
1902.	Tons.	Tons.	Tons.
Agricultural implements.....	13		399
Barley.....			7,418
Coal.....	15,976		35,562
Corn.....	1,719	10,335	55,593
Fish.....		1	
Flour.....	6,755	5,697	7,630
Furniture.....			17
Iron, railway.....	50		
"    all other.....	5,785		220
"    ore.....		3,492	18,988
Lard and lard-oil.....			2,413
Meal, all kinds.....			12,675
Molasses.....	54	18	
Oats.....	1,442		9,764
Oil (in barrels).....	12,091	131	1,594
Oil cake.....			110
Paint.....		20	
Pitch and tar.....		33	
Pork.....			632
Rye.....	4,079		
Seeds, all kinds.....			10
Sugar.....			280
Wheat.....	* 200,975	12,452	8,389
Wool.....			752
Merchandise not enumerated.....	419	172	1,928
Barrels (empty).....	5	15	● 4
Firewood, in vessels.....		288	
Lumber, sawn, in vessels.....	1,085	2,178	97,300
Saw logs.....		28	
Square timber, in vessels.....		20,838	
Staves (barrel).....		35	
Woodenware.....	17		
Total.....	250,475	55,733	261,078

\* Of this quantity 6,096 tons were transhipped to Montreal being grain of 1901.

SESSIONAL PAPER No. 20

U.—STATEMENT showing the Quantity of Through Freight passed down the Welland Canal to Canadian Ports, &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.
1891.	Tons.	Tons.	Tons.
Barley.....			8,113
Corn.....	52,539	5,144	127,494
Oats.....			52,823
Pease.....	390		
Rye.....	64,978	969	
Wheat.....	15,4785	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
Total.....	309,593	54,315	299,392
1892.			
Barley.....			6,433
Corn.....	53,689	7,637	131,222
Oats.....			36,935
Pease.....	524		
Rye.....	9,119	273	
Wheat.....	194,281	5,373	26,950
Total grain.....	257,613	13,283	201,540
Quantity taken to Ogdensburg and transhipped to Montreal.....	74,341	4,341	
Total.....	261,954	8,942	201,540
Other articles.....	5,531	69,944	128,863
Total.....	267,485	69,886	230,403
1893.			
Barley.....	600	1,110	16,751
Corn.....	278,564	5,752	156,776
Oats.....	9,761	1,090	20,313
Pease.....			
Rye.....	3,669	1	1
Wheat.....	209,212	17,602	29,117
Total grain.....	501,806	25,555	222,958
Other articles.....	6,210	68,182	170,790
Total.....	508,016	93,737	393,748
1894.			
Barley.....	258		28,695
Corn.....	60,661	3,243	105,329
Oats.....	175	107	27,621
Pease.....			
Rye.....			
Wheat.....	212,557	13,349	42,934
Total grain.....	273,651	16,699	203,979
Other articles.....	18,540	63,982	169,091
Total.....	292,191	80,681	373,070

\* This quantity of wheat was taken from Kingston to Ogdensburg and stored in elevators and subsequently transhipped to Montreal.

3-4 EDWARD VII, A. 1904

U.—STATEMENT showing the Quantity of Through Freight passed down the Welland Canal to Canadian Ports, &c.—*Continued.*

RECAPITULATION—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports on the south side of Lake Ontario.
1895.	Tons.	Tons.	Tons.
Barley .....	959		7,730
Corn .....	70,265	2,912	91,743
Oats .....	1,654	123	16,442
Rye .....			
Wheat .....	†158,643	29,061	17,908
Total grain .....	231,491	32,196	133,823
Other articles .....	35,168	79,850	113,212
Total .....	266,659	111,946	247,035
1896.			
Barley .....	240		11,128
Corn .....	182,330	19,688	118,426
Oats .....	12,373	1,454	14,351
Pease .....	3,020	10	
Rye .....	8,323	647	
Wheat .....	254,763	51,587	16,467
Total grain .....	†461,049	73,386	160,372
Other articles .....	18,393	99,564	159,977
Total .....	749,442	172,950	311,349
1897.			
Barley .....			14,173
Corn .....	264,396	11,103	115,689
Oats .....	6,847	3,046	15,233
Pease .....	2,078	3	
Rye .....	8,435	48	
Wheat .....	278,498	39,057	12,661
Total grain .....	*560,254	53,257	157,756
Other articles .....	20,793	144,989	122,267
Total .....	581,047	166,246	285,963
1898.			
Barley .....	3,960	1,417	6,909
Corn .....	310,498	13,338	116,317
Oats .....	3,975	625	12,729
Pease .....	260		45
Rye .....	16,133	39	
Wheat .....	184,706	15,860	8,612
Total grain .....	**519,532	31,279	144,612
Other articles .....	19,773	79,614	114,259
Total .....	539,305	110,893	258,871

+ Of this amount, 3,469 tons came down to Kingston in 1894, was stored there, and taken to Montreal in 1895, and 245 tons came down to Ogdensburg in 1894, was stored there, and transhipped to Montreal in 1895.

† Of this amount, 5,299 tons came down to Kingston in 1895, was stored there, and transhipped to Montreal in 1896.

\* Of this quantity, 7,695 tons came down in 1896 and were transhipped to Montreal in 1897.

\*\* Of this quantity, 6,550 tons came down in 1897 and were transhipped to Montreal in 1898.



## SESSIONAL PAPER No. 20

U.—STATEMENT showing the quantity of Through Freight passed down the Welland Canal to Canadian Ports, &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.
1899.	Tons.	Tons.	Tons.
Barley.....	596		1,828
Corn.....	150,999	16,794	43,854
Oats.....	10,250	1	13,139
Pease.....			
Rye.....	923		
Wheat.....	169,978	24,602	9,190
Total grain.....	332,746	40,197	68,011
Other articles.....	21,739	68,761	104,727
Total.....	354,485	108,958	172,732
1900.			
Barley.....	1,288	563	1,598
Corn.....	109,359	9,844	44,306
Oats.....	8,925	348	30,840
Pease.....	115		4
Rye.....	3,078	160	300
Wheat.....	121,896	6,610	7,541
Total grain.....	241,661	17,525	84,589
Other articles.....	43,570	95,680	93,287
Total.....	288,231	113,205	177,876
1901.			
Barley.....			
Corn.....	14,319	4,828	48,609
Oats.....	1,584	853	25,704
Pease.....			
Rye.....	2,961		
Wheat.....	132,702	8,051	9,057
Total grain.....	151,566	13,732	83,370
Other articles.....	32,854	128,614	91,799
Total.....	184,420	142,346	175,169
1902.			
Barley.....			7,418
Corn.....	1,719	10,335	55,593
Oats.....	1,442		9,764
Pease.....			
Rye.....	4,079		
Wheat.....	200,975	12,452	8,389
Total grain.....	208,215	22,787	81,164
Other articles.....	42,260	32,946	179,914
Total.....	250,475	55,733	261,078

\* Of this quantity, 14,077 tons came down in 1898 and were transhipped to Montreal in 1899.

\*\* Of this quantity, 12,171 tons came down in 1899 and were transhipped to Montreal in 1900.

† Of this quantity, 9,324 tons came down in 1900 and were transhipped to Montreal in 1901.

‡ Of this quantity, 6,096 tons came down in 1901 and were transhipped in 1902.



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St. Peter's Canal, 1901.....	1,527			5	2,518			4,994	16,391	25,435
" 1902.....	1,473			13	2,135			4,787	13,671	22,079
Increase.....				8	383			207	2,720	3,356
Decrease.....	54									
Trent Valley Canals, 1901.....		544						3	2,300	3,159
" 1902.....		1,661					22	6	5,504	7,171
Increase.....		1,117						3	2,914	4,012
Decrease.....							22			
Murray Canal, 1901.....	5	911		688	19	868	3	719	296	3,512
" 1902.....	154	684		1,328	159	1,161		712	1,180	5,419
Increase.....	149			640	140	296		23	884	1,907
Decrease.....		230					3			
Sault Ste. Marie Canal, 1901.....	137,407	289,186		1,759	12,643	3,374		216	20,990	194,843
" 1902.....	316,063	837,375		21,001	9,689	2,128		15,988	81,822	1,281,636
Increase.....	178,656	548,189		19,242	3,001	1,246		13,772	60,832	789,833
Decrease.....										
Total increase.....	191,043	707,934		10,438	26,463	6,139	10	10,945	83,211	870,292
Total decrease.....										
Total for year 1900.....										1,811,179
" 1901.....										2,681,381

RICHARD DEVLIN,  
*Compiler of Canal Statistics.*

DEPARTMENT OF RAILWAYS AND CANALS,  
 OTTAWA, August 12, 1903.

3-4 EDWARD VII., A. 1904

## CANAL

## COMPARATIVE STATEMENT for years

	January	February.	March.	April.	May.
	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.
Welland Canal, 1901 .....				2,284 72	9,436 33
" " 1902 .....				4,160 24	15,558 65
Increase.....				1,875 52	
Decrease.....					6,122 32
St. Lawrence Canals, 1901 .....				358 76	17,143 03
" " 1902.....	12 50			594 89	12,224 01
Increase.....	12 50			236 13	
Decrease.....					4,919 02
Chambly Canal, 1901.....				5 95	3,505 72
" " 1902.....				33 29	3,516 26
Increase.....				27 34	10 54
Decrease.....					
Ottawa Canals, 1901.....				125 72	4,714 82
" " 1902.....				132 40	4,941 76
Increase.....				6 68	226 94
Decrease.....					
Rideau Canal, 1901 .....				34 75	441 68
" " 1902.....				47 64	693 53
Increase .....				12 89	251 85
Decrease.....					
St. Peter's Canal, 1901.....	7 40			69 08	355 89
" " 1902.....	40 56		2 55	222 56	336 41
Increase.....	33 16		2 55	153 48	
Decrease.....					19 48
Trent Valley Canals, 1901.....		0 25		1 20	35 57
" " 1901.....				27 58	72 43
Increase.....				26 38	36 86
Decrease.....		0 25			
Murray Canal, 1901.....				9 33	109 08
" " 1902.....				46 01	89 10
Increase.....				36 68	
Decrease.....					19 98
Sault St. Marie, Canal, 1901.....					
" " 1902.....					
Increase.....					
Decrease.....					
Total, increase .....	45 66		2 55	2,375 10	1,690 03
Total, decrease.....		0 25			

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REVENUE.

ended December 31, 1901-1902.

June.	July.	August.	September.	October.	November.	December.	Total.
\$ cts. 11,808 51 12,183 06	\$ cts. 13,249 12 15,152 28	\$ cts. 12,889 17 13,341 38	\$ cts. 10,828 85 11,364 73	\$ cts. 13,445 91 15,853 37	\$ cts. 11,160 49 9,322 57	\$ cts. 1,836 24 1,905 82	\$ cts. 86,939 34 98,842 10
374 55	1,903 16	452 21	535 88	2,407 46	1,837 92	69 58	11,902 76
17,083 88 8,144 93	18,638 47 9,023 29	17,793 03 10,329 63	12,933 59 10,819 85	12,375 05 8,582 88	7,319 86 11,034 66	18 50 820 38	103,664 17 71,587 92
8,938 95	9,615 18	7,463 40	2,113 74	3,792 17	3,714 80	801 88	32,077 15
3,632 92 2,705 56	5,027 25 2,905 31	4,060 02 3,361 07	2,705 42 3,969 97	3,821 93 3,921 01	2,115 31 2,310 84		24,874 52 22,723 31
927 36	2,121 94	698 65	1,264 55	99 08	195 53		2,151 21
5,075 47 3,538 87	3,493 15 4,068 87	3,764 92 3,809 81	3,007 78 3,957 62	3,144 14 2,663 02	2,336 44 1,750 02		25,662 44 24,862 37
1,536 60	575 72	44 89	949 84	481 12	586 42		800 97
489 86 621 16	753 85 738 07	1,131 84 585 14	658 23 385 89	472 06 509 21	376 67 456 47		4,360 94 4,037 71
131 30	17 18	546 70	272 34	37 15	79 80		323 23
376 11 354 54	449 37 451 35	569 25 444 98	485 55 393 95	437 84 338 71	322 97 266 37	225 66 182 16	3,299 12 3,034 14
21 57	1 98	124 27	91 60	99 13	56 60	43 50	264 98
138 43 205 56	247 98 284 68	254 52 289 35	153 80 207 26	161 45 172 39	106 64 196 23	5 00	1,099 84 1,370 48
67 13	36 70	34 83	53 46	10 94		5 00	270 64
					41		
164 17 110 68	189 37 182 59	207 95 202 58	173 12 168 46	138 48 162 64	57 70 101 51	7 23	1,949 29 1,070 80
53 49	6 78	5 37	4 66	24 16	43 81	7 23	21 60
50							50 00
50							50 00
10,854 99	9,243 52	8,396 76	321 39	1,793 63	1,552 59	840 19	23,371 64

Total revenue for 1901 ..... \$250,949 57  
 " " 1902 ..... 227,577 93

RICHARD DEVLIN, *Compiler of Canal Statistics.*

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APPENDIX A.  
 No. (A) I.—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 1902.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.		Amount of Tolls, Down.		Total Amount of Tolls.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		¢ cts.	¢ cts.	¢ cts.	¢ cts.		
																	¢ cts.
Asbes, pot and pearl																	
Apples	15	206							42	206	248		4 26	5 15		9 41	
Agricultural products, not enumerated, vegetables, etc.	4								4		4		0 53			0 53	
Agricultural products, not enumerated, animal	16	13			339				16	425	441		0 70	82 73		83 43	
Agricultural implements...					7,418				198	7,418	7,616		19 87	741 80		741 80	
Barley	198										198		19 87			19 87	
Bricks																	
Bones																	
Brimstone																	
Brickwork	42				784				826		826					121 54	
Cement and water lime	66				105				165		165					46 88	
Clay, lime and sand					12,410				66	51,637	64,014		2,495 03	10,350 60		12,845 63	
Coal					501				67,647		67,647			6,764 70		6,764 70	
Corn					66,111												
Cattle		1,388															
Cotton																	
Cotton (raw)																	
Crockery and earthenware	94								94		94		14 10			14 10	
Dye woods and dye stuffs																	
Fish	15	1			30				45	1	46		6 75	0 20		6 95	
Flax and hemp					630				630		630		91 50			94 50	
Flour		2,800			13,735					22,282	29,282		3,966 15			3,966 15	
Furniture	3				17				4	17	21		0 60	3 40		4 00	
Gypsum																	
Glass (all kinds)	40								40		40		3 64			3 64	
Hay (pressed)																	
Hogs																	
Horses																	
Hides and skins, horns and hoofs					37				37		37		5 55			5 55	
Ice																	
Iron, railway	14	50							14	50	64		2 10	10 00		12 10	

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" pig	1,276	282	181	30	5,713	1,460	6,028	7,488	195 10	1,201 58	1,396 68
" all other		3,492			18,988		22,480	22,480		1,121 00	1,121 00
Kryolite chemical ore and other ore, except iron.											
Lard and lard oil	21			2,113		21	2,413	2,434	3 15	482 60	185 75
Mead, all kinds	8	31		12,675		8	12,706	12,711	0 29	2,635 55	2,635 11
Meats, other than pork											
Marble	1		1,251			1,251		1,251	187 65		187 65
Manna	1		39			40		40	6 00		6 00
Molasses	1					1		76	6 00	14 40	15 00
Nails	716				72	716	72	716	105 97	1,123 58	1,053 97
Oats		1,217	9	10,006		9	11,223	11,223	1 79	1,123 58	1,123 58
Oil (in barrels)	65	8,665		1,594	3,582	65	13,844	13,909	6 08	2,763 90	2,763 90
Oil cake				110			110	110		22 00	22 00
Pease	1					1		1	0 18		0 18
Potatoes	5			632		5	632	637	0 75	126 40	127 15
Pork	14				20	14	20	31	1 97	1 00	5 97
Paint	7				33	7	33	40	1 05	6 60	7 65
Pitch and tar											
Rags	36					36		36	0 68		0 68
Rye					4,079	36	4,079	4,079		407 90	407 90
Flaxseed											
Resin											
Salt											
Stone intended for cutting											
" wrought											
Stone not suitable for cutting, unwrought											
Seeds, all kinds			600	10		600	10	600	60 00	2 00	60 00
Sheep											
Soda ash	20		52			72		72	8 31		8 31
Steel	120					120		120	6 33		6 33
Sugar	204		1,001	280		1,205	280	1,485	161 21	56 00	247 21
Spirits, beer, &c.	154	6				154	6	160	22 71	0 15	22 86
Tobacco (raw)											
Tallow			148			148		448	67 20		67 20
Tin			44			44		44	6 60		6 60
Turpentine	3					3		3	0 15		0 15
Wheat	1,672	150,715		32,639	40,145	1,672	223,499	225,171	31 38	22,356 13	22,387 51
White lead	2					2		2	0 17		0 17
Whiting											
Wood				752			752	752		150 40	150 40
All other goods and merchandise not enumerated.	1,761	42	29,969	1,928	506	28,777	2,806	31,643	4,249 01	513 02	4,762 03
Bark											
Barrels, empty	18	30				18	31	52	97	6 78	7 75
Boat knees											
Floats											
Firewood, in vessels	936	4,275				3,216	5,070	8,286	211 40	236 02	430 42

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No. (A) 1.—GENERAL STATEMENT showing the Quantity of each Article transported on the Welland Canal, &c.—*Continued.*

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.		¢ cts.	¢ cts.		
Firewood, in rafts.....															
Hoops.....															
Top poles.....															
Lumber, sawn, in vessels.....	2,129	1,212	24,494				72,806		2,131	1,212	101,563	118 29	18,250 01	18,368 30	
" " rafts.....															
Masts, spars, and telegraph poles, in vessels.....															
Masts, spars, and telegraph poles, in rafts.....	751									751	751	95 10		95 10	
Railway ties, in vessels.....															
" " rafts.....	490	1,468 85	501						17	2,706	1,989 85	69 80	121 85	191 65	
Saw logs.....															
Staves and headings, barred " pipe.....															
Staves and headings, West India.....															
Staves, salt barrel.....															
Shingles.....															
Split posts and fence rails, in vessels.....															
Split posts and fence rails, in rafts.....	1,300														
Timber, square, in vessels.....															
" " rafts.....	11								19,558	11	20,868 11	30	3,124 21	3,124 21	
Traverses.....															
Woodware and wood partly manufactured.....	2	17					223			225	17	90 00	6 80	96 80	
Total freight-paying tolls.....	8,800	178,605	5,783	25,793	14,816	224,110			66	152,125	59,165	8,529 60	76,593 63	85,123 23	
Articles having paid full tolls on the St. Lawrence Canals, &c.—															
Bricks.....	20		2							22				22	
Brimstone.....										20				20	
Cement and water lime.....	20		158							178				178	



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Clay, lime and sand.....	1						1	1
Crockery and earthenware.....	2						2	
Glass, all kinds.....	60	1,321					1,381	1,381
Hides and skins, &c.....		16					16	16
Iron, railway.....	11,735						11,735	11,735
" pig.....	20	425	112				538	538
" all other.....	1,171	1,733					2,904	2,904
Lard and lard oil.....	11						11	11
Nails.....	1,222	70					1,292	1,292
Oils.....	10	1					11	11
Paint.....	82	15					97	97
Pitch and tar.....	25						27	27
Rugs.....	1						1	1
Salt.....		4					4	4
Seeds.....	26	52					58	58
Soda ash.....	13	188					201	201
Steel.....	11						11	11
Sugar.....	977	337					1,314	1,314
Tin.....	81	425					506	506
Tobacco, raw.....	1						1	1
Turpentine.....	2						2	2
Vegetable products.....	1						1	1
Whiting.....	28	333					61	61
White lead.....	30	7					37	37
Whiskey and all other spirits.....	16	166					182	182
All other goods and merchandise not enumerated.....	127	622					1,049	1,049
Firewood, in vessels.....	3,600						3,600	3,600
Grand total freight.....	28,305	178,605	11,365	25,733	44,928	224,110	81,751	580,633
			66	152,125				665,387
Total tolls on vessels.....							6,453 70	6,453 36
" passengers.....							48 21	61 00
" free goods.....								83,973 45
Total tolls.....							15,031 51	89,569 99
Fines.....								98,601 50
<sup>3</sup> Damages.....								50 00
Harbour dues.....								182 14
Other receipts.....								8 16
Total revenue, exclusive of hydraulic rents.....								898,842 10

<sup>3</sup> Amount of damages, not included in above, \$200.00.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, August 12, 1903.

RICHARD DEVLIN,  
*Compiler of Canal Statistics.*





3-4 EDWARD VII., A. 1904

No. (A) 2.—GENERAL STATEMENT showing the Quantity of each through Article transported on the Welland Canal and the Amount of Tolls collected during the Season of Navigation in 1902—Continued.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, \$		Total Amount of Tolls.		
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		%	cts.		%	cts.
Barrels, empty	3	30				4				3	34	37	0 62	6 78	7 40	
Boat knees																
Flotes																
Firewood, in vessels	936	288	2,280							3,216	288	3,504	214 46	19 20	233 60	
" in rafts																
Hoops																
Hop poles										1,205	100,563	101,768	147 39	18,093 38	18,240 77	
Lumber, sawn, in vessels		1,129	1,205	24,494	72,806											
" in rafts																
Masts, spars and telegraph poles, in vessels																
Masts, spars and telegraph poles, in rafts	437									437		437	70 00		70 00	
Railway ties, in vessels																
" in rafts		28	95							95	28	123	8 64	2 56	11 20	
Saw logs		35									35	35	1 12		1 12	
Staves and headings, barrel " pipe																
" " W-India																
Staves, salt barrel																
Shingles																
Split posts and fence rails, in vessels																
Split posts and fence rails, in rafts																
Timber square, in vessels		1,300									20,838	20,838		3,124 21	3,124 21	
" in rafts																
Traverses																
Woodenware and wood partly manufactured	2	17			223					225	17	242	90 00	6 80	96 80	
Total freight paying tolls.	5,022	167,682	3,628	24,494	44,807	224,110	65	151,000	53,522	567,286	620,808	8,375 95	75,805 05		84,181 00	



## APPENDIX A.

No. (A) 3.—GENERAL STATEMENT showing the Quantity of each Article of Way Freight transported on the Welland Canal, &amp;c.—Continued.

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.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Ashes, pot and pearl.												
Apples.	15	206	27						12	206	248	1 26 5 15
Agricultural products not enumerated, vegetables.	1								1		1	0 53
Agricultural products not enumerated, animal												
Agricultural implements.	13	13							13	13	26	0 25 0 33
Barley.	75								75		75	1 12
Bricks.												
Bones.												
Brimsone.												
Buckwheat.												
Cent and water lime.	42								12		12	3 94
Clay, lime and sand.	60								60	400	460	1 13 30 00
Coal.									1		1	0 03
Corn.												
Cattle.												
Cotton (raw).												
Crockery and earthenware.												
Dye wood and dye stuffs.												
Fish.												
Flax and Hemp.												
Flour.												
Furniture.		2,800.										
Gypsum.												
Glass (all kinds).	18								18	0 31	18	0 34
Hay (pressed).												
Hogs.												
Horses.												
Hides and skins, horns and hoofs.												
									2,800		2,800	69 75

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Ice.....									
Iron, railway pig.....	188	23		18	33	211	1.30	0.58	4.88
" all other.....									
Iron ore.....									
Kryolite-chemical ore and other ore, except iron, lead and lead ore.....	7	31		7	31	38	0.11	0.85	0.99
Lead and lead ore.....									
Meats, other than pork.....									
Marble.....									
Manilla.....									
Molasses.....	11			11		11	0.22		0.22
Nails.....	9	17		9	17	26	1.70	2.98	4.68
Oars.....	28	28		28	28	56	0.53	0.70	1.23
Gal (in barrels).....									
Oil cake.....									
Pease.....									
Potatoes.....	1			1		1	0.18		0.18
Pork.....									
Paint.....	1			1		1	0.02		0.02
Pitch and tar.....									
Rags.....	36			36		36	0.68		0.68
Rye.....									
Flax seed.....									
Rosin.....									
Salt.....									
Stone, intended for cutting.....									
" wrought.....									
" not suitable for cutting, unwrought.....									
Seeds, all kinds.....									
Sheep.....									
Soda ash.....	19			19		19	0.36		0.36
Steel.....	89			9		89	1.68		1.68
Sugar.....	149			149		149	2.81		2.81
Spirits, beer, &c.....	3	6		3	6	9	0.06	0.15	0.21
Tobacco (raw).....									
Tallow.....									
Tin.....									
Turpentine.....									
White Lead.....	1,672	975		1	1,683	3,355	31.38	171.53	205.91
Whiting.....	1			1		1	0.02		0.02
Wool.....									
All other goods and merchandise not enumerated.....	516	347		516	347	863	9.86	9.22	19.08
Barrels empty.....									
Boat keels.....	15			15		15	0.35		0.35

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No. (A) 3 GENERAL STATEMENT showing the Quantity of Way Freight transported on the Welland Canal, &amp;c.—Continued

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls Up.	Amount of Tolls Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Floats														
Fire wood, in vessels		3,987									4,782		216 82	216 82
" rafts				795										
Hoops														
Hop poles														
Lumber, sawn, in vessels	7	1,000							7	1,000		0 90	156 63	157 53
" rafts														
Masts, spars and telegraph poles in vessels														
Masts, spars and telegraph poles in rafts														
Railway ties in vessels				314						314		25 10		25 10
Railway ties in rafts														
Saw logs	490	1,440	2,121	504			17		2,611	1,961	4,572	61 16	119 29	180 45
Staves and headings, barrel		50								50			1 60	1 60
Staves and headings, pipe														
Staves and headings, West														
India														
Staves, salt barrel														
Shingles														
Split posts and fence rails, in vessels														
Split posts and fence rails, in rafts														
Timber, square, in vessels														
Timber, square, in rafts	11								11			0 30		0 30
Traverses														
Woodenware and wood partly manufactured														
Total freight paying tolls	3,480	10,923	2,462	1,299			1	1,125	5,943	13,347	19,290	153 65	788 58	942 23



Total way tolls on vessels.....	168 44	162 70	331 14
" " passengers.....	0 46	0 15	0 61
Total way tolls.....	322 55	951 43	1,273 98

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, August 12, 1903.

RICHARD DEVLIN,  
*Compiler of Canal Statistics.*

3-4 EDWARD VII., A. 1904

## APPENDIX A.—Continued.

No. (A) 4.—GENERAL STATEMENT showing the Quantity of each Article transported on the St. Lawrence Canals and the Amount of Revenue collected during the Season of Navigation in 1902.

ARTICLES.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.		Amount of Tolls, Down.		Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		% cts.	% cts.	% cts.	% cts.	
Ashes, pot and pearl.....	6	12							6	12	18	1 20	2 40	3 60		
Apples.....	46	5,215						299	40	5,424	5,464	4 00	786 16	790 16		
Agricultural products not enumerated, vegetables.....	341	1,973						43	344	2,016	2,360	49 46	300 93	350 39		
Agricultural products not enumerated, animal.....	1,363	2,734						58	1,438	2,792	4,230	71 39	353 22	424 61		
Agricultural implements.....	109	19					75		109	19	128	14 71	1 10	15 81		
Barley.....	161	8,094							161	8,094	8,255	4 03	783 60	787 63		
Berries.....	7,995	536					515		8,532	536	9,068	445 15	22 70	467 85		
Bones.....	18	20							18	20	38	68	1 62	2 30		
Brinstone.....	780								783		783	81 16		81 16		
Buckwheat.....	11	909							11	909	920	13	85 09	85 22		
Cement and water lime.....	3,167	2,234	289				587		4,043	2,234	6,277	426 95	283 32	712 27		
Clay, lime and sand.....	12,927	29,883					2,634	501	15,561	30,384	43,945	704 58	1,332 47	2,037 05		
Coal.....	12,932	12,932			117				117	13,049	13,337	16 32	351 20	367 52		
Corn.....	111	12,657						569	41	355	306	1 85	25 75	27 60		
Cattle.....	41	353							41	353	3		43	45		
Cotton (raw).....	3								64	138	202	11 51	27 60	39 11		
Crockery and earthenware.....	61	138							27	3 11	49	3 11	4 40	7 51		
Dye, wood and dye-stuffs.....	20	22					7		27	22	128	9 38		9 81		
Fish.....	120	8							120	8	128			12		
Flax and hemp.....	5								5		5			5		
Flour.....	1,081	14,763						1,081	1,081	14,763	15,844	68 46	1,037 27	1,125 73		
Furniture.....	488	901						488	488	901	1,389	89 88	163 49	253 37		
Gypsum.....	826	5							826	5	831	10 55	38	49 93		
Glass (all kinds).....	939	186	1,366						2,305	186	2,491	458 53	35 39	493 92		
Hay (pressed).....	986	1,062							995	1,062	2,057	37 53	58 72	96 25		
Hogs.....	4	8							4	8	12	16	61	77		
Horses.....	267	450	2						269	450	719	17 69	32 47	50 16		

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	50	96	16				66	96	102	6 68	6 18	12 86
Hides and skins, horns and hoofs,												
Iron,	12,259	271					12,259	286	12,545	1,805 50	33 05	1,838 55
Iron, railway,	2,246	2	426				2,479	2	2,681	298 17	12	298 29
" pig	28,356	1,857	2,097				31,053	1,882	32,935	2,337 57	183 36	2,520 93
" all other												
Iron ore												
Kyanite, chemical ore, and other ores, except iron,												
Lard and lard oil,	104	178		274			274	178	452	13 70	8 90	22 60
Lead, all kinds,	77	173					104	173	277	13 43	22 33	35 76
Meats, other than pork	31	565					77	535	612	8 40	15 01	53 44
Marble	31	40					31	40	71	3 75	5 71	9 46
Manna	2						2		1	38		38
Molasses,	432	152					432	152	581	65 35	7 70	73 05
Nails	3,035	579	104				3,139	579	3,718	501 30	39 00	540 30
Oats,	337	21,061					337	21,061	21,398	8 88	1,171 13	1,180 01
Oil (in barrels)	1,047	846	11				1,101	846	1,947	179 02	141 45	329 47
Oil cake,	3	5,903					3	5,903	5,906	35	294 98	295 33
Pease	4	1,777	4				1,777	1,781	1,992	29	173 18	173 47
Potatoes,	25	34					25	34	59	1 91	2 46	1 37
Pork	138	807					138	807	945	13 95	51 02	61 99
Paint	730	323	10				730	323	1,113	132 27	43 90	196 17
Pitch and tar	390	46		190			580	46	626	85 51	6 05	91 56
Rags	143	172		146			339	173	512	11 55	32 50	77 05
Rye	15,659	11,606					15,659	11,606	15,659		699 53	699 53
Flax seed	190	12		1,730			1,920	12	1,932	97 66	60	98 26
Rush	3,876	151	4	168			4,044	151	4,202	136 88	6 20	413 08
Salt	110	31					140	31	259	16 64	6 30	17 98
Stone intended for cutting,	228						228					242 81
" wrought,												
" not suitable for cut												
ging, unwrought												
Stocks, all kinds	7,470	719	84				7,540	719	803	4 37	21 00	28 37
Sheep	1	110	70				181	110	7,950	377 59	22 87	400 46
Soda ash,	723	4	571				1,294	4	91	6 69	6 59	6 75
Steel	1,272	51					1,323	51	998	198 59	80	199 39
Sugar	5,303	149	354				5,657	149	5,753	1,007 91	7 80	173 76
Spirits, beer, &c	707	397	181				1,294	351	1,239	145 09	55 61	1,075 74
Straw (raw)	23						23		23	2 22		2 22
Tallow	19	5					19	5	21	2 83	51	3 39
Tin	1,390	27	481				2,111	27	2,138	476 19	5 10	481 39
Turpentine,	23						118		118	7 70	7 70	7 70
Wheat	121	289,711		125			121	212,845	243,286	11 90	6,925 29	6,937 19
White lead	226	1					231	1	228	16 45	20	16 35
Whiting	161						531		531	106 63		106 63
Wool	23						23		23	3 45		3 45
All other goods and merch												
andise not enumerated												
Bank	10,267	6,435	1,008	801	368		12,410	7,245	19,653	1,910 51	1,631 06	2,941 60
					336							

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No. (A) 4.—GENERAL STATEMENT showing the Quantity of each Article transported on the St. Lawrence Canals, &c.—*Continued.*

ARTICLES.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Barrels, empty	617	59							617	59	676	\$ 54 90	\$ 5 30	\$ 60 20
Boat knees														
Boats	80								80		80	1 40		1 40
Pine wood, in vessels	36,312	4,263			90				36,477	4,263	40,740	2,199 15	75 51	2,274 66
" rafts														
Hoops														
Hop poles														
Lumber sawn, in vessels	21,396	4,608			44	5	15		21,430	4,788	26,238	506 21	169 45	675 66
" rafts		183								183	183		8 13	8 13
Masts, spars, and telegraph poles, in vessels	7	25							7	25	32	15	32	47
Masts, spars, and telegraph poles, in rafts		24,854								24,854	24,854		621 35	621 35
Railway ties, in vessels	29	626							29	626	655	50	50 00	50 59
" in rafts														
Saw logs	6	381							6	381	387	25	8 48	8 73
Staves and headings, barrel pipe														
" " West India														
Staves, salt barrel														
Shingles														
Split posts and fence rails, in vessels	16	149							16	149	165	2 89	20 36	23 25
" in rafts														
Split posts and fence rails, in rafts	20								20		20	50		50
Timber, square, in vessels	313	80							313	80	393	12 57	1 00	13 57
" rafts	2,060	5,370							2,060	5,370	7,430	51 50	134 25	185 75
Traverses														
Woodware and wood partly manufactured	43	12							43	12	55	13 10	4 80	17 90
Total freight paying tolls	176,441	475,990	160	6,944	486	990	8,323	53,855	192,194	530,995	723,189	16,012 80	30,802 40	46,815 20



3-4 EDWARD VII., A. 1904

## APPENDIX A—Continued.

No. (A) 5. GENERAL STATEMENT showing the Quantity of each Through Article transported on the St. Lawrence Canals, and the Amount of Tolls collected during the Season of Navigation in 1902.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.		Amount of Tolls, Down.		Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		% cts.	% cts.	% cts.	% cts.	
Ashes, pot and pearl.....	6	12							6	12	18	1 20	2 40	3 60		
Apples.....	1	4,960						209	1	5,169	5,176	15	775 35	775 30		
Agricultural products not enumerated, vegetables.....	315	1,957						43	315	2,000	2,315	47 25	209 85	347 10		
Agricultural products not enumerated, animal.....	50	1,814						58	50	1,872	1,922	7 50	280 80	288 30		
Agricultural implements.....																
Barley.....	850	7,693	22					872	7,693	7,693	7,693	130 80	769 30	769 30		
Bees.....	1	1							1	1	1		3 30	134 10		
Bones.....									76		76	11 40	15	15		
Brinestones.....	73		3						76		76			11 40		
Buckwheat.....	830								830		830		83 00	83 00		
Cement and water lime.....	1,679	1,791	289					1,968	1,791	3,759	3,739	205 20	268 05	563 85		
Clay, blue and sand.....	641							501	641	1,142	1,142	87 75	75 15	162 90		
Coal.....	41,030							38,696	79,726	79,726	79,726	11,958 90	11,958 90	11,958 90		
Corn.....	106	27						106	27	133	133	15 90	2 85	18 75		
Cattle.....																
Cotton (raw).....	3								3		3		45	45		
Crockery and earthenware.....	25	138						25	138	163	163	5 00	27 60	32 60		
Dye, wood and dye-stuffs.....	1	22						1	22	26	26	80	4 40	5 20		
Fish.....	27							27		27	27	4 05		4 05		
Flax.....	7								7		7		75	75		
Flour.....	12	3,285						12	3,285	3,297	3,297	1 80	492 75	494 35		
Furniture.....	364	747						364	747	1,111	1,111	72 80	149 40	222 20		
Gypsum.....																
Glass (all kinds).....	818	173	1,366					2,184	173	2,357	2,357	436 80	31 60	471 40		
Hay (pressed).....																
Hogs.....	21	77						21	77	98	98	3 15	11 55	14 70		

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	7	20	16		25	20	43	3 15	3 00	6 15
Hides and skins, horns and hoofs.....										
Ice.....	11,816	157		12	11,816	169	11,985	1,772 10	25 35	1,797 75
Iron, railway.....	882		126		1,308		1,308	196 20		196 20
" pig.....	7,451	897	2,072		9,523	897	10,420	1,428 15	131 55	1,563 00
" all other.....										
Iron ore.....										
Kyrydite chemical ore and other ore, except iron.....	61	178			61	178	178	9 15	8 90	8 90
Lard and lard oil.....	30	192			30	192	231	5 85	26 80	31 65
Meat, all kinds.....	13	36			13	36	49	1 95	5 40	7 35
Meat, other than pork.....										
Maize.....										
Manilla.....	1				1		1	80		80
Molasses.....	1,839	67	101		1,913	67	2,010	388 60	13 10	102 00
Nails.....	538	8,263	44		8,821	631	8,263	116 10	826 30	826 30
Oats.....	1	661			661		1,243	132 20	132 20	248 60
Oil (in barrels).....										
Oil cake.....	1	3			1	3	4	15	35	60
Peanut.....		1,714			1,714		1,711	171 40	171 40	171 40
Potatoes.....	3	3			3	3	3	45	45	45
Pork.....	8	106			8	106	114	1 20	15 90	17 10
Paint.....	609	185	10		619	185	834	129 80	37 00	166 50
Pitch and tar.....	357	25			357	25	382	71 40	5 00	76 40
Rags.....	170	152		1	170	152	325	34 00	30 60	64 60
Rye.....		4,107			4,107		4,107	110 70	110 70	410 70
Flax seed.....										
Rosin.....	1				1		1	20		20
Salt.....	1,132		4		1,136		1,136	170 40		170 40
Stone intended for cutting.....	10				10		10	1 50		1 50
" wrought.....	31	31			31	31	65	6 80	6 20	13 00
" not suitable for cutting, unwrought.....										
Seeds, all kinds.....	686	158	70		756	35	791	113 40	12 60	118 65
Sheep.....										
Soda ash.....	702	1	271		973	1	977	191 60	80	195 40
Steel.....	1,005	3			1,009	3	1,012	131 35	45	151 80
Sugar.....	3,965	41	351		4,259	11	4,270	831 80	2 20	834 00
Spirits, beer, &c.....	174	297	181	44	355	251	606	71 00	50 20	121 20
Tobacco (raw).....	1				1		1	15		15
Tallow.....	19	2	181		19	2	21	2 85	20	3 15
Tin.....	1,827	27			2,308	27	2,335	161 60	5 40	167 00
Turpentine.....	2				2		2	10		10
Wheat.....	179	8,222	8	3,151	187	11,376	11,376	37 10	1,137 60	1,137 60
White lead.....	153		73		526		526	105 20		105 20
Whiting.....	23				23		23	3 15		3 15
Wool.....										
All other goods and merchandise not enumerated.....	5,877	1,079	1,008	180	6,885	4,259	11,111	1,377 00	851 80	2,228 80

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No. (A) 5.—GENERAL STATEMENT showing the Quantity of each Through Article transported on the St. Lawrence Canals, and the Amount of Tolls collected during the Season of Navigation in 1902.

Articles.	From Canadian Canadian Ports.		From Canadian United States Ports.		From United States United States Ports.		From United States 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.				
Barrels, empty.....	120	7							120	7	127	22 26	1 00	23 26
Boat knees.....														
Floats.....														
Fire wood, in vessels.....	31,824								31,824		31,824	2,121 60		2,121 60
" rafts.....														
Hoops.....														
Hop poles.....														
Lumber, sawn, in vessels.....	190	484							196	484	683	17 70	43 48	61 13
" rafts.....														
Masts, spars, and telegraph poles, in vessels.....														
Masts, spars, and telegraph poles, in rafts.....														
Railway ties, in vessels.....													50 00	50 00
" rafts.....														
Saw logs.....														
Staves and headings, barre pipe.....														
" " West India.....														
Staves, salt barrel.....														
Shingles.....														
Split posts and fence rails, in vessels.....														
Split posts and fence rails, in rafts.....														
Timber, square, in vessels.....														
" rafts.....														
Traverses.....														
Woodware and wood partly manufactured.....	24	12							24	12	36	9 60	4 80	14 40
Total freight paying tolls.....	76,988	96,398							83,820	133,296	222,116	11,001 61	19,283 18	30,284 79





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## APPENDIX A—Continued.

No. (A) 6.—GENERAL STATEMENT showing the Quantity of each Article of Way Freight transported on the St. Lawrence Canals, and the Amount of Tolls collected during the Season of Navigation in 1902—Continued.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.		Amount of Tolls, Down.		Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		% cts.	% cts.	% cts.	% cts.	
Ashes, pot and pearl.	39	255							39	255	294	3 82	10 81	14 66		
Apples.	29	16							29	16	45	2 21	1 08	3 29		
Agricultural products not enumerated, vegetables.	1,313	920							1,388	920	2,308	63 80	72 42	136 31		
enumerated, animal.	109	19					75		109	19	128	14 71	1 16	15 81		
Agricultural implements.	161	401							161	401	562	4 03	14 30	18 33		
Barley.	7,656	514							7,660	514	8,174	314 35	19 10	333 75		
Bees.	18	19							18	19	37	0 08	1 47	2 15		
Bones.	707								707		707	69 76		69 76		
Brimestone.	11	79							11	79	90	0 13		2 52		
Buckwheat.	2,075	443							2,075	443	2,518	131 75	16 67	148 42		
Cement and water lime.	14,920	29,883							14,920	29,883	44,803	616 83	1,257 32	1,874 15		
Clay, lime and sand.		1,902								12,667	12,667		677 43	677 43		
Coal.	5	13,199					417		5	13,199	13,204	0 42	348 35	348 77		
Corn.	41	355							41	355	396	1 59	23 75	27 60		
Cattle.	39								39		39	6 51		6 51		
Cotton (raw).	16								23		23	2 31		2 31		
Crocery and earthenware.	95								95		101	5 33	0 43	5 76		
Dye wood and dye stuffs.		8								8						
Fish and hemp.	1,069	11,478							1,069	11,478	12,547	66 66	561 52	631 18		
Floor.	124	151							124	151	275	1 08	11 09	13 17		
Furniture.	826	51							826	51	881	10 55	0 38	10 93		
Gypsum.	124	13							124	13	134	21 73	0 79	22 52		
Glass (all kinds).	995	1,062							995	1,062	2,057	37 53	58 72	96 25		
Hay (pressed).	4	8							4	8	12	0 16	0 71	0 87		
Hogs.	246	373							248	373	621	14 51	20 32	35 46		

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Hides and skins, horns and hoofs	13	76	43	76	119	3 23	3 18	6 41
Ice	143	117	413	117	560	33 10	7 70	10 80
Iron, railway	1,361	2	1,371	2	1,373	101 97	0 12	162 00
" pig	21,365	960	21,530	985	22,515	909 12	48 81	957 33
" all other			25					
Iron ore								
Kryolite, chemical ore and other ore, except iron, lead and hard oil	13	36	274	274	274	13 70		13 70
Lead, all kinds	38	313	15	36	79	4 28	1 78	4 06
Meats, other than pork	18	4	38	343	381	2 55	16 21	18 79
Marble	2		18	1	22	1 80	0 31	2 11
Mannila	1		2		2	0 38		0 38
Molasses	128	152	1		1	0 19		0 19
Nails	1,216	512	428	152	580	61 55	7 70	72 25
Oats	337	12,738	1,216	512	1,728	112 70	25 60	138 30
Oil (in barrels)	569	185	337	12,738	13,135	8 88	311 83	353 71
Oil cake	2	5,900	519	185	704	62 62	9 25	71 87
Peanse	4	63	2	5,900	5,902	0 20	291 35	291 55
Potatoes	25	31	4	63	67	0 29	1 78	2 07
Pork	130	701	31	56	31	1 91	2 01	3 92
Paint	111	138	130	701	831	12 77	35 12	47 89
Pitch and tar	33	21	138	138	279	22 17	6 90	29 37
Rags	23	20	223	21	241	14 11	1 05	15 16
Rye		11,552	109	20	789	10 55	1 90	12 45
Flaxseed		11,606			11,552			
Rosin	189	12	1,919	12	1,931	97 16	0 60	98 06
Salt	2,734	154	2,912	154	3,066	236 18	6 20	272 68
Stone intended for cutting	400		400		400	16 18		16 18
" wrought	194		194		194	9 81		9 81
" not suitable for cutting, unwrought		561			561	1 37	11 40	15 77
Seeds, all kinds	6,784	375	6,784	375	7,159	261 19	17 62	281 81
Sheep	4	87	1		91	0 16	6 59	6 75
Soda ash	21		21		21	3 49		3 49
Steel	263	48	263	48	311	19 83	2 13	21 96
Sugar	1,398	108	2,375	108	2,483	216 11	5 60	221 71
Spirits, beer, &c.	533	100	533	100	633	72 69	5 41	77 53
Tobacco (raw)	22		22		22	2 07		2 07
Tallow		3			3		0 21	0 21
Tin	163		163		163	11 59		14 59
Turpentine	21		146		146	7 30		7 30
Wheat	121	231,480	121	231,480	231,910	11 90	5,787 69	5,799 59
White lead	47	4	17	1	51	8 75	0 20	8 95
Whiting	8		8		8	1 43		1 43
Wool								
All other goods and merchandise (not enumerated)	1,388	2,416	5,325	2,484	8,509	533 54	179 26	712 80
Bark								

3-4 EDWARD VII., A. 1904

No. (A) 6—GENERAL STATEMENT showing the Quantity of Way Freight transported on the St. Lawrence Canals, and the Amount of Tolls collected during the Season of Navigation in 1902.

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.	
Barrels, empty.....	497	52							497	52	549	32.64	4.30	36.94		
Boat knees.....																
Floats.....	80								80		80	1.40		1.40		
Firewood, in vessels.....	4,488	4,263	75						4,653	4,263	8,916	77.55	75.51	153.06		
"    rafts.....																
Hoops.....																
Hop poles.....																
Lumber, sawn, in vessels.....	21,197	4,124	10	160		5			21,251	1,304	25,555	488.51	126.02	614.53		
"    rafts.....		183								183	183		8.19	8.19		
Masts, spars and telegraph poles, in vessels.....	7	25							7	25	32	0.15	0.32	0.47		
Masts, spars and telegraph poles, in rafts.....		24,854								24,854	24,854	0.39	621.35	621.35		
Railway ties, in vessels.....	29								29		29			0.59		
"    rafts.....																
Saw logs.....	6	381							6	381	387	0.25	8.48	8.73		
Staves and headings, barrel.....																
"    pipe.....																
"    West India.....																
Staves, salt barrel.....																
Shingles.....																
Split posts and fence rails, in vessels.....	16	149							16	149	165	2.89	20.36	23.25		
Split posts and fence rails, in rafts.....	20								20		20	0.50		0.50		
Timber, square, in vessels.....	313	80							313	80	393	12.57	1.00	13.57		
"    rafts.....	2,060	5,370							2,060	5,370	7,430	51.50	134.25	185.75		
Traverses.....																
Woodenware and wood partly manufactured.....	19								19		19	3.50		3.50		
Total freight paying tolls.....	103,498	381,161	112	160	177	990	4,587	10,388	108,374	392,699	501,073	5,011.19	11,519.22	16,530.41		







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No. (A) 7.—GENERAL STATEMENT showing the Quantity of each Article transported on the Ottawa Canals, and the Amount of Revenue Collected, &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.		
Hop poles												
Lumber, sawn, in vessels		253,107		33,281						286,388	286,388	20,169 75
"    "    rafts		48								48	48	0 96
Masts, spars, and telegraph poles, in vessels												
"    "    rafts												
Railway ties, in vessels		54								54	54	4 60
"    "    rafts		32								32	32	2 12
Saw logs		1,435								1,435	1,435	32 64
Staves and headings, barrel												
"    "    pipe												
"    "    West India												
Staves, salt barrel												
Shingles		76								76	76	9 60
Split posts and fence rails, in vessels												
"    "    rafts												
Timber, square, in vessels		72								72	72	3 33
"    "    rafts		11,270								11,270	11,270	118 34
Traverses												
Woodenware and wood partly manufactured												
Total freight paying tolls	82	347,325		33,545					82	380,870	380,952	22,233 92
<i>Freight, grand total</i>												
<i>Fre per Order in Council, June 27, 1890.</i>												
Floats										29,900	29,900	
Lumber, sawn, in rafts		29,900								29,900	29,900	
"    "    rafts		27								27	27	
Railway ties		25								25	25	
Timber, square		33,020								33,020	33,020	
Saw logs		758								758	758	
Freight, grand total	82	411,055		33,545					82	444,600	444,682	



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Total tolls, on vessels.....	2,436 58
"    passengers.....	181 87
<hr/>	
Total tolls.....	24,862 37
"    free goods.....	8616 17
Other receipts.....	10 00
<hr/>	
Total revenue, exclusive of hydraulic rents.....	\$ 24,862 37

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, August 12, 1903.

RICHARD DEVLIN,  
*Compiler of Canal Statistics.*

APPENDIX A—Continued.

No. 8 (A).—GENERAL STATEMENT showing the Quantity of each Article transported on the Chambly Canal, and the Amount of Revenue collected during the Season of Navigation 1902.

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		598						151		749	749	57 03
Agricultural products not enumerated, vegetables animal		1								1	1	10
" "								3		3	3	30
Agricultural implements	81	10							81	10	91	3 80
Barley	972	630							972	630	1,602	133 61
Bones												
Brimstone												
Buckwheat												
Cement and water lime	3,640	14						3,151	3,640	3,168	6,808	507 24
Clay, lime and sand	347							25,049	347	25,049	25,396	1,934 81
Coal								23,768		23,768	23,768	2,317 85
Corn		1								1	1	10
Cattle	13	209							13	209	222	7 64
Cotton (raw)												
Crockery and earthenware										55	55	5 48
Dye wood and dye stuffs		55						52		52	52	5 20
Fish												
Flax and hemp												
Flour	690	4	99						780	4	784	30 26
Furniture												
Gypsum												
Glass (all kinds)												
Hay (pressed)	115	1,986	29,711					91	29,826	2,080	31,906	2,308 74
Hogs										39	39	2 39
Horses	26	39							26	39	65	
Hides and skins, horns and hoofs.												
Ice												
Iron, railway	10								10		10	67



No. 8 (A).—GENERAL STATEMENT showing the Quantity of each Article transported on the Chambly Canal, etc.—Continued.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Amount of tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	
Lumber, sawn, in vessels.....	1,741	7	25,001								% etc.
" " in rafts.....							73	40	74	114	7 80
Masts, spars and telegraph poles, in vessels.....											186 31
" " in rafts.....	60	1	2,334							2,334	
Railway ties, in vessels.....											
" " in rafts.....											
Staves and headings, barrel.....											
" " rope.....											
" " West India.....											
" salt barrel.....											
Shingles.....											
Split posts and fence rails, in vessels.....											
" " in rafts.....											
Timber, square, in vessels.....											6 33
" " in rafts.....											
Traverses.....											1 00
Woodenware and wood partly manufactured.....											
Total freight paying tolls.....	12,607	16,236	254,160				96,439	266,767	112,675	379,442	18,772 14
Total tolls on vessels.....											3,889 43
" " passengers.....											51 74
Total tolls.....											22,713 31
Fines.....											10 00
Total revenue, exclusive of hydraulic rents.....											% 22,723 31

RICHARD DEVLIN,  
*Compiler of Canal Statistics.*

DEPARTMENT OF RAILWAYS AND CANALS,  
 OTTAWA, August 12, 1903.



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No. (A) 9.—GENERAL STATEMENT showing the Quantity of each Article transported on the Rideau Canal, &c.—*Concluded.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	
	Tons.										
Kryolite chemical ore and other ore, except from Lard and lard oil.	48	5							48	5	1 45
Meal, all kinds.	16	45							16	45	1 61
Meats, other than pork.	4								4		0 14
Marble.											
Mamilla.	122	3							122	3	10 92
Molasses.	103	4							103	4	11 13
Nails.	148	393							148	393	18 23
Oats.	139	24							139	24	14 64
Oil (in barrels).		2								2	0 05
Oil cake.											
Pease.		3								3	0 33
Potatoes.	9								9		3 06
Pork.	105	6							105	6	2 52
Paint.	22	2							22	2	1 32
Pitch and tar.	14	3							14	3	4 01
Rags.	8	37							8	37	0 66
Rye.		28								28	0 71
Flaxseed.											
Rosin.	7								7		29 25
Salt.	884	237							884	237	0 70
Stone intended for cutting.	30								30		0 28
" wrought.											
" not suitable for cutting, unwrought.	253								253		1 70
Seeds, all other kinds.	13	59							13	59	0 30
Sheep.	12								12		1 05
Soda ash.											
Steel.	36	3							36	3	1 00
Sugar.	125	76							125	76	19 18
Spirits, beer, &c.	135	73							133	73	18 38
Tobacco (raw).	9								9		0 22
Tallow.											
Tin.	1								1		0 09
Turpentine.	1								1		0 09
Wheat.	1								1		24 33
White lead.	1,040								1,010		1 041
	25								25		2 25

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Whiting.....	8	1	1				8	0 71
Wood.....	1	1	1				2	0 06
All other goods and merchandise not enumerated.....	773	483	483				1,236	119 15
Bark.....	28	28	28				28	0 65
Barrels empty.....	71	25	25				96	5 24
Boat knees.....	280						280	4 90
Floats.....	10,463	1,363	1,363				11,961	231 56
Firewood, in vessels.....								
" " rafts.....								
Hoops.....	18						18	2 50
Hop poles.....	2,527	3,630	3,987	4	4,036		14,184	1,032 17
Lumber, sawn, in vessels.....	10	83					10	0 38
" " rafts.....							83	2 22
Masts, spars, and telegraph poles, in vessels.....								
" " rafts.....								
Railway ties, in vessels.....	188		25				213	24 50
" " rafts.....	19						19	0 40
Saw logs.....								
Staves and headings, barrel.....								
" " pipe.....								
" " West India.....								
Staves, salt barrel.....	104	71		2	104	73	177	51 92
Shingles.....								
Split posts and fence rails, in vessels.....								
" " rafts.....								
Timber, square, in vessels.....	220						220	4 11
" " rafts.....	100						100	0 61
Traverses.....								
Woodenware and wood partly manufactured.....								
Total freight paying tolls.....	24,932	10,104	4,250	4,385	4,108	18,397	47,779	2,126 53
Coal, free, per Order in Council.....	3,100			3,100			3,100	
Grand total freight.....	28,032	10,104	4,250	4,385	4,108	18,397	50,879	
Total tolls on vessels.....								1,178 62
" " passengers.....								226 00
Total tolls.....								3,831 15
Total tolls on free coal.....								882 68
Fines.....								5 00
Wharfage.....								51 88
Bank dues.....								1 68
Winterage.....								108 00
Other receipts.....								40 00
Total revenue, exclusive of hydraulic rents.....								1,037 71

RICHARD DEVLIN,  
*Compiler of Canal Statistics.*

DEPARTMENT OF RAILWAYS AND CANALS,  
 OTTAWA, August 12, 1903.

3-4 EDWARD VII., A. 1904

APPENDIX A—Continued.  
 No. (A) 10 GENERAL STATEMENT showing the Quantity of each Article transported on the St. Peter's Canal, and the Amount of Revenue collected during the Season of Navigation, 1902.

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.	% cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.			
Ashes, pot and pearl													
Apples	124								124		124	1 20	
Agricultural products not enumerated, vegetables, annual.	107								107		107	1 07	
"	1								1		1	01	
Agricultural implements	3								3		3	03	
Barley	13								13		13	13	
Bricks	3,822								3,822		3,822	88 22	
Bones													
Brimstone													
Blackwheat													
Cement and water li	262	1,228							262	1,228	1,490	14 90	
Clay, lime and sand	5	96							5	96	101	1 01	
Coal	102	31,557							102	31,557	31,659	316 59	
Corn													
Cattle	12								12		12	12	
Cotton (raw)													
Crockery and earthenware	23								23		23	23	
Dye wood and dye stuffs													
Fish	26	1,393					200		26	2,193	2,219	22 19	
Flax and hemp													
Flour	1,473								1,473		1,473	14 73	
Furniture	36	1							36	1	37	37	
Gypsum													
Glass (all kinds)	21								21		21	21	
Hay (pressed)	1,101								1,101		1,101	11 01	
Hogs													
Horses	3								3		3	03	
Hides and skins, horns and hoofs													
Ice													
Iron, railway		600								600	600	6 00	





No. (A) 10—GENERAL STATEMENT showing the Quantity of each Article transported on the St. Peter's Canal and the Amount of Revenue collected during the Season of Navigation in 1902.

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.		Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	
Lumber, sawn, in vessels	13,671						13,671		13,671		136 71
" " rafts	2	25					2	25	27		27
Masts, spars, and telegraph poles, in vessels.											
" " rafts	100	45					100	45	145		1 45
Railway ties, in vessels.											
" " rafts											
Saw logs.											
Staves and headings, barrel											
" " pipe											
" " West India											
Staves, salt barrel											
Shingles	296						296		296		2 96
Split posts and fence rails, in vessels.	367						367		367		3 67
" " rafts.		25						25	25		10 18
Timber, square, in vessels	913						913		913		
" " rafts											
Traverses											
Woodenware and wood partly manufactured											
Total freight paying tolls.	31,716	41,422					200		31,916	41,622	735 38
Totals tolls on vessels.											2,298 76
Other receipts.											3,034 14
Total receipts.											3,034 14

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, August 12, 1903.

RICHARD DEVLIN,  
Compiler of Canal Statistics.

APPENDIX A—Continued.  
 No. (A) 11.—GENERAL STATEMENT showing the Quantity of each Article transported on the Trent Valley Canals—Continued.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.	% of
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.			
Ashes, pot and pearl													
Apples													
Agricultural products not enumerated, vegetables, annual													
Agricultural implements													
Barley													
Bricks		16								16			
Bones													
Brimstone													
Backwool													
Cement and water lime	400									400			1.28
Clay, lime and sand													
Coal													
Corn													
Cattle													
Cotton (raw)	2									2			02
Cruckery 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	181									181			1.87
Ice													
Iron, railway													
" pig													
" all other													



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Tin									
Turpentine									
Wheat	1,631	30					1,631	30	1,661
White lead									
Whiting									
Wood	22	109					22	109	131
✓ Bark	389	23					389	23	412
✓ Barrels empty									
✓ Boat knees	491	6,766					491	6,766	7,257
✓ Floats	13,238	2,594					13,238	2,594	15,832
✓ Fire wood, in vessels									
✓ " in rafts									
✓ Hoops									
✓ Hop poles	3,047	1,352					3,047	1,352	4,399
✓ Lumber, sawd, in vessels	680	225					680	225	905
✓ " in rafts									
✓ Masts, spars and telegraph poles, in vessels									
✓ " in rafts									
✓ Railway ties, in vessels									
✓ " in rafts									
✓ Saw logs	9,408	352					9,408	352	9,760
✓ Staves and headings, barrel									
✓ " " pipe									
✓ " " West India									
✓ Staves, salt barrel									
✓ Shingles									
✓ Split posts and fence rails, in vessels									
✓ " in rafts									
✓ Timber, square, in vessels									
✓ " in rafts									
✓ Traverses									
✓ Woodenware and wood partly manufactured									
Total, freight paying tolls	29,495	12,195					29,495	12,195	41,690
Total tolls on vessels									
passengers									
Total tolls									
Other receipts									
Total revenue exclusive of hydraulic 7 mts.									

Total tolls on vessels  
passengers

Total tolls

Other receipts

Total revenue exclusive of hydraulic 7 mts.

DEPARTMENT OF RAILWAYS AND CANALS  
OTTAWA, August 12, 1903.

RICHARD DEVLIN,  
Compiler of Canal Statistics.

3-4 EDWARD VII., A. 1904

APPENDIX A—Continued.  
 No. (A) 12. GENERAL STATEMENT showing the Quantity of each Article transported on the Murray Canal, &c.—Continued.

Articles.	From Canadian to Canadian United States Ports.		From Canadian to United States Ports.		From United States to Canadian Ports.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.		
	% cts.							
Asbes, pot and pearl	2						2	06
Apples	249	117					366	6 97
Agricultural products not enumerated, vegetables.	200	289					489	9 33
" " annual		10					10	19
Agricultural implements							1,328	24 97
Bailey		30					30	3 59
Bricks	158						158	
Bones							2	01
Brinstone	2						2	92
Buckwheat		92					92	1 73
Cement and water lime	307	40					347	6 37
Clay, lime and sand	51						51	98
Coal	407				1,443		1,850	31 72
Corn	8						8	13
Cattle								
Cotton (raw)		20					20	38
Crockery and earthenware	62	77					139	3 49
Dye wood and dye stuffs	10	31					41	1 05
Fish	3						3	8
Flax and hemp							1	
Flour	96	58					154	2 91
Furniture	92	99					191	5 12
Gypsum							257	10 71
Glass (all kinds)								
Hay (pressed)							3	16
Hogs								
Horses	3	5					8	
Hides and skins, Horns and Hoofs							15	75
Ice		15					15	5 86
Iron, railway	120	186					306	
" pig							1,285	26 20
" all other	1,285	102					1,387	



No. (A) 12.—GENERAL STATEMENT showing the Quantity of each Article transported on the Murray Canal, &c. *Continued.*

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.		Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	
Masts, spars, and telegraph poles, in vessels.									25	45	25 cts.
" " rafts.			45								0 16
Railways ties, in vessels.	63										0 88
" " rafts.			768						831		8 31
Saw logs.											
Staves and headings, barrel.											
" " pipe.											
" " West India.											
Staves, salt barrel.									113	7	10 30
Shingles.	5	7	168								
Split posts and fence rails, in vessels.											
" " rafts.											
Timber, square, in vessels.											
" " rafts.											
Traverses.											
Woodenware and wood partly manufactured.											
Total freight paying tolls.	15,482	10,294	5,601				2,471	21,083	12,465	33,548	393 27
Coal free, per Order in Council.	1,630							1,630		1,630	
Grand total freight.	17,112	10,294	5,601				2,471	22,713	12,465	35,178	
Total tolls on vessels.											284 83
" " passengers.											182 70
" " free goods.											1,060 80
Total tolls.											830 58
Total revenue, exclusive of hydraulic rents.											1,060 80





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No. (A) 13.—GENERAL STATEMENT showing the Quantity of each Article transported on the Sault Ste. Marie Canal, &amp;c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	
	Iron, railway.....	12,548	11,948			1,820		3,948		18,316	
" pig.....	9,670				1,081		6,688		16,358	1,081	17,439
" all other.....	3,714	172			6,299	400	1,855		11,868	572	12,440
Iron, ore.....		88,690		187,417		2,165,986		62,359		2,504,452	2,504,452
Kryolite chemical ore and other ore, except iron.....	3					14,371		30		14,401	14,401
Lard and lard oil.....									3		3
Meal, all kinds.....	1	425				14,800		1	1	15,225	15,226
Meats, other than pork.....	20								20		20
Marble.....											
Manilla.....	670								670		670
Molasses.....	177								177		177
Nails.....	2,443	140	500						2,943	140	3,083
Oats.....	493	6,606						2,500	493	9,196	9,689
Oil (in barrels).....	134		351		26	1,218			811	1,218	2,029
Oil cake.....		108						551		659	659
Pease.....									7	153	160
Potatoes.....	7	103				50			1		1
Pork.....									230		230
Paint.....	230								38		38
Pitch and tar.....	38										
Rags.....											
Rye.....											
Flax seed.....											
Rosin.....											
Salt.....	1		2,655		20,331				22,987		22,987
Stone intended for cutting.....	60		2,470						2,530		2,530
" wrought.....	2										
" not suitable for cutting, unwrought.....	1,765	45			1,106				1,108		1,108
Seeds, all kinds.....					4,643				6,408	45	6,453
Sheep.....	10	3							10	3	13
Soda ash.....											
Steel.....	241	202							241	202	443
Sugar.....	2,978	170			550				3,528	170	3,698
Spirits, beer, &c.....	906	17							906	17	923



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## APPENDIX

## No. (A) 14.—STATEMENT of Traffic on the undermentioned Canals, and

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Class No. 1.</i>		<i>¢ cts.</i>		<i>¢ cts.</i>		<i>¢ cts.</i>
Canadian vessels, steam .....	232,180	3,162 52	721,219	4,761 38	77,927	270 30
United States vessels, steam.....	390,672	5,861 08	969,315	8,996 04	719	12 58
Canadian vessels, sail.....	161,177	3,437 25	111,230	692 83	63,156	657 39
United States vessels, sail.....	41,694	908 21	39,822	338 93	245,649	2,949 16
Total, Class No. 1. ....	825,723	13,369 05	1,841,556	14,792 18	387,451	3,889 43
<i>Class No. 2.</i>	No.		No.		No.	
Passengers .....	1,167	109 21	77,44	3,473 75	3,304	51 74
<i>Class No. 3.</i>	Tons.		Tons.		Tons.	
Bricks .....	198	19 87	9,068	467 85	1,602	133 61
Brimstone .....			785	81 16		
Cement and water lime .....	826	121 54	6,277	712 27	6,808	507 24
Clay, lime and sand .....	565	46 88	15,945	2,037 05	25,396	1,934 81
Fish.....	46	635	128	9 81		
Gypsum .....			83	10 93		
Iron (railway).....	64	12 10	12,545	1,838 55	10	0 67
" (pig).....			2,681	298 29		
" (all other).....	7,488	1,396 68	32,935	2,520 93	37	1 27
Steel .....	120	6 33	1,323	173 76		
Salt.....			4,202	443 08	552	40 82
Stone, for cutting.....			410	17 98		
Apples.....	248	9 41	5,464	790 16	749	57 03
Barley.....	7,418	741 80	8,255	787 63		
Buckwheat.....			920	85 52		
Corn .....	67,647	6,761 70	13,337	367 52	4	0 10
Cotton (raw).....			3	45		
Flax and hemp.....	630	94 50	5	75		
Flour.....	22,282	3,966 15	15,844	1,125 73	793	30 26
Hay (pressed).....			2,057	96 25	31,906	2,308 74
Meats (all kinds).....	12,714	2,536 14	612	53 44		
Oil cake.....	110	22 00	5,906	295 33		
Oats.....	11,232	1,125 28	21,398	1,189 01	998	33 43
Pease.....			1,781	173 47		
Potatoes .....	1	0 18	59	4 37		
Rye.....	4,079	407 90	15,659	699 53		
Flax seed.....			11,606	290 18		
Seeds (all kinds).....	10	2 00	7,950	400 46	5	0 20
Tobacco (raw).....			23	2 22		
Wheat.....	225,171	22,387 51	243,286	6,957 19		
All other agricultural products, vegetable.....	4	0 53	2,360	350 39	1	10
Bones.....			38	2 30		
Cattle.....			396	27 60	222	7 64
Hogs.....			12	0 77		
Hides and skins, horns and hoofs.....	37	5 55	162	12 86		
Horses.....			719	50 16	65	2 39
Lard and lard oil .....	2,434	485 75	277	35 76	17	1 70
Meats (other than pork).....	1	0 15	71	9 46		
Pork.....	637	127 15	945	64 99	10	0 35
Sheep.....			91	6 75	122	4 22
Tallow.....	448	67 20	24	3 39		
Wool.....	752	150 40	23	3 45		
All other agricultural products, animal.....			4,230	424 61	3	0 30
Total, Class No. 3. ....	365,162	40,504 65	480,641	22,894 36	69,298	5,664 88

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A—Continued.

the amount of Tolls collected during the Season of Navigation in 1902.

Murray Canal.		Ottawa Canals.		Rid-au Canal.		St. Peter's Canals.		Trent Valley Canals.		Sault Ste. Marie Canal.
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.
s cts.		s cts.		s cts.		s cts.		s cts.		
206,432	216 48	133,165	702 28	127,939	887 67	47,650	953 03	123,953	576 79	1,143,749
16,533	59 36	106,117	1,511 31	1,182	19 60	399	7 98	30,279	119 75	2,813,452
801	5 49	354	1 45	35,400	427 29	66,325	1,328 31			223,181
231	3 50	9,821	221 54	6,048	144 06	472	9 44			423,920
223,997	284 83	249,457	2,436 58	170,569	1,478 62	114,846	2,298 76	154,232	695 94	4,604,302
No.		No.		No.		No.		No.		No.
15,403	182 70	13,818	181 87	9,294	226 00			30,994	204 03	36,658
Tons.		Tons.		Tons.		Tons.		Tons.		Tons.
188	3 59			493	12 42	3,822	38 22	16	0 16	2,597
2	0 04			27	0 65					17,439
347	6 57	67	6 44	660	16 58	1,490	14 90	400	1 28	5,739
51	0 98	1,655	68 01	5,790	135 59	101	1 01			23,151
4	0 08	3	0 30	30	0 76	2,219	22 19			1,969
306	5 86			5	0 14	600	6 00			30,264
				27	0 65					17,439
1,387	26 20	26	2 03	451	12 59	211	2 11			12,440
179	3 41			39	1 00					443
161	3 07	8	0 48	1,121	29 25	420	4 20			22,987
4	0 08	1	0 10	30	0 70	253	2 53			2,530
366	6 97	117	7 04	25	0 68	124	1 24			662
1,328	24 97			122	2 86	13	0 13			21,001
92	1 73	20	1 97	7	0 17					
8	0 15			22	0 55					639
29	0 38			1	0 03					
154	2 94	8	0 80	487	12 14	1,473	14 73			316,063
		3,465	283 38	1,209	42 73	1,101	11 01			1,799
133	2 54			61	1 61	575	5 75			15,226
				2	0 06					659
159	3 00	565	47 29	541	18 23	2,135	21 35			9,689
33	0 02							6	0 06	
210	3 97	148	9 31	12	0 33	4,212	42 12			160
1,164	21 85			28	0 66					2,128
87	1 66									52,972
250	4 74	2	0 20	72	1 70					13
		3	0 18	9	0 22	2	0 02			2
684	12 88			1,041	24 33			1,661	16 60	837,375
489	9 33	4	0 24	13	0 39	107	1 07			6,200
		3	0 22							
		651	52 01	5	0 17	12	0 12	2	0 02	250
		118	9 41					181	1 87	3
		16	1 78	1	0 03					70
8	0 16	206	11 20	9	0 27	3	0 03			248
82	1 58			53	1 45	2	0 02			3
15	0 29			4	0 14	30	0 30			20
11	0 22	8	0 56	111	3 06	17	0 17			1
		515	45 20	12	0 30	3	0 03			
		6	0 59							
				2	0 06					1,411
10	0 19	2,919	247 93	802	26 16	1	0 01			
7,9 2	150 05	10,534	796 67	13,297	348 01	18,926	189 26	2,266	19 99	1,386,024

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## APPENDIX

## No. (A) 14.—STATEMENT of Traffic on the undermentioned Canals, and

Articles.	Welland Canal.		St. Lawrence Canals.		Chamblly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Class No. 4.</i>		8 cts.		8 cts.		8 cts.
Ashes, pot and pearl.....			18	3 60		
Agricultural implements.....	441	83 43	128	15 81	91	3 80
Crockery and earthenware.....	94	14 10	202	39 11	55	5 48
Dye woods and dye stuffs.....			49	7 51	52	5 20
Furniture.....	21	4 00	1,389	253 37		
Glass (all kinds).....	40	3 64	2,491	493 92	4	0 28
Marble.....	1,251	187 65	2	0 38		
Manilla.....	40	6 00	1	0 19		
Molasses.....	76	15 00	584	73 05	82	2 76
Nails.....	716	105 97	3,738	540 30	53	1 86
Oil (in barrels).....	13,909	2,769 98	1,947	320 47	82	3 83
Paint.....	34	5 97	1,113	196 17		
Pitch and tar.....	40	7 65	626	91 56	1,331	133 10
Rags.....	36	0 68	512	77 05		
Rosin.....			1,932	98 26	2,694	302 46
Soda ash.....	72	8 31	998	199 39		
Sugar.....	1,485	217 21	6,753	1,075 74	1,176	111 92
Stone (wrought).....			259	22 84		
Tin.....	44	6 60	2,438	481 59		
Turpentine.....	3	0 45	148	770	137	13 70
White lead.....	2	0 17	238	46 35		
Whiting.....			534	106 63		
Whiskey and all other spirits.....	160	22 86	1,239	198 73		
Merchandise (not enumerated).....	31,643	4,762 03	19,653	2,941 60	6,050	448 36
Total, Class No. 4.....	50,107	8,221 70	46,992	7,291 32	11,807	1,032 75
<i>Class No. 5.</i>						
Bark.....						
Barrels (empty).....	52	7 75	676	60 20	19	2 40
Boat kness.....						
Floats.....			80	1 40		
Fire wood (in vessels).....	8,286	450 42	40,740	2,274 66	195,759	6,513 48
" (in rafts).....						
Lumber sawn (in vessels).....	102,775	18,398 30	26,238	675 66	26,750	1,486 85
" (in rafts).....			183	8 19		
Hoops.....						
Railway ties (in vessels).....	751	95 10	655	50 59	2,334	186 31
" (in rafts).....						
Masts, spars and telegraph poles (in vessels).....			32	0 47		
Masts, spars and telegraph poles (in rafts).....			24,854	621 35	114	7 80
Square timber (in vessels).....	20,838	3,124 21	393	13 57	127	6 33
" (in rafts).....	11	0 30	7,430	185 75		
Woodenware and wood partly manu- factured.....	242	96 80	55	17 90	4	1 00
Shingles.....			165	23 25		
Split posts and fence rails (in vessels).....						
" (in rafts).....			20	0 50		
Saw logs.....	4,695	191 45	387	8 73		
Staves and headings (barrel).....	85	2 72				
" " (pipe).....						
" " (West India).....						
" " (salt barrel).....						
Traverses.....						
Hop poles.....						
Total, Class No. 5.....	137,735	22,367 25	101,908	3,942 22	225,107	8,204 17

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A—Continued.

the amount of Tolls collected during the Season of Navigation in 1902.

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.		Sault Ste. Marie Canal.
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.
	¢ cts.		¢ cts.		¢ cts.		¢ cts.		¢ cts.	
2	0 06			3	0 36					
139	3 49	2	0 34	198	18 21	3	0 03			10
41	1 05			15	1 35	23	0 23			419
192	5 12	23	3 56	61	5 67	37	0 37			135
426	10 74	8	1 52	58	5 29	21	0 21			474
						9	0 09			
						26	0 26			670
42	1 05			125	10 92	340	3 40			177
236	5 94	2	0 38	107	11 13	64	0 64			3,083
829	20 81	1	0 19	163	14 64	280	2 80			2,029
533	13 39	2	0 38	24	2 52	17	0 17			230
109	2 74	91	17 29	17	1 52	21	0 21			38
177	4 47	77	14 00	45	4 01					
		5	0 70	7	0 71	1	0 01			
64	1 61			12	1 05	4	0 04			
916	22 96	1	0 19	201	19 18	123	1 23			3,698
40	1 00									1,108
230	5 77			1	0 09	25	0 25			131
				1	0 09					1
30	0 75	1	0 19	25	2 25	1	0 01			153
58	1 46			8	0 71					64
300	7 56	4	0 58	206	18 38	44	0 44			923
6,930	173 38	609	97 26	1,256	119 15	695	6 95	131	3 93	121,887
11,294	283 35	826	136 58	2,533	237 23	1,734	17 34	131	3 93	135,230
2	0 05	77	4 07	96	0 66	11	0 11	412	6 65	27
					5 24	25	0 25			120
		53,477	458 59	280	4 90			7,257	57 93	158
8,622	75 15	16,663	556 67	11,964	231 56	141	1 41	15,832	158 89	9,165
										3,222
1,180	13 23	286,388	20,109 75	14,184	1,032 17	13,671	136 71	4,595	72 51	81,822
		4	0 96	10	0 38			905	17 50	
831	8 31	54	4 60	213	24 50	145	1 45			2,670
		32	2 12							
25	0 16			8	2 22	27	0 27			40
45	0 88									
		72	3 33			1,018	10 18			3,833
		11,270	118 34	226	4 11			525	10 25	137
126	10 30	76	9 60	177	51 92	296	2 96	3	0 14	8,980
						367	3 67			7
		1,437	32 64	19	0 40			9,760	81 22	7,848
				100	0 64					
				18	2 50					
10,825	108 08	369,592	21,300 67	27,392	1,361 26	15,701	157 01	39,293	405 09	118,873

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## APPENDIX

## No. (A) 14.—STATEMENT of Traffic on the undermentioned Canals, and

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Special Class.</i>		§ cts.		§ cts.		§ cts.
Coal.....	64,014	12,845 63	92,393	12,636 33	23,768	2,317 85
Kryolite or chemical ore.....			452	22 60	4,830	241 50
Iron ore.....	22,480	1,124 00			29,317	1,468 20
Stone (unwrought, not suitable for cutting).....	600	60 00	803	28 37	15,285	442 79
Ice.....						
Total, Special Class.....	87,094	14,029 63	93,648	12,687 30	73,230	4,470 34
<sup>11</sup> <sup>12</sup> <sup>13</sup> <sup>14</sup> <sup>15</sup> <sup>16</sup> <sup>17</sup> <sup>18</sup> <sup>19</sup> <sup>20</sup> <sup>21</sup> <sup>22</sup> <sup>23</sup> <sup>24</sup> <sup>25</sup> <sup>26</sup> <sup>27</sup> <sup>28</sup> <sup>29</sup> <sup>30</sup> <sup>31</sup> <sup>32</sup> <sup>33</sup> <sup>34</sup> <sup>35</sup> <sup>36</sup> <sup>37</sup> <sup>38</sup> <sup>39</sup> <sup>40</sup> <sup>41</sup> <sup>42</sup> <sup>43</sup> <sup>44</sup> <sup>45</sup> <sup>46</sup> <sup>47</sup> <sup>48</sup> <sup>49</sup> <sup>50</sup> <sup>51</sup> <sup>52</sup> <sup>53</sup> <sup>54</sup> <sup>55</sup> <sup>56</sup> <sup>57</sup> <sup>58</sup> <sup>59</sup> <sup>60</sup> <sup>61</sup> <sup>62</sup> <sup>63</sup> <sup>64</sup> <sup>65</sup> <sup>66</sup> <sup>67</sup> <sup>68</sup> <sup>69</sup> <sup>70</sup> <sup>71</sup> <sup>72</sup> <sup>73</sup> <sup>74</sup> <sup>75</sup> <sup>76</sup> <sup>77</sup> <sup>78</sup> <sup>79</sup> <sup>80</sup> <sup>81</sup> <sup>82</sup> <sup>83</sup> <sup>84</sup> <sup>85</sup> <sup>86</sup> <sup>87</sup> <sup>88</sup> <sup>89</sup> <sup>90</sup> <sup>91</sup> <sup>92</sup> <sup>93</sup> <sup>94</sup> <sup>95</sup> <sup>96</sup> <sup>97</sup> <sup>98</sup> <sup>99</sup> <sup>100</sup> <sup>101</sup> <sup>102</sup> <sup>103</sup> <sup>104</sup> <sup>105</sup> <sup>106</sup> <sup>107</sup> <sup>108</sup> <sup>109</sup> <sup>110</sup> <sup>111</sup> <sup>112</sup> <sup>113</sup> <sup>114</sup> <sup>115</sup> <sup>116</sup> <sup>117</sup> <sup>118</sup> <sup>119</sup> <sup>120</sup> <sup>121</sup> <sup>122</sup> <sup>123</sup> <sup>124</sup> <sup>125</sup> <sup>126</sup> <sup>127</sup> <sup>128</sup> <sup>129</sup> <sup>130</sup> <sup>131</sup> <sup>132</sup> <sup>133</sup> <sup>134</sup> <sup>135</sup> <sup>136</sup> <sup>137</sup> <sup>138</sup> <sup>139</sup> <sup>140</sup> <sup>141</sup> <sup>142</sup> <sup>143</sup> <sup>144</sup> <sup>145</sup> <sup>146</sup> <sup>147</sup> <sup>148</sup> <sup>149</sup> <sup>150</sup> <sup>151</sup> <sup>152</sup> <sup>153</sup> <sup>154</sup> <sup>155</sup> <sup>156</sup> <sup>157</sup> <sup>158</sup> <sup>159</sup> <sup>160</sup> <sup>161</sup> <sup>162</sup> <sup>163</sup> <sup>164</sup> <sup>165</sup> <sup>166</sup> <sup>167</sup> <sup>168</sup> <sup>169</sup> <sup>170</sup> <sup>171</sup> <sup>172</sup> <sup>173</sup> <sup>174</sup> <sup>175</sup> <sup>176</sup> <sup>177</sup> <sup>178</sup> <sup>179</sup> <sup>180</sup> <sup>181</sup> <sup>182</sup> <sup>183</sup> <sup>184</sup> <sup>185</sup> <sup>186</sup> <sup>187</sup> <sup>188</sup> <sup>189</sup> <sup>190</sup> <sup>191</sup> <sup>192</sup> <sup>193</sup> <sup>194</sup> <sup>195</sup> <sup>196</sup> <sup>197</sup> <sup>198</sup> <sup>199</sup> <sup>200</sup> <sup>201</sup> <sup>202</sup> <sup>203</sup> <sup>204</sup> <sup>205</sup> <sup>206</sup> <sup>207</sup> <sup>208</sup> <sup>209</sup> <sup>210</sup> <sup>211</sup> <sup>212</sup> <sup>213</sup> <sup>214</sup> <sup>215</sup> <sup>216</sup> <sup>217</sup> <sup>218</sup> <sup>219</sup> <sup>220</sup> <sup>221</sup> <sup>222</sup> <sup>223</sup> <sup>224</sup> <sup>225</sup> <sup>226</sup> <sup>227</sup> <sup>228</sup> <sup>229</sup> <sup>230</sup> <sup>231</sup> <sup>232</sup> <sup>233</sup> <sup>234</sup> <sup>235</sup> <sup>236</sup> <sup>237</sup> <sup>238</sup> <sup>239</sup> <sup>240</sup> <sup>241</sup> <sup>242</sup> <sup>243</sup> <sup>244</sup> <sup>245</sup> <sup>246</sup> <sup>247</sup> <sup>248</sup> <sup>249</sup> <sup>250</sup> <sup>251</sup> <sup>252</sup> <sup>253</sup> <sup>254</sup> <sup>255</sup> <sup>256</sup> <sup>257</sup> <sup>258</sup> <sup>259</sup> <sup>260</sup> <sup>261</sup> <sup>262</sup> <sup>263</sup> <sup>264</sup> <sup>265</sup> <sup>266</sup> <sup>267</sup> <sup>268</sup> <sup>269</sup> <sup>270</sup> <sup>271</sup> <sup>272</sup> <sup>273</sup> <sup>274</sup> <sup>275</sup> <sup>276</sup> <sup>277</sup> <sup>278</sup> <sup>279</sup> <sup>280</sup> <sup>281</sup> <sup>282</sup> <sup>283</sup> <sup>284</sup> <sup>285</sup> <sup>286</sup> <sup>287</sup> <sup>288</sup> <sup>289</sup> <sup>290</sup> <sup>291</sup> <sup>292</sup> <sup>293</sup> <sup>294</sup> <sup>295</sup> <sup>296</sup> <sup>297</sup> <sup>298</sup> <sup>299</sup> <sup>300</sup> <sup>301</sup> <sup>302</sup> <sup>303</sup> <sup>304</sup> <sup>305</sup> <sup>306</sup> <sup>307</sup> <sup>308</sup> <sup>309</sup> <sup>310</sup> <sup>311</sup> <sup>312</sup> <sup>313</sup> <sup>314</sup> <sup>315</sup> <sup>316</sup> <sup>317</sup> <sup>318</sup> <sup>319</sup> <sup>320</sup> <sup>321</sup> <sup>322</sup> <sup>323</sup> <sup>324</sup> <sup>325</sup> <sup>326</sup> <sup>327</sup> <sup>328</sup> <sup>329</sup> <sup>330</sup> <sup>331</sup> <sup>332</sup> <sup>333</sup> <sup>334</sup> <sup>335</sup> <sup>336</sup> <sup>337</sup> <sup>338</sup> <sup>339</sup> <sup>340</sup> <sup>341</sup> <sup>342</sup> <sup>343</sup> <sup>344</sup> <sup>345</sup> <sup>346</sup> 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<sup>413</sup> <sup>414</sup> <sup>415</sup> <sup>416</sup> <sup>417</sup> <sup>418</sup> <sup>419</sup> <sup>420</sup> <sup>421</sup> <sup>422</sup> <sup>423</sup> <sup>424</sup> <sup>425</sup> <sup>426</sup> <sup>427</sup> <sup>428</sup> <sup>429</sup> <sup>430</sup> <sup>431</sup> <sup>432</sup> <sup>433</sup> <sup>434</sup> <sup>435</sup> <sup>436</sup> <sup>437</sup> <sup>438</sup> <sup>439</sup> <sup>440</sup> <sup>441</sup> <sup>442</sup> <sup>443</sup> <sup>444</sup> <sup>445</sup> <sup>446</sup> <sup>447</sup> <sup>448</sup> <sup>449</sup> <sup>450</sup> <sup>451</sup> <sup>452</sup> <sup>453</sup> <sup>454</sup> <sup>455</sup> <sup>456</sup> <sup>457</sup> <sup>458</sup> <sup>459</sup> <sup>460</sup> <sup>461</sup> <sup>462</sup> <sup>463</sup> <sup>464</sup> <sup>465</sup> <sup>466</sup> <sup>467</sup> <sup>468</sup> <sup>469</sup> <sup>470</sup> <sup>471</sup> <sup>472</sup> <sup>473</sup> <sup>474</sup> <sup>475</sup> <sup>476</sup> <sup>477</sup> <sup>478</sup> <sup>479</sup> <sup>480</sup> <sup>481</sup> <sup>482</sup> <sup>483</sup> <sup>484</sup> <sup>485</sup> <sup>486</sup> <sup>487</sup> <sup>488</sup> <sup>489</sup> <sup>490</sup> <sup>491</sup> <sup>492</sup> <sup>493</sup> <sup>494</sup> <sup>495</sup> <sup>496</sup> <sup>497</sup> <sup>498</sup> <sup>499</sup> <sup>500</sup> <sup>501</sup> <sup>502</sup> <sup>503</sup> <sup>504</sup> <sup>505</sup> <sup>506</sup> <sup>507</sup> <sup>508</sup> <sup>509</sup> <sup>510</sup> <sup>511</sup> <sup>512</sup> <sup>513</sup> <sup>514</sup> <sup>515</sup> <sup>516</sup> <sup>517</sup> <sup>518</sup> <sup>519</sup> <sup>520</sup> <sup>521</sup> <sup>522</sup> <sup>523</sup> <sup>524</sup> <sup>525</sup> <sup>526</sup> <sup>527</sup> <sup>528</sup> <sup>529</sup> <sup>530</sup> <sup>531</sup> <sup>532</sup> <sup>533</sup> <sup>534</sup> <sup>535</sup> <sup>536</sup> <sup>537</sup> <sup>538</sup> <sup>539</sup> <sup>540</sup> <sup>541</sup> <sup>542</sup> <sup>543</sup> <sup>544</sup> <sup>545</sup> <sup>546</sup> <sup>547</sup> <sup>548</sup> <sup>549</sup> <sup>550</sup> <sup>551</sup> <sup>552</sup> <sup>553</sup> <sup>554</sup> <sup>555</sup> <sup>556</sup> <sup>557</sup> <sup>558</sup> <sup>559</sup> <sup>560</sup> <sup>561</sup> <sup>562</sup> <sup>563</sup> <sup>564</sup> <sup>565</sup> <sup>566</sup> <sup>567</sup> <sup>568</sup> <sup>569</sup> <sup>570</sup> <sup>571</sup> <sup>572</sup> <sup>573</sup> <sup>574</sup> <sup>575</sup> <sup>576</sup> <sup>577</sup> <sup>578</sup> <sup>579</sup> <sup>580</sup> <sup>581</sup> <sup>582</sup> <sup>583</sup> <sup>584</sup> <sup>585</sup> <sup>586</sup> <sup>587</sup> <sup>588</sup> <sup>589</sup> <sup>590</sup> <sup>591</sup> <sup>592</sup> <sup>593</sup> <sup>594</sup> <sup>595</sup> <sup>596</sup> <sup>597</sup> <sup>598</sup> <sup>599</sup> <sup>600</sup> <sup>601</sup> <sup>602</sup> <sup>603</sup> <sup>604</sup> <sup>605</sup> <sup>606</sup> <sup>607</sup> <sup>608</sup> <sup>609</sup> <sup>610</sup> <sup>611</sup> <sup>612</sup> <sup>613</sup> <sup>614</sup> <sup>615</sup> <sup>616</sup> <sup>617</sup> <sup>618</sup> <sup>619</sup> <sup>620</sup> <sup>621</sup> <sup>622</sup> <sup>623</sup> <sup>624</sup> <sup>625</sup> <sup>626</sup> <sup>627</sup> <sup>628</sup> <sup>629</sup> <sup>630</sup> <sup>631</sup> <sup>632</sup> <sup>633</sup> <sup>634</sup> <sup>635</sup> <sup>636</sup> <sup>637</sup> <sup>638</sup> <sup>639</sup> <sup>640</sup> <sup>641</sup> <sup>642</sup> <sup>643</sup> <sup>644</sup> <sup>645</sup> <sup>646</sup> <sup>647</sup> <sup>648</sup> <sup>649</sup> <sup>650</sup> <sup>651</sup> <sup>652</sup> <sup>653</sup> <sup>654</sup> <sup>655</sup> <sup>656</sup> <sup>657</sup> <sup>658</sup> <sup>659</sup> <sup>660</sup> <sup>661</sup> <sup>662</sup> <sup>663</sup> <sup>664</sup> <sup>665</sup> <sup>666</sup> <sup>667</sup> <sup>668</sup> <sup>669</sup> <sup>670</sup> <sup>671</sup> <sup>672</sup> <sup>673</sup> <sup>674</sup> <sup>675</sup> <sup>676</sup> <sup>677</sup> <sup>678</sup> <sup>679</sup> <sup>680</sup> <sup>681</sup> <sup>682</sup> <sup>683</sup> <sup>684</sup> <sup>685</sup> <sup>686</sup> <sup>687</sup> <sup>688</sup> <sup>689</sup> <sup>690</sup> <sup>691</sup> <sup>692</sup> <sup>693</sup> <sup>694</sup> <sup>695</sup> <sup>696</sup> <sup>697</sup> <sup>698</sup> <sup>699</sup> <sup>700</sup> <sup>701</sup> <sup>702</sup> <sup>703</sup> <sup>704</sup> <sup>705</sup> <sup>706</sup> <sup>707</sup> <sup>708</sup> <sup>709</sup> <sup>710</sup> <sup>711</sup> <sup>712</sup> <sup>713</sup> <sup>714</sup> <sup>715</sup> <sup>716</sup> <sup>717</sup> <sup>718</sup> <sup>719</sup> <sup>720</sup> <sup>721</sup> <sup>722</sup> <sup>723</sup> <sup>724</sup> <sup>725</sup> <sup>726</sup> <sup>727</sup> <sup>728</sup> <sup>729</sup> <sup>730</sup> <sup>731</sup> <sup>732</sup> <sup>733</sup> <sup>734</sup> <sup>735</sup> <sup>736</sup> <sup>737</sup> <sup>738</sup> <sup>739</sup> <sup>740</sup> <sup>741</sup> <sup>742</sup> <sup>743</sup> <sup>744</sup> <sup>745</sup> <sup>746</sup> <sup>747</sup> <sup>748</sup> <sup>749</sup> <sup>750</sup> <sup>751</sup> <sup>752</sup> <sup>753</sup> <sup>754</sup> <sup>755</sup> <sup>756</sup> <sup>757</sup> <sup>758</sup> <sup>759</sup> <sup>760</sup> <sup>761</sup> <sup>762</sup> <sup>763</sup> <sup>764</sup> <sup>765</sup> <sup>766</sup> <sup>767</sup> <sup>768</sup> <sup>769</sup> <sup>770</sup> <sup>771</sup> <sup>772</sup> <sup>773</sup> <sup>774</sup> <sup>775</sup> <sup>776</sup> <sup>777</sup> <sup>778</sup> <sup>779</sup> <sup>780</sup> <sup>781</sup> <sup>782</sup> <sup>783</sup> <sup>784</sup> <sup>785</sup> <sup>786</sup> <sup>787</sup> <sup>788</sup> <sup>789</sup> <sup>790</sup> <sup>791</sup> <sup>792</sup> <sup>793</sup> <sup>794</sup> <sup>795</sup> <sup>796</sup> <sup>797</sup> <sup>798</sup> <sup>799</sup> <sup>800</sup> <sup>801</sup> <sup>802</sup> <sup>803</sup> <sup>804</sup> <sup>805</sup> <sup>806</sup> <sup>807</sup> <sup>808</sup> <sup>809</sup> <sup>810</sup> <sup>811</sup> <sup>812</sup> <sup>813</sup> <sup>814</sup> <sup>815</sup> <sup>816</sup> <sup>817</sup> <sup>818</sup> <sup>819</sup> <sup>820</sup> <sup>821</sup> <sup>822</sup> <sup>823</sup> <sup>824</sup> <sup>825</sup> <sup>826</sup> <sup>827</sup> <sup>828</sup> <sup>829</sup> <sup>830</sup> <sup>831</sup> <sup>832</sup> <sup>833</sup> <sup>834</sup> <sup>835</sup> <sup>836</sup> <sup>837</sup> <sup>838</sup> <sup>839</sup> <sup>840</sup> <sup>841</sup> <sup>842</sup> <sup>843</sup> <sup>844</sup> <sup>845</sup> <sup>846</sup> <sup>847</sup> <sup>848</sup> <sup>849</sup> <sup>850</sup> <sup>851</sup> <sup>852</sup> <sup>853</sup> <sup>854</sup> <sup>855</sup> <sup>856</sup> <sup>857</sup> <sup>858</sup> <sup>859</sup> <sup>860</sup> <sup>861</sup> <sup>862</sup> <sup>863</sup> <sup>864</sup> <sup>865</sup> <sup>866</sup> <sup>867</sup> <sup>868</sup> <sup>869</sup> <sup>870</sup> <sup>871</sup> <sup>872</sup> <sup>873</sup> <sup>874</sup> <sup>875</sup> <sup>876</sup> <sup>877</sup> <sup>878</sup> <sup>879</sup> <sup>880</sup> <sup>881</sup> <sup>882</sup> <sup>883</sup> <sup>884</sup> <sup>885</sup> <sup>886</sup> <sup>887</sup> <sup>888</sup> <sup>889</sup> <sup>890</sup> <sup>891</sup> <sup>892</sup> <sup>893</sup> <sup>894</sup> <sup>895</sup> <sup>896</sup> <sup>897</sup> <sup>898</sup> <sup>899</sup> <sup>900</sup> <sup>901</sup> <sup>902</sup> <sup>903</sup> <sup>904</sup> <sup>905</sup> <sup>906</sup> <sup>907</sup> <sup>908</sup> <sup>909</sup> <sup>910</sup> <sup>911</sup> <sup>912</sup> <sup>913</sup> <sup>914</sup> <sup>915</sup> <sup>916</sup> <sup>917</sup> <sup>918</sup> <sup>919</sup> <sup>920</sup> <sup>921</sup> <sup>922</sup> <sup>923</sup> <sup>924</sup> <sup>925</sup> <sup>926</sup> <sup>927</sup> <sup>928</sup> <sup>929</sup> <sup>930</sup> <sup>931</sup> <sup>932</sup> <sup>933</sup> <sup>934</sup> <sup>935</sup> <sup>936</sup> <sup>937</sup> <sup>938</sup> <sup>939</sup> <sup>940</sup> <sup>941</sup> <sup>942</sup> <sup>943</sup> <sup>944</sup> <sup>945</sup> <sup>946</sup> <sup>947</sup> <sup>948</sup> <sup>949</sup> <sup>950</sup> <sup>951</sup> <sup>952</sup> <sup>953</sup> <sup>954</sup> <sup>955</sup> <sup>956</sup> <sup>957</sup> <sup>958</sup> <sup>959</sup> <sup>960</sup> <sup>961</sup> <sup>962</sup> <sup>963</sup> <sup>964</sup> <sup>965</sup> <sup>966</sup> <sup>967</sup> <sup>968</sup> <sup>969</sup> <sup>970</sup> <sup>971</sup> <sup>972</sup> <sup>973</sup> <sup>974</sup> <sup>975</sup> <sup>976</sup> <sup>977</sup> <sup>978</sup> <sup>979</sup> <sup>980</sup> <sup>981</sup> <sup>982</sup> <sup>983</sup> <sup>984</sup> <sup>985</sup> <sup>986</sup> <sup>987</sup> <sup>988</sup> <sup>989</sup> <sup>990</sup> <sup>991</sup> <sup>992</sup> <sup>993</sup> <sup>994</sup> <sup>995</sup> <sup>996</sup> <sup>997</sup> <sup>998</sup> <sup>999</sup> <sup>1000</sup> <sup>1001</sup> <sup>1002</sup> <sup>1003</sup> <sup>1004</sup> <sup>1005</sup> <sup>1006</sup> <sup>1007</sup> <sup>1008</sup> <sup>1009</sup> <sup>1010</sup> <sup>1011</sup> <sup>1012</sup> <sup>1013</sup> <sup>1014</sup> <sup>1015</sup> <sup>1016</sup> <sup>1017</sup> <sup>1018</sup> <sup>1019</sup> <sup>1020</sup> <sup>1021</sup> <sup>1022</sup> <sup>1023</sup> <sup>1024</sup> <sup>1025</sup> <sup>1026</sup> <sup>1027</sup> <sup>1028</sup> <sup>1029</sup> <sup>1030</sup> <sup>1031</sup> <sup>1032</sup> <sup>1033</sup> <sup>1034</sup> <sup>1035</sup> <sup>1036</sup> <sup>1037</sup> <sup>1038</sup> <sup>1039</sup> <sup>1040</sup> <sup>1041</sup> <sup>1042</sup> <sup>1043</sup> <sup>1044</sup> <sup>1045</sup> <sup>1046</sup> <sup>1047</sup> <sup>1048</sup> <sup>1049</sup> <sup>1050</sup> <sup>1051</sup> <sup>1052</sup> <sup>1053</sup> <sup>1054</sup> <sup>1055</sup> <sup>1056</sup> <sup>1057</sup> <sup>1058</sup> <sup>1059</sup> <sup>1060</sup> <sup>1061</sup> <sup>1062</sup> <sup>1063</sup> <sup>1064</sup> <sup>1065</sup> <sup>1066</sup> <sup>1067</sup> <sup>1068</sup> <sup>1069</sup> <sup>1070</sup> <sup>1071</sup> <sup>1072</sup> <sup>1073</sup> <sup>1074</sup> <sup>1075</sup> <sup>1076</sup> <sup>1077</sup> <sup>1078</sup> <sup>1079</sup> <sup>1080</sup> <sup>1081</sup> <sup>1082</sup> <sup>1083</sup> <sup>1084</sup> <sup>1085</sup> <sup>1086</sup> <sup>1087</sup> <sup>1088</sup> <sup>1089</sup> <sup>1090</sup> <sup>1091</sup> <sup>1092</sup> <sup>1093</sup> <sup>1094</sup> <sup>1095</sup> <sup>1096</sup> <sup>1097</sup> <sup>1098</sup> <sup>1099</sup> <sup>1100</sup> <sup>1101</sup> <sup>1102</sup> <sup>1103</sup> <sup>1104</sup> <sup>1105</sup> <sup>1106</sup> <sup>1107</sup> <sup>1108</sup> <sup>1109</sup> <sup>1110</sup> <sup>1111</sup> <sup>1112</sup> <sup>1113</sup> <sup>1114</sup> <sup>1115</sup> <sup>1116</sup> <sup>1117</sup> <sup>1118</sup> <sup>1119</sup> <sup>1120</sup> <sup>1121</sup> <sup>1122</sup> <sup>1123</sup> <sup>1124</sup> <sup>1125</sup> <sup>1126</sup> <sup>1127</sup> <sup>1128</sup> <sup>1129</sup> <sup>1130</sup> <sup>1131</sup> <sup>1132</sup> <sup>1133</sup> <sup>1134</sup> <sup>1135</sup> <sup>1136</sup> <sup>1137</sup> <sup>1138</sup> <sup>1139</sup> <sup>1140</sup> <sup>1141</sup> <sup>1142</sup> <sup>1143</sup> <sup>1144</sup> <sup>1145</sup> <sup>1146</sup> <sup>1147</sup> <sup>1148</sup> <sup>1149</sup> <sup>1150</sup> <						



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A—Continued.

the amount of Tolls collected during the Season of Navigation in 1902.—Concluded.

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.		Sault Ste. Marie Canal.
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.
	¢ cts.		¢ cts.		¢ cts.		¢ cts.		¢ cts.	
1,850	34 72			4,534	179 81	31,659	316 59			563,835
						121	1 21			14,401
										2,594,452
1,632	16 32			23	0 28	5,397	53 97			6,453
15	0 75									
3,497	51 79			4,557	180 09	37,177	371 77			3,089,141
33,548	1,069 80	380,952	24,852 37	47,779	3,831 15	73,538	3,034 14	41,690	429 01	
		63,730	616 17							
1,630	30 58			3,100	82 68					
35,178	1,091 38	444,682	25,468 54	50,879	3,913 83	73,538	3,034 14	41,690	1,328 98	4,729,268

RICHARD DEVLIN,  
*Compiler of Canal Statistics.*

3-4 EDWARD VII., A. 1904

## SUPPLEMENTARY APPENDIX

No. (A) 15.—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.
		8 cts.		8 cts.		8 cts.
Vessels of all kinds.....	825,723	13,369 06	1,841,557	14,792 18	387,451	3,889 43
Passengers.....	No. 1,167	109 21	No. 77,448	3,473 73	No. 3,304	51 74
<i>Forest—Product of Wood.</i>	Tons.		Tons.		Tons.	
Bark.....						
Boat knees.....						
Floats.....			80	1 40		
".....Free						
Firewood.....	8,286	459 42	40,740	2,274 66	195,759	6,513 48
".....Free	3,600					
Hoops and hop poles.....						
Lumber, sawed.....	102,775	18,398 30	26,421	683 85	26,750	1,486 85
".....Free			1,085			
Masts, spars, &c.....			24,886	621 82	114	7 80
Railway ties.....	751	95 10	655	50 59	2,334	186 31
".....Free			19			
Saw logs.....	4,695	191 65	387	8 73		
".....Free						
Staves, all kinds.....	85	2 72				
Shingles.....			165	23 25		
Split posts and rails.....			20	0 50		
Timber, square.....	20,849	3,124 51	7,823	199 32	127	6 33
".....Free			149			
Traverses.....						
Total.....	141,041	22,262 70	102,430	3,864 12	225,084	8,200 77
<i>Farm Stock.</i>						
Cattle.....			396	27 60	222	7 64
Hogs.....			12	0 77		
Horses.....			719	50 16	65	2 39
Sheep.....			91	6 75	122	4 22
Total.....			1,218	85 28	409	14 25
<i>Product of Animals.</i>						
Bones.....			38	2 30		
Horns and hoofs, hides and skins (raw), ".....Free	37	5 55	162	12 86		
Lard and lard oil.....	2,434	485 75	277	35 76	17	1 70
".....Free	11					
Meats other than pork.....	1	0 15	71	9 46		
Pork.....	637	127 15	945	64 99	10	0 35
Tallow.....	448	67 20	24	3 39		
Wool.....	752	150 40	23	3 45		
Agricultural products not enumerated (animal).....			4,230	424 61	3	0 30
Total.....	4,336	836 20	5,770	556 82	30	2 35

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A—Continued.

the Season of Navigation ended December 31, 1902, 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.		Sault Ste. Marie Canal.
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.
s cts.		s cts.		s cts.		s cts.		s cts.		
223,997	284 83	249,457	2,436 58	170,569	1,478 62	114,846	2,298 76	154,232	695 94	4,604,302
No. 15,403	182 70	No. 13,818	181 87	No. 9,294	226 00	No. .....	.....	No. 30,994	204 03	No. 36,658
Tons.		Tons.		Tons.		Tons.		Tons.		
				28	0 66	11	0 11	412	6 65	27
		53,477	458 59	280	4 99			7,257	57 93	158
		29,900								
8,622	75 15	16,663	556 67	11,964	231 56	141	1 41	15,832	158 89	12,387
				18	2 50					
1,180	13 23	286,436	20,110 71	14,194	1,032 55	13,671	136 71	5,504	90 01	81,822
		27								
70	1 04			83	2 22	27	0 27			884
831	8 31	86	6 72	213	24 50	145	1 45			2,670
		25								
		1,435	32 64	19	0 40			9,760	81 22	7,848
		758								
120	10 30	76	9 60	177	51 92	296	2 96	3	0 14	8,980
						367	3 67			7
		11,342	121 67	220	4 11	1,018	10 18	525	10 25	3,970
		33,020								
				100	0 64					
10,823	108 03	433,245	21,296 60	27,296	1,355 96	15,676	156 76	39,293	465 09	118,753
		651	52 01	5	0 17	12	0 12	2	0 02	250
		118	9 41					181	1 87	3
8	0 16	206	11 20	9	0 27	3	0 03			248
		515	45 20	12	0 30	3	0 03			
8	0 16	1,490	117 82	26	0 74	18	0 18	183	1 89	501
		3	0 22							
		16	1 78	1	0 03					70
82	1 58			53	1 45	2	0 02			3
15	0 29			4	0 14	30	0 30			20
11	0 22	8	0 56	111	3 06	17	0 17			1
		6	0 59							
				2	0 06					1,411
10	0 19	2,919	247 93	802	26 16	1	0 01			
118	2 28	2,952	251 08	973	30 90	50	0 50			1,505

3-4 EDWARD VII., A. 1904

No. (A) 15.—SUMMARY STATEMENT of Traffic on the undermentioned

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Agricultural Products.</i>						
Agricultural products not enumerated (vegetables).....	4	0 53	2,360	350 39	1	0 10
" " Free	1					
Apples.....	248	9 41	5,464	790 16	749	57 03
Barley.....	7,418	741 80	8,255	787 63		
Buckwheat.....			920	85 52		
Cotton (raw).....			3	0 45		
Corn.....	67,647	6,764 70	13,337	367 52	1	0 10
" " Free			11,029			
Flax and hemp.....	630	94 50	5	0 75		
Flour.....	22,282	3,966 15	15,844	1,125 73	793	30 26
" " Free			6,755			
Hay (pressed).....			2,057	96 25	37,706	2,308 74
Meals (all kinds).....	12,714	2,536 14	612	53 44		
Manilla.....	40	6 00	1	0 19		
Oats.....	11,232	1,125 28	21,398	1,180 01	998	33 43
" " Free			1,442			
Pease.....			1,781	173 47		
Potatoes.....	1	18	59	4 37		
Rye.....	4,079	407 90	15,659	699 53		
" " Free			4,079			
Seeds—Flax, clover and grass.....	10	2 00	19,556	690 64	6	0 20
" " Free	58					
Tobacco (raw).....			23	2 22		
" " Free	1					
Wheat.....	225,171	22,387 51	243,286	6,937 19		
" " Free			200,975			
Total.....	351,536	38,042 10	574,970	13,345 46	34,454	2,429 86
<i>Manufactures.</i>						
Ashes (pot and pearl).....			18	3 60		
Agricultural implements.....	441	83 43	128	15 81	91	3 80
" " Free			13			
Barrels (empty).....	52	7 75	616	60 20	19	2 40
" " Free			15			
Bricks.....	198	19 87	9,068	467 85	1,602	133 61
" " Free	22					
Cement and water lime.....	826	121 54	6,277	712 27	6,808	507 24
" " Free	178					
Crockery and earthenware.....	94	14 10	202	39 11	55	5 48
" " Free	2					
Furniture.....	21	4 00	1,389	253 37		
Glass of all kinds.....	40	3 64	2,491	493 92	4	0 28
" " Free	1,384					
Iron, railway.....	64	12 10	12,545	1,838 55	10	0 67
" " Free	11,735		50			
" " pig.....			2,681	298 29		
" " all other.....	538					
" " Free	7,488	1,396 68	32,955	2,520 93	37	1 27
" " Free	2,904		5,785			
Molasses.....	76	15 00	584	73 05	82	2 76
" " Free			54			
Nails.....	716	105 97	3,738	540 30	53	1 86
" " Free	1,292					
Oil.....	13,999	2,769 98	1,947	320 47	82	3 83
" " Free	14		12,091			
Oil cake.....	110	22 00	5,906	295 33		
Paint.....	34	5 97	1,113	196 17		
" " Free	97					
Pitch and tar.....	40	7 65	626	91 56	1,331	133 10
" " Free	27					

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Canals and the amount of Tolls collected, &c.—*Concluded.*

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.		Sault Ste. Marie Canal.
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.
	¢ cts.		¢ cts.		¢ cts.		¢ cts.		¢ cts.	Free.
489	9 33	4	0 24	13	0 39	107	1 07			6,200
366	6 97	117	7 04	25	0 68	124	1 24			692
1,328	24 97			122	2 86	13	0 13			21,061
92	1 73	20	1 97	7	0 17					
20	0 38			1	0 03					
8	0 15			22	0 55					630
154	2 94	8	0 80	487	12 14	1,473	14 73			316,063
		3,465	283 38	1,299	42 73	1,101	11 01			1,799
133	2 54			61	1 61	575	5 75			15,226
						26	0 26			670
159	3 00	565	47 29	541	18 23	2,135	21 35			9,689
33	0 62							6	0 06	
210	3 97	148	9 31	12	0 33	4,212	42 12			160
1,164	21 85			28	0 66					2,128
337	6 46	2	0 20	72	1 70					13
		3	0 18	9	0 22	2	0 02			2
684	12 88			1,041	24 33			1,661	16 60	837,375
5,177	97 73	4,332	350 41	3,650	106 65	9,768	97 68	1,667	16 66	1,211,558
2	0 06			3	0 36					
		2	0 34	198	18 21	3	0 03			10
2	0 05	77	4 07	96	5 24	25	0 25			120
188	3 59			493	12 42	3,822	38 22	16	0 16	2,597
347	6 57	67	6 44	660	16 58	1,490	14 90	400	1 28	5,739
139	3 49			15	1 95	23	0 23			419
192	5 12	23	3 56	61	5 67	37	0 37			135
426	10 74	8	1 52	58	5 29	21	0 21			474
306	5 86			5	0 14	600	6 00			30,264
				27	0 65					17,459
1,387	26 20	26	2 03	451	12 59	211	2 11			12,440
42	1 05			125	10 92	340	3 40			177
236	5 94	2	0 38	107	11 13	64	0 64			3,083
829	20 81	1	0 19	163	14 64	280	2 80			2,029
				2	0 06					659
533	13 39	2	0 38	24	2 52	17	0 17			230
109	2 74	91	17 29	17	1 52	21	0 21			38

3-4 EDWARD VII., A. 1904

No. (A) 15.—SUMMARY STATEMENT of Traffic on the undermentioned

Articles.	Welland Canal.		St. Lawrence Canals.		Chamblly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
		¢ cts.		¢ cts.		¢ cts.
Rosin.....			1,932	98 26	2,694	302 46
Soda ash.....	72	8 31	998	199 39		
" Free.....	201					
Spirits, whiskey, &c.....	160	22 86	1,239	198 73		
" Free.....	182					
Steel.....	120	6 33	1,323	173 76		
" Free.....	11					
Sugar.....	1,485	217 21	6,753	1,075 74	1,176	111 92
" Free.....	1,314					
Tin.....	44	6 60	2,438	481 59		
" Free.....	506					
White lead.....	2	0 17	238	46 35		
" Free.....	37					
Turpentine.....	3	0 45	148	7 70	137	13 70
" Free.....	2					
Whiting.....			534	106 63		
" Free.....	61					
Woodenware.....	242	96 80	55	17 90	4	1 00
" Free.....			17			
Total.....	46,764	4,948 41	116,007	10,626 83	14,185	1,225 38
<i>Merchandise.</i>						
Brimstone (crude).....			783	81 16		
" Free.....	20					
Clay, lime and sand.....	565	46 88	45,945	2,037 05	25,396	1,934 81
" Free.....	1					
Coal.....	64,014	12,845 63	92,393	12,636 33	23,768	2,317 85
" Free.....			120,257			
Dye woods and dye stuffs.....			49	7 51	52	5 20
Fish.....	46	6 95	128	9 81		
Gypsum.....			831	10 93		
Ores (all kinds).....	22,480	1,124 00	452	22 60	34,177	1,709 70
Marble.....	1,251	187 65	2	0 38		
Rags.....	36	0 68	512	77 05		
" Free.....	1					
Salt.....			4,202	443 08	552	40 82
" Free.....	4					
Stone (all kinds).....	600	60 00	1,472	69 19	15,285	442 79
" Free.....			5,710			
All other goods and merchandise (not enumerated).....	31,643	4,762 03	17,653	2,941 60	6,050	448 36
" Free.....	1,049		419			
Total.....	121,710	19,033 82	292,808	18,336 69	105,280	6,899 53
Grand totals (passengers and tonnage of vessels not included).....	665,387	98,601 50	1,093,133	65,081 11	379,442	22,713 31

DEPARTMENT OF RAILWAYS AND CANALS,  
 OTTAWA, August 12, 1903.

SESSIONAL PAPER No. 20

Canals and the amount of Tolls collected, &c.—*Continued.*

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.		Sault Ste. Marie Canal.
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.
	s cts.		s cts.		s cts.		s cts.		s cts.	Free.
64	1 61	5	0 70	7	0 71	1	0 01			
				12	1 05	4	0 04			
300	7 56	4	0 58	206	18 38	44	0 44			923
179	3 41			39	1 00					443
916	22 96	1	0 19	201	19 18	123	1 23			3,698
230	5 77			1	0 09	25	0 25			131
39	0 75	1	0 19	25	2 25	1	0 01			153
				1	0 09					1
58	1 46			8	0 71					64
6,515	149 13	310	37 86	3,005	162 75	7,132	71 52	416	1 44	81,266
2	0 04									
51	0 98	1,655	68 01	5,790	135 59	101	1 01			23,151
1,850	34 72			4,534	179 81	31,659	316 59			563,835
1,630				3,100						
41	1 05					2,219	22 19			1,909
4	0 08	3	0 30	50	0 76					
						121	1 21			2,518,853
						9	0 09			
177	4 47	77	14 00	45	4 01					
161	3 07	8	0 48	1,121	29 25	420	4 20			22,987
1,676	17 40	1	0 10	53	0 98	5,650	56 50			10,091
6,945	174 13	609	97 26	1,256	119 15	695	6 95	131	3 93	174,859
12,537	235 94	2,353	180 15	15,929	469 55	40,874	408 74	131	3 93	3,315,685
35,178	1,060 80	444,682	24,852 37	50,879	3,831 15	73,538	3,034 14	41,690	429 01	4,729,268

RICHARD DEVLIN,  
*Compiler of Canal Statistics.*





## SESSIONAL PAPER No. 20

RIDEAU CANAL.												
Kingston Mills										96 63	10 76	653 61
Ottawa										331 12	317 04	2,372 29
Smith's Falls										72 31	48 19	805 22
Total Rideau Canal										503 09	435 99	3,831 15
ST. PETER'S CANAL.												
St. Peter's	40 36	2 55								338 71	266 37	3,031 11
TRENT VALLEY CANALS.												
Bobbygon			12 45							69 29	52 84	112 97
Backhorn			1 75							23 36	3 39	133 50
Burlingh			1 75							29 75	9 60	129 82
Fendon Falls										5 75		100 48
Hastings										1 75	0 50	37 47
Peterborough			9 63							46 19	39 99	493 71
Total Trent Valley Canals			26 08							167 39	106 25	1,328 98
MURRAY CANAL.												
Brighton			46 01							162 61	101 51	1,060 80
Grand total	40 36	2 55	5,193 95	36,287 72	26,634 81	31,921 36	31,311 77	30,405 17	31,555 38	21,277 80	2,808 96	220,563 36

RICHARD DEVLIN.

*Compiler of Canal Statistics.*DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, August 12, 1903.

3-4 EDWARD VII., A. 1904

APPENDIX A—Continued.

No. (A) 17.—SUMMARY STATEMENT showing the Number, Tonnage and Nationality of Vessels passed through all the Canals during the Season of Navigation ended December 31, 1902, and the amount of Tolls collected thereon.

Vessels.	Total Number.		From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
<b>WELLAND CANAL.</b>														
Canadian vessels, steam.....	654		68,512		38,064	7,561		483		7,161	37,190	113,263	232,180	3,162 52
" sail.....	357		49,656		30,863	1,284				682	30,681	81,621	161,177	3,437 25
Total Canadian.....	1,011		118,168		68,927	8,845		483		7,843	67,871	194,884	393,357	6,599 77
United States vessels, steam.....	468		97		24,035	780		162,877		1,334	39,304	188,417	390,672	5,861 08
" sail.....	99		3		3,480			14,633		680	6,405	18,794	22,900	908 21
Total United States.....	557		100		27,515	780		177,510		2,014	45,709	207,211	432,366	6,769 29
Grand Total, Welland Canal.....	1,568		121,392		96,442	9,624		177,993		9,857	113,580	420,039	825,723	13,369 06
<b>ST. LAWRENCE CANALS.</b>														
Canadian vessels, steam.....	3,378		306,379		18,491						22,115	390,725	721,219	4,764 38
" sail.....	4,038		400,008		10,660			382			40,637	528,668	969,313	8,996 04
Total Canadian.....	7,416		889,860		29,151			382			62,752	919,393	1,690,532	13,760 42
United States vessels, steam.....	704		3,384		28,520			17,181		136	39,659	47,070	111,200	692 83
" sail.....	280		5,856		11,187			773		10,441	9,935	23,188	39,825	338 93
Total United States.....	984		9,240		39,716			18,261		10,577	49,594	70,258	151,025	1,031 76
Grand Total, St. Lawrence Canals.....	8,400		891,583		68,867			18,643		10,577	112,346	891,651	1,841,557	14,792 18



3-4 EDWARD VII, A. 1904

No. (A) 17.—SUMMARY STATEMENT showing the Number, Tonnage and Nationality of Vessels, &c.—*Concluded.*

Vessels.	Total Number.		From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, \$ cts.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.			
															Up.
<i>St. Peter's Canal. Concluded.</i>															
United States vessels, steam.	2	143	256									143	256	399	7 98
" sail.	5	27	224				77			111		171	390	472	9 14
Total United States.	7	170	480			77				111		314	537	871	17 42
Grand Total, St. Peter's Canal.	1,071	59,846	51,581			77			342			60,188	54,638	114,846	2,298 76
<i>Trent Valley Canals.</i>															
Canadian vessels, steam.	2,091	61,578	62,375									61,578	62,375	123,953	576 79
" sail.	459	14,136	15,843									14,436	15,843	30,279	119 15
Total Canadian.	2,550	76,014	78,218									76,014	78,218	154,232	695 94
United States vessels, steam.															
" sail.															
Total United States.															
Grand Total, Trent Valley Canals.	2,550	76,014	78,218									76,014	78,218	154,232	695 94
<i>Murray Canal.</i>															
Canadian vessels, steam.	549	76,181	63,800					8	523			31,130	110,979	95,433	206 432
" sail.	244	6,178	5,147									2,705	8,684	7,832	16,333
Total Canadian.	793	82,362	68,947					8	523			33,835	119,660	103,305	222 965
United States vessels, steam.	23	160	168					128				95	538	262	801
" sail.	14	5										108	123	108	231
Total United States.	37	165	168					128				203	661	371	1,032
Grand Total, Murray Canal.	830	82,527	69,115					136	523			31,638	120,321	103,676	223 997

SESSIONAL PAPER No. 20

## SAULT STE. MARIE CANAL.

Canadian vessels, steam	2,661	130,151	410,817	94,885	50,419	1,001	1,621	59,246	95,579	585,282	558,466	1,143,749
" sail	419	75,351	70,107	5,738	31,912	.....	20	34,048	3,575	115,137	108,014	223,181
Total Canadian	3,080	205,502	480,924	100,623	82,331	1,001	1,641	93,294	101,554	700,420	666,510	1,366,930
United States vessels, steam	1,644	6,058	14,737	6,378	52,430	1,381,167	1,270,335	90,148	11,699	1,483,751	1,329,701	2,813,452
" sail	320	750	2,763	736	15,096	179,882	203,393	20,374	926	201,712	222,178	423,920
Total United States	1,964	6,808	17,500	7,114	67,526	1,561,049	1,473,728	110,522	12,625	1,685,463	1,551,879	3,237,372
Grand Total, Sault Ste. Marie Canal.	5,044	212,310	498,421	107,737	150,387	1,562,050	1,455,369	203,816	114,179	2,387,913	2,218,389	4,604,302

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, August 12, 1903.

RICHARD DEVLIN,  
*Compiler of Canal Statistics.*

3-4 EDWARD VII., A. 1904

No. (A) 17.—SUMMARY STATEMENT showing the Number, Tonnage and Nationality of Vessels, &amp;c.—Concluded.

## RECAPITULATION.

CANADIAN 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.		
<i>Steam and Sail.</i>													
Welland .....	1,011	121,220	118,168	68,427	8,845	488		7,843	67,871	198,473	194,881	393,357	6,599 77
St. Lawrence .....	7,416	889,860	708,387	29,131		382			62,752	919,393	771,139	1,690,532	13,760 42
Chambly .....	1,297	59,692	61,484	4,250	95				17,652	61,852	73,231	141,083	927 69
Ottawa .....	1,803	42,294	190,797		6,191					42,291	196,988	239,282	2,213 59
Rideau .....	2,614	79,637	79,731	1,115					2,856	80,752	163,339	1,314 96	
St. Peter's .....	1,661	59,676	54,101					198		59,874	54,101	113,975	2,281 34
Trent Valley .....	2,530	76,014	78,218	37,290		8			33,835	76,014	78,218	151,232	695 94
Murray .....	743	82,362	68,947						101,551	119,600	103,305	222,365	275 84
Sault Ste. Marie .....	3,080	595,502	480,954	100,623	82,361	1,901	1,641	98,294	101,551	700,429	665,510	1,366,330	
Total Canadian .....	22,198	1,914,167	1,840,787	241,336	97,492	1,874	2,164	101,335	286,520	2,258,732	2,226,363	4,485,035	28,069 55
UNITED STATES VESSELS.													
Welland .....	557	172	100	27,515	789	177,510	178,567	2,014	45,769	207,211	225,155	432,366	6,769 29
St. Lawrence .....	984	1,704	9,240	39,716	73	18,261	21,860	10,577	49,594	70,258	80,767	151,025	1,031 76
Chambly .....	2,524	748	1,800	111,498			927		131,735	112,246	134,122	246,368	2,061 74
Ottawa .....	1,033	2,280	7,893							2,280	7,893	10,173	222 99
Rideau .....	257	1,575	628	1,615	1,676			144	1,736	3,190	4,040	7,230	163 66
St. Peter's .....	7	170	480		77					314	557	871	17 42
Vrent Valley .....													
Murray .....	37	165	168	368		128			293	661	371	1,032	8 99
Sault Ste. Marie .....	1,964	6,898	17,500	7,114	68,026	1,561,049	1,453,728	110,522	12,625	1,685,493	1,551,879	3,237,372	
Total United States .....	6,433	13,622	37,871	187,826	70,641	1,756,948	1,654,672	123,257	241,692	2,081,653	2,004,786	4,086,439	11,175 85
Grand total, Canadian and United States .....	28,631	1,927,789	1,878,658	429,162	168,133	1,758,822	1,656,836	224,592	528,122	4,340,385	4,231,749	8,572,134	39,245 40

RICHARD DEVLIN,  
Comptroller of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, August 12, 1903.

## SESSIONAL PAPER No. 20

## APPENDIX A—Continued.

No. (A) 18.—COMPARATIVE STATEMENT of Grand Total Freight passed through the undermentioned Canals during the Seasons of Navigation 1901 and 1902, and the Amount of Tolls collected on the same, including Tolls on Vessels and Passengers.

Canals.	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.		
1901.												
Welland.....	11,691	184,973	8,113	15,720	83,543	190,476	58	122,655	106,405	513,804	629,209	86,760 48
St. Lawrence.....	175,915	723,713	7,069	393	393	3,122	12,717	285,376	196,085	1,012,211	1,298,246	97,276 90
Chambly.....	5,441	7,115	219,894	1,215	.....	.....	.....	126,100	223,338	131,466	337,738	24,861 52
Ottawa.....	935	406,988	.....	37,339	.....	.....	353	411,927	353	411,927	445,862	25,627 19
Rideau.....	18,512	8,701	8,394	3,936	.....	.....	16,633	.....	27,106	29,270	56,376	4,114 44
St. Peter's.....	35,576	52,681	.....	.....	.....	.....	.....	.....	35,576	52,681	88,257	3,299 12
Trent Valley.....	26,150	10,382	.....	.....	.....	.....	.....	.....	26,150	10,382	36,532	1,663 24
Murray.....	8,627	12,811	6,248	.....	.....	.....	490	1,356	15,365	14,170	29,535	1,049 20
Sault Ste. Marie.....	54,955	278,727	18,540	142,391	423,298	1,608,098	161,430	129,965	661,213	2,159,181	2,829,391	No Tolls.
Grand Total.....	340,805	1,686,694	268,449	291,231	507,294	1,801,696	177,715	682,065	1,294,173	4,371,086	5,665,259	244,655 69
1902.												
Welland.....	28,395	178,605	11,365	25,793	11,928	22,110	66	152,125	84,754	380,633	665,387	98,601 50
St. Lawrence.....	273,520	636,642	6,944	160	486	990	9,199	141,892	290,419	802,684	1,093,133	65,081 11
Chambly.....	12,097	16,236	254,160	.....	.....	.....	.....	96,430	296,707	112,675	379,442	22,713 31
Ottawa.....	82	411,055	.....	33,515	.....	.....	.....	.....	82	411,600	411,682	24,832 37
Rideau.....	28,032	10,104	1,250	4,108	.....	.....	1,385	.....	32,282	18,397	50,679	3,831 15
St. Peter's.....	31,716	41,422	.....	200	.....	.....	200	.....	31,916	41,622	73,538	3,634 14
Trent Valley.....	29,495	12,195	.....	.....	.....	.....	.....	.....	29,495	12,195	41,690	1,328 98
Murray.....	17,112	10,294	5,601	.....	.....	.....	2,171	.....	22,713	12,465	35,178	1,060 80
Sault Ste. Marie.....	108,126	727,927	25,892	278,678	470,414	2,775,536	189,478	162,217	784,910	3,944,358	4,729,268	No Tolls.
Grand Total.....	529,685	2,064,480	398,212	342,484	515,828	3,000,636	190,243	562,229	1,543,368	5,969,829	7,513,197	229,563 36

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, August 12, 1903.

RICHARD DEVLIN,  
Comptroller of Canal Statistics.

3-4 EDWARD VII., A. 1904

## APPENDIX A—Continued.

No. (A) 19.—STATEMENT of the Number and Tonnage of all kinds of Vessels passed through the Canals during the Season of Navigation in 1902.

## WELLAND CANAL.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
8	13	104	7	56	10	80	9	72
10	9	90	5	50	7	70	2	20
15	7	105	1	15	3	45		
20	5	100	1	20	4	80		
25	4	100			2	50	1	25
30	8	240	3	90	3	90	3	90
35	6	210			3	105		
40	2	80			2	80	2	80
45			1	45	1	45	1	45
50			1	50	1	50		
55								
60	2	120	2	120	1	60	1	60
70								
75					1	75	1	75
80			1	80				
85	2	170			1	85		
95			1	95				
100								
110			1	110				
130	1	130			1	130		
135	1	135						
140	1	140	1	140				
150			1	150	2	300		
155								
160								
165								
175			1	175	2	350		
190								
195			3	585	1	195	1	195
220	3	660						
230			1	230				
260					1	260		
265	1	265	3	795			1	265
270								
280								
285			1	285				
290	1	290	1	290				
295	1	295						
300					1	300	1	300
305								
310			2	620			1	310
315	1	315	2	630			2	630
320			1	320				
330			2	660	1	330		
335	1	335						
360	3	1,080			1	360		
400	1	400	1	400	2	800		
405								
415	2	830	1	415				
435	1	435						
455	2	910	1	455				
460								
485	4	1,940	3	1,455	1	485		
495	1	495					3	1,485
500	1	500					1	500
510								
520								
525	1	525					1	525



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APPENDIX A—*Continued.*

No. (A) 19.—STATEMENT of the number and Tonnage of all kinds of Vessels passed through the Canals during the Season of Navigation in 1902.

## WELLAND CANAL.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
530								
540	1	540			1	540		
555	1	555						
590								
575	1	575						
585							1	585
590	1	590	1	590	1	590		
595								
600	1	600					1	600
615			1	615	1	615	1	615
640								
645			1	645				
660					1	660		
665								
675					1	675		
690			1	690	1	690	1	690
719			1	719	1	719		
723								
739			1	739				
742	1	742						
771	1	771			1	1,542		
802			1	802				1,604
870					1	870	2	
882			1	882	1			
908	1	908	1	908	1	908		
929	1	929						
940					1	940		
950								
959								
977			1	977				
989	1	989	1	989				
994					3	2,982	2	1,988
1,023								
1,029								
1,035	1	1,035			1	1,035		
1,041			1	1,041				
1,054					1	1,054		
1,078								
1,079					1	1,079		
1,083								
1,118	1	1,118			4	4,472		
1,160								
1,172	1	1,172						
1,203	1	1,203			1	1,203		
1,202					3	3,606		
1,330								
1,425					1	1,425		
1,441					1	1,441		
1,547					1	1,547		
1,548					2	3,096		
1,550					1	1,550		
1,553					2	3,106		
1,565	1	1,565			1	1,565		
1,702								
1,868					1	1,868		
1,930					2	3,860		
Total	100	24,291	61	17,933	90	48,063	39	10,759

3-4 EDWARD VII., A. 1904

APPENDIX A—*Continued.*

No. (A) 20.—STATEMENT of the Number and Tonnage of all kinds of Vessels passed through the Canals during the Season of Navigation in 1902.

## ST. LAWRENCE CANALS.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
8	28	224	21	168	11	88	2	16
10	10	100	1	10	2	20		
15	17	255	3	45	5	75		
20	10	200	2	40	2	40		
25	10	250	4	100	2	50		
30	2	60	4	120	1	30		
35	4	140	3	105	4	140	1	35
40	5	200	4	160	1	40	1	40
45	2	90	7	315	2	90		
50	3	150	5	250	1	50	1	50
55	3	165	1	55				
60	4	240	7	420			2	120
65	2	130	3	195				
70	1	70	3	210	1	70	1	70
75			6	450				
80	2	160	4	320				
85	2	170	7	595			1	85
90	1	90	4	360	1	90	6	540
95	1	85	6	570			24	2,280
100	5	500	13	1,300			2	100
105			12	1,260	1	105	3	315
110			4	440			3	330
115	1	115	8	920	1	115	1	115
120	3	360	4	480			1	120
125	1	125	2	250	1	125	2	250
130	3	390	2	260				
135	1	135	6	810				
140	4	560	7	980				
145	2	320	6	870				
150	1	150	24	3,600	1	150		
155			14	2,170				
160	2	320	11	1,760				
165			4	660				
170			1	170				
175			1	175				
180			3	540				
185			1	185				
190	1	190						
195	1	195						
200			1	200	1	200	1	200
210			2	420				
220			1	220				
225	1	225	5	1,125				
230	1	230	3	690				
245								
250			1	250				
255			1	255				
260	1	260	1	260				
265								
270								
275			1	275				
280	1	280						
285	1	285	1	285			2	570
290			1	290				
295			2	590				
300			3	900				
305	1	305	2	610				
310			1	310				
315			2	630				
320	1	320	7	2,240				
325			1	325				

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APPENDIX A—Continued.

No. (A) 20.—STATEMENT of the Number and Tonnage of all kinds of Vessels, &c.—  
Concluded.

ST. LAWRENCE CANALS—Concluded.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
330	1	330	2	660				
335	1	335	2	670				
340			1	340			2	680
350			1	350				
360	1	360	2	720				
365			3	1,095				
375			1	375				
380			1	380				
385			1	385				
390			1	390				
395			1	395				
412			1	412				
413					1	413		
419			1	419				
434			2	868			1	434
439							2	878
440	1	440						
450	1	450						
462			1	462				
471	1	471						
475			1	475			1	475
479			1	479				
480			1	480				
484			2	968				
487			1	487				
499			1	499				
500	2	1,000						
508	1	508						
516			2	1,032				
518			1	518				
539			1	539				
541	2	1,082						
544	1	544						
567			1	567				
578			1	578				
585			1	585				
586	1	586	1	586				
590			1	590				
593	1	593						
599	1	599						
607			2	1,214				
648	1	648						
680			1	680				
740			1	740				
781					1	781		
803	1	803						
904					1	904		
952	1	952						
970			1	970				
997					2	1,994		
999			1	999				
1,035					1	1,035		
1,041			1	1,041				
1,123					1	1,123		
1,142	2	2,284						
1,147					1	1,147		
1,197	1	1,197						
1,237					1	1,237		
1,868					1	1,868		
Total. ....	160	21,236	298	53,141	48	11,980	60	7,703

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APPENDIX A—*Continued.*

No. (A) 21.—STATEMENT of the Number and Tonnage of all kinds of Vessels passing through the Canals during the Season of Navigation in 1902.

## RIDEAU, OTTAWA AND CHAMBLY CANALS.

CANADIAN					UNITED STATES			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
8	22	176	80	640	4	40	6	48
10	10	100	9	90	2	20	1	10
15	4	60	3	45	2	30	1	15
20	2	40	1	20				
25	1	25	4	100	1	25	1	25
30	1	30						
35	2	70	4	140	1	35		
40	2	80						
45	1	45	4	180				
50	1	50					2	100
55			1	55				
60			1	60				
65							2	130
70	1	70					2	140
75			1	75			2	150
80							7	560
85	1	85	2	170	1	85	17	1,445
90			2	180	1	90	66	5,940
95	1	95	5	475			250	23,750
100	1	100	8	800			63	6,300
105	2	210	4	420	1	105	36	3,780
110			3	330			43	4,730
115			4	460			15	1,725
120			4	480			3	160
125	1	125					2	250
130			2	260				
135	1	135	2	270				
140	2	280	8	1,120				
145	2	290	13	1,885			1	145
150	2	300	19	2,850				
155	1	155	15	2,325				
160	1	160	8	1,280				
165			6	990			1	165
170			4	680				
175			1	175				
180	1	180	2	360				
185								
190								
195			2	390				
200								
210			1	210				
228	1	228						
298	1	298						
324			1	324				
374			1	374				
397	1	397						
Total.....	66	3,784	225	18,213	13	430	521	49,568

DEPARTMENT OF RAILWAYS AND CANALS,  
OTTAWA, August 12, 1903,RICHARD DEVLIN,  
*Compiler of Canal Statistics.*

APPENDIX A—*Concluded.*  
WELLAND CANAL.

No. (A) 22.—STATEMENT showing the Classified Tonnage of all kinds of Vessels passed through the Canals, during the Season of Navigation of 1902.

CANADIAN.						UNITED STATES.									
Class	Steam Vessels.	No.	Tonnage.	%	Sailing Vessels.	No.	Tonnage.	%	Steam Vessels.	No.	Tonnage.	%	Sailing Vessels.	No.	Tonnage.
1	250 to 1,565 tons...	36	21,907	1	250 to 1,041 tons...	30	15,922	1	250 to 3,860 tons.	45	16,173	1	250 to 1,988 tons.	18	10,697
2	200 " 249 "...	3	660	2	200 " 249 "...	1	239	2	200 " 249 "...	0	0	2	200 " 249 "...	0	0
3	150 " 199 "...	0	0	3	150 " 199 "...	5	910	3	150 " 199 "...	5	845	3	150 " 199 "...	1	195
4	100 " 149 "...	3	405	4	100 " 149 "...	2	250	4	100 " 149 "...	1	130	4	100 " 149 "...	0	0
5	50 " 91 "...	4	290	5	50 " 99 "...	4	295	5	50 " 99 "...	3	220	5	50 " 99 "...	2	135
6	Under 50 "...	54	1,029	6	Under 50 "...	19	326	6	Under 50 "...	36	695	6	Under 50 "...	18	332
	Total.....	100	24,291		Total.....	61	17,933		Total.....	90	48,063		Total.....	39	10,759
ST. LAWRENCE CANALS.															
1	250 to 1,197 tons...	26	14,632	1	250 to 1,041 tons...	68	29,168	1	250 to 1,868 tons...	10	10,502	1	250 to 475 tons...	8	3,037
2	200 " 249 "...	2	455	2	200 " 249 "...	12	2,635	2	200 " 249 "...	1	200	2	200 " 249 "...	1	200
3	150 " 199 "...	5	835	3	150 " 199 "...	59	9,260	3	150 " 199 "...	1	150	3	150 " 199 "...	1	150
4	100 " 149 "...	20	2,305	4	100 " 149 "...	64	7,570	4	100 " 149 "...	3	345	4	100 " 149 "...	12	1,280
5	50 " 99 "...	19	1,270	5	50 " 99 "...	16	3,425	5	50 " 99 "...	3	210	5	50 " 99 "...	35	3,115
6	Under 50 "...	88	1,519	6	Under 50 "...	49	1,063	6	Under 50 "...	30	573	6	Under 50 "...	4	91
	Total.....	160	21,236		Total.....	298	53,141		Total.....	48	11,980		Total.....	60	7,703
RIDEAU, OTTAWA AND CHAMBLEY CANALS.															
1	250 to 377 tons...	2	635	1	250 to 374 tons.	2	698	1	250 to tons.	1	250	1	250 to tons.	1	250
2	200 " 249 "...	1	228	2	200 " 249 "...	1	210	2	200 " 249 "...	1	200	2	200 " 249 "...	1	200
3	150 " 199 "...	5	735	3	150 " 199 "...	57	9,050	2	150 " 199 "...	1	150	3	150 " 199 "...	1	150
4	100 " 149 "...	9	1,140	4	100 " 149 "...	48	6,025	4	100 " 149 "...	1	105	4	100 " 149 "...	163	17,490
5	50 " 99 "...	4	300	5	50 " 99 "...	12	1,015	5	50 " 99 "...	1	175	5	50 " 99 "...	348	32,215
6	Under 50 "...	45	626	6	Under 50 "...	105	1,215	6	Under 50 "...	10	150	6	Under 50 "...	9	98
	Total.....	66	3,784		Total.....	225	18,213		Total.....	13	430		Total.....	521	49,568

DEPARTMENT OF RAILWAYS AND CANALS.

OTTAWA, August 12, 1903.

RICHARD DEVLIN,  
*Compiler of Canal Statistics.*

# CANALS CONSOLIDATED

## No. 23.—RATES OF TOLLS ON THE CANALS

WELLAND, ST. LAWRENCE, RIDEAU, OTTAWA, CHAMBLY AND MURRAY CANALS.

(O. C., April 18, 1873.)

	Welland Canal, westward.	Welland Canal, eastward.	Lake Erie to Montreal.	St. Lawrence Canals, each way.	Chamby Canal and St. Ours Lock.	Rideau Canal, each way.	Ottawa Canals, and St. Ann's Lock, each way.	Ottawa to St. Johns, each way.	Murray Canal, each way.
The Rates of Tolls are divided into Six Classes, as under, and are per ton, unless otherwise specified.									
<i>Class No. 1.</i>									
Vessel, steam.....per ton	0 01 $\frac{1}{4}$	0 01 $\frac{1}{4}$	0 02 $\frac{1}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 01 $\frac{1}{4}$	0 00 $\frac{5}{8}$	0 01 $\frac{1}{4}$	0 0 $\frac{3}{16}$
" sail and other.....	0 02 $\frac{1}{4}$	0 02 $\frac{1}{4}$	0 03 $\frac{1}{4}$	0 01 $\frac{1}{2}$	0 01 $\frac{1}{4}$	0 02 $\frac{1}{4}$	0 01	0 02 $\frac{3}{8}$	0 0 $\frac{1}{16}$
<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 02 $\frac{1}{4}$	0 09 $\frac{3}{8}$	0 1 $\frac{1}{2}$
" under 21 years each.....	0 05	0 05	0 10	0 05	0 02	0 04	0 01 $\frac{1}{4}$	0 04 $\frac{1}{2}$	0 0 $\frac{5}{8}$
<i>Class No. 3.</i>									
Bricks, cement and water lime.....									
Clay, lime and sand.....									
Brimstone.....									
Corn.....									
Flour.....									
Iron, railway.....									
" pig.....									
" all other, including steel (O.C., Feb. 1, 1888).....	15	0 20	0 20	0 15	0 10	0 07	0 06	0 19 $\frac{3}{8}$	0 1 $\frac{1}{2}$
Plaster, gypsum.....									
Salt.....									
Salt meats or fish, in barrels or otherwise....									
Agricultural products, vegetable, not enumerated.....									
Agricultural products, animal, not enumerated.....									
Stone, for cutting.....									
Wheat.....									
<i>Class No. 4.</i>									
All other articles not enumerated.....	0 15	0	0 20	0 20	0 10	0 26	0 14	0 29	0 2 $\frac{1}{2}$

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# REVENUE.

## TARIFF OF TOLLS.

OF THE DOMINION OF CANADA, 1902.

TRENT VALLEY CANALS.

(O. C., July 25, 1888.)

1ST SECTION.	2ND SECTION.	3RD SECTION.	4TH SECTION.	THROUGH.	Peterborough to Hastings. each way.
Fenelon Falls to Bobcaygeon.	Bobcaygeon to Buckhorn.	Buckhorn to Burleigh.	Burleigh to Lakefield.	Fenelon Falls to Lakefield.	
Tolls 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 Chargeable at Peterborough and Hastings.
§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.
0 00 $\frac{2}{15}$ 0 00 $\frac{1}{4}$	0 00 $\frac{2}{15}$ 0 00 $\frac{1}{4}$	0 00 $\frac{2}{15}$ 0 00 $\frac{1}{4}$	0 00 $\frac{2}{15}$ 0 00 $\frac{1}{4}$	0 00 $\frac{3}{4}$ 0 01	0 00 $\frac{2}{15}$ 0 00 $\frac{1}{4}$
01 0 00 $\frac{1}{2}$	0 01 0 00 $\frac{1}{2}$	0 01 0 00 $\frac{1}{2}$	0 01 0 00 $\frac{1}{2}$	0 04 0 02	0 01 0 00 $\frac{1}{2}$
0 01	01	01	01	0 04	0 01
0 03	0 03	0 03	0 03	0 12	0 03

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## RATES OF TOLLS

## WELLAND, ST. LAWRENCE, RIDEAU, OTTAWA, CHAMBLY AND MURRAY CANALS

	Welland Canal, westward.	Welland Canal, eastward.	Lake Erie to Montreal.	St. Lawrence Canals, each way.	Chambly Canal and St. Ours Lock, each way.	Rideau Canal, each way.	Ottawa Canals and St. Amr's Lock, each way.	Ottawa to St. Johns, each way.	Murray Canal, each way.
The Rates of Tolls are divided into Six Classes, as under, and are per ton, unless otherwise specified.									
<i>Class No. 5.</i>									
Bark	0 20	0 20	0 20	0 15	0 10	0 07	0 06	0 19 $\frac{1}{4}$	0 01 $\frac{1}{4}$
Barrels, empty, each	0 02	0 02	0 02	0 02	0 02	0 02	0 01	0 03 $\frac{1}{2}$	0 00 $\frac{1}{4}$
Boat knees, each	0 05	0 05	0 05	0 02	0 02	0 02	0 01	0 03 $\frac{1}{2}$	0 00 $\frac{1}{4}$
Floats, per 1,000 lineal feet	1 40	1 40	1 40	1 40	1 20	1 05	0 50	2 05 $\frac{1}{2}$	0 17 $\frac{1}{2}$
Firewood, per cord, in vessels	0 20	0 20	0 20	0 20	0 10	0 15	0 08	0 23	0 02 $\frac{1}{2}$
" " rafts	0 25	0 25	0 25	0 25	0 15	0 19	0 09	0 30 $\frac{1}{4}$	0 03 $\frac{1}{2}$
Hoops	0 25	0 25	0 25	0 20	0 15	0 15	0 10	0 30	0 02 $\frac{1}{2}$
Masts and spars, telegraph poles, per ton of 40 cubic feet, in vessels	0 15	0 15	0 15	0 05	0 05	0 08	0 07	0 13 $\frac{1}{4}$	0 00 $\frac{1}{2}$
Masts and spars, telegraph poles, per ton of 40 cubic feet, in rafts	0 20	0 20	0 20	0 10	0 10	0 15	0 10	0 22 $\frac{1}{4}$	0 01 $\frac{1}{4}$
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 $\frac{1}{2}$	0 0 $\frac{1}{4}$
" " rafts, each	0 02	0 02	0 02	0 01	0 01	0 02	0 01	0 02 $\frac{1}{4}$	0 00 $\frac{3}{4}$
Sawed stuff, boards, plank, scantling and sawed timber, per M feet, board measure, in vessels	6 30	0 30	0 30	0 15	0 10	0 11 $\frac{1}{4}$	0 06 $\frac{3}{4}$	0 20	0 01 $\frac{1}{4}$
Sawed stuff, boards, plank, scantling and sawed timber, per M feet, board measure, in rafts	0 60	0 60	0 60	0 30	0 20	0 19	0 09	0 36 $\frac{1}{2}$	0 03 $\frac{3}{4}$
Square timber, per M cubic feet, in vessels	3 00	3 00	3 00	1 00	1 00	0 56	0 44	1 69	0 12 $\frac{1}{2}$
" " rafts	4 50	4 50	4 50	2 00	2 00	1 12	0 63	3 13	0 25
Wagon stuff, woodenware and wood, partly manufactured, per ton of 40 cubic feet	0 40	0 40	0 40	0 40	0 25	0 30	0 20	0 55	0 05
Shingles, per M	0 06	0 06	0 06	0 06	0 04	0 04 $\frac{1}{2}$	0 02 $\frac{1}{2}$	0 08	0 00 $\frac{3}{4}$
Split posts and fence rails, per M, in vessels	0 40	0 40	0 40	0 40	0 20	0 23	0 12	0 42	0 05
" " rafts	0 80	0 80	0 80	0 80	0 40	0 38	0 17	0 77	0 10
Saw-logs, each, standard log	0 08	0 08	0 08	0 08	0 05	0 06	0 06	0 13	0 01
Staves and headings, barrel, per M	0 08	0 08	0 08	0 04	0 15	0 15	0 10	0 30	0 02 $\frac{1}{2}$
" " pipe, per M	1 50	1 50	1 50	1 00	1 00	0 75	0 50	1 75	0 12 $\frac{1}{2}$
" " West India, per M	0 75	0 75	0 75	0 60	0 25	0 45	0 25	0 65	0 07 $\frac{1}{2}$
" " salt barrel, sawn or cut, per M	0 08	0 08	0 08	0 04	0 03	0 03	0 02	0 06	0 00 $\frac{1}{4}$
Traverses, per 100 pieces	0 50	0 50	0 50	0 50	0 40	0 38	0 15	0 67 $\frac{1}{2}$	0 06 $\frac{1}{4}$
Hop poles, per 1,000 pieces	2 00	2 00	2 00	2 00	1 50	1 50	0 65	2 65	0 25
<i>Special Class.</i>									
Gypsum, crude (per O.C., Oct. 28, 1892)	0 15	0 05	0 05	0 05	West ward				
Coal	0 20	0 20	0 20	0 15	0 10	0 08	0 05	0 17 $\frac{3}{4}$	0 01 $\frac{1}{4}$
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 $\frac{1}{2}$	0 07 $\frac{1}{2}$
Kryolite, iron ore or chemical ore	0 05	0 05	0 05	0 05	0 05	0 05	0 05	0 05	0 05
Ice	0 05	0 05	0 05	0 05	0 05	0 05	0 05	0 11	0 05



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ON THE CANALS—Continued.

TRENT VALLEY CANALS.

1ST SECTION.	2ND SECTION.	3RD SECTION.	4TH SECTION.	THROUGH.	Peterborough to Hastings, each way.
Fenelon Falls to Bobcaygeon.	Bobcaygeon to Buckhorn.	Buckhorn to Burleigh.	Burleigh to Lakefield.	Fenelon Falls to Lakefield.	Tolls Chargeable at Peterborough and Hastings.
§ c.	§ c.	§ c.	§ c.	§ c.	§ c.
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 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 01	0 00 $\frac{1}{4}$
0 13	0 13	0 13	0 13	0 52	0 13
0 03	0 03	0 03	0 03	0 10	0 03
0 04	0 04	0 04	0 04	0 14	0 04
0 02	0 02	0 02	0 02	0 08	0 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 $\frac{1}{4}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{4}$	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 12	0 03
0 05	0 05	0 05	0 05	0 20	0 05
0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 03	0 00 $\frac{3}{4}$
0 02	0 02	0 02	0 02	0 08	0 02
0 10	0 10	0 10	0 10	0 40	0 10
0 05 $\frac{1}{2}$	0 05 $\frac{1}{2}$	0 05 $\frac{1}{2}$	0 05 $\frac{1}{2}$	0 22	0 05 $\frac{1}{2}$
0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 02	0 00 $\frac{1}{2}$
0 05	0 05	0 05	0 05	0 20	0 05
0 20	0 20	0 20	0 20	0 80	0 20
Free.	Free.	Free.	Free.	Free.	Free.
0 01	0 01	0 01	0 01	0 04	0 01
0 03 $\frac{1}{4}$	0 03 $\frac{1}{4}$	0 03 $\frac{1}{4}$	0 03 $\frac{1}{4}$	0 14	0 03 $\frac{1}{4}$
0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 03	0 00 $\frac{3}{4}$
Free.	Free.	Free.	Free.	Free.	Free.

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*St. Peter's Canal.*

Sec. 2. On each and every vessel passing through the said canal, two cents per ton on the vessel and one cent per ton on the freight, each way. O. C. June 23, 1883. Con. O. C. Oct. 26, 1889, sec. 109.

## SPECIAL REGULATIONS RELATING TO TOLLS ON SOME OF THE CANALS.

Sec. 3. Coal may pass up all canals, except the Welland Canal, free of toll. O. C. June 6, 1869. Con. O. C. Oct. 26, 1889, sec. 83.

Sec. 4. Logs, lumber or other produce may pass free of toll down the Chippawa Creek, between the Aqueduct and Port Robinson. O. C. May 18, 1863. Con. O. C. Oct. 26, 1889, sec. 84.

Sec. 5. (a.) In view of the dam constructed across the Ottawa River at Carillon whereby the passage of the rapids at that point through the river is rendered difficult and at times impracticable, it appears necessary, owing to the continued difficulty attending passage through the slide built in the dam, that the canal should be used by rafts and until otherwise ordered, free passage be given to rafts through the Carillon Canal, subject to such regulations as the Department of Railways and Canals may find necessary in the interest of the traffic of the canal to adopt. O. C. July 6, 1888.

Sec. 5. (b.) "Save in cases for which special permission may be given the Grenville Canal is closed to the passage of rafts, or any portion of a raft of any kind whatever." O. C. June 27, 1890.

*Sault Ste. Marie Canal.*

Sec. 6. All vessels and freight shall be permitted to pass through the Sault Ste. Marie Canal free of toll upon such vessels and freight, until otherwise ordered.

Sec. 7. (a.) All up bound goods on which full tolls have been paid for passage through the whole of the St. Lawrence Canals, or for passage through the Lachine Canal, the Ottawa and Rideau Canals or for passage through the Ottawa and Rideau Canals shall be entitled to pass free through the Welland Canal, or any portion thereof, and tolls paid for passage through the Chambly Canal, on goods thereafter so becoming entitled to the above privilege, shall be refunded at Montreal. All down bound goods on which full tolls have been paid for passage through the Welland Canal shall be entitled to pass free through any or all of the above mentioned Canals, or through any portion thereof. O. C. May 17, 1897.

(b.) All articles, goods or merchandise, not enumerated above, shall be charged to class No. 4. O. C. April 18, 1873. Con. O. C. Oct. 26, 1889, sec. 86.

Sec. 8. Goods shipped to any port west of the St. Lawrence Canals, tolls upon which have already been paid for passage through such canals, may be re-shipped from such port and be passed through the Welland Canal free of tolls, in the same way as if they had been shipped through direct in the first instance; and goods going eastward, having paid Welland Canal tolls, may be transhipped at any port on Lake Ontario, and thereafter pass free through the St. Lawrence Canals, as if they had been shipped through direct in the first instance. O. C. June 23, 1883. Con. O. C. Oct. 26, 1889, sec. 87.

Sec. 9. Iron ore, kryolite or chemical ore, may pass through one section, or through all the canal sections aforesaid, for 5 cents per ton.

Sec. 10. No let-passes shall be issued to steam tugs or other small vessels for less than 25 cents, as a minimum charge; but such vessels, not carrying freight or passengers, can obtain, on payment of \$30 a season "Let-Pass," which will pass them up and down the canals as often as desired. O. C. April 18, 1873. Con. O. C. Oct. 26, 1889, sec. 86.

Sec. 11. All vessels owned or chartered by persons having contracts for the enlargements or repair of any of the canals, and employed by them in removing earth or carrying materials necessary for the prosecution of such works, shall be entitled to pass through such canals free of toll upon such vessel and cargo. O. C. April 22, 1884. Con. O. C. Oct. 26, 1889, sec. 35.

Sec. 12. Government dredges and scows shall be permitted to pass through the canals free of tolls, but that such dredges and scows shall not be so passed as to interfere with the passage of other vessels of any kind whatever. O. C. May 18, 1891.

## HARBOUR DUES.

Sec. 13. Vessels receiving or discharging freight at the premises of the Welland Railway, at Ports Colborne or Dalhousie, are to be free from harbour dues; but all other vessels discharging or receiving cargo at Port Dalhousie, Port Colborne or Port Maitland, shall pay on every ton of freight so received or discharged, two cents. O. C. April 18, 1873. Con. O. C. Oct. 26, 1889.

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WAY RATES.

Sec. 14. The following way rates are to be levied on vessels and property passing the several subdivisions of the Canals:—

Welland Canal.

	Rate.
1. From Port Maitland, Dunnville and Port Colborne to Port Robinson or Allanburg, not passing the lock, each way. . . . .	1/2
2. From Chippawa Cut, or any part thereof, to Dunnville, Port Maitland or Port Colborne. . . . .	1/10
3. From Dunnville to Port Colborne. . . . .	1/10
4. From Thorold to St. Catharines or Port Dalhousie . . . . .	1/10
5. From Maitland, Dunnville, Colborne or Port Robinson to Marshville and intermediate places. . . . .	1/10
6. From Marshville or intermediate places to Port Maitland, Dunnville, Port Colborne and Port Robinson. . . . .	1/10
7. From Port Robinson to Allanburg or Thorold. . . . .	1/10
8. From Port Robinson to St. Catharines or Port Dalhousie. . . . .	1/10
9. From St. Catharines to Port Dalhousie . . . . .	1/10
10. From Dunnville to Maitland. . . . .	1/10
11. From Port Robinson through the Lock and Chippawa Cut. . . . .	1/10
12. From Port Colborne to Port Maitland. . . . .	1/10
13. From Chippawa Cut through Lock to Port Robinson. . . . .	1/10
14. From Colborne, Dunnville, Maitland and Marshville to Thorold. . . . .	1/10
15. From Colborne, Dunnville, Maitland and Marshville to St. Catharines. . . . .	1/10
16. Through the Chippawa Cut only. . . . .	1/10
17. Through the Port Robinson Lock only. . . . .	1/10

St. Lawrence Canals.

Sec. 15. The navigation is divided into four sections, viz., Cardinal, Cornwall, Beauharnois or Soulanges and Lachine. Tolls are to be levied on all vessels and property in proportion to the number of sections passed through.

Chambly Canal.

	Rate.
Sec. 16. Vessels and property passing from Sorel to Chambly, to pay. . . . .	1/10
Vessels and property passing from Chambly to St. Johns, to pay. . . . .	1/10

Ottawa Canals.

Sec. 17. The navigation is divided into three sections, viz., Grenville, Carillon and Ste. Anne's. Tolls are to be levied on all vessels and property in proportion to the number of sections passed through.

Rideau Canal.

Sec. 18. The navigation of this canal is divided into three sections, viz., Ottawa, Smith's Falls and Kingston Mills. Vessels and freight passing one section are to be charged one-third; two sections, two-thirds. O.C. April 18, 1873. Con. O.C. Oct. 26, 1889, secs. 77, 78, 79, 80 and 81.—

Tay Canal to be part of the Rideau Canal and the following rates of tolls to be levied upon the said Tay Branch of the Rideau Canal system, viz. :—

- Perth to Smith's Falls, 1 section, or one-third of Rideau Canal rates, each way.
- Perth to Kingston, 2 sections, or two-thirds Rideau Canal rates, each way.
- Perth to Ottawa Basin, 2 sections, or two-thirds Rideau Canal rates, each way.
- Perth to River Ottawa, 3 sections, full Rideau Canal rates, each way. O.C. Sept. 27, 1890.

General.

Sec. 19. (a.) Any fraction of a ton freight is to be charged one ton, and portions of sections are to be charged as a whole section on all the above canals.

(b.) The passing of saw-logs or other lumber through any of the canals, or sections thereof, shall be at all times governed by the regulations for their management. O.C. April 18, 1873. Con. O.C. Oct. 26, 1889, sec. 82.

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## Sec. 20.—STANDARD FOR ESTIMATING WEIGHTS, FOR CANAL TOLLS.

	Tons.		Tons.
2,000 lbs. avoirdupois. . . . .	1	Sheep, 20 . . . . .	1
Per M. is per thousand feet . . . . .		Stone, 12 cubic feet . . . . .	1
Per mille is per thousand pieces . . . . .		Stone, 1 cord . . . . .	7½
Green fruit, 9 barrels are . . . . .	1	Whisky, 4 barrels or 215 gallons. . . . .	1
Ashes, 3 barrels are . . . . .	1	Empty barrels, 10. . . . .	1
Bark, 4 cords . . . . .	1	Barrel hoops, 10 mille. . . . .	1
Beef, 7 barrels . . . . .	1	Board and other sawed lumber, 600 feet board measure. . . . .	1
Biscuit and crackers, 9 barrels . . . . .	1	Boat knees, 4. . . . .	1
Bricks, common, 1,000. . . . .	2	Firewood, 1 cord . . . . .	3
Butter, 22 kegs or 7 barrels . . . . .	1	Hop poles, 60 or cubic feet. . . . .	1
Cattle, 3. . . . .	1	Shingles, 12 M. or bundles. . . . .	1
Cement and water lime, 7 barrels. . . . .	1	Split posts and fence rails, 1 mille. . . . .	1
Fire-bricks, 1,000. . . . .	3	Staves and headings, pipe, 1 mille. . . . .	8
Fish, 7 barrels . . . . .	1	" " W. India, 1 mille. . . . .	4
Flour, 9 barrels . . . . .	1	" " barrel, 1 mille. . . . .	2½
Gypsum and manganese, 6 barrels. . . . .	1	" " salt barrel, 1 mille. . . . .	0½
Horses, 2 . . . . .	1	Saw-logs, standard, 1 . . . . .	0½
Lard and tallow, 7 barrels or 22 kegs. . . . .	1	Square timber, 50 cubic feet . . . . .	1
Liquors and spirits, 215 gallons. . . . .	1	Telegraph poles, 10, or 40 cubic feet. . . . .	1
Liquids, all others, 215 gallons. . . . .	1	Masts and spars, 40 cubic feet . . . . .	1
Nuts, 9 barrels . . . . .	1	Railroad ties, 16, or 59 cubic feet . . . . .	1
Oysters, 6 barrels. . . . .	1	All other woodware, or partly manufac- tured wood, 40 cubic feet as per tariff. . . . .	1
Pork, 7 barrels. . . . .	1	Traverses, 40 cubic feet, or 5 pieces. . . . .	1
Refined oil in bulk, 250 gals., O.C., July 24, '00. . . . .	1	Floats, 50 lineal feet . . . . .	1
Salt, 7 barrels . . . . .	1		
Seeds, 9 barrels . . . . .	1		

NOTE.—By the Weights and Measures Act, chapter 104 of the Revised Statutes of Canada, section 14, all the following named articles are to be estimated by the cental of 100 lbs.

The weight equivalent to a bushel being as follows:—Wheat, 60 lbs.; Indian corn, 56 lbs.; rye, 56 lbs.; pease, 60 lbs.; barley, 48 lbs.; oats, 34 lbs.; beans, 60 lbs.; clover seed, 60 lbs.; timothy seed, 48 lbs.; buckwheat, 48 lbs.; flax seed, 50 lbs.; blue grass seed, 14 lbs.; hemp seed, 44 lbs.; malt, 36 lbs.; castor beans, 40 lbs.; potatoes, turnips, carrots, parsnips, beets and onions, 60 lbs.; bituminous coal, 70 lbs.

## TOLLS AT SHEDS AT LACHINE CANAL BASIN.

Sec. 21. The following tolls shall be levied upon property stored at the sheds at the Lachine Canal Basin:—

	Cents.
Wheat and other grain, per week, per bushel . . . . .	1
Meal " per barrel . . . . .	4
Pork, beef, butter and lard " . . . . .	5
Muscovado sugar " per hhd., 10 cents; per brl. . . . .	5
Liquors " f per pipe, 15 cents; per pun. . . . .	12
" " t per hhd., 10 cents; per qr. cask. . . . .	7
Iron, bars " per ton . . . . .	24
Iron, pig " " . . . . .	12
Salt, except at the St. Gabriel sheds " per 100 minots. . . . .	36
Salt at the St. Gabriel sheds, Montreal, after the first 48 hours " per bag. . . . .	½
Bales, crates, cases, &c. " per ton weight or measurement. . . . .	24
Coals " per chaldron. . . . .	12

Sec. 22. (a.) No charge shall be made for property stored in the sheds of the Lachine Canal Basin for the first forty-eight hours, after which period, except in the case of flour, the foregoing rate of storage for the use of the sheds are to be raised, levied and collected.

(b.) Articles unenumerated are to be charged according to the above rates as nearly as the same can be computed.

(c.) All property stored in the sheds remaining after the first forty-eight hours will be liable to one week's storage, although it should only have been stored for a portion of the same, and so on for each succeeding week.

(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.

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(e.) All property stored in these sheds shall be at the risk of the proprietor from damage by fire or otherwise.

f.) All dues for storage shall be paid before the removal of the property. O. C. August 21, 1846, October 28, 1846. Con. O. C. Oct. 26, 1889, secs. 90 and 91.

*Flour.*

Sec. 23. (a.) Flour shall be allowed to remain in the sheds for two whole days free of charge.

(b.) If kept there beyond two days or 48 hours, such flour shall be liable to a charge of one cent per day per barrel for the first four days after the expiration of the 48 hours of the exemption.

(c.) Should the flour be kept in the sheds beyond four days at one cent per day per barrel, it shall be liable to pay two cents per day per barrel for every day subsequent to the expiration of such four days.

(d.) Any part of a day shall be considered as one day. O. C. May 31, 1856. Con. O. C. Oct. 26, 1889, sec. 92.

## WHARFAGE DUES ON COAL FOR LOCAL CONSUMPTION IN MONTREAL.

Sec. 24. Coal for local consumption in Montreal, landed on canal property between Montreal Harbour and Côte St. Paul, from vessels other than sea-going, and entering the Lachine Canal from Montreal Harbour, shall be charged wharfage dues at the rate of five cents a ton.

Coal screening shall be charged 3 cents a ton. Con. O. C. Oct. 26, 1889, sec. 93. O. C. May, 18, 1892.

## CHARGES FOR WHARFAGE ON FIREWOOD ON WHARFS AND BANKS OF LACHINE CANAL.

Sec. 25. The following rates of tolls shall be collected as herein mentioned that is to say:—

(a.) Firewood landed on wharfs or banks of the Lachine Canal, or in boats, barges or other craft occupying any of the basins between Wellington Street Bridge and Lock No. 3, four cents per cord, and for every day the wood is allowed to remain in either the canal or basin, or on the wharfs or banks after the first five days, an additional charge of four cents per cord. O. C. August 7, 1860. Con. O. C. Oct. 26, 1889, sec. 94.

(b.) The clause next preceding shall not only apply to the rates of toll to be collected on firewood on wharfs at Lachine and the Lachine Canal and basin, but are also extended and made applicable to the banks and grounds at Côte St. Paul and at Lachine. O. C. Jan. 27, 1862. Con. O. C. 1889, sec. 94.

## CANAL BASINS IN MONTREAL PART OF MONTREAL HARBOUR.

Sec. 26. Whereas under existing regulations for the collection of canal tolls, eastern bound vessels having paid the charges one way in full through the Welland Canal are chargeable one Section Canal Toll if re-entering the Lachine Canal:

And whereas vessels loaded with grain destined for the Montreal Harbour frequently unload only part of their cargoes on board sea-going vessels in the 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. August 8, 1878. Con. O. C. Oct. 26, 1889, sec. 95.

## PHOSPHATES.

Sec. 27. Whereas vessels laden with grain for delivery in Montreal Harbour frequently carry also deck loads of phosphates, and being compelled to proceed at once to the harbour for the discharge of the grain, they pay tolls through to that point, subsequently re-entering the Lachine Canal for the storage of the phosphates, and in accordance with the existing regulations, paying canal dues a second time for such re-entry;

It is ordered that the Lachine Canal basins, within the Montreal city limits, be considered as part of the Montreal Harbour, for the purpose of the unloading of phosphates carried by vessels in addition to their grain cargoes as described in this section; it being, however, provided that in the event of their returning to the harbour to take cargo, the usual tolls shall be charged against such vessels on their passing out of the canal a second time. O. C. July 12, 1881. Con. O. C. Oct. 26, 1889, sec. 96.

Extract from the Act, Canada, 1894, c. 48, amending and consolidating the Acts relating to the Harbour Commissioners of Montreal.

## HARBOUR RATES WHARFAGE DUES IN ALL BASINS OF THE LACHINE CANAL ON SEA-GOING VESSELS.

Sec. 28. The corporation may, from time to time, levy such rates as are approved of by the Governor in Council, upon all goods landed or shipped in the harbour, moved by rail on the harbour tracks, or deposited within the harbour, except arms, ammunition and military accoutrements, and other munitions of war for the use of the Government or for the defence of the Dominion. 40 V., c. 53, s. 2, part 2. For the purposes of this section, the lower basins of the Lachine Canal shall be held to form part of the harbour of Montreal, and the corporation may levy from all vessels entering the same through the harbour for the purpose of discharging or loading there, except canal craft trading between Montreal and places above Montreal, the same rates as may be levied in the harbour and under the same regulations and penalties. In all other respects the said lower basins shall be and remain under the jurisdiction of the Minister of Railways and Canals. 18 V., c. 143, s. 18; 40 V., c. 53, s. 2, part 2.

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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 "
Apples, crates and their contents, flour and meal, fish, meats, pitch, potatoes, tar, horses, neat cattle, sheep and swine.....	15 "
Ballast, clay, fire-bricks, gypsum, lime, marble, phosphate, sand, salt.....	10 "
Coal and coke, grain and seeds of all kinds.....	6 "
Special—Bricks, 10 cents per 1,000; cordwood, 5 cents per cord; lumber, 10 cents per 1,000 feet, board measure.	
Bullion specie.....	Free.
Coal screenings.....	3 "

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 reshipped from the wharfs or vessels into sea-going vessels, shall pay wharfage dues equal to one section of canal tolls, viz., 3<sup>3</sup>/<sub>4</sub> cents per 1,000 feet board measure. O.C. Jan. 26, 1883. Con. O.C. Oct. 26, 1889, secs. 98, 99, 100 and 101. O.C. May 18, 1892.

Sec. 29.—Standard for Estimating Weights.

Ashes, pot or pearl.....	3 brls. to 1 ton.
Apples, flour, meal, potatoes.....	9 " 1 "
Fish, meat, pitch, tar.....	7 " 1 "
Horses.....	2 to 1 ton.
Neat cattle.....	3 to 1 "
Sheep.....	15 to 1 "
Swine.....	10 to 1 "

O.C. April 1, 1881. Con. O.C. Oct. 26, 1889, sec. 102.

TOLLS ON FLOATED TIMBER, ETC., ENTERING THE BASIN AT LACHINE.

Sec. 30. The following rates of tolls shall be collected on floated timber, lumber and firewood entering the basin at Lachine and Lachine Canal:—

Kinds of Timber.	For receiving Timber, &c., to include use of Basin and Wharf for one Month.	For each succeeding month during the Season of Navigation.	For Wintering in Basin or on Wharf.
	Cents.	Cents.	Cents.
Timber, square or round, of all kinds, above 12 x 12, per M cubic feet.....	25	20	35
Timber, round or fluted, 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	<sup>1</sup> / <sub>2</sub>	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
" pipe ".....	8	4	8
" West India, per M.....	8	4	8
Firewood on bank of canal between Lock No. 3 and Lock No. 5, and also on wharves in canal basin at Lachine.....	3	3	3

Notc.

Sec. 31. (a.) No allowance shall be made for fractional parts of a month or winter season.

(b.) The firewood shall be zorded across the bank while being delivered from the boat in such manner and at such points as the superintending engineer may direct.

(c.) The rates on timber to take effect upon the completion of the booms in Lachine Canal. O.C. June 8, 1860. Con. O.C. Oct. 26, 1889, secs. 103 and 104.

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CHARGES ON VESSELS WINTERING IN LACHINE AND WELLAND CANALS.

Sec. 32. The following rates per ton shall be charged for wintering vessels in the Lachine Canal viz. :—For each boat, barge, scow or other vessel of ten tons measurement or under, seventy cents per vessel for the entire winter, and every ten tons above the first ten, an additional rate of eight cents O.C. Aug. 22, 1879. Con. O.C. Oct. 26, 1889, sec. 97.

Sec. 32 (a.) The above rates shall also apply to the Welland Canal. (O.C. June 8th, 1901.

CHARGES FOR WINTERING VESSELS IN RIDEAU CANAL.

Sec. 33. The winterage dues for vessels wintering in the canal basin, at Ottawa, or other points along the line of the Rideau Canal, shall be as follows :—

In canal basin, Ottawa, steamers per season.....	\$ 8 00
"                  "    barges          "          .....	4 00
Inside locks          "    steamers          "          .....	50 00
other stations          "                  .....	15 00

If the Minister of Railways and Canals deems it advisable, he is authorized to take security from parties wintering their vessels in locks against damage to Government property by fire. O.C. March 19, 1887. Con. O.C. Oct. 26, 1889, sec. 105.

CHARGES FOR WINTERING VESSELS IN THE OTTAWA RIVER CANALS AND LOCKS.

Sec. 34. The charge for vessels wintering on the Ottawa River canals and locks, and the same is hereby prescribed accordingly, namely :

In Carillon Canal, steamers per season .. .. .	\$ 8 00
"                  "    barges          "          .....	4 00
Grenville Canal, steamers          "          .....	8 00
"                  "    barges          "          .....	4 00
Inside Locks, Ste. Anne, Carillon and Grenville Canals, steamers per season.....	25 00
"                  "    Culbute Canal, per season .. .. .	15 00

Such security against damage by fire to be taken by way of bond as, in the opinion of the Minister of Railways and Canals, may seem desirable. O.C. Oct. 14, 1892.

Sec. 35. No charges to be made for vessels wintering outside the locks of any government canal. O.C. Dec. 12, 1889.

CHARGES FOR REPAIRING VESSELS ON THE BANKS OF CANALS.

Sec. 36. (a.) Persons using the banks of the Lachine Canal as a site for the repair of their vessels shall be subject to a charge of four dollars, payable in advance, for each vessel; the period during which such site may be occupied under any one payment being limited to six months, and permission for repairing being first obtained from the proper officer, in conformity with the existing canal regulations.

(b.) In the event of failure to remove vessels so occupying the banks at the expiration of the period named, no fresh permits having been obtained, such vessels may be sold under the 16th section of the canal regulations. O.C. March 5, 1880. Con. O.C. Oct. 26, 1889, sec. 106.

Sec. 37. Rules with respect to the repairing of vessels on the banks of the Lachine Canal, the Beauharnois and the Chambly :—

(a.) Repairs shall only be executed at such points as may be indicated and approved by the superintending engineer.

(b.) For each vessel hauled up or beached for repairs, a charge of one dollar, over and above all other charges, shall be made, carrying the privilege of remaining one month, a further sum of one dollar being charged for each additional month, or fraction of a month, the vessel may remain.

(c.) In cases, however, where a vessel hauled up for repairs upon the canal bank remains there throughout the winter, a charge of four dollars only shall be made (in addition to the ordinary winterage dues), the period covered being from the 1st of November to the 1st of June, inclusive.

(d.) Any vessel remaining on the canal bank after having wintered thereon shall be charged at the rate of one dollar a month or fraction of a month of her subsequent stay.

(e.) Any vessel remaining more than one year on the bank of the canal shall for such time as she may remain in excess of that period pay at the rate of two dollars a month or fraction of a month throughout the whole year.

(f.) All charges shall be payable at the collector's office in advance on the first day of each month.

(g.) These rules shall be understood as applying to all cases where the canal bank is used in any manner for the repairs of vessels, whether such vessels are actually hauled up or not. O. C. August 6, 1881. Con. O. C. Oct. 26, 1889, sec. 107.

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## DRY DOCK CHARGES.

*Trent Valley Canal.*

Sec. 38. The following tolls and dues shall be charged for the use of the dry dock at Bobcaygeon, and of any of the locks on the Trent Valley Canal, during the winter or other shorter period:—

For Vessels	Wintering.	Per day.	Per week.
Over 15 tons . . . . .	\$30 00	\$4 00	\$12 00
15 tons and under. . . . .	20 00	3 00	10 00

(O. C. Oct. 31, 1890.)

*Rideau Canal.*

Sec. 39. The following tariff of tolls and regulations shall be, and the same are hereby established for the use of the dry dock on the Rideau Canal at Ottawa:—

(1) Steamers entering dock . . . . .	\$ 8 00
Each day or portion of a day after day of entrance . . . . .	2 50
(2) Barges entering dock . . . . .	5 00
Each day or portion of a day after day of entrance . . . . .	2 50
(3) Steam yachts or launches. . . . .	5 00
Each day or portion of a day after day of entrance . . . . .	2 50
(4) Boats wintering in the dry dock from the close to the opening of navigation. . . . .	50 00
For every day such boat remains in the dock after the opening of navigation. . . . .	8 00

(5) No vessel of any class shall be in the dock over six days after notice is given in writing by the lockmaster that the dock is required for another vessel unless a satisfactory agreement between all parties interested is arrived at.

(6) All entrances and discharge of vessels are covered by entrance fee.

(7) All drying off of vessels of all classes in the locks at Ottawa or Hartwell's during the season of navigation is prohibited unless for special reasons.

The owners of vessels of all classes to render the required assistance to open and close the gate under the supervision of the superintending engineer.

Vessel owners to supply all blocks, &c., to shove their boats up to make the necessary repairs and all refuse to be properly cleared out to the entire satisfaction of the lockmaster before leaving the dock.

(O. C. Dec. 28, 1893.)

Sec. 40. The use of horses for towage purposes between the lower entrance of the Cornwall Canal and lock No. 20, be prohibited during the works of enlargement of that portion of the Cornwall Canal. (O.C. Aug. 20, 1890.)

Sec. 41. As the prohibition of the use of horses for towing purposes, between the lower entrance of the Cornwall Canal and Lock No. 20 during the progress of the works of canal enlargement, has entailed the use of tugs and consequently expenses to the parties concerned, that all tugs, used solely for the purposes of towing on the section in question, be permitted to pass free of toll, up and down the canal between the lower entrance of the canal and lock No. 20, until the completion of the enlargement of the works on that section. (O. C. Sept. 27, 1890.)

## SPECIAL RATES FOR 1902 ONLY.

Sec. 42. For season of 1902 the Canal Tolls for the passage of the following food products:—wheat, Indian corn, pease, barley, rye, oats, flax seed and buckwheat, for through passage eastward through the Welland Canal, be ten cents per ton, and for through passage eastward through the St. Lawrence Canals only, ten cents per ton; payment of the said toll of ten cents per ton through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals, or any portion thereof. (O. C. April 1, 1902.) Also special rates, are granted to gram, &c., carried on the O. A. & P. S. and Canada Atlantic Railway systems, from Depot Harbour to Coteau Landing and thence by Canal to Montreal, as follows, viz.:—Wheat, Indian corn, pease, barley, rye, oats, flaxseed and buckwheat, 2½ cents per ton, and all rolling and package freight, 5 cents per ton. (O. C. April 1, 1902.)

Sec. 43. (a.) That for the current season of navigation of 1902, there shall be allowed in the case of steamships specially chartered for the conveyance of excursion parties, going and coming the same day, a reduction of one-half of the usual passenger tolls for passage through the Government canals, it being distinctly understood that no freight is to be carried by the said steamers on such excursions. (O. C. April 25, 1902.)

Sec. 43. (b.) Whereas the Canal Tolls payable for passage through the Welland and St. Lawrence Canals of barrel staves and headings, are 40 cents per 1,000 in the case of ordinary materials, such as those for sugar and flour barrels; while in the case of staves and headings for salt barrels the charge is 8 cents per 1,000 only.

And whereas application is made to have this distinction removed on the ground that sugar and flour cooperage is of the same weight as salt cooperage.



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His Excellency in virtue of the provisions of chapter 38 of the Revised Statutes of Canada, 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 Class 5 of the existing Tariff of tolls for passage through the Canals of the Dominion, established by the Order in Council of the 25th March, 1895, shall be and the same is hereby amended to the effect, and to that effect only, of removing the distinction between ordinary and salt barrel staves and headings, and making the tolls payable for these articles the same, namely, those at present charged on salt barrel staves and headings, on all the Canals of the Dominion. (O. C. May 28 1897.)

## SPECIAL RATES ON SAND AND STONE.

Sec. 43. (c.) On the recommendation of the Acting Minister of Railways and Canals, the rate of tolls on sand and stone used in the construction of the bridge being built at Cornwall by the Ottawa and New York Railway was reduced from 15 and 20 cents to  $7\frac{1}{2}$  and 10 cents respectively. (O. C. August 27, 1898.)

## APPENDIX B

## DOMINION CANALS

The canal systems of the Dominion, under government control in connection with lakes and navigable rivers, are as follows:—

*First.—The through route between Montreal and the head of Lake Superior (14 feet minimum depth of water.)*

	Miles.
1. Lachine Canal . . . . .	8 $\frac{1}{2}$
Lake St. Louis and River St. Lawrence . . . . .	16
2. Soulanges Canal . . . . .	14
Lake St. Francis and River St. Lawrence . . . . .	33
3. Cornwall Canal . . . . .	11
River St. Lawrence . . . . .	5
4. Farran's Point Canal . . . . .	1
River St. Lawrence . . . . .	10
5. Rapide Plat Canal . . . . .	3 $\frac{1}{2}$
River St. Lawrence . . . . .	4
6. Galops Canal . . . . .	7 $\frac{1}{4}$
River St. Lawrence and Lake Ontario . . . . .	236
7. Welland Canal . . . . .	26 $\frac{3}{4}$
Lake Erie, Detroit River, Lake St. Clair, Lake Huron, &c. . . . .	580
8. Sault Ste. Marie Canal . . . . .	1 $\frac{1}{4}$
Lake Superior to Port Arthur . . . . .	266
Total . . . . .	<u>1,223<math>\frac{1}{4}</math></u>
To Duluth . . . . .	1,357
Chicago . . . . .	<u>1,286</u>

*Second.—Ottawa to Lake Champlain.*

1. Grenville 2. Carillon. 3. St. Anne's. 4. Chambly. 5. St. Ours Canals.

*Third.—Ottawa to Kingston and Perth.*

1. Rideau Canal.

*Fourth.—Lake Ontario at Trenton to Lake Huron at mouth of River Severn.*

1. Trent Canal (not completed).

*Fifth.—Ocean to the Bras d'Or Lakes.*

1. St. Peter's Canal.



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The old lift locks, 200 feet by 45 feet, are still available, with 9 feet of water on mitre sills.

The canal consists of one channel, with two distinct systems of locks, the old and the enlarged. There are two lock entrances at each end.

The canal extends from the city of Montreal to the town of Lachine, overcoming the St. Louis rapids, the first of the series of rapids which bars the ascent of the River St. Lawrence. They are 986 miles distant from the Straits of Belle Isle.

## SOULANGES CANAL.

Length of canal.....	14 statute miles.
Number of locks ( lift.....	4
) guard.....	1
Dimensions of locks.....	280 feet by 45 feet.
Total rise or lockage.....	84 feet.
Depth of water on sills.....	15 "
Breadth of canal at bottom.....	100 "
Breadth of canal at water surface.....	164 "
Number of arc lights.....	219 of 2,000 c. p. each.

The canal extends from Cascade Point to Coteau Landing, overcoming the Cascade Rapids, Cedar Rapids and Coteau Rapids.

From the head of the Lachine to the foot of the Soulanges, the distance is sixteen miles.

## CORNWALL CANAL.

Length of canal.....	11 statute miles.
Number of locks.....	6
Dimensions of locks.....	270 feet by 45 feet.
Total rise or lockage.....	48 feet.
Depth of water on sills.....	14 "
Breadth of canal at bottom.....	100 "
Breadth of canal at water surface.....	164 "

The old lift locks, 200 feet by 45 feet, are also available, with nine feet of water on mitre sills.

From the head of the Soulanges to the foot of the Cornwall Canal there is a stretch through Lake St. Francis, of  $32\frac{3}{4}$  miles, which is being made navigable for vessels drawing fourteen feet.

The Cornwall Canal extends past the Long Sault Rapids from the town of Cornwall to Dickinson's Landing.

## WILLIAMSBURG CANALS.

The Farran's Point, Rapide Plat and Galops canals are collectively known as the Williamsburg Canals.

## FARRAN'S POINT CANAL.

Length of canal.....	1 mile.
Number of locks.....	1
New lock.....	800 feet by 45 feet.
Old lock.....	200 "
Total rise or lockages.....	$3\frac{1}{2}$ feet.
Depth of water on sills of new lock.....	14 "
Depth of water on sills of old lock.....	9 "
Breadth of canal at bottom.....	90 "
Breadth of canal at water surface.....	154 "



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## WELLAND RIVER BRANCHES.

Length of canal—

Port Robinson Cut to River Welland . . . . .	2,622 feet.
From the canal at Welland to the river, via lock at Aqueduct . . . . .	300 "
Chippewa Cut to River Niagara . . . . .	1,020 "
Number of locks—one at Aqueduct and one at Port Robinson . . . . .	2
Dimensions of locks . . . . .	150 by 26½ feet.
Total lockage from the canal at Welland down to River Welland . . . . .	10 feet.
Depth of water on sills . . . . .	9 feet 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 feet 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 Allanburg, 11¾ miles, there are two distinct lines of canal in operation, the old line and the enlarged or new line.

From Allanburg to Port Colborne, a distance of 15 miles, there is only one channel, the old canal having been enlarged.

From the head of the Welland canal there is a deep water navigation through Lake Erie, the Detroit River, Lake St. Clair, the St. Clair River, Lake Huron and River St. Mary to the Sault canal, a distance of about 580 miles. From the Sault the distance through Lake Superior to Port Arthur is 266 miles, and to Duluth 400 miles.

## SAULT STE. MARIE CANAL.

Length of canal, between the extreme ends of the entrance piers . . . . .	5,967 feet.
Number of locks . . . . .	1
Dimensions of locks . . . . .	900 ft by 60 ft.
Depth of water on sills (at lowest known water level)	20 ft. ¾ inches.
Total rise or lockage . . . . .	18 feet.
Breadth of canal at bottom . . . . .	141 ft. 8 inches.
Breadth at surface of water . . . . .	150 feet

This canal has been constructed through St. Mary's Island, on the north side of the rapids of the River St. Mary, and, with that river, gives communication on Canadian

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territory between Lakes Huron and Superior. The masonry pier of the bridge carrying the Canadian Pacific Railway over the canal, which stood in the channel of the canal, forming an obstruction to navigation, has been removed: the swing now spanning the full width of the channel or prism of the canal.

## MONTREAL, OTTAWA AND KINGSTON

This route extends from the harbour of Montreal to the port of Kingston, passing through the Lachine canal, the navigation section of the lower River Ottawa, and the Ottawa canals, to the city of Ottawa; thence by the River Rideau and the Rideau canal to Kingston, on lake Ontario—a total distance of 245 $\frac{1}{2}$  miles.

After leaving the Lachine canal the works constructed to overcome difficulties of navigation are:

*Ottawa River Canals.*

The Ste. Anne's Lock.  
Carillon Canal.

Grenville Canal.  
Rideau Canal.

The total lockage (not including that of the Lachine canal) is 509 feet—(345 rise 164 fall)—and the number of locks is 55.

The following table exhibits the intermediate distances from Montreal harbour:—

Sections of Navigation.	Inter- mediate Distance.	Total Distance, from Montreal.
	Miles.	Miles.
The Lachine Canal.....	8 $\frac{1}{2}$	
From Lachine to Ste. Anne's lock.....	15 $\frac{1}{2}$	23
Ste. Anne's lock and piers.....	$\frac{1}{2}$	23
Ste. Anne's lock to Carillon canal.....	27	50
The Carillon canal.....	$\frac{3}{4}$	51
The Carillon to Grenville Canal.....	6 $\frac{1}{4}$	57
The Grenville canal.....	$\frac{3}{4}$	63
From the Grenville canal to entrance of Rideau navigation.....	56	119
Rideau navigation ending at Kingston.....	126 $\frac{1}{4}$	245

## 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 locks.....	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 River Ottawa which forms the Lake of Two Mountains, 23 $\frac{1}{2}$  miles from Montreal harbour.

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## THE CARILLON CANAL.

Length of canal.....	$\frac{3}{4}$ mile.
Number of locks.....	2
Dimensions of locks.....	200 x 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 navigable stretch of 27 miles, through the Lake of Two Mountains and the River Ottawa.

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.

## GRENVILLE CANAL.

Length of canal.....	$5\frac{3}{4}$ miles.
Number of locks.....	5
Dimensions of locks.....	200 x 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 feet.

This canal, by which the Long Sault Rapids are avoided, is about 56 miles below the city of Ottawa, up to which point the River Ottawa affords unimpeded navigation.

## 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 $\frac{1}{2}$ feet { 282 $\frac{1}{4}$ rise and 164 fall } at high water.
Dimensions of locks.....	134 x 33 feet.
Depth of water on sills.....	5 feet.
Navigation depth through the several reaches.....	4 $\frac{1}{2}$ feet.
Breadth of canal reaches at bottom.....	{ 60 feet in earth. 54 feet in rock.
Breadth of canal at surface of water.....	80 feet in earth.

## PERTH BRANCH.

Length of canal.....	6 miles.
Number of locks.....	2
Dimensions of locks.....	134 feet x 32 feet.
Total rise or lockage.....	26 "
Depth of water on sills.....	5 " 6 inches.
Length of dam.....	200 "
Breadth of canal at bottom.....	40 "
Breadth of canal at surface at water.....	{ 40 " in rock. 60 " in clay.



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The Perth branch of the Rideau canal affords communication between Beveridge's bay, on Lake Rideau, and the town of Perth.

The summit level of the Rideau system is at upper Lake Rideau, but several of the descending reaches are also supplied by waters which have been made tributary to them. The following description gives the sources of supply :—

From the summit, the route towards Ottawa follows the Rideau river, and that towards Kingston follows the River Cataraqui. The supply of water for the canal is derived from the reserves given in detail below.

These may be divided into three systems, viz :—

1. The summit level, supplied by the Wolfe lake system.  
2. The eastern descending level to Ottawa, supplied by the River Tay system, discharging into Lake Rideau.

3. The south-west descending level to Kingston, supplied by the Mud lake system formerly known as the Devil lake system, discharging into Lake Openicon.

Lake Openicon receives the waters of Buck lake and Rock lake.

All these waters on the descending level, supplemented by those of Lake Loughboro', flow into Cranberry lake, which, discharging through Round Tail outlet, forms the River Cataraqui. The river, rendered navigable by dams at various points, affords a line of navigation to Kingston.

## 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 up the River Richelieu to Lake Champlain. The distance from Sorel to the boundary line is 81 miles.

At Whitehall, the southern end of Lake Champlain is entered, and connection is obtained with the River Hudson, by which the city of New York is directly reached. From the boundary line to New York the distance is 330 miles.

The following table shows the distances between Sorel and New York :—

Section of Navigation.	Interme- diate Distance.	Total Distances.
	Miles.	Miles.
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 DAM.

Length.....	$\frac{1}{8}$ mile.
Number of locks.....	1 "
Dimensions of lock.....	200 feet by 45 feet.
Total rise of lockage.....	5 "
Depth of water on sills.....	7 feet at low water.
Length of dam in eastern channel.....	300 "
Length of dam in western channel.....	690 "

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At St. Ours, 14 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 32 miles.

## CHAMBLY CANAL.

Length of canal .....	12 miles.
Number of locks.....	9

Dimensions of locks :—

Guard lock, No. 1 at St. Johns .....	122 feet.	} From 22½ to 24 feet wide.
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 "	
Breadth of canal at 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.

## TRENT CANAL.

The term 'Trent canal' is applied to a series of water stretches, which do not, however, form a connected system of navigation, and which, in their present condition, are efficient only for local use. By various works this local use has been extended, and by others, now in progress and contemplation, this will become a through route between Lake Ontario and Lake Huron.

The series is composed of a chain of lakes and rivers, extending from Trenton, at the mouth of the River Trent, on the Bay of Quinté, Lake Ontario, to Lake Huron.

Many years ago the utilizing of these waters for the purpose of through water communication between Lake Huron and Lake Ontario was projected.

The course, as originally contemplated and modified, is as follows :—

Through the River Trent, Rice lake, the River Otonabee and Lakes Clear, Stony, Lovesick, Deer, Buckhorn, Chemong, Pigeon, Sturgeon and Cameron to Lake Balsam, the summit water, about 165 miles from Trenton : from Lake Balsam by a canal and the River Talbot to Lake Simcoe : thence by the River Severn to Georgian bay, Lake Huron : the total distance being about 200 miles, of which only about 15 or 20 miles will be actual canal.

The full execution of the scheme, commenced by the Imperial government in 1837, was deferred. By certain works, however, below specified, sections of these waters have been made practicable for navigation and the whole scheme is now being carried out. A branch of the main route, extending from Sturgeon lake south, affords communication with the town of Lindsay, and, through Lake Scugog to Port Perry, a distance of 190 miles from Trenton.

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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 Falls dam . . . . .	—	14½
Heeley's Falls dam to Peterborough . . . . .	51¾	—
Peterborough to Lakefield . . . . .	—	9
Lakefield to a point across Balsam lake . . . . .	61	—
	<hr/> 132¼	<hr/> 32¾
Total distance, Bay of Quinté to a point across Balsam lake . . . . .		165
From Sturgeon Point on Sturgeon lake, 48¾ miles from Lakefield, the branch through the town of Lindsay to Port Perry at the head of Lake Scugog . . . . .		27

The works by which the Trent navigation has been improved comprise canals, with locks and bridges, at Young Point, Burleigh Rapids, Lovesick, Buckhorn Rapids, Bobcaygeon, Fenelon Falls and Rosedale ; also dams at Lakefield, Young's Point, Burleigh Falls, Lovesick, Buckhorn, Bobcaygeon and Fenelon Falls. By these works there is afforded communication between Lakefield, 9½ miles from Peterborough, and Balsam lake, the headwaters of the system : opening up a total of about 160 miles of direct and lateral navigation.

At Lakefield, 9½ miles from Peterborough, the dam at the head of the Nine Mile rapids of the River Otonabee, maintains navigation on Lake Katchewanoe up to Young's Point.

At Young's Point, 5 miles from Lakefield, the dam between Lake Katchewanoe and Clear lake controls the water level through Clear and Stony lakes up to the foot of the Burleigh canal. The lock here, it should be observed, is controlled by the Provincial government.

At Burleigh Rapids, 10 miles from Young's Point, a canal, about 2¼ miles in length, passes the Burleigh and Lovesick rapids, and gives communication between Stony lake and Deer bay.

At Buckhorn rapids, 7 miles from Burleigh Rapids, there is a canal about one-fourth of a mile long.

At Bobcaygeon, 15¾ miles from Burckhorn 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, (maintained by the Ontario government)	100' x 30' x 4' 6" to 6' 6" depth water on mitre sill.
2	Locks at Fenelon . . . . .	134' x 33' x 5' 0" to 7' 6" depth water on mitre sill.
1	" Lindsay . . . . .	134' x 33' x 5' 0" to 7' 6" " "
1	" Bobcaygeon . . . . .	134' x 33' x 5' 8" to 7' 0" " "
1	" Buckhorn . . . . .	134' x 33' x 5' 0" to 9' 0" " "
1	" Lovesick . . . . .	134' x 33' x 5' 0" to 9' 4" " "
2	" Burleigh . . . . .	134' x 33' x 6' 0" to 8' 0" " "
1	" Young's Point (a Provincial government work)	134' x 33' x 5' 0" to 14' 0" depth water on mitre sill.
1	" Peterborough . . . . .	134' x 33' x 5' 0" to 10' 0" depth water on mitre sill.
1	" Hastings . . . . .	134' x 33' x 7' 0" to 10' 6" " "
1	" Chishohn's . . . . .	134' x 33' x 5' 0" to 8' 6" " "

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## ST. PETER'S CANAL, CAPE BRETON.

Length of canal . . . . .	About 2,100 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 northern 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.

## BEAUHARNOIS CANAL.

Length of canal . . . . .	12 statute miles.
Number of locks . . . . .	9
Dimensions of locks . . . . .	200 feet by 45 feet.
Total rise or lockage . . . . .	82½ "
Depth of water on sills . . . . .	9 "
Breadth of canal at bottom . . . . .	80 "
Breadth of canal at water surface . . . . .	120 "

As the new Soulanges canal is now opened for navigation, it is to be presumed that the Beauharnois canal will be abandoned for navigation purposes.

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## ST. LAWRENCE NAVIGATION—TABLE OF DISTANCES.

FROM STRAITS OF BELLE ILE TO PORT ARTHUR, AT HEAD OF LAKE SUPERIOR,  
BY WATER.

		Statute Miles.		
From	To	Sections of Navigation	Total to Straits of Belle-Ile.	
Straits of Belle-Ile	Cape Whittle	Gulf of St. Lawrence	240	240
Cape Whittle	West Point, Anticosti	"	201	441
West Point, Anticosti	Father Point	River St. Lawrence	202	643
Father Point	Rimouski	"	6	649
Rimouski	Bic	"	12	661
Bic	Isle Verte	"	39	700
Isle Verte (opp. Saguenay)	Quebec	"	126	826
Quebec	Three Rivers	" to Tide-water	74	900
Three Rivers	Montreal	"	86	986
Montreal	Lachine	Lachine Canal	8 $\frac{1}{2}$	994 $\frac{1}{2}$
Lachine	Beauharnois	Lake St. Louis	15 $\frac{1}{2}$	1,009 $\frac{1}{2}$
Beauharnois	Ste. Cécile	Beauharnois Canal	11 $\frac{1}{2}$	1,021
Ste. Cécile	Cornwall	Lake St. Louis	52 $\frac{1}{2}$	1,053 $\frac{1}{2}$
Cornwall	Dickinson's Landing	Cornwall Canal	11 $\frac{1}{2}$	1,065 $\frac{1}{2}$
Dickinson's Landing	Farran's Point	River St. Lawrence	5	1,070 $\frac{1}{2}$
Farran's Point	Upper end of Croyle's Island	Farran's Point	1	1,071 $\frac{1}{2}$
Upper end Croyle's Island	Williamsburg or Morrisburg	River St. Lawrence	10 $\frac{1}{2}$	1,081 $\frac{1}{2}$
Williamsburg	Rapide Plat	Rapide Plat Canal	4	1,085 $\frac{1}{2}$
Rapide Plat	Point Iroquois Village	River St. Lawrence	4 $\frac{1}{2}$	1,090
Point Iroquois Village	Upper end Presqu'île	Point Iroquois Canal	3	1,093
Presqu'île	Point Cardinal, Edwardsburg	Junction Canal	25 $\frac{1}{2}$	1,095 $\frac{1}{2}$
Point Cardinal	Head of Galops Rapids	Galops Canal	2	1,097 $\frac{1}{2}$
Galops Rapids	Prescott	River St. Lawrence	7 $\frac{1}{2}$	1,105
Prescott	Kingston	"	59	1,164
Kingston	Port Dalhousie	Lake Ontario	170	1,334
Port Dalhousie	Port Colborne	Welland Canal	26 $\frac{1}{2}$	1,360 $\frac{1}{2}$
Port Colborne	Amherstburg	Lake Erie	232	1,592 $\frac{1}{2}$
Amherstburg	Windsor	River Detroit	18	1,610 $\frac{1}{2}$
Windsor	Foot of St. Mary's Island	Lake St. Clair	25	1,635 $\frac{1}{2}$
Foot of St. Mary's Island	Sarnia	River St. Clair	33	1,668 $\frac{1}{2}$
Sarnia	Foot of St. Joseph's Island	Lake Huron	270	1,938 $\frac{1}{2}$
Foot of St. Joseph's Island	Foot of Sault Ste. Marie	River St. Mary	47	1,985 $\frac{1}{2}$
Sault Ste. Marie	Head of Sault Ste. Marie	Sault Ste. Marie Canal	1	1,986 $\frac{1}{2}$
Head of Sault Ste. Marie	Pointe aux Pins	River St. Mary	7	1,993 $\frac{1}{2}$
Pointe aux Pins	Port Arthur	Lake Superior	266	2,259 $\frac{1}{2}$
Port Arthur to Lake Shebandowan			45	
Lake Shebandowan to North-West Angle			312	
North-West Angle to Winnipeg			95	
Pointe aux Pins to Duluth			390	

Of the 2,259 $\frac{1}{2}$  miles from the Straits of Belle-Ile to the head of Lake Superior, 71 miles are artificial navigation, and 2,188 $\frac{1}{2}$  open navigation.

Straits of Belle-Ile to Liverpool, 1,942 geographical or 2,234 statute miles.

The total fall from Lake Superior to Tide-water is about 600 feet.

The steamboat voyage from Collingwood to Port Arthur is 532 miles.

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TABLE of distances of Stations between the cities of Ottawa and Kingston.

No. of Station.	Name of Station.	Distances from Ottawa.	Locks.		Dams.		Length of Artificial Canal at each Station in miles.	
			No.	Lift at Low Water.	No.	Length.		Height.
			Miles.	Rise, Ft. In.	Feet.	Feet.		
1	Ottawa.....	0	8	82 0	3	230 1,320 1,616	13 33 14	
2	Hartwell's.....	4 $\frac{1}{2}$	2	22 0	...	100	28	4 00
3	Hogsback.....	5 $\frac{1}{2}$	2	13 6	1	320	60	
4	Black Rapids.....	9 $\frac{1}{2}$	1	10 0	1	300	12	0 13
5	Long Island.....	14 $\frac{1}{2}$	3	27 0	3	850	68	0 13
6	Burritt's.....	40 $\frac{1}{2}$	1	10 6	1	240	14	1 50
7	Nicholson.....	43 $\frac{1}{2}$	2	15 2	1	500	9	0 50
8	Clowes.....	44 $\frac{1}{2}$	1	10 0	1	481	16	0 05
9	Merrickville.....	46 $\frac{1}{2}$	3	25 0	1	150	6	0 33
10	Maitland.....	55	1	4 9	1	270	8	0 13
11	Edmonds.....	59 $\frac{1}{2}$	1	10 10	1	343	8	0 06
12	Old Slys.....	60 $\frac{1}{2}$	2	15 6	1	250	20	0 25
13	Smith's Falls.....	61 $\frac{1}{2}$	4	33 9	2	600	24	0 13
14	First Rapids or Poonamalie.....	64	1	7 9	1	260	5	1 25
15	Narrows.....	83 $\frac{1}{2}$	1	4 0	1	600	9	0 06
Total rise at low water.....				292	3			
				Fail.				
16	Isthmus.....	87 $\frac{1}{2}$	1	4 0				1 25
17	Chaffey's.....	92	1	12 6				0 13
18	Davis.....	94 $\frac{1}{2}$	1	9 0	1	300	15	0 06
19	Jones' Falls.....	97 $\frac{1}{2}$	4	60 0	1	300	60	0 25
20	Brewer's Upper Mills.....	108 $\frac{1}{2}$	2	19 0	1	200	20	1 75
21	" Lower Mills.....	110	1	14 2	1	200	12	1 25
22	Kingston Mills.....	120 $\frac{1}{2}$	4	46 8	1	6,042	14	0 25
23	Kingston.....	126 $\frac{1}{2}$						
Total fall at low water.....				165	4			
Total.....			47		24	15,472		16 46

PART VI

STEAM AND ELECTRIC RAILWAY STATISTICS





# STEAM RAILWAY STATISTICS

OF THE

## DOMINION OF CANADA.

FOR THE YEAR ENDED JUNE 30, 1903

Compiled by Mr. Thomas Ridout, C.E., from sworn Returns furnished by the several Railway Companies

COLLINGWOOD SCHREIBER,

*Deputy Minister and Chief Engineer of Railways and Canals.*

TABLE showing the growth of the Railways from year to year, since the opening of the first line in 1836.

Year.	Miles in Operation.	Year.	Miles in Operation.
1835.....	0	1870.....	2,617
1836.....	16	1871.....	2,695
1837.....	16	1872.....	2,899
1838.....	16	1873.....	3,613
1839.....	16	1874.....	3,832
1840.....	16	1875.....	4,331
1841.....	16	1876.....	4,804
1842.....	16	1877.....	5,218
1843.....	16	1878.....	5,782
1844.....	16	1879.....	6,126
1845.....	16	1880.....	6,858
1846.....	16	1881.....	7,194
1847.....	54	1882.....	7,331
1848.....	54	1883.....	8,697
1849.....	54	1884.....	9,577
1850.....	66	1885.....	10,273
1851.....	159	1886.....	10,773
1852.....	205	1887.....	11,793
1853.....	506	1888.....	12,184
1854.....	764	1889.....	12,585
1855.....	877	1890.....	13,151
1856.....	1,414	1891.....	13,838
1857.....	1,444	1892.....	14,564
1858.....	1,863	1893.....	15,005
1859.....	1,994	1894.....	15,627
1860.....	2,065	1895.....	15,977
1861.....	2,146	1896.....	16,270
1862.....	2,189	1897.....	16,559
1863.....	2,189	1898.....	16,870
1864.....	2,189	1899.....	17,250
1865.....	2,210	1900.....	17,657
1866.....	2,278	1901.....	18,140
1867.....	2,278	1902.....	18,714
1868.....	2,278	1903.....	18,988
1869.....	2,524		

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THE SUMMARY of Tables of Steam Railways for the Years ended June 30, 1902, and June 30, 1903.

	Comparative Statement.	
	June 30, 1902.	June 30, 1903.
Miles of railway completed (track laid).....	18,868	19,077
"    sidings.....	2,829	2,953
"    iron rails in main line.....	107	101
"    steel.....	18,761	18,976
"    "    (double track).....	647	695
Capital paid (including the four following items).....	1,088,852,206	1,146,550,769
Government (Dominion and Provincial) bonuses paid.....	185,182,371	189,874,292
"    "    loans paid.....	20,613,214	20,613,214
"    (Provincial only) subscription to shares.....	300,000	300,000
Municipal aid paid.....	16,465,694	16,551,044
Miles in operation.....	18,714	18,988
Gross earnings.....	83,666,593	96,064,527
Working expenses.....	57,343,592	67,481,524
Net earnings.....	26,322,911	28,583,003
Passengers carried.....	20,679,974	22,148,742
Freight carried (tons).....	42,376,527	47,373,417
Train mileage.....	55,729,856	60,382,920
Passengers killed.....	19	53
Number of elevators.....	275	296
"    guarded level crossings—public roads.....	205	221
"    unguarded "    ".....	12,740	12,829
"    overhead bridges.....	452	468
"    public roads under crossings.....	175	209
"    level crossings of other railways.....	144	256
"    junctions with other railways.....	365	374
"    "    branch lines.....	224	223
"    engines owned.....	2,344	2,488
"    "    hired.....	109	99
"    sleeping and parlour cars owned.....	268	290
"    "    "    hired.....	13	14
"    first-class cars owned.....	1,117	1,105
"    "    hired.....	49	42
"    second-class and immigrant cars owned.....	562	579
"    "    hired.....	11	11
"    baggage, mail and express cars owned.....	657	796
"    "    hired.....	24	22
"    refrigerator cars owned.....	786	979
"    "    hired.....	271	242
"    cattle and box freight cars owned.....	15,291	49,652
"    "    hired.....	3,499	3,455
"    platform cars owned.....	15,298	17,784
"    "    hired.....	536	501
"    coal and dump cars owned.....	7,500	7,356
"    "    hired.....	236	283
"    conductors vans owned.....	1,118	1,107
"    "    hired.....	24	122
"    tool cars owned.....	1,009*	1,070*
"    "    hired.....	5	4
"    snow ploughs owned.....	308	308
"    "    hired.....	5	5
"    flangers owned.....	302	345
"    "    hired.....	2	2
Included in the above there are the following.....		
"    cars with air brakes owned.....	54,201	63,788
"    "    hired.....	3,910	4,348
"    automatic couplers owned.....	62,456	71,964
"    "    hired.....	4,426	4,572

Including water tank cars, steam shovels, pile drivers, store cars, gravel cars, boarding cars, &c.

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## NOMINAL Capital paid up to June 30, 1903.

	Miles con- structed.	Amount.		Per Mile.		Remarks.
		§	cts.	§	cts.	
Ordinary share capital . . . . .	19,078	346,923	487 32	18,184	48	
Preference . . . . .	19,078	136,846	824 94	7,173	02	
Bonded debt . . . . .	19,078	424,100	761 89	22,229	83	
Aid from Dominion Government . . . . .	19,078	177,677	688 95	9,313	22	
" Ontario . . . . .	7,142	8,418	577 69	1,178	74	Equal to an average of \$1,719 77 per mile on the total mileage.
" Quebec . . . . .	3,492	16,445	242 16	4,709	40	
" New Brunswick Government . . . . .	1,445	4,542	939 71	3,143	90	
" Nova Scotia Government . . . . .	1,050	2,090	091 35	1,990	56	
" Prince Edward Island Government . . . . .	209					
" Manitoba Government . . . . .	2,225	1,275	377 50	573	21	
" British Columbia Government . . . . .	1,421	37,500	00	26	39	
" North-west Territories Government . . . . .	2,094					
" Municipalities in Ontario . . . . .	7,142	12,189	104 80	1,706	68	
" Quebec . . . . .	3,492	3,118	519 20	893	05	
" New Brunswick . . . . .	1,445	336	500 00	232	84	
" Nova Scotia . . . . .	1,050	356	559 17	339	57	
" Prince Edward Island . . . . .	209					
" Manitoba . . . . .	2,225	490	600 00	220	49	
" British Columbia . . . . .	1,421	37,500	00	26	39	
" North-west Territories . . . . .	2,094	22	261 29	10	63	
Capital from other sources . . . . .	19,078	11,641	233 00	610	19	
Total capital paid . . . . .	19,078	1,146,550	768 97			

## GOVERNMENT and Municipal Loans, Bonuses, &amp;c., promised to Railways completed and under construction up to June 30, 1903.

	§	cts.
Dominion Government . . . . .	182,971	602 33
Ontario . . . . .	9,708	377 69
Quebec . . . . .	17,561	089 08
New Brunswick Government . . . . .	4,589	439 71
Nova Scotia . . . . .	2,661	756 53
Manitoba . . . . .	1,275	377 50
British Columbia . . . . .		37,500 00
Municipalities in Ontario . . . . .	12,294	104 80
" Quebec . . . . .	4,875	074 00
" New Brunswick . . . . .	361	500 00
" Nova Scotia . . . . .	526	559 17
" Manitoba . . . . .	595	600 00
" British Columbia . . . . .		37,500 00
North-west Territories . . . . .		25,000 00
	237,520	480 81

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## LAND GRANTS made by Governments to Railways

No.	Act authorizing Subsidy.	Name of Railway Company.	Government.
1	{ 48-49 Vic., c. 60 50-51 Vic., c. 22 52 Vic., c. 2 }	Alberta Railway and Coal Co.—Main line, Dummore to Lethbridge.....	Dominion.....
2	{ 52 Vic., c. 41 52 Vic., c. 31 }	Alberta Railway and Coal Co., from Lethbridge to International Boundary.....	".....
3	53 Vic., c. 4.....	Calgary and Edmonton Railway.....	".....
4	44 Vic., c. 1.....	Canadian Pacific Railway—Main line.....	".....
5	53 Vic., c. 4.....	C. P. R.—Deloraine and Napinka Branch.....	".....
6	53 Vic., c. 4.....	C. P. R.—Glenboro' and Souris Branch.....	".....
7	{ 53 Vic., c. 41 54 Vic., c. 10 }	C. P. R.—Kemnay and Estevan Branch.....	".....
8	57-58 Vic., c. 6.....	C. P. R.—Pipestone Branch.....	".....
9	62-63 Vic., c. 57.....	†Canadian Northern Railway.....	".....
10	49 Vic., c. 11.....	Great North-west Central Railway.....	".....
11	48-49 Vic., c. 60.....	Manitoba and North-western Railway—Main line.....	".....
12	49 Vic., c. 11.....	" " Russel Branch.....	".....
13	57-58 Vic., c. 6.....	Saskatchewan and Western Railway.....	".....
14	53 Vic., c. 4.....	Manitoba and South-eastern Railway.....	".....
15	{ 54-55 Vic., c. 10 48-49 Vic., c. 10 }	Manitoba and South-western Colonization Railway.....	".....
16	{ 48-49 Vic., c. 60 50-51 Vic., c. 23 }	Qu'Appelle, Long Lake and Saskatchewan Railway.....	".....
17	.....	James Bay Railway.....	Ontario.....
18	63 Vic., c. 30.....	Algoma Central and Hudson Bay Railway.....	".....
19	.....	Quebec and Lake St. John Railway.....	Quebec.....
20	.....	Yarmouth and Annapolis—in " Dominion Atlantic Ry. ....	Nova Scotia.....
21	.....	Columbia and Kootenay Railway.....	British Columbia
22	.....	Columbia and Western Railway.....	".....
23	.....	Esquimalt and Nanaimo Railway.....	".....
24	.....	Kaslo and Slovan Railway.....	".....
25	.....	Nelson and Fort Sheppard.....	".....
26	57 Vic., c. 39.....	British Columbia Southern.....	".....

\* Again, after efforts to obtain a statement of the amounts realized from the sale of these lands, the to the Dominion Government at \$1.50 per acre. † By 62-63 Vic., caps 57, 75 and 80, the Lake Manitoba the Ontario and Rainy River Ry., were amalgamated with the Canadian Northern Ry., all the rights of

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completed and under construction, up to June 30, 1903.

Mileage Subsidized.	Acres granted per Mile.	Total Acres granted.	Acres sold by Railway Companies.	Amount Realized.	
				\$    cts.	
109.50	6,400	700,800	1,830,622	2,410,117 12	Sold 616,254 acres more than the Dominion Government grant.
64.62	6,400	413,568			
294.07	6,400	1,888,448	*1,481,046	*	
		25,000,000	†6,793,014	10,189,521 00	
18.01	6,400	115,264	8,329,147	28,212,115 96	
45.24	6,400	289,536			
156.86	6,400	1,063,904			
31.30	6,400	200,320			
818.61	{ Div. A., 6,400 " B., 12,800 " C., 6,400 }	8,580,928	291,853	987,680 24	
50.00	6,400	320,000	No return of lands sold.		
223.09	6,400	2,918,400	*1,187,487	* 1,950,522 10	*From return of 1900, now leased to C.P.R., but lands held by former bondholders from whom no returns of sales have been received.
11.50	6,400				
15.45	6,400	98,880			In Canadian Northern.
98.00	6,400	627,200	743,186.73	3,042,491 45	
218.25	6,400	1,396,800	{ Town sites.    198,489 29		
			{ 128,000       121,600 00		
253.96	6,400	1,625,344	{ 998,200       *		
175.00	5,000	875,000	None.	Nil.	
200.00	7,400	1,480,000	None.	Nil.	
			1,390,000	729,750 00	
			450,000	100,000 00	
		150,000	No return of lands sold.		
		190,000	{ 22,811.40       51,424 80		Leased to Can. Pac. Ry.
			{ Town sites.    230,049 54		
		2,500,000	No return of lands sold.    Leased to Can. Pac. Ry.		
		2,000,000	340,479	1,443,250 00	
			{ Town sites.    8,142 00		
		212,763	{ 10,013.00       37,786 00		
			20,538	356,761 66	
187.79	20,000	3,755,733	200	320 00	

companies have failed to give the information, the return, therefore, in this respect, is incomplete. † Sold Railway and Canal Co., the Winnipeg Great Northern Ry., the Manitoba and South-eastern Ry., and these companies being vested in the new company.

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## TOTAL FATAL ACCIDENTS for Year ended June 30, 1903.

	Passengers Killed.	Employees Killed	Others Killed.	Total Killed.
Falling from cars or engines . . . . .	9	34	5	48
Jumping on or off trains in motion . . . . .	3	8	5	16
At work making up trains . . . . .		5		5
Putting heads or arms out of window . . . . .				
Coupling cars . . . . .		18	1	19
Collisions and derailments . . . . .	35	55	2	92
Struck by engines or cars on highway crossings . . . . .		1	52	53
Walking or being on track . . . . .	4	42	112	158
Explosions . . . . .				
Striking bridges . . . . .		3	1	4
Other causes . . . . .	2	20	3	25
Total killed . . . . .	53	186	181	420

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TABLE showing Location of the Steam Railways of the Dominion of Canada, June 30, 1903.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Alberta Railway and Coal Co.	From Lethbridge in District of Alberta, N.W.T., to Coutts, on International boundary, 4 ft. 8½ in. gauge. The portion from Dumfries to Lethbridge, 107 miles, was changed to 4 ft. 8½ in. gauge and sold to Can. Pac. Ry., 29th Nov., 1893.	64	62
Albert Southern.	Harvey Branch Junction to Alma, N.B. . . . . Harvey Branch Albert to Harvey Bank, N.B. . . . .	16 00 3 00	19 00
Algoma Central and Hudson Bay.	Sault Ste. Marie to mile 64½—Main line. . . . . Branch—Michipicoten to Helen Mines. . . . . " Josephine Jet. to Josephine Mine. . . . . Trout Lake to Aweres . . . . . Mile 20 to Maple Camp . . . . . Lake Wilde to Breiting Mine. . . . .	64 25 12 00 10 50 2 00 1 00 2 00	
Baie des Chaleurs in Atlantic and Lake Superior System.	Metapedia Station on C.P.R. to Paspébiac, 100 miles Paspébiac to Port Daniel, 21 miles under construction.		91 75 100 00
Bay of Quinté Railway and Navigation Coy.	Deseronto, on Bay of Quinté, Lake Ontario, to Deseronto Junction, Grand Trunk Railway . . . . .		4 00
Bedlington and Nelson.	Kuskonook to Bedlington, B.C. . . . .		15 20
British Yukon.	White Pass to White Horse Spur, B.C., and Branch to White Horse . . . . .		90 32
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
Bruce Mines and Algoma.	Bruce Mines to Rock Lake. . . . .		16 62
Calgary and Edmonton.	Calgary to Edmonton . . . . . " MacLeod, District of Alberta . . . . .	190 97 104 96	
Canada Atlantic, including Ottawa, Arnprior and Parry Sound Ry.	City of Ottawa to Junction with Grand Trunk at Lacolle and U.S. boundary. Crosses the St. Lawrence at Coteau by bridge. Connects with Grand Trunk Railway at Coteau and Lacolle, and Ottawa to Depot Harbour, Lake Huron, near Parry Sound. . . . .		400 30
Central Counties.	From Glen Robertson, on Canada Atlantic to Hawkesbury, Ont. . . . .	21 00	
Leased to Canada Atlantic.	South Indian, on Canada Atlantic, to Rockland. . . . .	16 40	37 40
Canadian Northern.	Port Arthur to Winnipeg. . . . . Beaver to Grand View. . . . . Branches—Stanley Junction to Gamflint Lake . . . . . " Carman Junction to Carman . . . . . " Neepawa Junction to Neepawa. . . . . " Gilbert Plains Junction to Erwood. . . . . " Sifton Junction to Winnipegosis. . . . .	394 90 131 30 66 90 43 70 53 20 190 70 21 20	881 90
Canada Coals and Railway Co., formerly Joggins	Maccan Station, I.C.R., to Joggins Coal Mine. . . . .		12 00
Canada Southern.	Main Line—Windsor, Ont., to Suspension Bridge. . . . . Amherstburg Branch—Essex Centre to Amherstburg. . . . . St. Clair Branch—St. Clair Junction to Courtright. . . . . Fort Erie Branch—Fort Erie to Welland Junction. . . . . Erie and Niagara Branch—Old Fort Erie to Niagara. . . . . Oil Springs Branch—Oil Springs to Oil City. . . . . Sarnia, Chatham and Erie—Oil City to Petrolia. . . . . Leased . . . . . " Leanington and St. Clair—Comber to Leanington. . . . .	226 18 16 83 62 63 17 50 30 60 5 50 7 00 15 95	

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TABLE showing Location of Railways, &amp;c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Canada Eastern	Main Line—Late Northern and Western of New Brunswick		
	Gibson, opposite City of Fredericton to Chatham Junction, I.C.R.	107 00	
	Chatham Junction to Chatham and Logieville via Nelson	20 00	
	Blackville to Indiantown	9 00	
Canadian Pacific			136 00
Owned	Main Line—Quebec to St. Martin's Junction	159 80	
	" Montreal to Ottawa	120 30	
	" Ottawa to Bonfield	223 60	
	" Bonfield to Vancouver	2,561 10	
	Branches—Dunmore to Crows Nest	213 60	3,064 80
	" Piles Junction to Grand Piles	26 90	
	" Berthier Junction to Berthier	2 00	
	" Joliette Junction to St. Félix	16 80	
	" Ste. Thérèse Junction to St. Jérôme	13 60	
	" " to St. Eustache	6 00	
Montreal and Western	" St. Jérôme to Labelle	66 90	
	" St. Lin Junction to St. Lin	15 00	
	" Buckingham Stn. to Buckingham Village	1 20	
Brockville and Ottawa Railway	" Carleton Junction to Brockville	45 00	
	" Sudbury to Sault Ste. Marie	178 90	
	" Sudbury to Copper Mines	5 60	
	" Dymont to Ottawine	7 00	
	" Molsen to Lac du Bonnet	22 00	
	" McGregor to Breese-dale	36 00	
	" Winnipeg Junction to Emerson	63 60	
	" " to Manitou	101 10	
	" " to Winnipeg Beach	50 00	
	" Rosenfeldt to Gretna	13 70	
	" Air Line Junction to Teulon	37 30	
	" Kenney to Estevan	156 20	
	Souris Branch—Glenboro' to Souris	45 70	
	" Deloraine to Napinka	18 60	
	Branches—Monteith Junction to Arcola	94 80	
	" North Portal to Pasqua	160 30	
	" New Westminster Jct. to New Westminster	8 20	
Lake Temiscamingue-Colonization	" Mattawa to Kippewa	48 00	
	" Mission Junction to Mission	10 00	
	" Revelstoke to Arrow Head	27 70	
	" Vancouver to Coal Harbour	1 20	
	" Three Forks to Sandon	4 20	
	" Wood Bay to Mowbray	25 70	
	" North Star Junction to Kimberly	19 10	
	" Deloraine to Lyleton	36 90	
	" Fernie to Fernie Mines	5 00	
			1,586 20
	Total mileage owned		4,651 00
Leased Lines	Atlantic and North-west (in Canada)		
	South end Lachine Bridge to Maine boundary, Que.	181 80	
	Renfrew Jct. to Eganville, Ont.	19 20	
	St. Lawrence and Ottawa		291 00
	Ottawa to Prescott, Ont.	51 80	
	Chaudière Junction to Sussex St., Ottawa	6 60	
	Ontario and Quebec		58 40
	Montreal (Windsor Sta.) to Toronto Jct.	338 80	
	Mile End to Adirondack Jct.	9 90	
	St. Luc Jct. to Western Jct.	1 70	
	Toronto Jct. to Toronto (Union Station)	4 70	
	Leaside Jct. " "	5 30	
	London to Windsor	112 60	
			473 00



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TABLE showing Location of Railways, &c.—*Continued.*

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Canadian Pacific— <i>Continued.</i>			
Leased lines	Credit Valley		
	Toronto Junction to St. Thomas	116 80	
	Streetsville Junction to Melville Jet	31 60	
	Cataract to Elora	27 30	
			175 70
	West Ontario Pacific—Woodstock to London		26 60
	Toronto, Grey and Bruce—		
	Toronto Junction to Owen Sound	116 80	
	Orangeville Junction to Teeswater	69 80	
	Glenannan to Wingham	4 50	
			191 10
	Guelph Junction—		
	Guelph Junction on Credit Valley Ry. to Guelph		15 00
	Montreal and Lake Maskinonge		
	St. Félix to St. Gabriel de Brandon		11 00
	Montreal and Ottawa—		
	Vaudreuil to Jet, with the Canada Atlantic	86 20	
	Rigaud to Pt. Fortune	7 00	
			93 20
	Toronto, Hamilton and Buffalo—		
	Hamilton Junction to Hamilton		2 70
	Cap de la Madeleine—		
	From Main Line C.P.R., at Junction with Piles branch to Cap de la Madeleine		3 00
	New Brunswick—		
	Woodstock to Maine boundary	59 40	
	Newburg Junction to Fredericton	58 40	
	Aroostook Junction to Edmondston	57 20	
	St. John and Maine—		175 00
	Vanceboro to McAdam Junction	6 30	
	McAdam Junction to Fairville	81 80	
	Fairville to Carleton	4 00	
	St. John Bridge and Railway Extension		92 10
	Fairville to St. John		2 00
	Fredericton—		
	Fredericton Junction to Fredericton		22 10
	New Brunswick and Canada—		
	McAdam Junction to St. Stephen	33 90	
	Watt Junction to St. Andrews	27 50	
	McAdam Junction to Woodstock	50 80	
	Debec Junction to Maine boundary	5 00	
	St. Stephen and Milltown Ry.—		117 20
	St. Stephen to Milltown		4 60
	Tobique Valley—		
	Perth Centre to Plaster Rock		28 00
	Manitoba and Northwestern—		
	Portage la Prairie to Yorkton	222 90	
	Binscarth to Russell	11 30	
	Saskatchewan and Western—Minnedosa to Rapid City	18 20	
	Manitoba South-western Colonization—		252 40
	Manitou to Deloraine	100 40	
	Winnipeg to Glenboro	101 90	
	Elu Creek to Carman	12 10	
			214 40
	Great North-west Central, Chater to Miniota		71 00
	Columbia and Kootenay—		
	Nelson to Robson	27 70	
	Slocan Junction to Slocan City	32 00	
	To Mouth of Kootenay River	0 80	
			60 50
	British Columbia Southern—		
	Crows Nest to Kootenay Landing	182 00	
	Nelson to Proctor	20 40	
			202 40

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TABLE showing Location of Railways, &c.—*Continued.*

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Canadian Pacific <i>Continued.</i>			
Leased lines	Shuswap and Okanagan		
	From Jet. with C.P.R. at Sicamous to Lake Okanagan	50	80
	Nakusp and Slocan		
	Nakusp on Arrow Lake to Three Forks of Carpenter's Creek, B.C.	36	30
	Columbia and Western		
	Robson to Midway	99	60
	Castlegar Jet. to Rossland	30	70
	Trail to Smelter Junction	2	00
	Mining Spurs, including Rossland to LeRoi	24	80
		157	10
	Vancouver and Lulu Island, Vancouver, to Steveston.	17	20
	Total mileage leased		2,788
	" owned		4,651
	" in Can. Pac. system		7,439
Canadian Government Railways.	Intercolonial		
	Halifax to Point Lévis (via Harlaka)	674	87
	Dartmouth to Windsor Junction	12	12
	Truro to Sydney	214	17
	Mulgrave to Point Tupper Ferry	4	90
	North Sydney Junction to North Sydney	4	43
	New Glasgow to Pictou Landing	7	57
	Stellarton to Oxford Junction	79	63
	Brown's Point to Pictou	1	70
	Pugwash Junction to Pugwash Station	4	70
	Painse Junction to Pt. du Chêne	11	38
	Moncton to St. John	89	22
	Derby Junction to Indiantown	13	51
	Dalhousie Branch	5	97
	River Ouelle to St. Denis Wharf	6	25
	St. Charles Junction to Chaudière Junction (via St. Henri)	16	38
	Hadlow to Chaudière Curve	5	66
	Moncton and Chaudière Branches	1	55
	Freight Branches	27	57
	Ys at various places	3	07
		1,180	65
	Windsor Branch (32 miles) of L. C. Ry. is operated by Dominion Atlantic Ry.		
	Drummond County		
	Chaudière to Ste. Rosalie Jet. with Grand Trunk	115	93
	St. Leonard to Nicolet and Balls Wharf on St. Lawrence	14	68
	Prince Edward Island		1,310
	Main Line—Alberton to Charlottetown	104	30
	Royalty Junction to Georgetown	41	00
	Branch—Mount Stewart to Souris	38	40
	"—Alberton to Tignish	13	30
	"—Emerald to Cape Traverse	12	00
		209	00
		1,519	26
Cape Breton Railway	Point Tupper to St. Peters	30	00
	Terminal at St. Peters	1	00
		31	00
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		
Central (Nova Scotia), formerly Nova Scotia Central	(Gauge, 5 ft. 6 in.)	13	00
	From Middleton on the Windsor and Annapolis Ry. to town of Lunenburg, on the Atlantic coast, N.S.	74	00

## SESSIONAL PAPER No. 20

TABLE showing Location of Railways, &amp;c. —Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Central Ontario	From Picton, in Prince Edward County, to Bancroft Branch, Ormsby Jet to Coe-Hill Iron Mines, Walsaston, 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	117 00	
Central Railway of New Brunswick, now New Brunswick Coal and Railway Co.	From Norton Station, on the Intercolonial Railway, to Chipman	8 00	125 00
	Extension, Chipman to Newcastle, 15 miles under construction	44 66	
	Montreal to L'Epiphanie, 37 miles under construction.	44 66	
Chateauguay and Northern Coast Line, Nova Scotia, now Halifax and Yarmouth	Yarmouth towards Halifax, 240 miles 50 20 completed and 61 miles under construction.		50 20
Cobourg, Northumberland and Pacific	From Cobourg, Ont., to Junction with Central Ontario Railway, 49 miles under construction.		
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, 14 miles from Spring Hill Mines to Oxford Village on the Oxford and New Glasgow Branch, I.C.R., not in operation.		
Crows Nest Southern	International Boundary to Swinton, B.C. 43 35 Swinton to Morrissing Mines 4 80		48 15
Dominion Atlantic, comprising Windsor and Annapolis, Yarmouth and Annapolis and Cornwallis Valley and lease of Windsor Branch of Intercolonial	Windsor to Annapolis, N.S.	84 00	
	Annapolis to Yarmouth	87 00	
	Branches— Wilnot to Forbrook	3 50	
	From Kentville to Kingsport, on Basin of Minas (formerly Cornwallis Valley Railway).	14 00	
	Windsor Branch of I.C.R.—Windsor to Windsor Junction, Intercolonial Railway, 14 miles from Halifax, leased.	32 00	
			220 70
Edmonton, Yukon and Pacific	Strathcona to Edmonton, N.W.T.		4 50
Elgin and Havelock	From Elgin, County of Albert, N.B., to Petiteodiac Junction with Intercolonial Railway; thence to Havelock in County of King's, N.B.	27 00	
	Havelock to Keith's Mills	1 00	
			28 00
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 Ry., at St. Mary's		1 33
Grand Trunk (owned)— Main Line	Point Edward to Point Levis and Boundary Line, Vermont	544 40	
	York to Sarnia Tunnel	175 70	
	Suspension Bridge, Niagara Falls to Windsor	229 81	
			949 91
Branches, Eastern Division	Arthabasca Branch	35 34	
	St. Lambert to Ft. Covington (Boundary)	67 20	
	Brossard to Rouse's Point (Boundary)	36 79	
	St. Isidore to Province Line	24 15	
	St. Martine to Valleyfield	19 12	
	Bonaventure to Dorval	10 12	
	Jacques Cartier Union Ry.	6 54	
	St. Paul Branch	1 08	

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TABLE showing Location of Railways, &c.—*Continued.*

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Grand Trunk (owned)— <i>Con.</i> Eastern Division— <i>Concluded.</i>	St. Henri curve .....	0.31	
	Wharf Branch, Montreal .....	0.85	
	Wharf Branch, Lachine .....	0.68	
	Kingston Branch .....	2.25	
		—	204.43
Northern Division .....	Belleville Harbour to Midland .....	163.96	
	Madoc Junction to Eldorado .....	21.68	
	Port Hope to Peterboro' .....	30.57	
	Peterboro' to Lakefield .....	9.56	
	Millbrook Junction to Omenece Junction .....	15.12	
	Blackwater to Cobocook .....	36.19	
	Medonte Tramway .....	0.75	
	Scarboro Junction to Haliburton .....	114.82	
	Whitby Harbour to Manilla Junction .....	33.71	
	Stouffville to Jackson's Point .....	26.91	
	North Parkdale to Nipissing Junction .....	218.31	
	Muskoka Wharf Branch .....	1.00	
	Burlington Junction to Allandale .....	84.00	
	Allandale to Meaford .....	53.88	
Colwell to Penetang .....	33.30		
Beton Junction to Lake Junction .....	40.62		
Hillsdale Tramway .....	8.28		
		—	892.6
Middle Division .....	Blackwell to Point Edward .....	5.21	
	Galt to Elmira .....	25.02	
	St. Mary's to London .....	21.13	
	Toronto Belt Line .....	12.79	
	Bathurst St., Toronto to Hamilton .....	37.95	
	Port Dover to Hamilton .....	40.25	
	Burlington Beach Line .....	11.33	
	Stoney Creek and Gages connections .....	2.56	
	Komoka to Sarnia .....	50.85	
	Sarnia to Point Edward .....	2.67	
	Petrolia Branch .....	4.71	
	Fort Erie to Glencoe .....	145.55	
	Glencoe to Kingscount .....	21.01	
	Port Colborne to Port Dalhousie .....	25.14	
	Clifton to Port Robinson .....	9.75	
	Welland Junction .....	0.20	
	Goderich to Goderich Harbour .....	1.00	
	Harrisburg to Tilsonburg Junction .....	42.54	
	Port Dover to Tavistock .....	55.68	
	Simcoe to Port Rowan .....	17.00	
	Harrisburg to Southampton .....	128.44	
	Palmerston to Durham .....	26.73	
	Harriston to Warton .....	63.97	
Stratford to Palmerston .....	36.60		
Listowell to Kincardine .....	57.66		
Hyde Park to Wingham .....	68.88		
Cobourg to Harwood (not in operation) .....	15.00		
		—	920.62
			2,973.62
Leased and partly owned	Buffalo and Lake Huron Ry. ....		
	Fort Erie to Goderich .....	162.00	
	Owen Sound Branch .....		
	Park Head to Owen Sound .....	12.42	
		—	174.42
Lease or rented.	Wharf Branch, Montreal .....		3.44
			3,154.48

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TABLE showing Location of Railways, &amp;c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
St. Clair Tunnel and approaches.	Under the St. Clair River, between Sarnia and Port Huron—connecting the Grand Trunk Railway with railroads in State of Michigan. . . . .		2 25
Great Eastern in Atlantic and Lake Superior system . . . . .	(Length of tunnel between portals 6,000 ft., cylindrical in section with clear inside diameter of 19 ft. 10 inches).		
	From junction with South eastern Railway at Yamaska to River St. Francis. . . . .	6 00	
Great Northern, including Lower Laurentian and Montfort and Gatineau Railways. . . . .	From Nicolet to Junction with Grand Trunk Railway at St. Grégoire. . . . .	7 00	
	Yamaska to Sorel . . . . .	10 60	
	Pierreville to Nicolet, 15 miles under construction.		
	St. Grégoire to Chaudière Junction, 67 miles under construction.		23 00
	From Riv. à Pierre Jet. with Quebec and Lake St. John Ry. to Hawkesbury. . . . .	169 38	
Gulf Shore. . . . .	From Shawenegan Junction to Shawenegan Falls . . . . .	3 98	
	From St. Jérôme Junction to St. Jérôme . . . . .	1 74	
	From Montfort to Arundel. . . . .	33 00	
			208 10
Hampton and St. Martin, formerly St. Martin and Upham. . . . .	Junction with Caraquet Railway at Pokemouche to Tracadie operated by Caraquet Ry. . . . .		16 78
	From Hampton on Intercolonial Ry. to St. Martin, County of St. John, N. B., on Bay of Fundy. . . . .		20 00
Hereford . . . . .	From International Boundary to Dudswell, County Wolfe, connects with Canadian Pacific Railway at Cookshire, Maine Central at International boundary, and with Quebec Central at Dudswell . . . . .	48 50	
	Dudswell to Lime Quarries (Dominion Lime Company)	4 80	53 30
Indian River. . . . .	Megantic to Boundary, under construction, 18 10 miles		
Interprovincial Railway Bridge and approaches, now included in Ottawa, Northern & Western	Across the Ottawa River at City of Ottawa. . . . .		1 40
Irondale, Bancroft and Ottawa. . . . .	From Junction with Grand Trunk Railway, near Kinmount Station, to Bancroft Station. . . . .		48 00
Inverness and Richmond, now Inverness Ry. and Coal Co. . . . .	Inverness to Point Tupper Junction. . . . .		61 00
James Bay. . . . .	From junction with Canada Atlantic Railway to Parry Sound, under construction, 3 90 miles.		
Kaslo and Sloean . . . . .	From Kaslo to Sandon, B. C. . . . .	28 80	
	From Junction to Cody . . . . .	3 00	31 80
Kent Northern. . . . .	Richibucto, N. B., to Kent Jet, Intercolonial Railway . . . . .		27 00
St. Louis and Richibucto. . . . .	Richibucto to St. Louis. . . . .		7 00
Kettle River Valley. . . . .	Grand Forks to International boundary. . . . .		3 86
Kingston and Pembroke. . . . .	Main Line Kingston to Renfrew. . . . .	103 10	
	Glendower Branch—Bedford to Zanesville Mine. . . . .	4 60	
	Robertsville Branch—To Robertsville Mines. . . . .	1 00	
	Branches—To Doran's Mills, Charcoal Works McLaren's Mills, Bethlehem Iron Mines, Lavant Mills, Clyde Forks Mills, Wilson's Mine, Carswell's Mills, William's Mine, Cameron Bay. . . . .	4 75	
	(Connects with Grand Trunk at Kingston, Canadian Pacific at Sharbot Lake and at Renfrew.)		112 85
Kingston, Napanee and Western. . . . .	Amalgamated with Bay of Quinté Railway:		
	Deseronto to Napanee and Tweed. . . . .	55 45	
	West. . . . .	2 00	
	Yarker to Sydenham. . . . .	11 37	68 82
Klondike Mines Railway. . . . .	Klondike City to Stewart River, 83 miles under construction . . . . .		2 00

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TABLE showing Location of Railways, &c.—*Continued.*

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Lenora Mount Sicker.....	Lenora Mines to Crofton, B. C.....		11.50
Lotbinière and Mégantic.....	Lyster Station, Grand Trunk, to St. Jean des Chaillons.....		30.34
L'Assomption.....	L'Epiphanie Station, C. P. R., to L'Assomption.....		3.50
Lake Erie and Detroit River.....	Walkerville, Ont., to St. Thomas.....	126.85	
Erie and Huron.....	Rondeau to Sarnia.....	71.50	
			198.35
London and Port Stanley.....	London to Port Stanley on Lake Erie.....		24.00
Lindsay, Bobcaygeon and Pontypool.....	From Bobcaygeon to 10 miles west of Pontypool on Canadian Pacific Railway, 39.00 miles under construction.		
Liverpool and Milton.....	From Liverpool, N. S., to Milton.....		5.00
Manitowlin and North Shore.....	Sudbury to Gertrude Mines.....	13.50	
	Stanley Jct. to Spanish River.....	1.50	
	Elsie Jct. to Mines.....	1.00	
			16.00
Maganetawan River.....	Bucks Falls, on Grand Trunk Ry., to Maganetawan River, 0.04 miles under construction.....		1.77
Midleton and Victoria Beach... The Manitoba Ry., formerly The Northern Pacific & Manitoba, the Winnipeg Transfer Ry., the Portage and North-western, the Waskada and North-eastern leased to Govt. of Manitoba and operated by the Canadian Northern.....	Middleton to Victoria Beach, 5 miles under construction. International Boundary to Winnipeg..... Morris to Bramton..... Departure to Track End..... Portage Junction to Portage la Prairie..... Portage la Prairie to Beaver..... Portage la Prairie to Delta..... Hope Farm Branch..... Fairground Branch..... Winnipeg Transfer Ry.....		
		65.94	
		145.24	
		59.94	
		52.52	
		20.02	
		15.05	
		2.86	
		.84	
		1.24	
			354.65
Midland of Nova Scotia (formerly Stewiacke Valley).....	From Windsor to Truro, N.S.....		57.50
Montfort and Gatineau Colonization, now in Great Northern.....	From Junction with Montreal and Western near St. Sauveur to Arundel.....		33.00
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..... Branch—Stanstead Junction to Stanstead.....	31.95 3.51	
			35.46
Montreal and Vermont Junction.....	From Junction with Stanstead, Shefford and Chambly Railway, 2½ miles east of St. Johns, P. Q., to Junction with Vermont and Canada Railway, at Vermont boundary; also connects at Stanbridge with Lake Champlain and St. Lawrence Junction Railway.....		23.60
Montreal, Portland and Boston, now Montreal and Province Line.....	Junction with Grand Trunk at St. Lambert to Farnham..... Marieville to St. Césaire.....	32.00 8.60	
			40.60
Montreal and Atlantic (formerly South-eastern).....	Main Line—Farnham to Richford on International boundary..... Sutton Junction to Drummondville.....	43.80 59.20	
			103.00
	Leased—Lake Champlain and St. Lawrence Junction Stanbridge to St. Guillaume.....	60.70	
	(Connects with Connecticut and Passumpsic, Grand Trunk and Stanstead, Shefford and Chambly Rys.)		163.70

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TABLE showing Location of Railways, &amp;c.—Continued.

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Nelson and Fort Sheppard.....	From Five Mile Point to Fort Sheppard on International boundary, B.C. ....	54	70
New Glasgow Iron, Coal and Railway Company, now Nova Scotia Steel and Coal Co. ....	From Ferrona Junction, I.C.R., to Sunny Brae. ....	12	50
New Brunswick and Prince Edward Island. ....	From Sackville Station, Intercolonial Railway to Cape Tormentine. ....	36	00
New Westminster Southern.....	Douglas to South Westminster. ....	24	16
Nipissing and James Bay.....	Junction of Pacific Junction Ry. and Canadian Pacific to Moose Factory, 3,90 miles under construction.		
Northern Colonization.....	Labelle to Nominique, 22 miles under construction.		
Nosbonsing & Nipissing.....	From Lake Nosbonsing to Lake Nipissing. ....	5	50
Nova Scotia Southern. ....	Under construction 117 miles— Shelburne to New Germany. .... 77 00 Indian Gardens to Liverpool. .... 20 00 Sable River Junction to Lockeport. .... 20 00		
Ontario, Belmont and Northern Leased to Central Ontario Ry. ....	From Junction with Central Ontario Ry. to Iron Mines in Township of Belmont. ....	9	00
Orford Mountain.....	Eastman on C.P.R. to Lawrenceville and Kingsbury, Que. .... To Bonnalie Lake. ....	26 4	50
Ottawa and Gatineau, now Ottawa Northern and Western. ....	Canadian Pacific Railway Junction in Hull, Que., to Gracefield. ....	58	10
Ottawa Valley in Atlantic and Lake Superior System. ....	Lachute on C.P.R., to St. Andrews on Ottawa River. ....	7	00
Ottawa and New York	From Ottawa to International Boundary near Cornwall	56	79
Pembroke Southern leased to Canada Atlantic.....	From Pembroke to Golden Lake. ....	20	90
Philipsburg.....	Stanbridge Station of Canadian Pacific and Central Vermont Railways, to Philipsburg, Missisquoi Co. ....	7	50
Pontiac and Renfrew.....	From Wyman's Station, on Pontiac Pacific Junction Railway, to Bristol Iron Mines, County Pontiac, Que. ....	4	25
Pontiac Pacific Junction, now in Ottawa, Northern & Western	From Aylmer, Que., to Waltham. ....	77	70
Qu'Appelle, Long Lake and Saskatchewan .....	From Canadian Pacific Railway at Regina, Northwestly to Long Lake and Prince Albert. ....	253	96
Quebec Bridge and approaches to connect adjacent Railways. ....	(Across St. Lawrence River at Quebec, under construction 10 miles.)		
Quebec and Lake St. John.....	Quebec to Roberval. .... Chambord Junction to Chicoutimi. ....	189 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. .... Tring Megantic—Tring Junction to Megantic. .... (Connects with Grand Trunk, Canadian Pacific and Boston and Maine Rys. at Sherbrooke).	137 15 1 60	50
Quebec and New Brunswick. ....	From Chaudière Junction to Connors, N.B., 135 miles, 3 miles under construction.	213	50
Quebec, Montmorency and Charlevoix.....	Hedleyville, Parish of St. Roch, Quebec, to Cap Tourmente. ....	30	00
Quebec Southern, comprising East Richelieu Valley Railway and United Counties— And South Shore Railway.....	Noyan Junction to St. Robert Junction. .... From St. Francis du Lac to Junction with Grand Trunk at St. Lambert. ....	82 61	00
Red Mountain.....	From International boundary Line, B.C., to Rossland. ....	141	50

3-4 EDWARD VII., A. 1904

TABLE showing Location of Railways, &c.—*Concluded*

Name of Railway.	Description.	Distance.	
		Miles.	Total.
Restigouche and Western, now International of New Brunswick	Campbellton, N.B., to St. Leonard's, 99 miles (under construction).		11·00
Rutland and Noyan	International Boundary to Noyan Jet.		3·39
Stanstead, Shefford and Chambly	From Junction with Montreal and Vermont Junction Railway, near St. John, Que., easterly to Waterloo		43·00
Shore Line, now New Brunswick Southern	St. John to St. Stephen, N.B.		82·50
St. John Bridge and Railway Extension, now leased by Canadian Pacific Ry.	From St. John to Fairville, crosses St. John River at the Falls by a cantilever steel bridge, and connects Intercolonial Railway with New Brunswick Railway, C. P. R., included in Canadian Pacific System.		2·00
St. John Valley and Rivière du Loup	From Fredericton, N.B., to Woodstock, N.B., 66 miles, of which 6 miles are under construction.		
Salisbury and Harvey (formerly Albert Railway)	Salisbury to Albert, N.B.		45·00
Schomberg and Aurora	Bond Lake, Ont., to Schomberg, 15 miles under construction.		
St. Lawrence and Adirondack	From Jet. with Canada Atlantic near Valleyfield to International Boundary.	19·92	
	Beauharnois to Junction with Canadian Pacific at Adirondack Junction.	12·90	
Sydney and Louisburg (Dominion Coal Co.)	Sydney Harbour to Louisburg Harbour.	39·15	32·82
	Branches to coal mines	9·81	
St. Mary's River	Stirling to Spring Coulee (District of Alberta).		48·96
Temiscamingue and Northern Ontario	North Bay to Lake Temiscamingue, 112 miles under construction.		30·00
Thousand Islands	Gananoque on St. Lawrence River to Gananoque Station, G.T.R.		6·33
Témiscouata	Rivière du Loup, Que., on Intercolonial, to Edmundston, N.B., on the New Brunswick Railway.	81·00	
	Branch—Edmundston to Connors, on St. John River	32·00	
Tilsonburg, Lake Erie and Pacific	Port Burwell to Ingersoll		113·00
Toronto, Hamilton and Buffalo, including Brantford, Waterloo and Lake Erie	Waterford Jet, with Canada Southern to Welland Junction with Canada Southern—passing through the city of Hamilton.	79·88	35·33
	Hamilton to Grand Trunk Junction.	1·77	
	Belt Line, Hamilton	3·52	
	Chautler's Junction to Canboro road.	2·61	
Victoria and Sidney	Victoria to Sidney, B.C.		87·78
Victoria Terminal Railway and Ferry	Cloverdale to Port Guichon and 1·14 miles in City of Victoria.		16·26
Vancouver, Victoria & Eastern	Laurier to Grand Forks	14·40	18·40
	Grand Falls Junction to Danville.	1·50	
Vancouver, Westminster and Yukon	17·70 miles under construction.		15·90
York and Carleton	Junction with Canada Eastern Ry. at Cross Creek Station to Stanley, N.B.		5·75



# SUMMARY STATEMENT OF CAPITAL

FOR THE

FISCAL YEAR ENDED JUNE 30, 1903



NOTE A.—With regard to certain subsidies granted by Dominion Parliament.

By 60-61 Vic., cap. 4, 1897, 62-63 Vic., cap. 7, 63-64 Vic., cap. 8, 1900, and 1 Edward VII., cap. 7.—A subsidy was authorized on certain mileage of these railways specified in the said Acts of Parliament, of \$3,200 per mile, and a further subsidy beyond the sum of \$3,200 per mile, of fifty per cent on so much of the average cost of the said specified mileage subsidized as is in excess of \$15,000 per mile, such subsidy not exceeding in the whole the sum of \$6,400 per mile.

The amounts of certain of the subsidies authorized by Parliament which are given in this statement, include the determined portion of the subsidies, viz., the amounts produced by the \$3,200 per mile, but the other portion, being an undetermined amount, cannot be shown here.

Of the Railways shown in this statement, the following is the mileage which may be entitled to the additional subsidies under these said Acts:—

Algoma Central.....	225 miles.
Bruce Mines and Algoma.....	9 "
Canadian Pacific—Extension of Pipestone Branch.....	50 "
Extension of Waskada Branch.....	20 "
Extension of Stonewall Branch.....	35 "
Central Railway of New Brunswick.....	45 "
Coast Railway of Nova Scotia, now Halifax and Yarmouth.....	61 "
Drummond County, now Intercolonial.....	42½ "
East Richelieu Valley, now in Quebec Southern.....	24 "
Great Northern.....	44 "
Gulf Shore.....	5½ "
Ontario and Rainy River, now in Can. Northern.....	80 "
Ottawa, Arnprior and Parry Sound.....	56 "
Ottawa and Gatineau, now Ottawa, Northern & Western	86 "
Ottawa and New York.....	53·87 "
Pembroke Southern.....	24 "
Philipsburg Railway and Quarry Co.....	0 <sup>6·6</sup> / <sub>100</sub> "
Pontiac Pacific Junction.....	21½ "
Restigouche and Western.....	20 "
St. Lawrence and Adirondack.....	13½ "
St. Stephen and Milltown.....	1 <sup>4</sup> / <sub>100</sub> "
Tilsonburg, Lake Erie and Pacific.....	28 "
United Counties, now in Quebec Southern.....	1 "
Inverness and Richmond.....	53 "
Montreal and Province Line.....	19 "
Nova Scotia Southern.....	97 "
York and Carleton.....	6 "
Atlantic and Lake Superior—Baie des Chaleurs.....	30 "
Central Ontario.....	20 "
Midland of Nova Scotia.....	58 "
Kingston and Pembroke.....	41 "
Cape Breton Railway.....	30 "
Manitoulin and North Shore.....	16 "
Middleton and Victoria Beach.....	5 "



No. 1.—Summary Statement of Capital for the Year ended June 30, 1963.

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STATEMENT OF THE DIFFERENTIALS OF THE BALANCE SHEET FOR THE YEAR ENDED JUNE 30, 1913

Item	1912	1913
Assets		
Cash	100	100
Accounts Receivable	200	200
Inventory	300	300
Fixed Assets	400	400
Total	1000	1000
Liabilities		
Accounts Payable	100	100
Long-Term Debt	200	200
Equity	700	700
Total	1000	1000

NOTE B.—A  
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# STEAM RAILWAYS

SUMMARY STATEMENTS RELATING TO MILEAGE, ROLLING STOCK,  
CHARACTERISTICS OF ROADS, OPERATIONS, PASSENGERS  
AND FREIGHT CARRIED, EARNINGS, OPERATING  
EXPENSES AND ACCIDENTS

3-4 EDWARD VII., A. 1904

No. 3.—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.
		Miles.	Miles.	Miles.	Miles.		Miles.	Lbs.
1	Alberta Railway and Coal Co.	64.62			64.62	13.21		56
2	+Albert Southern	16.00						
	Harvey Branch	3.00			19.00			
3	Algoma Central and Hudson Bay	91.75	106.45		91.75	51.99		56,60,80,85
4	Atlantic & Lake Superior, comprising—							
	Bate des Chaleurs	100.00	21.00					
	Great Eastern	23.00	82.00		130.00	4.00		56
	Ottawa Valley	7.00						
5	Bay of Quinte Ry., including—							
	Kingston, Napanee & Western	72.82			72.82	7.00		56,60,65,72
6	Bedlington and Nelson	15.20			15.20	.87		56
7	British Yukon	90.32			90.32	7.97		45 & 56
8	Brockville, Westport & Sault Ste. Marie	45.00			45.00	2.00		56
9	Bruce Mines & Algoma	16.62			16.62			56
10	Buctouche and Moncton	32.00			32.00	2.50		54 & 56
11	Calgary and Edmonton	295.93			295.93	10.90		56
12	Canada Atlantic, including Or- tawa, Amprior and Parry Sound	400.30						
	Leased lines—	458.60			458.60	97.30		56,72,73, 75
	Central Counties	37.40						
	Penbrooke Southern	20.90						
13	Canada Coals and Railway Co., formerly Joggins	12.00			12.00	3.00		56
14	Canada Eastern	136.00			136.00	6.50		56½ to 60
15	Canada Southern	359.24						
	Leased lines—	382.19			382.19	180.60		60, 65 & 80
	Sarnia, Chatham & Erie	7.00						
	Leanington & St. Clair	15.95						
16	Canadian Northern, including							
	Winnipeg Great Northern	40.00						
	Port Arthur, Duluth & West'n	85.00						
	Manitoba and South-eastern	107.90			881.90			
	Lake Manitoba Ry. & Canal Co.'s line	125.00				1,236.55		56 & 60
	Ontario and Rainy River Ry.	164.00						
	Manitoba Railway (formerly North- ern Pacific & Manitoba & Por- tage & North-western Rys.) oper- ated by Canadian Northern	354.65						
17	Canadian Government Railways—							
	Intercolonial, exclusive of Windsor Branch, 32 miles, but including Drummond County	1,310.26			1,310.26	249.34		56,58,67, 80 & 110
18	Prince Edward Island	209.00		3.00	206.00	17.13	38	50, 52, 56
19	++Canadian Pacific	4,651.60						
	Leased lines—							
	Fredericton	22.10						
	New Brunswick	175.00						
	New Brunswick and Canada	117.20						

+Not in operation. \*Undergrade crossing.

150 miles of double track.

## SESSIONAL PAPER No. 20

Roads, &amp;c., for the Year ended June 30, 1903.

Number of Ties per Mile.	Nature of Rail Fastenings.	Number of Grain Elevators.		Number of Overhead Bridges.	Height of Overhead Bridges above rail level.	Number of Public Roads under Crossings.	Number of Level Crossings of other Railways.	Number of Junctions with other Railways.	Number of Junctions with Branch Lines.	Radius of Sharpest Curve.	Number of Feet per Mile of heaviest gradient.	Gauge of Railway.	Number.
		Guarded.	Not guarded.										
2640	Angle-bars.		4				3		573	58 4 8½	1		
													2
3000	Bonzano joints and angle-bars.	1	24	2	15 8		1	1	1	478	132 4 8½		3
2640	Angle and fishplates.		61	1	22 0	4		4		717	67 4 8½		4
3000	Angle iron.		55	1		1	2	4		955	90 4 8½		5
2640	Angle-bars.		2				2			573	58 4 8½		6
2816							1			359	206 3 00		7
2640	Fisher's bridge joint.		35				2			717	58 4 8½		8
2640	Angle-bars.		10				1	1		637	79 4 8½		9
2640	Fishplates.		20				1	1		816	74 4 8½		10
2640	Angle bars and fishplates.	11		148				4		1,146	53 4 8½		11
2816		2	11	197	4	22 0	6	13	10	3	955	66 4 8½	12
3000	Fishplates.		8				1			955	79 4 8½		13
2640	Fish and angle-plates.	1	35				1	4	1	955	80 4 8½		14
2816 3168	Angle splice (4 and 6 bolts).	10	418	19	21 6	12	17	17	10	913	75 4 8½		15
2640	Fishplates and angle-bars.	§186	1	695			2	13	10		573	63 4 8½	16
2640 3168	Bar and angle fishplates.	2	22	482	30	$\left( \begin{array}{c} 18\ 6 \\ \text{TO} \\ 35\ 0 \end{array} \right)$	10	12	29	23	694	65 4 8½	17
2640	Fish, angle and continuous.			964	2	17 3	1			396	90 3 6 18		

§Includes 25 warehouses.

††35 70 miles of double track.

3-4 EDWARD VII., A. 1904

## No. 3.—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.
Can. Pac.—Leased lines— <i>Con.</i>								
	St. John and Maine.....	92 10						
	St. John Bridge and Rail- way Extension.....	2 00						
	St. Stephen and Milltown..	4 60						
	Tobique Valley.....	28 00						
	Cap de la Madeleine.....	3 00						
	Montreal and Lake Mask- inongé.....	12 90						
	Atlantic and North-west...	201 00						
	Montreal and Ottawa.....	93 20						
	Ontario and Quebec.....	473 00						
	St. Lawrence and Ottawa...	58 40						
	Credit Valley.....	175 70	7,439 00	364 00	7,439 00	1,010 10	56,60,72, 73, 80 & 100...	
	Guelph Junction.....	15 00						
	Toronto, Hamilton & Buffalo	2 70						
	Toronto, Grey and Bruce..	191 10						
	West Ontario Pacific.....	26 60						
	Manitoba & North-western.	234 20		74 00				
	Manitoba South-western Colonization.....	214 40						
	Kootenay and Arrowhead..	33 60						
	Columbia and Kootenay...	60 00						
	Nakusp and Slocan.....	36 30						
	Shuswap and Okanagan...	50 80						
	Saskatchewan and Western.	18 20						
	Columbia and Western.....	157 10						
	Great North-west Central..	71 00		40 70				
	British Columbia Southern..	202 40						
	Vancouver and Lulu Island	17 25						
20	Cape Breton Ry.....	31 00			31 00	2 00		60 & 72
21	Caracquet.....	68 00			68 00	3 25		50
22	Carillon and Grenville.....	13 00			13 00	25		65
23	Central Ontario.....	125 00			125 00	13 00		42, 56 & 70
	Leased line—							
	Marmora Ry. & Mining Co., for- merly Ontario, Belmont and Northern.....	9 60			9 60			56
24	Central Ry., Nova Scotia, formerly Nova Scotia Central.....	74 00			74 00	3 50		56
25	Chateauguay and Northern.....		37 00					
26	Cobourg, Northumberland and Pacific..		49 00					
27	Crow's Nest Southern.....	48 15			48 15	9 21		68
28	Cumberland Ry. and Coal Co.....	32 00	14 00		32 00	16 00		67 & 80
29	Dominion Atlantic, comprising—							
	Windsor and Annapolis.....	87 50						
	Cornwallis Valley.....	14 00						
	Yarmouth and Annapolis (Western Counties).....	87 00	220 50	32 00	188 50	21 00	67	56,60,70, 1 72, 80, 1
	Windsor Branch, leased from Intercolonial.....	32 00						
30	Edmonton, Yukon and Pacific.....	4 50			4 50	20		60
31	Elgin and Havelock.....	28 00			28 00	2 00		46 & 56
32	Esquimalt and Nanaimo.....	78 00			78 00	5 06		54, 56 & 60
33	Fredericton & St. Mary's Ry. Bridge Co.	1 33		1 33				56



3-4 EDWARD VII., A. 1904

## No. 3.—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.
Miles.	Miles.	Miles.	Miles.	Miles.	Lbs.	Lbs.	
34	Grand Trunk. ....	880 35					
	Wharf Br., Montreal. ....	3 44					
	Great Western. ....	562 30					
	Brantford, Norfolk and Port Burwell. ....	34 39					
	Buffalo and Lake Huron. ....	162 00					
	Grand Trunk, Georgian Bay and Lake Erie. ....	173 00					
	Owen Sound Branch. ....	12 42					
	London, Huron and Bruce. ....	68 00					
	Waterloo Junction. ....	10 25					
	South Norfolk. ....	17 00					
	Wellington, Grey and Bruce. ....	138 13					
	Northern. ....	172 10					
	North Simcoe. ....	33 00					
	Hamilton & North-western. ....	173 00	3,154 48		3,154 48	810 85	56 to 160
	Northern Pacific Junction. ....	111 37					
	Toronto Belt Line. ....	12 79					
	Midland. ....	165 00					
	Grand Junction. ....	85 21					
	Toronto and Nipissing. ....	85 00					
	Lake Simcoe Junction. ....	26 00					
	Victoria. ....	53 00					
	Whitby, Port Perry and Lindsay. ....	46 00					
	Cobourg, Blairton and Mar- mora. ....	15 00					
	Jacques Cartier Union. ....	6 50					
	Montreal and Champlain Junction. ....	61 73					
	Beauharnois Junction. ....	19 50					
35	Great Northern Ry. of Canada, including Lower Laurentian, and Montford & Gatineau Colonization Ry. ....	208 10			208 10	13 00	56-70
36	Gulf Shore. ....	16 78			16 78	1 01	56
37	Halifax and Yarmouth. ....	50 29			50 29	3 51	56
38	Hampton and St. Martins. ....	29 00			29 00	50	56
39	Hereford. ....	53 30			53 30	8 35	56
40	Indian River. ....		18 19				
41	International Ry. Co. of New Bruns- wick (formerly Restigouche & Western). ....	11 00	99 00		11 00	76	56
42	Inverness Ry. & Coal Co., formerly Inverness and Richmond. ....	61 00			61 00	4 00	56
43	Irondale, Bancroft and Ottawa. ....	48 00			48 00	2 50	56
44	Kaslo and Slovan, B.C. ....	31 80			31 80	2 80	45
45	Kent Northern. ....	27 00			27 00		56
46	Kettle River Valley. ....	5 86			3 86		60
47	King-ton and Pembroke. ....	112 85		9 75	103 10	21 00	50, 56, 84
48	Klondyke Mines. ....	2 00	83 00		2 00		52
49	L'Assomption. ....	3 50			3 50	33	56
50	Lake Erie and Detroit River, in- cluding Erie and Huron. ....	198 35			222 35	36 82	{ 51, 56, 66 } { & 70 }
	Leased lines—London & Port Stanley. ....	24 00					
51	Lenora Mount Sicker. ....	11 50			11 50	28	20 & 28
52	Lindsay, Bobcaygeon & Pontypool. ....		39 00				

822.89 miles of double track.



3-4 EDWARD VII., A. 1904

## No. 3.—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.			
53	Liverpool & Milton	5 00			5 00	1 00		56
54	Lotbinière and Mégantic	30 34			30 34	3 00		56
55	Magaretawan	1 77	04		1 77	1 77		56, 65
56	Manitoulin and North Shore	16 90			16 00	1 50		65
57	Massawippi Valley	35 46			35 46	7 44		90 $\frac{1}{2}$
58	Middleton and Victoria Beach		5 00					
59	Midland of Nova Scotia	57 50			57 50			60
60	*Montreal & Atlantic, formerly South-eastern..... 103 00 Lake Champlain & St. Law- rence Junction..... 60 70	163 70			163 70	23 50		56, 60, 72, $\frac{1}{2}$ 73 & 80 $\frac{1}{2}$
61	Montreal and Province Line, formerly Montreal, Portland and Boston	40 60		8 60	32 00	1 00	38	56
62	Montreal and Vermont Junction	23 60			23 60	2 00		60 & 72
63	New Westminster Southern	24 10			24 10	2 97		56
64	Nelson and Fort Sheppard	54 70			54 70	3 44		56
65	New Brunswick Coal and Ry Co.	44 66	15 00		44 66	2 00		52-56
66	New Brunswick & Prince Edward Island	36 00			36 00	1 50		56
67	New Brunswick Southern (formerly Shore line)	82 50			82 50	2 50		50
68	Nosbonsing and Nipissing	5 50			5 50	1 25		56
69	Nipissing and James Bay		3 90					
70	Northern Colonization		22 00					
71	Nova Scotia Southern		117 00					
72	Nova Scotia Steel & Coal Co.'s Ry.	12 50			12 50	3 87		56
73	Orford Mountain	31 00		3 50	27 50	1 00	56	56
74	Ottawa, Northern and Western, includ- ing Pontiac Pacific Junction Ry. and Interprovincial Bridge	137 20			137 20	6 00		56 & 70
75	Ottawa and New York	56 79			56 79	3 24		65
76	Philipsburg Ry. and Quarry Co.'s Ry.	7 50			7 50			56
77	Pontiac and Renfrew	4 25			4 25	75		56
78	Qu'Appelle, Long Lake & Saskatchewan	253 96			253 96	9 40		56
79	Quebec Bridge and approaches		10 00					
80	Quebec Central	213 50			213 50	20 50		56, 60 & 70
81	Quebec and Lake St. John	240 00			241 00	33 50		50 to 70
82	Quebec, Montmorency and Charlevoix (now Quebec Ry., Light and Power Co.)	30 00			30 00	5 00		56 & 70
83	Quebec and New Brunswick		3 00					
84	Quebec Southern, comprising the United Counties & East Richelieu Valley and South Shore Railways	143 50			143 50	9 00		56, 80
85	Red Mountain	9 53			9 53	3 34		56
86	Rutland and Noyan	3 39			3 39			80
87	Salisbury and Harvey	45 00		30 50	14 50	6 00	56	56
88	Schomberg and Aurora		15 00					
89	Stanstead, Shefford and Chambly	43 00		12 00	31 00	2 00	60	60
90	St. Clair Tunnel, Yard and approaches	2 25			2 25	11 00		100
91	St. John Valley and Rivière du Loup		6 00					
92	St. Lawrence and Adirondack	32 82			32 82	6 93		72 & 80
93	St. Louis and Richibucto	7 00			7 00	25		56

\* 5.5 miles of double track. + 6 miles. of double track



## SESSIONAL PAPER No. 20

Roads, &amp;c., for the Year ended June 30, 1903—Continued.

Number of Ties per Mile.	Nature of Rail Fastenings.	Number of Grain Elevators.		Number of Overhead Bridges.	Height of Overhead Bridges above rail level.	Number of Public Roads under Crossings.	Number of Level Crossings of other Railways.	Number of Junctions with other Railways.	Number of Junctions with Branch Lines.	Radius of Sharpest Curve.	Number of Feet per Mile of heaviest gradient.		Gauge of Railway.	Number.	
		Guarded.	Not guarded.								Ft.	Ft.			
2500	Fishplates					2				100	90	4	8½	53	
2640	Angle-bars		9				1	2		717	80	4	8½	54	
2800	Angle-bar fastening		1					1		515	82	4	8½	55	
3000	Angle-bars							2		717	650	4	8½	56	
2600	Fishplates	1	28	1	19	0	1	2	1	441	76	4	8½	57	
2500															
2640	Angle-bars		25				1	2		882	55	4	8½	58	
														59	
2640	Fishplates and angle-bars		164	1	18	10	2	6	6	2	441	140	4	8½	60
3000	Fishplates, bolts and chains		21				3	1	2	1,433		4	8½	61	
3000	Fishplates and bolts		51					3		2,865	52	4	8½	62	
2640	Angle-bars and bolts		25					1		717	89	4	8½	63	
2640	Angle-bars		5					2		478	132	4	8½	64	
2640	Fishplates	21	2					1		816	74	4	8½	65	
2400	Fishplates		26					1		750	66	4	8½	66	
2592	Fishplates		15	5	23	0		3	3	573	85	4	8½	67	
3000	Fishplates	2					1	1		955	132	4	8½	68	
														69	
														70	
														71	
2500	Bar with bolt		5					1	1	955	79	4	8½	72	
2640	Plates and bolts		17					1		955	74	4	8½	73	
2640	Plain and angle-plates	3	107	10	21	6	9	4	5	573	106	4	8½	74	
2750	Angle-bar and bolts		70	1	22	0		3	3	2,865	40	4	8½	75	
2816	Fishplates		7							955	52	4	8½	76	
2640	"									717	106	4	8½	77	
2640	Angle-bars and fishplates	34	35					1	1	1,146	65	4	8½	78	
														79	
2640	Fish and angle-plates		115				3	2	7	2	882	76	4	8½	80
2640	Fishplates and angle-bars	1	56	9	17	0	3		2	717	105	4	8½	81	
2640	Fishplates		10				1	2		1,433	42	4	8½	82	
														83	
2640	Fishplates and angle-bars		85				10	9		717	40	4	8½	84	
2640	Angle-bars									287	185	4	8½	85	
3000	Angle-bars		3				1	1		637	15	4	8½	86	
2600	Fishplates and sleeves		27	2	15	0		1		717	80	4	8½	87	
														88	
2640	Fishplates, bolts and wrought iron chairs		42	1	18	0		3	4	1,910	60	4	8½	89	
											105	4	8½	90	
														91	
2816	Angle-bars		30	1	20	6	2	2	3	478	63	4	8½	92	
2432	Fishplates and bolts													3'00	93

3-4 EDWARD VII., A. 1904

## No. 3.—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.	
							Miles.	Miles.
94	St. Mary's River	30.00			30.00			28
95	Sydney & Louisbourg (Dom. Coal Co.)	48.96			48.96	4.00		56 & 80
96	Temiscamingue and Northern Ontario		112.00					
97	Temiscanata	113.00			113.00	3.00		6
98	Tilsonburg, Lake Erie and Pacific	35.33			35.33	5.00		56, 65 & 70
99	Thousand Islands	6.33			6.33	1.00		56 & 60
100	Toronto, Hamilton and Buffalo	87.78			87.78	23.12		{ 56, 65, } { 66, 70 } { & 80. }
101	Vancouver, Victoria and Eastern Ry. and Navigation Co.	15.90			15.90	2.40		60
102	Vancouver, Westminster and Yukon		17.70					
103	Victoria and Sidney, B.C.	16.26			16.26	1.20		50
104	Victoria Terminal Ry. and Ferry Co.	18.40			18.40	1.50		56, 60
105	York and Carleton	5.75			5.75	.10		56
Total		19,077.59	1,356.89	100.68	19,133.39	2,953.49		

4.69 miles of double track.

## SESSIONAL PAPER No 20

Roads, &c., for the Year ended June 30, 1903—*Concluded.*

Number of Times per Mile.	Nature of Rail Fastenings.	Number of Grain Elevators.		Number of Overhead Bridges.	Height of Overhead Bridges above rail level.	Number of Public Roads under Crossings.	Number of Level Crossings of other Railways.	Number of Junction with other Railways.	Number of Junctions with Branch Lines.	Radius of Sharpest Curve.	Number of Feet per Mile of heaviest gradient.		Gauge of Railway.	Number.
		Guarded.	Not guarded.								Ft.	Ft.		
2113	Fishplates		6					1		382	79 4' 8 $\frac{1}{2}$ "			94
2300	Angle-bars and bolts	1	29	2	18 0	2	2	1		955	90 4' 8 $\frac{1}{2}$ "			95
			5											96
2640	Fish and angle		38			2	1	2	1	819	79 4' 8 $\frac{1}{2}$ "			97
2640	Angle-bars	4	39	1	21 0	3	2	4		955	52 4' 8 $\frac{1}{2}$ "			98
3000	Angle-iron		8					1		410	84 4' 8 $\frac{1}{2}$ "			99
2640 3000	Angle-bars and bolts	6	122	15	22 0	2	5	6	3	675	79 4' 8 $\frac{1}{2}$ "			100
2816	Angle-bars		15	1	22 0			1		716	32 4' 8 $\frac{1}{2}$ "			101
											4 8 $\frac{1}{2}$ "			102
2464	Plain fishplates		13			1		1		637	106 4' 8 $\frac{1}{2}$ "			103
3168	Angle-bars		31				1	2		573	26 4' 8 $\frac{1}{2}$ "			104
2600	Side-plates and 4 bolts		8					1		675	64 4' 8 $\frac{1}{2}$ "			105
		296	221	12,829	468	299	256	374	223					

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## No. 4.—SUMMARY STATEMENT of the Operations of the

Number.	Name of Railway.	Mileage.	TRAIN MILEAGE.			
			Passenger Trains.	Freight Trains.	Mixed Trains.	Total Train Mileage.
1	Alberta Railway and Coal Co. ....	64 62		25,207	27,126	52,333
2	Algoma Central and Hudson Bay .....	91 75	6,834	26,175	24,638	57,647
3	Atlantic and Lake Superior, comprising— Baie des Chaleurs .....	100 00				
	Great Eastern, not under traffic .....	23 00			63,600	63,600
	Ottawa Valley, not under traffic .....	7 00				
4	Bay of Quinté Railway, including— Kingston, Napanee & Western.....	72 83			150,832	150,832
5	Bedlington and Nelson.....	15 20		3,724		3,724
6	British Yukon.....	90 32	10,904	22,672	45,290	78,866
7	Brockville, Westport & Sault Ste. Marie.....	45 00	7,809	910	29,150	37,869
8	Bruce Mines and Algoma .....	16 62			5,400	5,400
9	Buctouche and Moncton.....	32 00			20,224	20,224
10	Calgary and Edmonton.....	295 93	102,144	211,809	65,833	379,786
11	Canada Atlantic, including Ot- tawa, Arnprior and Parry Sound.....	400 30				
	Leased—Central Counties.....	37 40				
	Pembroke Southern.....	20 90				
12	Canada Coals & Ry. Co., formerly Joggins	12 00			8,624	8,624
13	Canada Eastern .....	136 00	93,212	52,156	24,751	170,119
14	Canada Southern .....	359 21				
	Leased lines— Sarnia, Chatham and Erie... ..	7 00				
	Leamington and St. Clair... ..	15 95				
15	Canadian Northern, including.....	881 90				
	Winnipeg Great Northern.....	40 00				
	Port Arthur, Duluth and Western.....	85 00				
	Manitoba & South Eastern.....	107 90				
	Lake Manitoba Railway and Canal Co.'s line.....	125 00	273,565	990,174	179,326	1,443,065
	Ontario and Rainy River.....	164 00				
	Manitoba (formerly Northern Pacific and Manitoba, and Portage and North Western Rys.) operated by Canadian Northern.....	354 65				
16	Canadian Government Railways— Intercolonial, exclusive of Windsor Branch, 32 miles, but including Drum- mond County .....	1,310 26	2,552,692		3,792,808	6,345,500
	Prince Edward Island .....	209 00	112,998		193,599	306,597
17	*Canadian Pacific Ry.....	4,651 60				
	Leased lines— Fredericton.....	22 10				
	New Brunswick.....	175 00				
	New Brunswick & Canada .....	117 20				
	St. John and Maine.....	92 10				
	St. John Bridge and Ry. Extension.....	2 00				
	St. Stephen and Milltown .....	4 60				
	Tobique Valley.....	28 00				
	Cap de la Madeleine.....	3 00				
	Montreal and Lake Mas- kinouge.....	12 90				
	Atlantic and North-west.....	201 00				
	Montreal and Ottawa.....	93 20				
	Ontario and Quebec.....	473 06				
	St. Lawrence and Ottawa .....	58 40	7,439 00	8,158,352	12,986,692	1,289,109
	Credit Valley.....	175 70				22,434,153
	Guelph Junction.....	15 00				
	Toronto, Hamilton and Buffalo.....	2 70				
	Toronto, Grey and Bruce.....	191 10				

## SESSIONAL PAPER No. 20

Year and Mileage, for the Year ended June 30, 1903.

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.
122,841	9,434	69,947	18	18	1	Also running powers over C.P.R. from Montana Jct. to Lethbridge, 210 miles.
297,692	43,840	913,233	20	15	2	
63,600	14,677	23,247	25	25	3	
150,832	88,537	353,347	.....	.....	4	Also running powers over C.P.R. from Creston Junction to Sirdar Junction, 87 miles.
3,724	723	19,005	.....	10	5	
79,887	12,930	29,834	.....	.....	6	
38,079	50,185	18,535	26	16	7	
5,400	1,849	4,075	18	18	8	
21,796	11,680	20,667	16	16	9	
420,506	92,612	169,869	23	20	10	
1,782,235	377,779	1,494,809	30	15	11	
21,389	9,810	67,717	20	20	12	
170,119	53,831	107,690	25	18	13	
4,957,834	760,365	4,940,868	47	13	14	
1,630,407	281,801	901,608	28	15	15	
8,019,320	2,404,230	2,790,737	.....	.....	16	
407,695	205,265	106,519	22	16	16	
29,988,868	5,580,739	10,162,726	35	15	17	* Also running powers over— Canada Atlantic Ry., Montreal and Ottawa Junction, ..... 80 Grand Trunk Ry., Toronto to Ham- ilton Junction ..... 35 20
					Total.....	3600



## SESSIONAL PAPER No. 20

and Mileage, for the Year ended June 30, 1903—*Continued.*

Engine Mileage.	Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs. Handled.	Average Rate of Speed of Passenger Trains—Miles per Hour.	Average Rate of Speed of Freight Trains—Miles per Hour.	Number.	Remarks.
62,340	6,370	26,364	15	15	18	
7,000	5,868	70	30	20	19	
176,405	80,064	195,218	25	20	20	
57,319	52,698	32,233	20	20	21	Also running powers over Dominion Atlantic from Middleton Junction to Middleton, 0'33 miles.
12,685	2,224	20,362	20	22	22	
138,342	29,730	512,627	20	20	23	
508,539	265,348	232,585	30	15	24	Also running powers over Intercolonial from Halifax to Windsor Junction, 14 miles.
5,449	9,639	11,854	15	10	25	Also running powers over Calgary & Edmonton from Strathcona to Strathcona Jct., 1 mile.
17,318	4,288	9,849	15	15	26	
273,360	153,326	143,129	25	20	27	
					28	
21,473,371	7,971,587	11,818,177	34	18	29	* Also running powers over Chaudière Branch of Intercolonial, 5'77 miles.

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## No. 4.—SUMMARY STATEMENT of the Operations of the Year

Number.	Name of Railway.	Mileage.	TRAIN MILEAGE.			
			Passenger Trains.	Freight Trains.	Mixed Trains.	Total Train Mileage.
	Grand Trunk— <i>Con.</i>					
	Montreal & Champlain Junction.....	61.73				
	Beauharnois Junction.....	19.50				
30	Great Northern Railway of Canada, including Lower Laurentian and Montreal Gatineau Colonization Railway....	208.10	185,767	136,898	89,701	412,366
31	Gulf Shore.....	16.78			4,330	4,330
32	Halifax and Yarmouth.....	50.20	456		40,098	40,554
33	Hampton and St. Martins.....	29.00			10,800	10,800
34	Hereford.....	53.30	19,499	46,982		66,481
35	Inverness Railway and Coal Co., formerly Inverness and Richmond.....	61.00		35,374	39,505	74,879
36	Iroquois, Bancroft and Ottawa.....	48.00	600		31,300	31,900
37	Kaslo and Slocan.....	31.89	38		21,512	21,550
38	Kent Northern (St. Louis and Richibucto).....	27.00			18,000	18,000
39	Kettle River Valley.....	3.86			1,376	1,376
40	Kingston and Pembroke.....	112.85	65,594	4,000	94,526	164,030
41	L'Assomption.....	3.50			5,994	5,994
42	Lake Erie and Detroit River, including Erie and Huron.....	198.35				
	Leased line—	222.35	358,123	101,402	193,290	652,815
	London and Port Stanley.....	24.00				
43	Lenora Mount Sicker.....	11.50			15,050	15,050
44	Liverpool and Milton.....	5.00			4,300	4,300
45	Lotbinière and Mégantic.....	30.34			18,780	18,780
46	Manitoulin and North Shore.....	16.00	234	3,143	7,728	11,105
47	Massawippi Valley.....	35.46	71,070	68,048	20,787	159,905
48	Midland of Nova Scotia.....	57.50	45,356		36,308	81,664
49	Montreal and Atlantic, formerly South-eastern.....	103.00				
	Lake Champlain and St. Lawrence Junction.....	60.70				
50	Montreal and Province Line, formerly Montreal, Portland and Boston.....	40.60	20,579	23,547	36,609	80,735
51	Montreal and Vermont Junction.....	23.60	68,340	93,972		162,312
52	New Westminster Southern.....	24.10	17,664	459	7,608	25,731
53	Nelson and Fort Sheppard.....	54.70	5,842	3,480	37,862	47,184
54	New Brunswick Coal and Railway Co.....	44.66			25,470	25,470
55	New Brunswick & Prince Edward Island.....	36.00	5,402	12,332	22,368	40,102
56	Norbonsing and Nipissing.....	5.50		16,762		16,762
57	New Brunswick Southern.....	82.50			57,410	57,410
58	Nova Scotia Steel and Coal Co.'s Ry.....	12.50			15,000	15,000
59	Orford Mountain.....	31.00	18,088	6,840	9,860	34,788
60	Ottawa, Northern and Western.....	137.20	93,434	38,714	15,320	147,468
61	Ottawa and New York.....	56.79	76,673	36,468		113,141
62	Phillipsburg Railway and Quarry Co.'s Ry.....	7.50			1,668	1,668
63	Qu'Appelle, Long Lake & Saskatchewan.....	253.96		119,704	101,093	220,797
64	Quebec Central.....	213.50	169,885	136,146	316,581	622,612
65	Quebec and Lake St. John.....	240.00	172,938	101,212	67,236	341,386
66	Quebec, Montmorency & Charlevoix (now Quebec Ry., Light and Power Co.).....	39.00	17,894		16,448	34,342
67	Quebec Southern, comprising the United Counties, East Richelieu Valley and South Shore Railways.....	143.50	90,646	42,898	101,386	234,930
68	Red Mountain.....	9.53	6,840	9,964		16,804
69	Rutland and Noyan.....	3.39				
70	Salisbury and Harvey.....	45.00			28,122	28,122
71	Stamstead, Sheffield and Chambly.....	43.00	26,230	10,575	36,747	73,552
72	St. Clair Tunnel, Yard and Approaches.....	2.25				



## SESSIONAL PAPER No. 20

and Mileage, for the Year ended June 30, 1903—Continued.

Engine Mileage.	Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs. Handled.	Average Rate of Speed of Passenger Trains—Miles per Hour.	Average Rate of Speed of Freight Trains—Miles per Hour.	Number.	Remarks.
518,852	160,019	319,856	27	16	30	
4,330	910	9,101	15	15	31	Operated by Caraquet Railway Co.
46,824	12,486	11,608	24	.....	32	
10,800	3,749	3,732	15	15	33	
69,792	21,266	129,778	26	15	34	
78,622	30,147	124,172	20	14	35	
32,200	10,301	18,265	25	18	36	
36,065	7,595	12,759	12	12	37	
18,250	6,698	17,157	18	18	38	
1,376	254	11,290	15	15	39	
164,030	44,857	128,079	25	18	40	
5,994	3,592	332	15	15	41	
892,547	604,953	977,360	35	25	42	
15,050	725	1,307	6	6	43	
4,300	26,400	30,104	10	10	44	
19,719	8,766	28,669	20	20	45	
19,272	7,282	127,032	20	15	46	
221,761	140,527	346,453	25	12	47	Also running powers over Grand Trunk, Lennoxville to Sherbrooke, 2'95 miles.
81,896	46,317	28,134	33	20	48	Also running powers over Intercolonial at Truro, 0'50 miles.
520,991	209,702	829,863	30	18	49	
80,735	105,934	86,610	30	12	50	
162,312	104,386	999,017	40	15	51	
27,472	20,789	21,115	.....	.....	52	
56,080	16,085	31,219	20	12	53	Also running powers over C. P. R., Five Mile Point to Nelson, B.C.
25,470	3,674	5,200	15	15	54	
46,900	20,393	41,197	20	15	55	
11,838	.....	24,107	.....	20	56	
57,410	11,003	20,062	20	20	57	
35,000	5,821	133,856	15	15	58	
34,788	6,861	32,484	25	15	59	
148,539	115,577	61,265	30	20	60	Also running powers over Hull Electric, 2'50 miles.
113,141	101,191	64,799	35	18	61	
1,668	.....	6,267	.....	15	62	
279,608	33,847	129,344	18	18	63	
634,379	222,286	445,133	25	15	64	Also running powers over Intercolonial from Harlaka Junction to Levis, 5'00 miles.
527,696	207,993	233,467	30	15	65	
34,342	131,481	26,650	21	18	66	
236,011	78,309	141,755	30	18	67	
31,099	13,423	255,321	12	10	68	
.....	.....	.....	.....	.....	69	Operated by Rutland Railway Co.
31,099	13,093	36,546	18	18	70	
73,552	141,489	1,015,765	30	12	71	
98,987	.....	.....	.....	.....	72	

3-4 EDWARD VII., A. 1904

## 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.
73	St. Lawrence and Adirondack.....	32·82	108,783	54,209	15,223	178,215
74	St. Mary's River.....	30·00		8,720	9,110	17,830
75	Sydney and Louisbourg, (Dom. Coal Co.).	48·96	53,000	287,000	6,070	346,070
76	Temiscouata.....	113·00	452		97,860	98,312
77	Tilsonburg, Lake Erie and Pacific.....	25·33	34,220		10,920	45,140
78	Thousand Islands.....	6·33			35,087	35,087
79	Toronto, Hamilton and Buffalo.....	87·78	198,378	112,523	13,405	324,306
80	Vancouver, Victoria and Eastern Railway and Navigation Co.....	15·90	10,281	3,187	612	14,080
81	Victoria and Sidney, B.C.....	16·26	6,965		23,550	32,515
82	Victoria Terminal Railway and Ferry Co.	18·49			4,265	4,265
83	York and Carleton.....	5·75			700	700
		18,987·98	22,095,705	28,840,434	9,446,781	60,382,920

## SESSIONAL PAPER No 20

and Mileage, for the Year ended June 30, 1903—*Concluded.*

Engine Mileage.	Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs. Handled.	Average Rate of Speed of Passengers for Trains Miles per Hour.	Average Rate of Speed of Freight Trains Miles per Hour.	Number.	Remarks.
178,215	225,885	270,142	30	12	73	Also running powers over Grand Trunk from Valleyfield to Beauharnois, 13.30 miles. Also running powers over Canadian Pacific from Adirondack Junction to Montreal, 8.70 miles.
20,131	4,432	21,757	14	14	74	
380,600	168,700	3,983,760	25	15	75	
98,312	43,142	92,910	26	17	76	
45,140	26,672	20,937	30	25	77	
35,087	46,723	27,285	.....	.....	78	
331,163	254,115	764,846	35	20	79	Also running powers over Hamilton and Dundas, from Hamilton to Dundas, 3.67 miles.
27,951	12,258	12,014	16	10	80	Also running powers over Grand Trunk from Hamilton to Grand Trunk Jct., 1.50 miles.
32,880	34,379	21,783	20	20	81	
4,365	8,526	4,497	20	6	82	
700	3,600	5,355	20	15	83	
77,178,493	22,148,742	47,373,417	.....	.....	.....	

3-4 EDWARD VII., A. 1904

## No. 5.—SUMMARY STATEMENT of Description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live
			Barrels.	Tons.	Bushels.	Tons.	No.
1	Alberta Railway and Coal Co. ....	64·62	1,350	135	70,500	1,407	2,967
2	Algoma Central and Hudson Bay. ....	91·75			26,200	786	1,344
3	Atlantic & Lake Superior, comprising— Baie des Chaleurs. .... 100·00 Great Eastern, not under traffic 23·00 Ottawa Valley " " 7·00	100·60	4,695	1,219	25,600	502	409
4	Bay of Quinte, including— Kingston, Napanee & Western. ....	72·83	19,870	1,987	134,800	3,707	7,870
5	Bedlington and Nelson. ....	15·20					68
6	British Yukon. ....	90·32	4,692	469	182,250	2,914	9,450
7	Brockville, Westport & Sault Ste. Marie	45·00	18,375	1,838	113,655	3,408	16,732
8	Bruce Mines and Algoma. ....	16·62					
9	Buctouche and Moncton. ....	32·00				2,152	
10	Calgary and Edmonton. ....	295·93	41,662	4,166	757,874	13,939	80,452
11	Canada Atlantic, including Ottawa, Amprior & Parry Sound. .... 400·30 Leased lines— Central Counties. .... 37·40 Pembroke Southern. .... 20·90	458·60	603,510	60,351	16,495,480	412,387	53,060
12	Canada Coals & Ry. Co., formerly Joggins. ....	12·00	1,752	175	17,479	290	5
13	Canada Eastern. ....	136·00	81,200	8,120	150,378	2,500	600
14	Canada Southern. .... 359·24 Leased lines— Sarnia, Chatham & Erie. .... 7·00 Leamington & St. Clair. .... 15·95	382·19	2,910,640	291,064	18,596,708	391,007	1,191,083
15	Canadian Northern, including— Winnipeg Great Northern. .... 49·00 Port Arthur, Duluth and Western Ry. .... 85·00 Manitoba South Eastern. .... 107·99 Lake Manitoba Ry. and Canal Co's Line. .... 125·00 Ontario and Rainy River. .... 164·00 Manitoba (formerly Northern Paci- fic and Manitoba and Portage and North Western Rys.) oper- ated by Canadian Northern. ....	881·90	166,048	16,604	12,367,110	365,309	23,775
16	Canadian Government Railways— Intercolonial, exclusive of Windsor Branch, 32 miles, but including Drummond County. .... Prince Edward Island. ....	1,310·26 209·00	1,521,540 19,612	152,154 1,962	3,392,252 780,177	69,963 13,349	127·0 31,18
17	Canadian Pacific Ry. .... 4,651·60 Leased lines— Fredericton. .... 22·10 New Brunswick. .... 175·00 New Brunswick & Canada. .... 117·20 St. John and Maine. .... 92·10 St. John Bridge and Rail- way Extension. .... 2·00 St. Stephen and Milltown. .... 4·60 Tobique Valley. .... 28·00 Cap de la Madeleine. .... 3·00 Montreal & L. Maskinongé. .... 12·90 Atlantic and North-west. .... 201·00 Montreal and Ottawa. .... 93·20 Ontario and Quebec. .... 4·73 St. Lawrence and Ottawa. .... 58·40 Credit Valley. .... 175·70	7,439·00	5,108,487	510,849	63,772,242	1,715,457	1,100,745

## SESSIONAL PAPER No. 20

Freight carried for the Year ended June 30, 1903.

Stock.	Lumber of all kinds except Firewood.		Firewood.		Manufactured Goods.	All other Articles.	Total Weight Carried.		Remarks.
	Tons.	Feet.	Tons.	Cords.			Tons.	Tons.	
1,009 672	6,232,000 58,232,000	9,348 116,464	..... 19,593	..... 39,187	12,239 14,071	*36,758 742,053	60,947 913,233	11 2	Includes 33,088 tons of coal.
212	1,126,200	5,989	80	160	7,617	7,548	23,247	3	
3,148 34	42,590,857 .....	74,534 .....	35,607 .....	53,410 .....	106,200 60	110,361 18,911	353,347 19,005	4 5	Includes 18,872 <sup>2</sup> tons of coal.
3,313	470,535	706	.....	.....	15,448	6,984	29,834	6	
1,964	631,473	1,135	.....	.....	7,344	2,846	18,535	7	
.....	.....	6,105	.....	7,396	2,224	4,075	4,075	8	
34,658	30,154,633	29,867	1,049	1,575	51,548	34,116	169,869	10	
13,765	310,988,363	427,609	77,046	127,126	108,855	344,716	1,494,809	11	
3 300	369,325 35,600,000	492 35,600	..... 3,800	..... 4,750	..... 18,300	*66,757 38,129	67,717 107,690	12 13	*Includes 64,433 tons of coal.
122,904	153,769,000	230,563	12,761	18,605	516,221	3,370,504	4,940,868	14	
10,083	85,551,000	123,827	111,745	156,443	173,373	51,463	901,608	15	
31,472 4,114	459,231,589 8,057,645	617,996 6,567	55,002 3,396	85,325 5,732	590,526 .....	1,243,301 74,795	2,790,737 106,519	16 17	
332,458	1,187,971,567	1,567,665	268,351	440,708	2,654,320	2,941,269	10,162,726	17	

3-4 EDWARD VII., A. 1904

No. 5 —SUMMARY STATEMENT of Description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live No.	
			Barrels.	Tons.	Bushe's.	Tons.		
Can. Pac. — Leased lines — <i>Con.</i>								
	Guelph Junction.....	15 00						
	Toronto, Hamilton & Buffalo.....	2 70						
	Toronto, Grey and Bruce.....	191 10						
	West Ontario Pacific.....	26 60						
	Manitoba & North-western.....	234 20						
	Manitoba South-western Colonization.....	214 40						
	Kootenay and Arrowhead.....	33 60						
	Columbia and Kootenay.....	60 00						
	Nakusp and Slocan.....	36 30						
	Saskatchewan & Western.....	18 20						
	Shuswap and Okanagan.....	50 80						
	Columbia and Western.....	157 10						
	Great North-west Central.....	71 00						
	B. Columbia Southern.....	202 40						
	Vancouver & Lulu Island.....	17 25						
18	Caraquez.....	68 00	8,500	850	5,000	136	500	
19	Carillon and Grenville.....	13 00					54	
20	Central Ontario.....	125 00						
	Marmora Ry. and Mining Co., formerly Ontario, Belmont and Northern.....	9 60	134 60	15,459	1,515	179,560	4,489	8,448
21	Central, Nova Scotia, formerly Nova Scotia Central.....	74 00	12,788	1,279	2,214	49	225	
22	Crow's Nest Southern.....	48 15	80	8	500	8	104	
23	Cumberland Ry. and Coal Co.....	32 00	12,357	1,235	48,773	778	22	
24	Dominion Atlantic, comprising—							
	Windsor and Annapolis.....	87 50						
	Cornwallis Valley.....	14 00						
	Yarmouth and Annapolis (Western Counties).....	87 00	220 50	159,050	15,905	638	11,247	
	Windsor Branch, leased from Intercolonial.....	32 00						
25	Edmonton, Yukon and Pacific.....	4 50	4,663	466	32,100	545	50	
26	Elgin and Havelock.....	28 00	3,536	353	1,950	39	386	
27	Esquimalt and Nanaimo.....	78 00	2,495	249	15,110	378	3,087	
28	Fredericton and St. Mary's Railway Bridge Co.....	1 33						
29	Grand Trunk.....	880 35						
	Wharf Branch.....	888 79						
	Montreal.....	3 44						
	Great Western.....	562 30						
	Brantford, Norfolk and Port Burwell.....	34 39						
	Buffalo and Lake Huron.....	162 00						
	Grand Trunk, Georgian Bay and Lake Erie.....	170 00						
	Owen Sound Branch.....	12 42						
	London, Huron and Bruce.....	68 00						
	Waterloo Junction.....	10 25						
	South Norfolk.....	17 00						
	Wellington, Grey and Bruce.....	168 13						
	Northern.....	172 10	3,139 48	5,850,650	585,065	82,047,800	2,051,195	3,259,760
	North Simcoe.....	33 00						
	Hamilton & North-western.....	173 00						
	Northern Pacific Junction.....	111 37						
	Toronto Belt Line.....	12 79						
	Midland.....	165 00						
	Grand Junction.....	85 21						
	Toronto and Nipissing.....	85 00						

## SESSIONAL PAPER No. 20

Freight carried for the Year ended June 30, 1903—*Continued.*

Stock.	Lumber of all kinds except Firewood.		Firewood.		Manu- factured Goods.	All other Articles.	Total Weight Carried.	Number.	Remarks.
	Tons.	Feet.	Tons.	Cords.					
150	12,000,000	18,500	600	980	4,000	1,748	26,364	18	
24					16	30	70	19	
4,224	8,932,000	11,165	48,897	97,793	58,427	17,605	195,218	20	
82	8,961,883	13,509	2,137	3,107	7,160	7,047	32,233	21	
58	296,000	444			1,714	18,130	20,362	22	
11	10,176,000	14,868			8,506	487,229	512,627	23	*Consisting of coal.
2,933	34,081,000	51,121	3,732	4,908	42,299	*115,591	232,585	24	*Consisting of apples, hay, produce and minerals.
25	1,399,630	2,799			7,807	712	11,854	25	
193	3,678,000	6,130	425	850	1,553	731	9,849	26	
616	14,870,011	24,232	7,429	8,255	14,760	94,639	143,129	27	
								28	
651,952	716,557,000	1,433,114	446,470	669,705	1,629,902	4,797,244	11,818,177	29	

3-4 EDWARD VII., A. 1904

## No. 5.—SUMMARY STATEMENT of Description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live
			Barrels.	Tons.	Bushels.	Tons.	No.
	Grand Trunk— <i>Con.</i>						
	Lake Simcoe Junction.....	26 00					
	Victoria.....	53 00					
	Whitby, Port Perry and Lindsay.....	46 00					
	Jacques Cartier Union.....	6 50					
	Montreal and Champlain Junction.....	61 73					
	Beaubarnois Junction.....	19 50					
30	Great Northern Ry. of Canada, in- cluding Lower Laurentian, Montford, Gatineau Colonization Railway.....	208 10	156,130	15,613	2,345,480	58,637	313
31	Gulf Shore.....	16 78	4,000	400	2,000	34	20
32	Halifax and Yarmouth.....	50 20	12,082	1,208	24,608	615	49
33	Hampton and St. Martin's.....	29 00					
34	Hereford.....	53 30	10,100	1,010	61,960	1,580	5,869
35	Inverness Ry. and Coal Co. (formely Inverness and Richmond).....	61 00	13,960	1,396	51,200	128	375
36	Irondale, Bancroft and Ottawa.....	48 00	4,300	421	2,960	74	1,560
37	Kaslo and Slocan.....	31 80	170	17	3,633	109	7
38	Kent Northern (St. Louis and Richi- necto.....	27 00	4,961	496	625	11	26
39	Kettle River Valley.....	3 86					
40	Kingston and Pembroke.....	112 85	8,572	840	35,200	660	1,350
41	L'Assomption.....	3 50	850	85			
42	Lake Erie and Detroit River, including Erie & Huron.....	198 35					
	Leased lines—London & Pt. Stanley.....	24 00					
		222 35	263,680	26,368	2,663,308	69,246	143,464
43	Lenora Mount Sicker.....	11 50					
44	Liverpool and Milton.....	5 00					
45	Lotbiniere and Mégantic.....	30 34	6,380	638	7,618	130	22
46	Manitoulin and North Shore.....	16 00				23	
47	Massawippi Valley.....	35 46	15,060	1,506	630,260	12,604	11,303
48	Midland and Nova Scotia.....	57 50	3,515	351	45,512	773	446
49	Montreal and Atlantic (form- erly South-Eastern).....	103 00					
	Lake Champlain and St. Lawrence Junction.....	60 70					
		163 70	837,858	83,786	3,402,202	84,447	34,284
50	Montreal and Province Line (formerly Montreal, Portland and Boston).....	40 60	9,990	999	46,060	1,316	868
51	Montreal and Vermont Junction.....	23 60	397,260	39,726	6,424,215	183,549	108,852
52	New Westminster Southern.....	24 10	350	35	11,357	330	1,505
53	Newton and Fort Sheppard.....	54 70	1,180	118	11,319	266	264
54	New Brunswick Coal and Ry. Co.....	44 66	970	97	3,493	59	
55	New Brunswick and Prince Edward Island.....	36 00	10,716	1,071	24,625	510	1,995
56	Nosbonsing and N'pissing.....	5 50					
57	New Brunswick Southern.....	82 50	2,909	290	18,810	470	29
58	Nova Scotia Steel & Coal Co.'s Ry.....	12 50	1,166	117	8,860	266	40
59	Orford Mountain.....	31 00	12,443	1,244	24,950	546	1,778
60	Ottawa, Northern and Western includ- ing Pontiac, Pacific Jet. Ry. and Interprovincial Bridge.....	137 20	59,820	5,982	497,767	7,744	17,004
61	Ottawa and New York.....	56 79	7,770	777	63,233	1,957	2,831



## SESSIONAL PAPER No. 20

Freight carried for the Year ended June 30, 1903—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.		
156	24,691,000	37,047	35,442	23,628	67,894	116,881	319,856	30	
10	6,000,000	6,600	20	30	2,027	.....	9,101	31	
25	2,547,881	3,822	1,264	1,896	1,161	2,881	11,608	32	
.....	2,364,000	2,953	21	37	.....	742	3,732	33	
721	63,416,666	98,125	4,035	8,877	11,290	8,175	129,778	34	
150	4,429,800	7,383	.....	.....	720	114,395	124,172	35	
390	1,629,000	2,850	3,166	4,750	1,975	*7,805	18,265	36	*Consisting of bark, pulp wood, tel. poles, logs, &c.
6	382,450	690	34	63	1,579	*10,295	12,759	37	*8,882 tons of ore included.
11	1,056,000	1,475	130	195	2,367	12,602	17,157	38	
78	320,000	493	100	150	114	*10,455	11,290	39	*Includes 10,347 tons of ore.
675	25,830,000	38,745	12,659	23,370	47,709	16,080	128,079	40	
.....	60,000	91	.....	.....	50	106	332	41	
20,372	76,598,888	114,898	5,686	9,950	134,477	602,049	977,360	42	
.....	525,000	787	.....	.....	520	.....	1,307	43	
.....	1,000,000	1,000	*6,852	10,000	18,754	350	30,104	44	*Pulpwood. +Pulp.
44	5,400,000	8,100	2,610	3,913	.....	15,844	28,669	45	
.....	360,000	720	.....	.....	2,155	124,134	127,032	46	
1,472	97,356,000	133,865	.....	.....	32,810	*164,196	346,453	47	*Includes ore and copper 59,564 tons, bark 8,047 tons, wood pulp 50,643 tons, stone & sand 21,983 tons.
223	10,202,900	17,394	1,398	2,097	2,253	5,133	28,134	48	
10,779	79,444,431	116,886	18,467	27,699	283,688	228,578	829,863	49	
217	12,129,192	18,212	67	101	10,536	55,229	86,610	50	
27,213	35,496,468	53,298	239	362	179,877	514,992	999,017	51	
102	330,000	495	.....	.....	15,326	4,827	21,115	52	
132	1,804,000	2,706	1,090	1,908	1,123	*24,966	31,219	53	*Includes 14,865 tons of ore.
.....	1,416,000	1,775	875	1,874	.....	*1,395	5,200	54	*Including 315 tons coal.
359	9,970,000	19,940	478	1,075	4,478	13,764	41,197	55	
.....	17,219,000	24,107	.....	.....	.....	.....	24,107	56	
29	5,635,000	11,270	232	406	4,969	2,628	20,062	57	
20	7,000,000	9,291	121	182	190	*123,790	133,856	58	*Includes pig iron, 25,000 tons, iron ore, 39,500, limestone, 19,800 tons, coal, 38,000 tons.
276	8,853,950	10,631	6,227	9,622	468	*9,697	32,484	59	*Includes 3,960 tons of pulpwood.
2 663	8,140,000	12,020	2,770	4,149	23,596	*5,111	61,265	60	*Includes 3,869 tons of pulpwood.
1,699	645,600	8,075	3,813	5,720	3,400	43,171	64,799	61	

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## No. 5.—SUMMARY STATEMENT of Description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live
			Barrels.	Tons.	Bushels.	Tons.	No.
62	Philipsburg Ry. and Quarry Co. ....	7.56			1,094	17	
63	Qu'Appelle, Long Lake and Saskatchewan .....	253.96	7,709	771	1,863,165	54,742	20,991
64	Quebec Central .....	213.50	187,082	18,708	83,721	2,512	43,000
65	Quebec and Lake St. John .....	240.00	31,626	3,162	77,404	1,548	2,263
66	Quebec, Montmorency and Charlevoix (now Quebec Ry. Light & Power Co) .....	30.00	9,198	920	16,051	481	156
67	Quebec Southern, comprising the United Counties, East Richelieu Valley and South Shore Rys .....	143.50	23,890	2,389	93,644	2,475	1,700
68	Red Mountain .....	9.53	1,040	104	2,766	65	234
69	Rutland and Noyan .....	3.39					
70	Salisbury and Harvey .....	45.00	2,884	288	40,127	682	465
71	Stanstead, Shefford and Chambly .....	43.00	452,770	45,277	6,850,130	195,718	111,672
72	St. Clair Tunnel, Yard and Approaches .....	2.25					
73	St. Lawrence and Adirondack .....	32.82	25,150	2,515	42,760	1,069	678
74	St. Mary's River .....	30.00	2,380	238	59,100	1,188	361
75	Sydney and Louisburg (Dominion Coal Co.) .....	48.96	8,600	860	4,700	87	60
76	Temiscouata .....	113.00	20,714	2,071	43,770	651	424
77	Tilsonburg, Lake Erie and Pacific .....	35.33	6,000	600	5,000	601	10,566
78	Thousand Islands .....	6.33	2,510	251	8,400	231	1,423
79	Toronto, Hamilton and Buffalo .....	87.78	47,050	4,705	681,079	15,435	84,641
80	Vancouver, Victoria and Eastern Ry. and Navigation Co. ....	15.90	2,830	283	13,064	307	356
81	Victoria and Sidney, B.C. ....	16.26	997	100	16,904	423	2,922
82	Victoria Terminal Ry. and Ferry Co. ....	18.40	152	19	2,760	69	581
83	York and Carleton .....	5.75	2,000	200		75	
		18,987.98	19,253,785	1,926,070	231,444,546	5,761,792	6,549,435

## SESSIONAL PAPER No. 20

Freight carried for the Year ended June 30, 1903—*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.		
.....	30,658	46	.....	.....	121	6,083	6,267	62	
12,539	10,296,100	13,226	3,436	5,155	23,210	13,701	123,314	63	
3,225	62,670,000	94,011	7,856	14,729	8,658	*303,290	445,133	64	*Includes pulpwood
600	57,759,000	88,860	37,125	69,400	16,340	53,557	253,477	65	173,657 tons, asbes- tos 28,686 tons, pulp 12,793 tons, brick 11,741 tons.
128	805,603	1,208	2,308	2,525	4,121	17,267	26,650	66	
712	8,270,642	9,615	35,990	71,981	804	*53,779	141,755	67	*Includes 50,373 tons of hay.
117	4,651,000	6,976	8,077	14,135	333	*216,299 17,29	255,321	68	*Ore.
.....	.....	.....	.....	.....	.....	.....	.....	69	Operated by Rutland Ry. Co. of United States. Traffic not returned.
232	10,696	16,044	3,073	5,377	835	*13,088	36,546	70	*Including hay, plas- ter, ore and coal.
27,918	37,305,990	56,015	308	467	187,342	503,028	1,015,765	71	
339	36,928,000	55,392	3,479	2,319	18,355	190,153	270,142	72	
95	5,465,000	8,197	.....	.....	6,390	*5,649	21,757	74	*Includes 4,059 tons coal.
26	1,060,000	2,800	.....	.....	.....	*3,979,993	3,983,760	75	*Includes 3,456,178 tons coal & 504,000 tons sand & gravel.
200	47,614,500	70,000	4,607	7,000	3,654	9,334	92,910	76	
1,056	1,075,164	2,692	4,000	800	600	14,588	20,937	77	
694	2,561,714	4,483	50	75	14,343	7,208	27,285	78	
8,598	7,925,177	13,301	5,542	9,548	55,436	657,823	764,846	79	
178	188,000	282	.....	.....	1,740	*9,224	12,014	80	*Includes 5,894 tons of ore.
252	494,682	607	4,304	9,684	3,473	7,244	21,783	81	
41	259,034	418	369	1,643	1,040	1,267	4,497	82	
.....	.....	3,300	720	1,200	100	*180	5,155	83	*Including hay, salt, brick, lime, &c.
1,345,203	3,986,411,897	6,041,976	1,327,160	2,083,297	7,256,388	22,958,691	47,373,417		



## SESSIONAL PAPER No. 20

for the Year ended June 30, 1903.

Other Sources.	Total Gross Earnings.	Total Net Earnings.	Proportion of Earnings to Working Expenses.	Earnings per Train Mile.	Number.	Remarks.
§ cts.	§ cts.	§ cts.	p. c.	Cts.		
129,382 22	204,889 40	104,351 70	203 79	391	1	
102,954 92	430,261 04	181,275 31	10 73	747	2	
517 69	49,631 28	8,419 00	8 55	78	3	
5,327 70	224,248 67	99,381 87	1 79	1 486	4	
32 07	3,536 03	5,918 45	372 90	9495	5	Also running powers over C. P. R. from
7,963 20	360,614 42	188,685 74	209 74	4 699	6	Creston Jct. to Sirdar Jct., 8 70 miles.
434 10	44,502 94	15,376 00	152 79	117 52	7	
.....	2,700 90	4,792 94	36	50	8	
.....	18,371 65	2,798 02	118	83 50	9	
2,032 07	698,255 64	277,651 78	142	183 86	10	
55,065 32	1,908,025 53	691,090 27	157	143	11	
.....	31,871 78	16,037 41	201	170 30	12	
1,762 43	116,536 43	2,674 66	1 02	68 50	13	
22,936 50	5,705,596 16	111,871 43	101 99	164	14	
133,965 24	2,449,579 33	860,285 86	154	169	15	
268,151 75	6,324,323 72	127,670 53	102 06	99 66	16	Also running powers over Grand Trunk—
446 00	217,714 24	41,923 58	71 44	74 74	16	Point Lévis to Hadlow. .... 1 50
						Chaudière Curve to Chaudière. ... 1 18
						St. Rosalie Jct., to Montreal ... 37 62
						Total miles. .... 40 30
2,886,548 44	43,299,486 90	15,841,295 92	157 70	193	17	Also running powers over—
						C. A. R., Montreal and Ottawa
						Jct. to Ottawa. .... 0 80
						G. T. R., Toronto to Hamilton
						Jct. .... 35 29
						Total miles. .... 36 00

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## No. 6.—SUMMARY STATEMENT of Earnings

Number.	Name of Railway.	Mileage.	Passenger Traffic.		Freight Traffic.		Mails and Express Freight.	
			\$	cts.	\$	cts.	\$	cts.
	Canadian Pacific—Leased lines— <i>Con.</i>							
	Nakusp and Slocan.....	36 30						
	Shuswap and Okanagan.....	50 80						
	Saskatchewan and Western.....	18 20						
	Columbia and Western.....	157 10						
	Great North-west Central.....	71 00						
	British Columbia Southern.....	202 40						
	Vancouver and Lulu Island....	17 25						
18	Caracquet.....	68 00		6,050 47		22,533 37		1,962 00
19	Carillon and Grenville.....	13 00		1,720 73		72 13		.....
20	Central Ontario.....	125 00						
	Marmora Ry. and Mining Co., formerly Ontario, Belmont & Northern	9 60	134 60	48,562 22		126,667 78		10,743 33
21	Central Ry., Nova Scotia, formerly Nova Scotia Central.....	74 00		32,742 28		27,850 79		4,073 70
22	Crow's Nest Southern.....	48 15		3,759 12		9,064 82		272 12
23	Cumberland Railway and Coal.....	32 00		12,680 39		15,195 59		3,481 77
24	Dominion Atlantic, comprising—							
	Windsor and Annapolis.....	87 50						
	Cornwallis Valley.....	14 00						
	Yarmouth and Annapolis (Western Counties).....	87 00	220 50	577,142 23		317,529 72		70,774 47
	Windsor Branch, leased from Intercolonial.....	32 00						
25	Edmonton, Yukon and Pacific.....	4 50		2,146 00		4,008 33		.....
26	Elgin and Havelock.....	28 00		1,546 49		7,133 71		700 00
27	Esquimalt and Nanaimo.....	78 00		103,091 47		123,045 38		3,893 76
28	Fredericton and St. Mary's Ry. Bridge.....	1 33		1,216 44		3,142 43		.....
29	Grand Trunk.....	880 35						
	Wharf Branch, Montreal.....	3 44						
	Great Western.....	562 30						
	Brantford, Norfolk and Port Burwell.....	34 39						
	Buffalo and Lake Huron.....	162 00						
	Grand Trunk, Georgian Bay and Lake Erie.....	170 00						
	Owen Sound Branch.....	12 42						
	London, Huron and Bruce.....	68 00						
	Waterloo Junction.....	10 25						
	South Norfolk.....	17 00						
	Wellington, Grey and Bruce.....	168 13						
	Northern.....	172 10						
	North Simcoe.....	33 00	3,139 48	6,913,615 91		16,341,908 50		1,168,448 34
	Hamilton and North-western.....	173 00						
	Northern Pacific Junction.....	111 37						
	Toronto Belt Line.....	12 79						
	Midland.....	165 00						
	Grand Junction.....	85 21						
	Toronto and Nipissing.....	85 00						
	Lake Simcoe Junction.....	26 00						
	Victoria.....	53 00						
	Whitby, Port Perry and Lindsay.....	46 00						
	Jacques Cartier Union.....	6 50						
	Montreal and Champlain Junction.....	61 73						
	Beauharnois Junction.....	19 50						
30	Great Northern Railway of Canada, including Lower Laurentian, Montford, Gatineau Colonization Railway.....	208 10		63,416 23		282,673 90		3,792 31
31	Gulf Shore.....	16 78		323 10		5,630 89		.....
32	Halifax and Yarmouth.....	50 20		21,548 67		9,455 20		2,008 00
33	Hampton and St. Martins.....	29 00		1,887 99		2,257 82		.....
34	Hereford.....	53 30		13,982 84		44,965 18		1,369 91
35	Inverness Railway and Coal Co., formerly Inverness and Richmond.....	61 00		18,799 10		87,014 34		197 16

## SESSIONAL PAPER No. 20

for the Year ended June 30, 1903—Continued.

Other Sources.	Total Gross Earnings.	Total Net Earnings.	Proportion of Earnings to Working Expenses.	Earnings per Train Mile.	Number.	Remarks.
£ cts.	£ cts.	£ cts.	p. c.	Cts.		
661 00	31,206 84	1,249 89	96 15	50 06	18	
.....	1,792 86	1,441 34	55 40	22 83	19	
4,811 23	190,784 56	62,405 46	148 60	147 80	20	
676 05	65,342 82	18,274 64	139	132	21	Also running powers over Dominion Atlantic Ry., Middleton Jct. to Middleton, 0 33 miles.
145 17	13,241 23	16,410 95	447 47	117	22	
103,399 48	134,757 23	58,319 05	69	18 26	23	
.....	965,446 42	241,323 74	133	189	24	Also running powers over Intercolonial Ry., Halifax to Windsor Jct., 14 00 miles.
277 05	6,431 38	232 46	96 51	118	25	Also running privileges over Canada Eastern, 0 17 miles. The earnings are receipts from trains run across the bridge by the Canada Eastern and Canadian Pacific Rys.
.....	9,380 20	156 78	101	54 17	26	
40,929 89	270,960 50	62,125 54	129	99	27	
500 00	4,858 87	3,427 34	142	.....	28	
685,589 98	25,109,562 73	8,261,863 43	147 40	146	29	Also running powers over Chaudiere Branch of Intercolonial Ry., 5 77 miles.
19,445 48	369,327 92	8,321 82	97 79	89 56	30	Also running powers over Quebec & Lake St. John Ry., from Quebec to Riviere à Pierre, 56 50 miles.
.....	5,953 99	4,165 09	332	137 5	31	
306 25	33,318 12	8,484 54	138	82 15	32	Also 19 30 miles not in operation.
115 89	4,261 70	44 45	101	39 40	33	
21 50	60,339 43	25,479 80	70 3	86 31	34	
925 19	106,935 79	21,304 41	123 72	143	35	

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## No. 6.—SUMMARY STATEMENT of Earnings

Number.	Name of Railway.	Mileage.	Passenger Traffic		Freight Traffic.		Mails and Express Freight.	
			8	cts.	8	cts.	8	cts.
36	Iroindale, Bancroft and Ottawa .....	48 00	6,563	75	13,773	87	1,126	55
37	Kaslo and Slocan.....	31 80	7,338	50	20,249	52	1,552	61
38	Kent Northern.....	27 00	4,872	07	8,836	04	1,117	75
39	Kettle River Valley.....	3 86	130	51	1,064	25	16	00
40	Kingston and Pembroke.....	112 85	11,445	48	122,429	35	9,471	92
41	L'Assomption.....	3 50	945	00	265	60		
42	Lake Erie and Detroit River, including Erie and Huron.....	198 35	222	35	543,817	97	20,955	74
	Leasard, London and Port Stanley.....	24 00						
43	Lenora Mount Sicker.....	11 50	399	75	6,535	00		
44	Liverpool and Milton.....	5 00	1,320	00	8,669	15		
45	Lotbinière and Mégantic.....	30 34	3,030	66	14,139	66		
46	Manitoulin and North Shore.....	16 00	3,515	65	40,362	52		
47	Massawippi Valley.....	35 46	58,635	25	93,008	73	2,971	86
48	Midland of Nova Scotia.....	57 50	26,289	92	30,415	28	324	96
49	Montreal and Atlantic, formerly South- eastern.....	103 00	163	70	132,688	78	295,196	95
	Lake Champlain and St. Lawrence Junction.....	60 70					12,690	74
50	Montreal and Province Line, formerly Montreal, Portland and Boston.....	40 69	34,997	00	33,473	99	3,316	08
51	Montreal and Vermont Junction.....	23 60	54,865	03	138,989	40	5,680	00
52	New Westminster Southern.....	24 10	14,226	15	6,015	90	1,566	12
53	Nelson and Fort Sheppard.....	54 70	31,859	86	55,343	20	2,334	58
54	New Brunswick Coal and Railway Co.....	44 66	2,149	94	3,257	44	1,106	56
55	New Brunswick and Prince Edward Island.....	36 90	8,211	92	16,724	64	1,664	70
56	Nosbonsing and Nipissing.....	5 50			43,047	90		
57	New Brunswick Southern (formerly Shore Line).....	82 50	12,538	01	20,671	07	3,533	19
58	Nova Scotia Steel and Coal Co.'s Railway.....	12 50	1,364	19	8,338	36		
59	Orford Mountain.....	31 00	2,810	98	17,090	45	525	84
60	Ottawa, Northern and Western, including Pont- iac Pacific Junction Ry. and Interprovincial Bridge.....	137 20	78,627	79	93,839	71	7,812	42
61	Ottawa and New York.....	56 79	53,483	03	44,386	11	2,900	36
62	Phillipsburg Railway and Quarry Co.'s Ry.....	7 50			1,805	66		
63	Qu'Appelle, Long Lake and Saskatchewan.....	253 96	109,758	21	262,353	82	6,138	00
64	Quebec Central.....	213 50	213,313	09	454,077	11	18,576	00
65	Quebec and Lake St. John.....	240 00	123,284	16	226,544	10	12,637	18
66	Quebec, Montmorency and Charlevoix, now Que- bec Railway, Light and Power Co.....	30 00	16,251	95	20,422	67	614	35
67	Quebec Southern, comprising United Counties, East Richelieu Valley and South Shore Rys.....	143 50	61,707	04	85,697	43	20,702	94
68	Red Mountain.....	9 53	6,231	62	58,573	59	911	79
69	Rutland and Noyan.....	3 39						
70	Salisbury and Harvey.....	45 00	8,355	98	17,644	13	2,549	07
71	Stansfeld, Shefford and Chambly.....	43 00	22,000	05	54,602	78	2,757	51
72	St. Clair Tunnel, Yard and Approaches.....	2 25	37,597	01	190,083	96	724	38
73	St. Lawrence and Adirondack.....	32 82	104,513	81	115,105	09	4,591	43
74	St. Mary's River.....	30 00	3,850	24	22,290	67	397	75
75	Sidney and Louisbourg (Dominion Coal Co.'s Ry).....	48 96	39,237	23	717,377	56	1,522	45
76	Tenisonata.....	113 00	40,812	12	84,333	07		
77	Tilsonburg, Lake Erie and Pacific.....	35 33	4,540	07	13,210	57	1,488	48
78	Thousand Island.....	6 33	6,977	42	17,854	52	2,741	52
79	Toronto, Hamilton and Buffalo.....	87 78	143,373	96	357,341	36	8,202	12
80	Vancouver, Victoria and Eastern Railway and Navigation Co.....	15 90	7,126	01	8,488	61	281	55
81	Victoria and Sidney, B.C.....	16 26	13,300	52	13,324	22	421	99
82	Victoria Terminal Railway and Ferry Co.....	18 40	991	95	609	92	8	87
83	York and Carleton.....	5 75	800	00	2,217	00		
	Total.....	18,987 98	24,862,169	30	63,089,448	29	3,396,145	57



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for the Year ended June 30, 1903—*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.	Cts.		
.....	21,464 17	552 10	97.49	67.28	36	
81 54	29,222 17	14,654 85	66	136	37	
.....	14,825 86	1,309 62	91	82.36	38	St. Louis and Richibucto Rv. not in operation.
.....	1,210 76	1,210 76		87.99	39	Road was in hands of construction company until June 30, and operating expenses were not kept separate from construction accounts.
9,485 52	182,832 27	26,700 35	117.10	111	40	
.....	1,210 60	258 00	82	20	41	
20,208 49	815,875 49	216,569 65	136	124	42	
.....	6,934 75	21,012 71	24	46	43	
.....	9,989 15	3,716 16	159	234	44	
624 58	17,794 90	2,922 87	119.65	94.75	45	
4,018 21	47,896 38	28,860 77	151	431.30	46	
.....	154,615 84	23,995 02	118.87	97.50	47	Also running powers over G.T.R. from Lennoxville to Sherbrooke, 2.95 miles.
125 33	57,155 49	14,056 12	134	69.98	48	
10,368 94	450,945 41	6,075 27	101.37	114.46	49	
.....	73,527 07	2,090 57	97	91	50	
1,740 60	199,184 43	46,934 86	130	123	51	
259 09	22,079 41	23,613 34	48.82	858	52	
271 24	90,160 16	11,594 91	88.68	191	53	Also running powers over C.P.R. from Five Mile Point to Nelson, B.C., 4.7 miles.
622 52	9,117 72	196 96	102	35.80	54	
2,603 78	26,601 26	4,391 89	119	66.33	55	
.....	43,047 00	5,739 34	115	399	56	
.....	36,831 08	27,732 23	57	64.15	57	
88 81	15,102 46	2,208 85	87	100.07	58	
5,400 00	20,427 27	3,189 40	118	59	59	
.....	205,303 94	15,710 09	108	139	60	
25,024 02	191,239 55	7,811 22	108	89	61	
470 65	7,811 75	4,444 07	231.96	468	62	
6,006 09	378,800 03	42,110 64	110.23	126.21	63	
550 00	694,029 12	205,790 19	142	112	64	Also running powers over I.C.R., Harlaka Jet to Levis, 5.00 miles.
8,062 92	431,683 38	121,102 14	135	126	65	
67,217 94	38,152 94	9,168 01	131.29	110	66	
864 87	168,653 37	17,177 65	90.85	71.78	67	
545 96	66,826 98	4,574 57	107	398	68	
1,169 98	28,755 74	3,522 33	102	102	69	Operated by Rutland Ry. Co. of U. S. Traffic not returned.
.....	79,710 34	10,516 77	108	108	71	[on vehicles hauled through the tunnel.
206 56	228,425 35	96,511 26	173.16	.....	72	The earnings of this company are from tolls.
359 00	224,755 26	124,463 24	224	126	73	Also running powers over—
20 00	26,915 28	14,684 18	220.06	151	74	G.T.R., Valleyfield to Beauhar-
144 93	785,971 39	428,730 47	220.31	227	75	nois..... 13.30
376 62	134,913 13	1,900 23	101	137	76	C.P.R., Adirondack Jet. to Mont-
26,934 15	19,239 12	842 51	104	426	77	real..... 8.70
9,767 94	31,305 69	8,160 29	135	89	78	
.....	543,296 56	192,605 16	154	167	79	Also running powers over Hamilton and Dundas Ry. from Hamilton to Dundas, 3.67 miles.
3,732 23	15,953 58	1,655 21	116	113	80	
34,289 12	27,946 73	7,600 27	78	83	81	
.....	1,610 74	1,569 41	50.65	377	82	
.....	3,017 00	307 00	93	40	83	
4,716,823 50	96,064,526 72	28,583,003 39				

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## No. 7.—SUMMARY STATEMENT of Operating

Number.	Name of Railway.	Mileage.	Maintenance	Working
			of Line, Buildings, &c.	and Repairs of Engines.
			\$ cts.	\$ cts.
	Alberta Railway and Coal Co. ....	64·62	22,881 81	20,084 88
1	Algoma Central and Hudson Bay .....	91·75	22,602 61	72,233 45
2	Atlantic and Lake Superior, comprising—			
3	Baie des Chaleurs .....	100·00	19,018 55	20,543 04
	Great Eastern, not under traffic .....	23 00		
	Ottawa Valley, " " .....	7·00		
4	Bay of Quinte Railway, including Kingston, Napanee and Western .....	72·83	26,234 14	46,091 03
5	Bedlington and Nelson .....	15·20	2,177 16	1,179 25
6	British Yukon .....	90·32	70,334 82	28,332 14
7	Brockville, Westport and Sault Ste. Marie .....	45·00	6,065 27	9,641 40
8	Bruce Mines and Algoma .....	16·62	1,581 21	4,811 49
9	Buctouche and Moncton .....	32·00	4,742 74	4,544 31
10	Calgary and Edmonton .....	295·93	269,813 38	104,898 51
11	Canada Atlantic, including Ottawa, Arnprior and Parry Sound .....	400·30	239,919 96	510,630 21
	Leased lines: Central Counties .....	37·40		
	Pembroke Southern .....	20·90		
12	Canada Coals and Railway Co., formerly Joggins .....	12·00	5,110 66	4,965 67
13	Canada Eastern .....	136·00	36,573 77	44,628 58
14	Canada Southern .....	359·24	382·19	1,025,914 31
	Leased lines: Samia, Chatham and Erie .....	7·00		
	Leamington and St. Clair .....	15·95		
15	Canadian Northern, including—		881·90	341,130 29
	Winnipeg Great Northern .....	40·00		
	Port Arthur, Duluth and Western .....	85·00		
	Manitoba and South-eastern .....	107·90		
	Lake Manitoba Ry. and Canal Co's line .....	125·00		
	Ontario and Rainy River .....	164·00		
	Manitoba (formerly Northern Pacific and Manitoba and Portage and North-western Rys. (operated by Canadian Northern) .....	354·65		603,339 96
16	Canadian Government Railways—			
	Intercolonial, exclusive of Windsor Branch, 32 miles, but including Drummond County .....	1,310 26	1,386,350 29	2,176,160 76
	Prince Edward Island .....	209 00	81,352 13	73,052 05
17	Canadian Pacific .....	4,651·60	7,439·00	6,566,676 89
	Leased lines—			
	Fredericton .....	22·10		
	New Brunswick .....	175·00		
	New Brunswick and Canada .....	117·20		
	St. John and Maine .....	92·10		
	St. John Bridge and Railway Extension .....	2·00		
	St. Stephen and Milltown .....	4·60		
	Tobique Valley .....	28·00		
	Cap de la Madeleine .....	3·00		
	Montreal and Lake Maskinongé .....	12·90		
	Atlantic and North-west .....	201·00		
	Montreal and Ottawa .....	93·20		
	Ontario and Quebec .....	473·00		
	St. Lawrence and Ottawa .....	58·40		
	Credit Valley .....	175·70		
	Guelph Junction .....	15·00		
	Toronto, Hamilton and Buffalo .....	2·70		
	Toronto, Grey and Bruce .....	191·10		
	West Ontario Pacific .....	26·60		
	Manitoba and North-western .....	234·20		
	Manitoba and South-western Colonization .....	214·40		
	Kootenay and Arrowhead .....	33·60		
	Columbia and Kootenay .....	60·00		
	Nakusp and Slocan .....	36·30		
	Shuswap and Okanagan .....	50·80		
	Saskatchewan and Western .....	18·20		
	Columbia and Western .....	157·10		
	Great North-west Central .....	71·00		
				8,772,944 34]

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Expenses for the Year ended June 30, 1903.

Working and Repairs of Cars.	General Operating Expenses.	Total.	Cost of operating per train mile.	Number.	Remarks.
§ cts.	§ cts.	§ cts.	Cents.		
2,491 86	54,579 15	100,537 70	1 32	1	
24,016 46	130,133 21	248,985 73	4 32	2	
1,909 13	16,579 56	58,050 28	91	3	
10,288 24	42,253 39	124,866 80	8 27	4	
166 48	5,931 59	9,454 48	2 33	5	
5,892 65	67,369 07	171,928 68	2 18	6	
822 02	13,198 25	29,126 94	7 69	7	
26 20	1,074 94	7,493 84	1 38	8	
780 57	5,496 01	15,573 63	75	9	
18,583 46	87,308 51	420,603 86	110 00	10	
95,934 34	370,450 75	1,216,935 26	91	11	
2,843 52	2,914 52	15,834 37	85 02	12	
6,363 77	26,295 65	113,861 77	64 65	13	
471,791 26	2,481,807 42	5,593,724 73	160 00	14	
137,244 02	507,579 20	1,589,293 47	107 00	15	
841,104 03	1,793,038 11	6,196,653 19	97 65	16	
22,647 00	82,586 64	259,637 82	84 68		
2,145,604 10	9,972,965 65	27,458,190 98	123 00	17	

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## No. 7.—SUMMARY STATEMENT of Operating Expenses

Number.	Name of Railway.	Mileage.	Maintenance	Working
			of Line, Buildings, &c.	and Repairs of Engines.
			\$ cts.	\$ cts.
Canadian Pacific—Leased lines— <i>Con.</i>				
	British Columbia Southern.....	202 40		
	Vancouver and Lulu Islands.....	17 25		
18	Caracquet.....	68 00	8,456 43	14,659 82
19	Carillon and Grenville.....	13 00	1,150 00	1,544 00
20	Central Ontario.....	125 00		
	Marmora Ry. and Mining Co., formerly Ont- ario, Belmont and Northern.....	134 60	43,913 39	40,674 39
21	Central Ry., Nova Scotia, formerly Nova Scotia Central.....	74 00	20,005 10	12,776 26
22	Crow's Nest Southern.....	48 15	14,730 50	6,060 05
23	Cumberland Railway and Coal Company.....	32 00	129,558 57	28,688 47
24	Dominion Atlantic, comprising—			
	Windsor and Annapolis.....	87 50		
	Cornwallis Valley.....	14 00		
	Yarmouth and Annapolis (Western Counties) ..	87 00	141,582 68	271,444 41
	Windsor Branch, leased from Intercolonial ..	32 00		
25	Edmonton, Yukon and Pacific.....	4 50	1,049 98	3,232 34
26	Elgin and Havelock.....	28 00	3,483 61	2,696 17
27	Esquimalt and Nanaimo.....	78 00	55,858 18	39,751 09
28	Fredericton and St. Mary's Railway Bridge Co.....	1 33	1,380 08	
29	Grand Trunk.....	880 35		
	Wharf Branch, Montreal.....	3 44		
	Great Western.....	562 30		
	Brantford, Norfolk and Port Burwell.....	34 39		
	Buffalo and Lake Huron.....	162 00		
	Grand Trunk, Georgian Bay and Lake Erie.....	170 00		
	Owen Sound Branch.....	12 42		
	London, Huron & Bruce.....	68 00		
	Waterloo Junction.....	10 25		
	South Norfolk.....	17 00		
	Wellington, Grey and Bruce.....	168 13		
	Northern.....	172 10		
	North Simcoe.....	23 00	3,139 48	3,529,837 50
	Hamilton and North-western.....	173 00		6,400,250 02
	Northern Pacific Junction.....	111 37		
	Toronto Belt Line.....	12 79		
	Midland.....	165 00		
	Grand Junction.....	85 21		
	Toronto and Nipissing.....	85 00		
	Lake Simcoe Junction.....	26 00		
	Victoria.....	53 00		
	Whitby, Port Perry and Lindsay.....	46 00		
	Jacques Cartier Union.....	6 50		
	Montreal and Champlain Junction.....	61 73		
	Beauharnois Junction.....	19 50		
30	Great Northern Ry. of Canada including Lower Laurentian, Montford Gatineau Colonization Railway.....	208 10	52,589 83	144,624 75
31	Gulf Shore.....	16 78	735 30	250 00
32	Halifax and Yarmouth.....	50 26	7,427 56	9,237 96
33	Hampton and St. Martins.....	29 00	1,644 26	1,380 54
34	Herford.....	53 30	29,445 17	29,182 84
35	Inverness Ry. and Coal Co., formerly Inverness and Rich- mond.....	61 00	18,259 04	36,844 44
36	Iroquale, Bancroft and Ottawa.....	48 00	5,831 25	9,642 19
37	Kaslo and Slocan.....	31 80	20,054 11	7,535 03
38	Kent Northern.....	27 00	9,325 00	4,110 28
39	Kettle River Valley.....	3 86		
40	Kingston and Pembroke.....	112 85	50,609 66	41,334 30
41	L'Assomption.....	3 50	261 60	668 50
42	Lake Erie and Detroit River, including Erie and Huron.....	198 35		
	Leased lines—London and Port Stanley.....	24 00		
		222 35	74,716 31	234,667 96
43	Lenora Mount Sicker.....	11 50	6,887 10	11,326 85

## SESSIONAL PAPER No. 20

for the Year ended June 30, 1903—Continued.

Working and Repairs of Cars.	General Operating Expenses.	Total.	Cost of operating per train mile.	Number.	Remarks.
₹ cts.	₹ cts.	₹ cts.	Cents.		
225 00	9,115 48	32,456 73	52 06	18	
300 00	240 20	3,234 20	53 00	19	
6,984 08	36,807 33	128,379 10	99 52	20	
2,776 00	11,510 82	47,068 18	91 06	21	
1,696 66	7,164 97	29,652 18	262	22	
9,369 67	25,459 57	193,076 28	261 00	23	
24,867 29	286,228 30	724,122 68	142 00	24	
10 55	2,370 97	6,663 84	122 00	25	
212 36	2,831 28	9,223 42	532 00	26	
13,714 39	99,511 30	208,834 96	76 39	27	
.....	51 45	1,431 53	.....	28	
1,804,241 94	5,113,369 84	16,847,699 30	98 00	29	
26,015 89	154,419 27	377,649 74	91 58	30	
.....	803 66	1,788 90	42 00	31	
1,204 99	6,963 07	24,833 58	61 23	32	
84 57	1,107 88	4,217 25	38 00	33	
5,976 45	21,214 77	85,819 23	123 00	34	
10,639 81	19,888 09	85,631 38	114 00	35	
825 00	5,717 83	22,016 27	69 16	36	
1,425 76	14,861 52	43,877 02	293 00	37	
150 00	2,541 20	16,126 48	89 59	38	
8,856 28	55,331 68	156,131 92	95 18	39	
12 50	526 00	1,468 60	245 00	40	
34,324 94	255,596 53	599,305 74	91 80	42	
1,015 25	8,718 26	27,947 46	185 65	43	

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## No. 7.—SUMMARY STATEMENT of Operating

Number.	Name of Railway.	Mileage.	Maintenance of Line, Buildings, &c.		Working and Repairs of Engines.	
			§	cts.	§	cts.
44	Liverpool and Milton	5·00	2,668	86	2,492	03
45	Lotbiniere and Mégantic	30·34	3,890	40	5,666	25
46	Manitoulin and North Shore	16·00	3,305	25	6,170	30
47	Massawippi Valley	35·46	40,054	08	50,381	98
48	Midland of Nova Scotia	57·50	11,073	28	15,347	79
49	Montreal and Atlantic, formerly South Eastern	103·00				
	Lake Champlain and St. Lawrence Junction	60·70	145,563	85	142,995	54
50	Montreal and Province Line, formerly Montreal, Portland and Boston	40·60	21,962	37	19,890	39
51	Montreal and Vermont Junction	23·60	18,211	65	57,962	21
52	New Westminster Southern	24·10	20,079	78	8,992	76
53	Nelson and Fort Sheppard	54·70	55,199	39	18,483	03
54	New Brunswick Coal and Ry. Co.	44·66	864	03	5,614	85
55	New Brunswick and Prince Edward Island	36·00	7,885	10	7,853	71
56	Nosbonsing and Nipissing	5·50	11,938	56	2,611	56
57	New Brunswick Southern (formerly Short line)	82·50	34,537	28	11,740	39
58	Nova Scotia Steel and Coal Co.'s Ry	12·50	5,046	12	7,897	52
59	Orford Mountain	31·00	7,004	84	5,745	44
60	Ottawa, Northern and Western, including Pontiac Pacific Junction Ry. and Interprovincial Bridge	137·20	107,946	21	34,475	41
61	Ottawa and New York	56·79	17,267	23	27,954	49
62	Philipsburg Ry. and Quarry Co.'s Ry	7·50	1,945	69	439	06
63	Qu'Appelle, Long Lake and Saskatchewan	253·96	180,747	43	94,994	85
64	Quebec Central	213·50	127,402	60	165,485	93
65	Quebec and Lake St. John	240·00	69,314	48	113,722	13
66	Quebec, Montmorency and Charlevoix, now Quebec Ry., Light and Power Co	30·00	5,642	14	10,718	46
67	Quebec Southern comprising United Counties, East Richelieu Valley and South Shore Rys	143·50	43,536	26	69,676	43
68	Red Mountain	9·53	10,762	66	18,102	16
69	Rutland and Noyan	3·39				
70	Salisbury and Harvey	45·00	11,401	14	7,760	85
71	Stanstead, Shefford and Chambly	43·00	15,448	60	31,978	17
72	St. Clair Tunnel, yard and approaches	2·25	13,288	24	87,035	51
73	St. Lawrence and Adirondack	32·82	27,643	83	31,372	65
74	St. Mary's River	30·00	5,461	66	2,594	84
75	Sydney and Louisbourg (Dominion Coal Co.)	48·96	45,737	48	126,604	78
76	Témiscouata	113·00	47,701	42	32,899	07
77	Tilsonburg, Lake Erie and Pacific	35·33	3,601	70	8,435	95
78	Thousand Islands	6·33	3,762	67	8,632	65
79	Toronto, Hamilton and Buffalo	87·78	62,310	72	93,642	91
80	Vancouver, Victoria and Eastern Ry. and Navigation Co.	15·90	3,946	87	4,523	47
81	Victoria and Sidney, B.C.	16·26	10,593	77	9,805	67
82	Victoria Terminal Ry. and Ferry Co.	18·40	191	23	1,591	60
83	York and Carleton	5·75	500	00	1,521	00
		18,987·98	15,502,711	07	22,816,599	77

## SESSIONAL PAPER No. 20

Expenses for the Year ended June 30, 1903—*Concluded.*

Working and Repairs of Cars.	General Operating Expenses.	Total.	Cost of operating per train mile.	Number.	Remarks.
\$ cts.	\$ cts.	\$ cts.	Cents.		
.....	1,112 10	6,272 99	146 00	44	
505 92	4,809 46	14,872 03	73 81	45	
1,478 47	8,081 57	19,035 59	171	46	
8,406 77	31,777 99	130,620 82	82 00	47	
2,225 46	14,452 84	43,099 37	52 00	48	
25,372 41	130,938 34	444,870 14	112 92	49	
9,814 66	19,769 08	71,436 50	88 00	50	
28,656 06	47,419 05	152,249 57	94 00	51	
1,111 31	15,508 70	45,692 75	178 00	52	
4,700 65	23,282 00	101,665 07	215 00	53	
115 54	2,326 34	8,920 76	350 20	54	
1,300 06	5,170 50	22,209 37	55 38	55	
2,684 64	20,072 90	37,307 66	347 59	56	
1,738 45	16,547 19	64,563 31	112 45	57	
210 00	4,157 67	17,311 31	115 00	58	
341 49	4,146 10	17,237 87	50 00	59	
8,886 68	38,285 55	189,593 85	128 00	60	
4,173 17	44,093 41	93,398 33	83 00	61	
.....	982 93	3,367 68	202 00	62	
11,886 38	49,060 73	336,639 39	152 00	63	
30,878 13	164,472 27	488,238 93	78 00	64	
18,853 85	108,690 78	310,581 24	90 00	65	
2,473 59	10,150 74	28,984 93	84 40	66	
7,713 67	64,904 66	185,831 02	791 00	67	
1,688 25	31,639 34	62,252 41	370 00	68	
.....	.....	.....	.....	69	
1,500 86	4,570 56	25,233 41	89 00	70	
5,853 52	16,813 28	69,193 57	94 00	71	
828 26	30,762 08	131,914 09	.....	72	
1,533 94	39,741 60	100,292 02	54 68	73	
384 75	3,789 85	12,231 10	68 60	74	
61,818 53	122,180 13	356,340 92	102 00	75	
9,409 75	43,002 66	133,012 90	135 00	76	
200 00	6,158 96	18,396 61	40 75	77	
652 15	10,697 93	23,145 40	63 97	78	
13,520 15	181,127 62	350,601 40	108 00	79	
642 35	5,185 68	14,298 37	101 00	80	
705 27	13,542 29	34,647 00	106 00	81	
5 78	1,391 54	3,180 15	75 00	82	
20 00	1,283 00	3,324 00	475 00	83	
6,016,229 61	23,145,982 88	67,481,523 33			

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## No. 8.—SUMMARY OF ACCIDENTS for the

Number.	Name of Railway.	Mileage.	Passengers, Employees or Others.	Fell from Cars or Engines.		Jumping on or off Trains or Engines when in motion.		At work on or near Track making up Trains.	
				Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1	Algoma Central & Hudson Bay	91.75	Employees	2	2		1		
2	Bay of Quinté	72.83	Employees				1		
			Others						
3	British Yukon	90.32	Employees		1		1		
			Others						
4	Brockville Westport & Sault Ste. Marie	45.00	Employees						
5	Calgary & Edmonton	295.93	Employees						
			Others						
6	Canada Atlantic	458.60	Passengers				2		
			Employees		5		2	1	2
			Others						
7	Canada Eastern	136.06	Others						
			Passengers		1		1		
8	Canada Southern	382.19	Employees		10	1	1		2
			Others		1				
9	Canadian Northern	881.90	Employees	1	1	1	2		
			Others				1		
10	Canadian Government Railways:								
	Intercolonial	1,310.26	Passengers					4	
			Employees	7	11	1	9		4
			Others		1		5		
11	Prince Edward Island	209.00	Employees						
			Others				1		
12	Canadian Pacific	7,339.00	Passengers	6	4	2	7		
			Employees	18	50	4	21		4
			Others	1	3	3	6		
13	Central of Nova Scotia	74.00	Passengers						
14	Dominion Atlantic	220.50	Passengers				1		
			Employees						1
15	Edmonton, Yukon and Pacific	4.50	Other				1		
16	Grand Trunk	3,139.00	Passengers	2	7	1	11		
			Employees	3	60		37	2	16
			Others	3	10	2	18		
17	Great Northern of Canada	208.00	Employees						3
			Others						
18	Halifax and Yarmouth	50.20	Employees						
19	Hereford	53.30	Employees				1		
			Others						
20	Inverness Railway & Coal Co.	61.00	Employees						1
			Others						
21	Kaslo & Sloean	31.80	Passengers						
			Employees						
22	Kingston & Pembroke	112.85	Employees						
			Passengers				1		
23	Lake Erie & Detroit River	222.35	Employees		1				
			Others		1		1		
			Passengers		1				
24	Massawippi Valley	35.46	Employees						
25	Midland of Nova Scotia	57.50	Employees						
26	Montreal & Province Line	40.60	Employees						
27	Montreal & Vermont Junction	23.60	Employees	1					
			Others						
28	Montreal & Atlantic	163.70	Employees		2		1		
			Others						
29	New Westminster Southern	24.10	Others						
30	Nelson & Farr Sheppard	54.70	Employees						
			Others						
31	New Brunswick Southern	82.50	Employees						1
32	Nova Scotia Steel & Coal Co.	12.50	Passengers						





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## No. 8.—SUMMARY OF ACCIDENTS for the

Number.	Name of Railway.	Mileage.	Passengers, Employees, or Others.	Fell from Cars or Engines.		Jumping on or off Trains or Engines when in motion.		At work on or near Track making up Trains.	
				Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
33	Ottawa and New York .....	56.79	Employees.....	1	1				
34	Qu'Appelle, Long Lake & Saskatchewan....	253.96	Employees....	1	1				
35	Quebec & Lake St. John .....	240.00	{ Employees... 1	1				1	
36	Quebec Southern.....	143.50	{ Others.....						
37	Stanstead Shefford & Chambly .....	43.00	Others.....						
38	St. Clair Tunnel, Yard & Approaches.....	2.25	Employees.....						
39	St. Lawrence & Adirondack.....	32.82	{ Passengers... 1						
			{ Employees... 1						
			{ Others.....						
40	Sydney & Louisbourg .....	48.96	Employees... 1						
41	Thousand Islands.....	6.33	Others.....						
42	Victoria & Sydney, B.C.....	16.26	Employees... 1						
				48	175	16	141	5	30



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## No. 9. — STATISTICS of Lines of Railway owned by Coal and

Name of Company.	Location.	Length of Line.		Gauge.	Length of Road laid with Steel Rails.	Length of Road laid with Iron Rails.	Weight of Steel Rails per yard.
		Miles.					
Acadia Coal Co., Ltd., N.S.	Thorburn to N. Glasgow	6.00					
"	Branch, main line to Brickworks	0.50					
"	Branch, I. C. Ry. to Lourdes Junction	1.50	10.25	4 8½	6.50		56
"	Branch, Lourdes Junction to Colliery	1.50					
"	Branch, Lourdes Junction to New Glasgow	0.75					
Intercolonial Ltd., N.S.	coal Mining Co., Drummond Colliery to Granton Pier, Pictou Harbour	7.12					
"	Branch, Drummond Colliery to Drummond Sid-ing	40.50	10.00	4 8½	10.00		56
"	Branch near Granton to Abercrombie Pier, Pictou, N.S.	2.38					
Londonderry Iron Co., N.S.	Acadia Mines to Londonderry Station, I.C.R.		2.46	4 8½			
"	East Mines to East Mines Station, I.C.R.		3.83	4 8½			
"	Main ore line from scales to West Mines		3.80	3.6	10.00	4.50	Various
"	Branch, ore line from main line to Cumberland mines		1.17	3.0			
"	Branch ore chutes to Wetherby Level		0.56	3.0			
N. S. Steel & Coal Co., Ltd., N.S.	Sydney Mines to North Sydney		3.50	4 8½			
"	Branch, No. 1 Colliery to No. 3 Colliery		1.50	4 8½	5.00		80
Sydney & Louisbourg Ry	Ferrona Junct. to Sunny Brae						
"	Sydney Harbour to Louisbourg Harbour	39.15					
"	Branch, main line to Old Bridgeport Colliery	0.50					
"	Branch, main line to Reserve Colliery	2.12					
"	Branch, main line to International Colliery	0.25					
"	Branch, main line to Hub Colliery	2.00	48.96	4 8½	48.96		80
"	Branch, main line to Glace Bay Colliery	0.50					
"	Branch, main line to Caledonia Colliery	1.11					
"	Branch, main line to Gowrie Colliery	1.50					
"	Branch, Glace Bay Colliery to Shipping pier	0.50					
"	Branch, Caledonia to Shipping pier	1.33					
Wellington Colliery Co., Ltd	Wellington Extension to Fiddick's Junct	7.50					
"	Branch, Esquimaux & Nainaimo Ry., Ladysmith to wharfs	1.00	8.50	4 8½	8.50		35 & 50
"	Union Bay to Cumberland	10.75					
"	Branch, Cumberland to No. 4 slope	2.25					

## SESSIONAL PAPER No. 20

Iron Mining Companies for the year ended June 30, 1903.

Weight of Iron Rails per year <sup>1</sup> .	No. of Junctions with other Railways.	No. of Crossings of other Railways at rail level.	No. of Crossings of Highways.	No. of Overhead Bridges.	Height, clear head- way, of overhead bridges above rail level.	No. of Locomotive Engines.	No. of Wagons.	Total Mileage Worked	No. of Tons of Coal Carried.	No. of Tons of Iron Ore Carried.	No. of Tons of Iron Carried.	No. of Tons of other Freight Carried.	Total No. of Tons of Freight Carried.
Lbs.					Ft.								
40 & 56	2	...	3	1	14 10	4	17	10 25	250,760	.....	.....	1,000	251,760
.....	1	1	8	.....	.....	2	153	10 00	218,312	.....	.....	.....	218,312
Vari's	1	.....	1	.....	.....	4	12	14 47	750	2,200	300	3,250	6,500
.....	1	.....	.....	.....	.....	5	175	5 00	222,927	.....	.....	60,488	283,410
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
56	1	2	30	2	18 0	21	1430	48 96	3,456,178	3,000	6,700	517,882	3,983,760
.....	1	.....	4	1	16 9	6	190	8 50	293,218	.....	.....	1,730	294,948



## SESSIONAL PAPER No. 20

Iron Mining Companies for the year ended June 30, 1903—*Concluded*,

Weight of Iron Rails per yard.	No. of Junctions with other Railways.	No. of Crossings of other Railways at rail level.	No. of Crossings of Highways.	No. of Overhead Bridges.	Height, clear headway of overhead bridges above rail level.	No. of Locomotive Engines.	No. of Wagons.	Total Mileage Worked	No. of Tons of Coal Carried.	No. of Tons of Iron Ore Carried.	No. of Tons of Iron Carried.	No. of Tons of other Freight Carried.	Total No. of Tons of Freight Carried.
			3			4	125	20'00	247,060			2,827	249,887
			2	1	14'0	6	272	8'75	368,885				368,885
	7	3	51	5		52	2374	125'93	5,058,090	5,200	7,000	587,172	5,657,462

of Pictou, N.S.

+ Connecting mines with Intercolonial Ry. at Westville, N.S.

‡ Not in operation.





## SESSIONAL PAPER No. 20

## No. 11.—STATEMENT of Aid granted to Railways—Constructed and under Construction—by Governments, up to the year ended June 30, 1903.

Name of Railway.	Loan.		Total.		Bonds.		Total.		Subscription to Shares or Bonds.		Total.	
	£	cts.	£	cts.	£	cts.	£	cts.	£	cts.	£	cts.
DOMINION GOVERNMENT												
Albert (now Salsbury and Harvey).....	*	29,391 01										
Algonia Central and Hudson Bay.....												
Albert Southern.....												
Atlantic and North-west in Canada.....												
Baie des Chaleurs (now in Atlantic and Lake Superior).....												
Bellefleur and North Hastings—Grand Junction (now in Grand Trunk).....												
Beauharnois Junction.....												
Branford, Waterloo and Lake Erie (now Toronto, Hamilton and Buffalo).....												
Brookville, Westport and South Ste. Marie.....												
Bruce Mines and Algonia.....												
Buctouche and Moncton.....												
Canada Atlantic.....												
Canada Central.....												
Canada Eastern (formerly Northern and Western of New Brunswick).....												
Canadian Pacific.....												
"    Crow's Nest Pass.....												
Cap de la Madeleine.....												
Cape Breton.....												
Caracquet.....												
Central of New Brunswick.....												
Central of Nova Scotia (formerly Nova Scotia Central).....												
Central Ontario.....												
Chateaugay and Northern.....												
Coast Railway of Nova Scotia (now Halifax and Yarmouth).....												
Cobourg, Northumberland and Pacific.....												
Columbia and Kootenay.....												
Conwallis Valley (now in Dominion Atlantic).....												
Cumberland Railway and Coal Company.....												
Drummond Country (now in Intercolonial system).....												
Dominion Lumber Company (now in Herford Ry).....												
East Richelieu Valley (now part of Quebec Southern).....												
Elgin and Havelock.....												

\* Including \$14,665.45 used on iron rails. † Including \$88,612.54 rails to St. Martin and Upland Ry. ‡ Payable in half-yearly instalments of \$85,550 each for 20 years, commencing July 1, 1889, and also \$1,617,000 as bonds in addition on the portion of this railway through the state of Maine. ‡ Including \$24,481.84 rails to Chatham Branch. ‡ Including cost of railway lines built by Dominion Government, and transferred to Canadian Pacific Railway Company, \$31,112,662.15. ‡ Including \$41,952.82 iron rails. ‡ East Richelieu Valley, balance of \$6,848, has lapsed.

No. 11.—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— <i>Continued.</i>												
Eric and Huron (now in Lake Erie and Detroit River Ry.).....												
Esquimaux and Nainaimo.....												
Fredricton and St. Mary's Railway and Bridge Company.....			300,000	00								
Grand Trunk.....			15,142,633	33								
Victoria-Jubilee Bridge of Grand Trunk Ry.....							500,000	00				
Grand Trunk, Georgian Bay and Lake Erie, Owen Sound Branch.....							39,744	00				
Great Eastern (in Atlantic and Lake Superior).....							40,345	00				
Great Northern (exclusive of Ottawa Valley Section).....					A		536,188	31				
Guolph Junction.....							46,000	00				
Gulf Shore.....					A		53,639	20				
Hampton and St. Martin (formerly St. Martin and Upland).....					†		83,612	54				
Harvey Branch.....					†		5,353	57				
Hereford.....							155,200	00				
Intercolonial.....							70,861,307	15				
Interprovincial Bridge—Ottawa, now in Ottawa, Northern & Western.....							212,500	00				
International (Atlantic and North-west) C.P.R.....							156,800	00				
Inverness and Richmond, now Inverness Ry. and Coal Co.....					A		313,600	00				
Tremadale, Bancroft and Ottawa.....							144,000	00				
James Bay.....							192,000	00				
Joggins (now Canada Coals and Railway Co.).....							37,500	00				
Kent Northern.....			458,334	27								
Kingston, Napanee and Western (now in Bay of Quinte).....							227,332	80				
Kingston and Pembroke.....							48,000	00				
L'Assomption.....							11,200	00				
Lake Erie and Detroit River.....							475,851	00				
Lake Teniscamigue Colonization.....							310,335	95				
Leamington and St. Clair (now in Canada Southern).....							51,200	00				
Lindsay, Toboyagoon and Pontypool.....							128,000	00				
Leblanc and Megantic.....							96,000	00				
Lower Laurentian (now in Great Northern).....							217,600	00				
Maguetawan River.....							64,000	00				
Manitoulin and North Shore.....					A		201,800	00				
Massawippi Valley.....							5,376	00				
Middleton and Victoria Beach.....					A		131,200	00				
Midland of Nova Scotia.....					A		219,350	00				
Montfort and Gatineau Colonization (in Great Northern).....							107,440	00				
Montreal and Lake Maskinongé.....							41,280	00				

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Montreal and Champlain Junction	103,600 00
Montreal and Ottawa	192,000 00
Montreal and Province Line (formerly Montreal, Portland & Boston)	+ 58,560 00
Montreal and Western	361,270 00
Nackap and Slocan	117,760 00
New Brunswick and Prince Edward Island	113,440 00
New Glasgow Iron and Coal Co. (now Nova Scotia Steel Co.)	39,840 00
Nipissing and James Bay	64,000 00
Northern and Pacific Junction	1,320,000 00
Nova Scotia Southern	+ 310,400 00
Ontario, Belmont and Northern (leased to Central Ontario)	30,720 00
Ontario and Quebec	196,000 00
Ontario and Remy River (now in Can. Northern)	41,632,000 00
Orford Mountain	81,800 00
Ottawa, Arnprior and Parry Sound & Parry Sound Colonization (in Canada Atlantic)	
Ottawa and Gatineau (now Ottawa, Northern and Western)	A 779,712 00
Ottawa and New York	A 292,320 00
Ottawa Valley (formerly part of Great Northern) now in Atlantic and Lake Superior	A 292,381 00
Parry Sound Colonization (in Canada Atlantic)	
Pembroke Southern (in Canada Atlantic)	21,600 00
Phillipsburg Railway and Quarry Co.	152,800 00
Pontiac Pacific Junction, now in Ottawa, Northern and Western	A 64,000 00
Pontiac and Renfrew	A 23,712 00
Port Arthur, Duluth and Western (now in Canada, Northern)	A\$ 193,578 00
Prince Edward Island	13,600 00
Quebec Bridge and approaches	271,200 00
Quebec and Lake St. John	5,420,239 33
Quebec Central	1,000,000 00
Quebec, Montmorency and Charlevoix	1,006,743 50
Quebec, Montreal, Ottawa and Occidental, North Shore, Montreal to Quebec	348,312 00
"	13,600 00
"	96,000 00
"	4934,000 00
Quebec and New Brunswick	1,500,000 00
Restigouche and Western	11,440,000 00
Schomberg and Aurora	A 204,600 00
St. Louis and Richibucto	A 46,330 00
St. John Bridge and Railway Extension	22,400 00
St. Lawrence and Adirondack	433,900 00
St. Mary's River	A 149,481 60
St. Clair Tunnel	75,000 00
St. Stephen and Milltown	373,000 00
Shuswap and Okanagan	A 14,848 00
South Norfolk	163,200 00
	54,100 00

1 Balance of Subsidy has lapsed \$2,240.

2 Dominion Government pays to Quebec Government 5 per cent. interest per annum on these two amounts.

3 Balance of Subsidy has lapsed \$2,240.

4 See note on page No. 21.

5 Rails, \$58,334.27.

6 Balance \$138,272 has lapsed.

## No. 11—STATEMENT of Aid granted to Railways by Governments—Continued.

Name of Railway.	Loan.	Total.	Loans.	Total.	Subscription to Shares or Bonds.	Total.
	£	cts.	£	cts.	£	cts.
DOMINION GOVERNMENT—Continued.						
South Shore (formerly Montreal and Sorel).....			213,047 76			
Sydney and Louisbourg—Dominion Coal Company.....			87,808 00			
Teniscocata.....			645,950 00			
Thousand Islands.....			29,840 00			
Tilsburg, Lake Erie and Pacific.....			151,712 00			
Trochu Valley.....			134,016 00			
Toronto, Grey and Bruce.....			14,656 00			
United Counties (now part of Quebec Southern).....			188,816 00			
Waterloo Junction.....			32,800 00			
West Ontario Pacific.....			60,000 00			
Western Counties or Yarmouth and Annapolis (now in Dominion Atlantic)			500,000 00			
Windsor and Annapolis (now in Dominion Atlantic).....			1,193,369 00			
York and Carleton.....			18,336 00			
		15,364,258 61				167,007,313 72
ONTARIO GOVERNMENT.						
Bay of Quinté including Kingston Napanee & Western.....			150,000 00			
Bramford, Norfolk and Port Burwell, Grand Trunk.....			68,000 00			
Bruce Mines and Algoma.....			39,000 00			
Canada Atlantic.....			270,000 00			
Canada Central.....			1,479,000 00			
Canada Southern.....			147,858 65			
Central Ontario.....			189,500 00			
Colborne, Flinton and Marmora.....			18,740 00			
Credit Valley.....	26,000 00		531,000 00			
Erie and Huron (now in Lake Erie and Detroit River Ry.).....			83,000 00			
Grand Junction and Belleville and North Hastings.....			224,660 00			
Grand Trunk, Georgian Bay and Lake Erie.....			336,000 00			
Hamilton and North-western.....			565,020 00			
Trondale, Bancroft and Ottawa.....			315,000 00			
James Bay.....			730,000 00			
Kingston and Pembroke.....			456,493 00			
London, Huron and Bruce.....			178,630 00			
Lindsay, Bobcaygeon and Pontypool.....			57,000 00			
Magnetowan River.....			10,000 00			
Midland Ontario.....			168,350 00			
Montreal and Ottawa.....			100,000 00			

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Northern .....	196,188 00
North Simcoe .....	83,300 00
Ontario, Richmond and Northern (leased to Central Ontario)	19,149 39
Ontario and Rainy River (now in Canadian Northern)	1,072,800 00
Ottawa, Arnprior and Parry Sound .....	431,076 06
Ottawa and New York .....	35,000 00
Parry Sound Colonization .....	113,250 00
Pembroke Southern .....	53,500 00
Port Arthur, Duluth and Western (now in Canadian Northern)	253,571 00
Tilsonburg, Lake Erie and Pacific .....	38,564 00
Toronto and Nipissing .....	103,212 00
Lake Simcoe Junction .....	33,000 00
Toronto, Grey and Bruce .....	373,282 00
Victoria .....	312,000 00
Wellington, Grey and Bruce .....	241,276 00
Whitby, Port Perry and Lindsay .....	94,957 59
Interprovincial Bridge at Ottawa .....	50,000 00
	26,000 00
	3,682,377 69
QUEBEC GOVERNMENT.	
Baie des Chaleurs (now in Atlantic and Lake Superior) .....	1,415,000 00
Beauharnois Junction .....	179,073 00
Canada Atlantic .....	192,000 00
Great Eastern (now in Atlantic and Lake Superior)	156,000 00
Great Northern (including Lower Laurentian)	1,025,733 66
Drummond County (now in Intercolonial Ry.) .....	347,420 54
East Richelieu Valley (now part of Quebec Southern)	115,215 00
Herford (including Dominion Lime Co.'s Line)	60,500 00
International (now Atlantic and North-west C.P.R.) .....	391,122 92
Lake Champlain and St. Lawrence Junction .....	250,280 00
Lake-Toussaintine Colonization .....	350,076 82
L. Assomption .....	5,512 50
LeBlanc and Mezantide .....	126,994 00
Missisquoi Valley (now Atlantic and North-west C.P.R.) .....	228,000 00
Montfort and Gatineau Colonization (now in Great Northern)	168,335 80
Montreal and Champlain Junction .....	150,000 00
Montreal and Ottawa .....	182,210 00
Montreal, Fortland and Boston (now Montreal and Province Line)	234,122 00
Montreal and Sorel (now South Shore) .....	276,645 00
Montreal and Western .....	472,300 00
Montreal and Lake Maskinonge .....	87,750 00
Oxford Mountain .....	48,881 92
Ottawa and Gatineau (now Ottawa Northern and Western)	780,570 00
Ottawa Valley (now in Atlantic and Lake Superior)	25,390 00
Philipsburg Ry. and Quarry Co. .....	25,067 00
Pontiac Junction .....	412,102 58

\* Balance \$19,184 - has lapsed.

A See Note on page No. 21.

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## No. 11.—STATEMENT of Aid granted to Railways by Governments—Continued.

Name of Railway.	Loan.		Total.		Bonns.		Total.		Subscription to Shares or Bonds.		Total.	
	£	cts.	£	cts.	£	cts.	£	cts.	£	cts.	£	cts.
<b>QUEBEC GOVERNMENT—Continued.</b>												
Pontiac and Renfrew .....							17,433	60				
Quebec Bridge .....							250,000	00				
Quebec and Lake St. John .....							2,333,000	00				
Quebec Central .....							1,076,123	14				
Quebec, Montreal, Ottawa and Occidental, including North Shore .....			3,722,956	00			727,000	00				
Quebec, Monroreney and Charlevoix .....							306,345	50				
South-eastern (now Montreal and Atlantic) .....							444,000	00				
St. Lawrence and Adirondack .....							65,216	00				
Tennessee .....							362,250	00				
United Counties (now part of Quebec Southern) .....							210,000	00				
Waterloo and Magog (now in Atlantic and North-west—C. P. R.) .....							92,000	00				
			3,722,956	00					13,838,133	08		
<b>NEW BRUNSWICK GOVERNMENT.</b>												
Albert (now Salisbury and Harvey) .....							452,000	00				
Albert Southern .....							48,680	00				
Baieville and Moncton .....							36,000	00				
Carapict .....							180,000	00				
Central of New Brunswick .....							139,000	00				
Fredericton .....							230,000	00				
Grand Southern (now New Brunswick Southern) .....							413,000	00				
Gulf Shore .....							41,350	00				
Harvey Branch .....							9,000	00				
Kent Northern .....							135,000	00				
New Brunswick .....							76,000	00				
New Brunswick and Canada .....							575,000	00				
New Brunswick and Prince Edward Island .....							99,798	90				
Northern and Western (now Canada Eastern) .....							400,000	00				
Edgmont, Petitcodiac and Havelock (now Edgmont and Havelock) .....							107,500	00				
Quebec and New Brunswick .....							45,000	00				
Restigouche and Western .....							23,000	00				
St. Martin and Upland (now Hampton and St. Martin) .....							145,600	00				
St. John Bridge and Railway extension .....							5,184	81				
St. John and Maine .....							880,000	00			300,000	00
St. Louis and Richibucto .....							21,000	00				
St. Stephen and Milltown .....							13,920	00				

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Témiscouata.....		66,000 00			
Tobique Valley.....		70,000 00			
York and Carleton.....		13,899 00			
				4,289,439 71	300,000 00
NOVA SCOTIA GOVERNMENT.					
Cape Breton.....		45,000 00			
Coast Line (now Halifax and Yarmouth)		160,610 00			
Cornwallis Valley (now in Dominion Atlantic)		11,800 00			
Canada Coal and Railway Co., S. Line (formerly Joggins)		35,200 00			
Inverness and Richmond (now Inverness Railway and Coal Co.)		272,000 00			
Middleton and Victoria Beach.....		131,200 00			
Midland Ry. of Nova Scotia (formerly Stewiacke Valley and Lunsdowne)		185,600 00			
New Glasgow Iron, Coal and Railway Co. (now Nova Scotia Steel Co., L.)		10,000 00			
Nova Scotia Central (now Central Railway of Nova Scotia)		432,261 08			
Nova Scotia Southern.....		374,400 00			
Springhill and Parrsboro (Cumberland Railway and Coal Co., L.)		173,650 00			
Sydney and Louisbourg, Dominion Coal Co.		87,808 00			
Western Counties, Yarmouth and Annapolis (now in Dominion Atlantic)		679,197 45			
				2,661,756 53	
MANITOBA GOVERNMENT.					
Canadian Pacific.....		375,377 50			
Manitoba South-western Colonization.....	900,000 00				
			900,000 00		
BRITISH COLUMBIA GOVERNMENT.					
Canadian Pacific.....		37,500 00			
				37,500 00	
Total aid granted by Governments.....	20,613,214 61			197,891,928 23	300,000 00

NOTE.—For Statement of payments of Government Aid granted to Railways, see No. 1 Summary Statement of Capital.





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West Hawkesbury .....	Central Counties (leased to Canada Atlantic).....	15,000 00	
Vankleek Hill .....	" .....	1,200 00	
Dalkoith .....	" .....	800 00	
Rockland .....	" .....	6,000 00	
Clarence .....	" .....	1,400 00	
Town of Trenton .....	Central Ontario .....	10,000 00	24,000 00
Wellington Village .....	" .....	2,500 00	
Town of Picton .....	" .....	21,000 00	
County of Prince Edward .....	" .....	60,000 00	
County of Oxford .....	Credit Valley .....	200,000 00	93,500 00
" Wellington .....	" .....	135,000 00	
" Waterloo .....	" .....	110,000 00	
" Peel .....	" .....	75,000 00	
" Halton .....	" .....	70,000 00	
City of Toronto .....	" .....	250,000 00	
" St. Thomas .....	" .....	30,000 00	
Town of Milton .....	" .....	30,000 00	
" Brampton .....	" .....	20,000 00	
" Ingersoll .....	" .....	10,000 00	
" Orangeville .....	" .....	15,000 00	
Village of Streetsville .....	" .....	20,000 00	1,085,000 00
County of Kent .....	Erie and Huron, now in Lake Erie and Detroit .....		
City of Chatham .....	" .....	155,000 00	
Town of Sarnia .....	" .....	30,000 00	
Village of Dresden .....	" .....	16,000 00	
" .....	" .....	20,500 00	
" Blenheim .....	" .....	11,000 00	
" Wallaceburg .....	" .....	11,000 00	
Township of Sombra .....	" .....	14,000 00	
" Woodhouse .....	Grand Trunk, Georgian Bay and Lake Erie .....	15,000 00	257,500 00
Town of Sincere .....	" .....	10,000 00	
Township of South Norwielh .....	" .....	10,000 00	
" North .....	" .....	40,000 00	
Town of Woodstock .....	" .....	25,000 00	
Township of East Oxford .....	" .....	25,000 00	
" Woodstock .....	" .....	60,000 00	
Town of Woodstock .....	" .....	120,000 00	
" Stratford .....	" .....	40,000 00	
County of Perth .....	" .....	10,000 00	
Township of Mornington .....	" .....	15,000 00	
Township of Elora .....	" .....	10,000 00	
Town of Listowel .....	" .....	30,000 00	
Township of Wallace .....	" .....	30,000 00	
Town of Fablerston .....	" .....	25,000 00	
Township of Minto .....	" .....		



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Township of Innisfil.....	"	"	22,592 00	
" Woodhouse.....	"	"	20,710 00	
" Adjala.....	"	"	2,500 00	
" Essa.....	"	"	2,500 00	
" Toronto.....	"	"	10,000 00	
" Mulmur.....	"	"	5,000 00	
Village of Alliston.....	"	"	8,000 00	
Township of Nottawasaga.....	"	"	20,386 00	599,805 00
City of Ottawa.....	Interprovincial Bridge			150,000 00
Township of South Colchester.....	Laake Erie and Detroit River			
" Gosfield.....	"	"	20,000 00	
Village of Kingsville.....	"	"	15,000 00	
Township of Romney.....	"	"	10,000 00	
" East Tilbury.....	"	"	10,000 00	
" Raleigh.....	"	"	5,000 00	
Village of Blenheim.....	"	"	10,000 00	
" Ridgetown.....	"	"	5,000 00	
Township of Alborough.....	"	"	12,500 00	
" Oxford.....	"	"	7,000 00	
Village of Dutton.....	"	"	2,000 00	
"	"	"	2,500 00	
Township of East Willimbury.....	Laake Simcoe Junction (in Grand			99,000 00
" North.....	Trunk system)			
" Georgina.....	"	"	45,000 00	
" Whitechurch.....	"	"	20,000 00	
Village of Leamington.....	"	"	20,000 00	
"	Leamington and St. Clair (in Can-			100,000 00
"	ada Southern)			
Township of Menaie.....	"	"	12,000 00	
Village of Colmer.....	"	"	15,000 00	
"	"	"	6,000 00	
Town of Lindsay.....	Lindsay, Bobcaygeon and Pontypool			333,000 00
" Bobcaygeon.....	"	"	25,000 00	
Township of Verdun.....	"	"	11,000 00	
" Harvey.....	"	"	14,000 00	
" Ops.....	"	"	3,000 00	
" Cartwright.....	"	"	15,000 00	
"	"	"	5,000 00	
Township of London.....	London, Huron and Bruce (now in			73,000 00
" Stephen.....	Grand Trunk system)			
" Osborne.....	"	"	15,000 00	
" Hay.....	"	"	17,500 00	
" Goderich.....	"	"	25,000 00	
" East Wawanosh.....	"	"	15,000 00	
" Hallet.....	"	"	15,000 00	
" Tuckersmith.....	"	"	25,000 00	
" Turnberry.....	"	"	25,000 00	
" Morris.....	"	"	10,000 00	
"	"	"	5,000 00	
"	"	"	10,000 00	

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## No. 11.—STATEMENT of Aid granted to Railways by Municipalities—Continued.

Municipalities.	Name of Railway.	Loan.		Total.		Bonus.		Total.		Subscription to Shares or Bonds.		Total.	
		£	cts.	£	cts.	£	cts.	£	cts.	£	cts.	£	cts.
ONTARIO—Continued.													
Township of Stanley	London, Huron and Bruce (now in Grand Trunk system)												
Village of Clinton	"					10,000 00							
" Exeter	"					20,000 00							
Village of Kincaidine	"					10,000 00							
" Wigan	London, Huron and Bruce					9,000 00							
City of London	"					100,000 00		311,500 00					
Municipalities	London and Port Stanley (leased to Lake Erie and Detroit river Ry.)			680,311 00									
County of Elgin	"										80,000 00		
" Middlesex	"										100,000 00		
City of London	"										200,000 00		
" St. Thomas	"										34,000 00		
Township of Thorah	Midland (now in Grand Trunk system)					50,000 00							414,000 00
Town of Port Hope	"					30,000 00							
Townships of Orillia and Matchedash	"					12,500 00							
Town of Orillia	"					12,500 00							
Township of Tay	"					21,370 85							
Village of Onenuec	"					2,000 00							
Township of Mara	"					12,500 00							
Town of Peterborough	"					4,000 00							
City of Toronto	Northern (now in Grand Trunk system)					100,000 00		144,870 85			190,000 00		
County of Simcoe	"										200,000 00		
Town of Barrie	"					30,000 00							
" Orillia	"					12,500 00							
Townships of Collingwood, Euphrasia and St. Vincent	"					99,480 00							
Town of Smith's Falls	Ontario and Quebec (in Can. Pacific system)					25,000 00							390,000 00
" Merrickville	"					10,000 00							
Township of West Winchester	"					15,000 00							

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"	Thamesford	"	"	"	2,500 00				
10	Town of Port Arthur	Ontario and Rainy River			52,500 00				
11	City of Ottawa	Ottawa, Arnprior and Parry Sound (now Canada Atlantic)			50,000 00				
12	Township of Huntley	"						2,000 00	
13	" Hagaré	"						30,000 00	
14	Town of Arnprior	"							32,000 00
15	Town of Pembroke	Pembroke Southern							
16	" Port Arthur	Port Arthur, Duluth and Western (now in Canadian Northern)			25,000 00				20,000 00
	Municipality of Neeling	"			15,000 00				
	Township of Russell	"			10,000 00				
	City of Ottawa	Ottawa and New York			75,000 00				
	Township of King	Shomberg and Aurora							85,000 00
	Town of Simcoe	South Norfolk (in Grand Trunk system)							12,000 00
	Township of Charlotteville	"			5,000 00				
	" South Walsingham	"							
	City of Ottawa	St. Lawrence and Ottawa		200,000 00					65,000 00
	Town of Prescott	"		100,000 00					
	" Gananoque	Thousand Islands			300,000 00				
	Township of Bayham	Tilsenbourg, Lake Erie and Pacific							10,000 00
	" Malabathie	"			35,000 00				
	Town of Tilsenbourg	"			4,000 00				
	Village of Verona	"			3,000 00				
	Town of Ingersoll	"			10,000 00				
	City of Toronto	"			3,000 00				
	Township of Scarborough	Toronto and Nipissing (in Grand Trunk system)			20,000 00				
	" Markham	"			150,000 00				
	" Uxbridge	"			10,000 00				
	" Scott	"			30,000 00				
	" Brock	"			50,000 00				
	" Eldon	"			10,000 00				
	" Buxley	"			50,000 00				
	" Somerville	"			44,000 00				
	Townships of Lanxton, Digby and Langford	"			15,000 00				
	Town of Uxbridge	"			12,500 00				
		"			2,000 00				
									375,702 50

\* Amount returned has realized, balance has lapsed, see return of 1875.



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Everus .....	Wellington, Grey and Bruce .....	10,000 00	
Peel .....	" .....	40,000 00	
Elora .....	" .....	10,000 00	
Maryboro .....	" .....	40,000 00	
Nichol .....	" .....	10,000 00	
Wallace .....	" .....	35,000 00	
Minto .....	" .....	65,000 00	
Bruce .....	" .....	278,000 00	
Howick .....	" .....	50,000 00	
Lastowel .....	" .....	15,000 00	
Grey .....	" .....	35,000 00	
Elma .....	" .....	30,000 00	
Morris .....	" .....	30,000 00	
W. Wawanosh .....	" .....	18,000 00	
Ashfield .....	" .....	10,000 00	
Turnbury .....	" .....	28,000 00	
Kincardine .....	" .....	8,000 00	
City of London .....	West Ontario Pacific .....		682,000 00
Town of Whitley .....	Whitley, Port Perry and Lindsay (in Grand Trunk system) .....		25,000 00
Township of Whitley .....	" .....	70,000 00	
Reach .....	" .....	15,000 00	
Seaugus .....	" .....	30,000 00	
County of Victoria .....	" .....	2,000 00	
Village of Port Perry .....	" .....	85,000 00	
Manufacturing Co. ....	" .....	20,000 00	
		94 93	
	980,311 00		222,094 95
			10,102,293 80
			1,211,500 00
Caplin .....	Bac-des-Chaleurs (now in Atlantic and Lake Superior system) .....		
New Richmond .....	" .....	5,000 00	
Maria .....	" .....	6,000 00	
Carleton .....	" .....	6,000 00	
Nouvelle and Shoolbred .....	" .....	6,000 00	
New Carlisle .....	" .....	6,000 00	
Paspébiac .....	" .....	3,000 00	
Hamilton .....	" .....	2,500 00	
Parish of St. Antoine .....	Great Eastern .....	10,000 00	40,500 00
St. Denis .....	" .....	10,000 00	
Village St. Andrews .....	Ottawa Valley (in Atlantic & Lake Superior) .....		20,000 00
Farnham .....	Canadian Pacific .....		10,000 00
Town of Nicolet .....	Drummond County (now in Inter-colonial Ry.) .....		20,000 00
Municipality of St. Leonard .....	" .....	10,000 00	
		5,000 00	15,000 00

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No. 11.—STATEMENT of Aid granted to Railways by Municipalities—*Continued.*

Municipalities.	Name of Railway.	Loan.		Total.		Bonns.		Total.		Subscrip- tions to Shares or Bonds.		Total.	
		£	cts.	£	cts.	£	cts.	£	cts.	£	cts.	£	cts.
<i>QUEBEC—Continued.</i>													
Parish of St. Sophie .....	Great Northern of Canada .....							4,000 00					
Village of New Glasgow .....	" .....							2,000 00					
" " " " .....	" .....							6,000 00					
City of Joliette .....	" .....							35,000 00		47,000 00			
City of Three Rivers .....	Lower Laurentian (in Great North- ern) .....									25,000 00			
City of Quebec .....	Great Northern of Canada .....												200,000 00
County of Compton .....	International, now in Atlantic and North-west, C.P.R. .....												225,000 00
Township of Melboume and Brompton Gore .....	Missisquoi & Black Riv. Valley, now in Atlantic & North-west, C.P.R. .....										25,000 00		
Township of Ely .....	" .....										25,000 00		
Township of North Stukely .....	" .....												100,000 00
" " " " .....	" .....												
" " " " .....	" .....												
St. Pie .....	Lake Champlain and St. Lawrence-J (ceased to Montreal and Atlantic Ry.) .....							20,000 00					
L'Ange Gardien .....	" .....							10,000 00					
St. Paul .....	" .....							6,000 00					
Philipsburg .....	" .....							15,000 00					
Town of L'Assomption .....	L'Assomption .....									51,000 00			
Ascot .....	Massawippi Valley .....									4,500 00			
Hatley .....	Montreal & Champlain Junction— (Grand Trunk) .....												65,000 00
Ormstown .....	" .....							10,000 00					
St. Constant .....	" .....							1,800 00					
St. Philomene .....	" .....							2,820 00					
Laprairie .....	" .....							1,904 00					
Huntingdon .....	" .....							3,000 00					
St. Isidore .....	" .....							1,500 00					
Dewittsville .....	" .....							750 00					
Municipality of Rigaud .....	Montreal and Ottawa .....							2,000 00					21,774 00



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Parish of Rigaud.....	"		800 00			
Point Fortune.....	"		2,500 00			
Chambly Canton					5,300 00	
Fassin.....						25,000 00
County of Pontiac.....						
Village of Shawville.....			100,000 00			
			1,000 00			
City of Sherbrooke.....			50,000 00			
Parish of Dudswell.....			25,000 50			
Wendon.....			25,000 00			
Township of Garthby.....			5,000 00			
County of Quebec.....					103,000 00	
City of Quebec.....					300,000 00	
Town of Chicoutimi.....						150,000 00
City of Montreal.....						12,000 00
City of Quebec.....			1,000,000 00			
Three Rivers.....			1,000,000 00			
County of Ottawa.....			100,000 00			
St. Sauveur de Quebec.....			200,000 00			
Cote St. Louis.....			25,000 00			
Village of Ste. Therese.....			12,000 00			
Village of.....			12,000 00			
" St. Jerome.....			10,000 00			
".....			15,000 00			
Ste. Scholastique.....			10,000 00			
St. Andrews.....			25,000 00			
St. Jersusalem d'Argenteuil.....					25,000 00	
County of Bromo.....						
Township of Bromo.....				2,431,000 00		
" Sutton.....						
" Potton.....						
" Farnham.....						
Village of West Farnham.....						
" East.....						
" Waterloo.....						
" Drummondville.....						
County of Drummond.....						
Township of Wickham.....						
" St. Germain.....						
" Sorel.....						
Village of Actonvale.....						
" Roxton Falls.....						
Township of Roxton.....						
County of Montreal and Atlantic.....						
Township of Bromo.....						56,000 00
" Sutton.....						50,000 00
" Potton.....						63,000 00
" Farnham.....						25,000 00
Village of West Farnham.....						20,000 00
" East.....						5,000 00
" Waterloo.....						5,000 00
" Drummondville.....						30,000 00
County of Drummond.....						
Township of Wickham.....						15,000 00
" St. Germain.....						10,000 00
" Sorel.....						15,000 00
Village of Actonvale.....						40,000 00
" Roxton Falls.....						15,000 00
Township of Roxton.....						20,000 00
County of Montreal and Atlantic.....						
Township of Bromo.....						56,000 00
" Sutton.....						50,000 00
" Potton.....						63,000 00
" Farnham.....						25,000 00
Village of West Farnham.....						20,000 00
" East.....						5,000 00
" Waterloo.....						5,000 00
" Drummondville.....						30,000 00
County of Drummond.....						
Township of Wickham.....						15,000 00
" St. Germain.....						10,000 00
" Sorel.....						15,000 00
Village of Actonvale.....						40,000 00
" Roxton Falls.....						15,000 00
Township of Roxton.....						20,000 00



## SESSIONAL PAPER No. 20

NOVA SCOTIA.					
County of King.....	Cornwallis Valley (now in Dominion Atlantic).....			27,685 00	
County of Annapolis.....	Middleton and Victoria Beach.....			35,000 00	
Counties of Yarmouth, Digby and Annapolis.....	Western Counties Yarmouth and Annapolis (now in Dominion Atlantic).....	30,000 00		150,000 00	
Town of Truro.....	Midland of N.S.....	6,000 00		36,000 00	
County of Colchester.....	New Glasgow Iron Coal and Railway Co., (now Nova Scotia Steel Co's Ry.).....		50,000 00	4,000 00	
County of Pictou.....	Nova Scotia Southern.....		25,000 00		
" Shelburne.....	".....		5,000 00		
" Queen's.....	".....				
" Lunenburg.....	".....				
Lunenburg.....	Central Nova Scotia.....			80,000 00	
Argyle.....	Halifax & Yarmouth.....			88,874 17	
County of Inverness.....	Inverness & Richmond (now Inverness Ry. and Coal Co.).....			5,000 00	
MANITOBA.				100,000 00	
City of Winnipeg.....	Canadian Pacific.....	200,000 00		526,559 17	
County of Selkirk.....	".....	35,000 00			
Township of St. Andrews.....	".....	35,000 00			
Town of Morris.....	".....	100,000 00			
County of Westborne.....	Manitola and North-western.....		75,000 00	570,000 00	
Town of Portage la Prairie.....	".....		50,000 00		
" Minnedosa.....	".....		30,000 00		
Municipality of Sisseton.....	".....		20,000 00		
" Birdie.....	".....		40,000 00		
" Strathelair.....	".....		600 00		
Rapid City.....	Saskatchewan and Western.....			215,600 00	
BRITISH COLUMBIA.				10,000 00	
City of New Westminster.....	Canadian Pacific.....			595,600 00	
NORTH-WEST TERRITORIES.				37,500 00	
Calgary.....	Canadian Pacific.....			25,000 00	
Total aid granted by municipalities.....		3,414,311 00		12,461,526 97	2,889,500 00

NOTE. For statement of payments of Municipal Aid granted to Railways—See No. 1 Summary statement of Capital.

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No. 12.— SUMMARY STATEMENT of Aid granted to Steam Railways constructed, and under construction by, Governments and Municipalities, June 30, 1903.

	Loan.		Total.		Bonus.		Total.		Subscription to shares or Bonds.		Total.		Grand Total.		
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
<i>Governments.</i>															
Dominion.....	15,964,258	61	167,007,343	72	107,007,343	72	.....	.....	.....	.....	.....	.....	182,971,602	33	
Ontario.....	26,000	00	9,682,377	69	9,682,377	69	.....	.....	.....	.....	.....	.....	9,708,377	69	
Quebec.....	3,722,356	00	13,898,133	08	13,898,133	08	.....	.....	.....	.....	.....	.....	17,561,089	08	
New Brunswick.....	.....	.....	4,289,439	71	4,289,439	71	.....	.....	300,000	00	.....	.....	4,589,439	71	
Nova Scotia.....	.....	.....	2,661,756	53	2,661,756	53	.....	.....	.....	.....	.....	.....	2,661,756	53	
Manitoba.....	900,000	00	375,377	50	375,377	50	.....	.....	.....	.....	.....	.....	1,275,377	50	
British Columbia.....	.....	.....	37,500	00	37,500	00	.....	.....	.....	.....	.....	.....	37,500	00	
			20,613,214	61	197,891,928	23	.....	.....	.....	.....	.....	.....	300,000	00	
<i>Municipalities.</i>															
Ontario.....	980,311	00	10,102,293	80	10,102,293	80	.....	.....	.....	.....	.....	.....	12,291,104	80	
Quebec.....	2,434,000	00	873,074	00	873,074	00	.....	.....	.....	.....	.....	.....	4,875,074	00	
New Brunswick.....	.....	.....	301,500	00	301,500	00	.....	.....	.....	.....	.....	.....	301,500	00	
Nova Scotia.....	.....	.....	526,559	17	526,559	17	.....	.....	.....	.....	.....	.....	526,559	17	
Manitoba.....	.....	.....	595,000	00	595,000	00	.....	.....	.....	.....	.....	.....	595,000	00	
British Columbia.....	.....	.....	37,500	00	37,500	00	.....	.....	.....	.....	.....	.....	37,500	00	
North-west Territories.....	.....	.....	25,000	00	25,000	00	.....	.....	.....	.....	.....	.....	25,000	00	
			3,414,311	00	12,661,526	97	.....	.....	.....	.....	.....	.....	2,839,500	00	
			24,027,525	61	210,353,455	20	.....	.....	.....	.....	.....	.....	3,139,500	00	
														237,520,480	81

ELECTRIC RAILWAY STATISTICS

OF THE

DOMINION OF CANADA

FOR THE YEAR ENDED JUNE 30, 1903









## SESSIONAL PAPER No. 20

SUMMARY of Tables of Electric Railways for the years ended June 30, 1902, and  
June 30, 1903.

	Comparative Statement.	
	June 30, 1902.	June 30, 1903.
Miles of railway completed (track laid).....	558	759
" sidings .....	26	32
" iron rails in main line.....	5	7
" steel " " .....	553	752
" " " double track.....	169	185
Capital paid (including the two following items).....	41,593,064	47,274,853
Government (Dominion) bonuses paid .....	60,800	156,800
Municipal aid paid.....	173,000	173,000
Miles in operation.....	557	759
Gross earnings.....	6,486,438	7,233,677
Working expenses.....	3,802,855	4,472,858
Net earnings.....	2,683,583	2,760,819
Passengers carried.....	137,681,402	155,662,812
Freight carried (tons).....	266,182	371,286
Car mileage.....	35,833,841	38,028,529
Passengers killed .....	8	10
Number of guarded level crossings, public roads .....	9	7
" unguarded " " .....	226	307
" overhead bridges " " .....	16	16
" public roads under crossings .....	9	11
" level crossings of other railways.....	89	89
" junctions with other railways.....	37	42
" " branch lines.....	8	13
" power houses (steam power) owned.....	25	28
" " " hired.....	2	2
" " (water power) owned.....	12	11
" " " hired.....	1	4
" passenger cars (motor) owned .....	1,900	*2,027
" " " hired.....	.....	6
" " (trailers) owned .....	289	290
" " " hired.....	2	.....
" locomotives owned.....	2	1
" " hired.....	.....	.....
" baggage, mail and express cars owned .....	13	11
" cattle and box cars owned.....	6	†15
" platform cars owned .....	65	70
" tool cars owned .....	11	16
" snow ploughs owned .....	23	26
" snow sweepers owned.....	63	71

\* 3 are official cars.

† Includes 1 conductor's van.

## EXPLANATORY NOTE.

No. 25, Niagara, St. Catharines and Toronto Railway, has now been sold and changed from a steam to an electric road. The original company received municipal aid in the form of a loan amounting to \$40,000, and subscription to shares amounting to \$140,000, which amounts do not appear in the return of this year. Also, the original company received \$30,400 bonus from the Dominion Government, which is not returned by the present electric company.

## MILEAGE IN PROVINCES FOR THE YEAR ENDED JUNE 30, 1903.

	Miles.
Ontario .....	412·01
Quebec .....	242 65
New Brunswick ..	12·00
Nova Scotia ..	23·70
Manitoba .....	20·00
British Columbia ..	49·00
	<hr/>
Total .....	759·36
	<hr/>

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## ELECTRIC RAILWAYS.

Nominal Capital paid up, June 30, 1903.

	Miles constructed.	Ordinary Share Capital.		Preference Share Capital.		Bonded Debt.		Dominion Government Aid.		Provincial Government Aid.		Municipal Aid.		Capital from other Sources.		Total.	
		¢	cts.	¢	cts.	¢	cts.	¢	cts.	¢	cts.	¢	cts.	¢	cts.	¢	cts.
Ontario.....	112-01	12,745,468	39	250,000	00	7,825,905	49	60,800	00	.....	.....	173,000	00	147,078	00	21,292,251	88
Quebec.....	242-65	9,962,900	00	627,629	00	5,638,333	00	96,000	00	306,915	50	.....	.....	.....	.....	16,691,798	50
New Brunswick.....	12-00	117,500	00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,175,000	00
Nova Scotia.....	23-70	190,450	00	234,000	00	1,450,000	00	.....	.....	.....	.....	.....	.....	.....	.....	3,588,560	00
Manitoba.....	20-00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
British Columbia.....	49-00	1,271,999	00	1,265,332	00	2,079,972	00	.....	.....	.....	.....	.....	.....	.....	.....	4,617,303	00
Totals.....	759-36	27,059,867	39	2,376,952	00	17,054,210	49	156,800	00	306,915	50	173,000	00	147,078	00	47,274,823	38

Return inadequate.

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## No. 2.—SUMMARY Statement of the different descriptions

Number.	Name of Electric Railway.	LENGTH OF LINE.		NO. OF POWER HOUSES.				PASSENGER CARS.			No. of Official Cars owned.
				Steam Power		Water Power		No. of Motor Cars.		No. of Trailer Cars owned.	
		Completed.	Under Construction.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.		
1	Berlin and Bridgeport..... 2.5 Berlin and Waterloo..... 3.02)	5.52		*				7		5	
2	Brantford Street.....	7.00		1				12			
3	British Columbia.....	46.00		2		1		55			
4	Cape Breton.....	11.80		2				9			
5	Cornwall Street.....	6.00		1		1		8			
6	Galt, Preston and Hespeler.....	9.00		1				2		3	
7	Grand Valley.....	6.00	20.00	*				4			
8	Guelph.....	5.50		1				5		3	
9	Halifax Tramway.....	9.90		1				30		6	
10	Hamilton and Dundas.....	7.25			*			4			
11	Hamilton, Grimsby and Beamsville.....	23.00		1				9			
12	Hamilton Radial.....	12.00		1				12		1	
13	Hamilton Street.....	22.00			*			81			
14	Hull.....	13.63		1				17		4	
15	International Transit Co.....	3.30					1	5		3	
16	Kingston, Portsmouth and Cataraqui.....	7.70			1			22			
17	Levis Comty.....	10.25					1	10			
18	London Street.....	30.00		1				36		10	1
19	Metropolitan (Toronto).....	28.00		2				15		5	
20	Montreal Park and Island.....	37.99				2		41			
21	Montreal Street.....	117.46				1		719			1
22	Montreal Terminal.....	14.10		1				27			
23	Nelson Tramway, B.C.....	3.00			*			2			
24	Niagara Falls Park and River.....	13.68		1		1		25		16	
25	Niagara, St. Catharines and Toronto.....	19.94		2				13			
26	Oshawa.....	8.02		1				2	6	1	
27	Ottawa.....	23.85				1		100		2	
28	Port Arthur Street.....	7.60		1		1		6		1	
29	Port Dalhousie, St. Catharines and Thorold.....	6.82				1		6		2	
30	Quebec Railway, Light and Power Co. (Citadel Division).....	17.22				1		63			
31	Quebec Railway, Light and Power Co. (Montmorency Division).....	25.00					1	6		4	
32	Sandwich, Windsor and Amherstburg.....	23.15		1				25		4	
33	Sherbrooke Street.....	7.00				1		10			
34	Saint John, N.B.....	12.00		1				25			
35	Sarnia.....	4.50					1	4		2	
36	South-western Traction Co.....	6.00									
37	Toronto Suburban.....	8.50		1				6			
38	Toronto and Mimico.....	5.87			*1			11			
39	Toronto Street.....	96.74		1				503		201	1
40	Toronto and Scarborough.....	5.07			*			4			
41	Wesley Park and Clifton.....	4.50						6			
42	Wimping Street.....	20.00		1				60		16	
43	Woodstock, Thames Valley and Ingersoll.....	11.50		1				7			
44	Yarmouth.....	2.00		1				4		1	
		759.36	26.00	28	2	11	4	2,024	6	290	3

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of Rolling Stock, for the Year ended June 30, 1903.

No. of Electric Locomotives owned.	No. of Baggage, Mail and Express Cars owned.	No. of Cattle and Box Freight Cars owned.	No. of Platform Cars owned.	No. of Conductors' Vans owned.	No. of Tool Cars owned.	No. of Snow Ploughs owned.	No. of Snow Sweepers owned.	Number.	Remarks.
				1	1			1	(*Power furnished by the Berlin Light Commissioners. Berlin and Bridgeport leased to Berlin and Waterloo Ry.
		4	2		2		1	12	
						1	1	3	
1			2					4	
		2	1			1	1	5	
							1	6	
								7	*Power hired from Brantford Street Ry.
							3	8	
			1					9	
		4	4			1		10	*Power furnished by the Cataract Power Co.
			1				1	11	
							2	12	
1						2	1	13	*Power furnished by the Cataract Power Co.
							1	14	
	1						1	15	
		1					2	16	
1			1					17	
						1	1	18	
	2		5			1	1	19	
		1	11		2	1	2	20	
			16		3	2	20	21	
			2			2		22	
								23	*One sub-station.
1		2						24	
	1	1	15			1	1	25	
			1		2		1	26	
	3				*1		7	27	*Salt car.
					2			28	
								29	
					1	2	6	30	
								31	
	1		3		1	2		32	
						1		33	
						3	2	34	
	1							35	
							1	36	
								37	
							2	38	*Rented (from return of 1901).
		1	2			2	13	39	
								40	
								41	*Power furnished by Niagara, St. Catharines and Toronto Ry.
			1				2	42	
								43	
					1	1		44	
1	11	14	70	1	16	26	71		

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No. 3.—SUMMARY STATEMENT of Characteristics of Electric

Number.	Name of Electric Railway.	Length of Line.				Length of Siding.	Weight per Yard.		Number of Ties to Mile.
		Completed. (Rails laid).	Under construction.	Iron Rails.	Steel Rails.		Iron Rails.	Steel Rails.	
1	Berlin and Bridgeport. Berlin and Waterloo	2.5 3.02		2.50	3.02		60	60	2640
2	Brantford Street.	7.00			7.00			40 & 56	2400
3	British Columbia	46.00			46.00			26, 40, 56, 70, 72 & 110	2640
4	Cape Breton.	11.80			11.80	36			60 2640
5	Cornwall Street.	6.00			6.00	50			56
6	Galt, Preston and Hespeler.	9.00		4.50	4.50	56			54 2112
7	Grand Valley	6.00	20.00		6.00				52 2400
8	Guelph Radial.	5.50			5.50	33		56 & 60	3168
9	Halifax Tramway	9.90			9.90	55			80
10	Hamilton and Dundas	7.25			7.25				60 2600
11	Hamilton, Grimsby and Beamsville.	23.00			23.00			50 & 65	2347
12	Hamilton Radial	12.00			12.00	50			65 2640
13	Hamilton Street.	22.00			22.00				60 2640
14	Hull	13.63			13.63	2.00			56 2640
15	International Transit Co	3.30			3.30	26			80 2640
16	Kingston, Portsmouth and Cataraqui.	7.70			7.70			56 & 60	2600
17	Levis County.	10.25			10.25	63			60 2640
18	London Street	30.00			30.00			56, 65 & 73	2640
19	Metropolitan.	28.00			28.00	2.00			56 2640
20	Montreal Park and Island	37.99			37.99	2.05			56 2640
21	Montreal Street	117.46			117.46	9.12		56 to 96	2640 880
22	Montreal Terminal	14.10			14.10			56 & 65	2610
23	Nelson Tramway, B.C.	3.00			3.00			60 & 45	2600
24	Niagara Falls, Park and River	13.68			13.68	89			56 2640
25	Niagara, St. Catharines and Toronto	19.94			19.94	2.15			56 2640
26	Oshawa.	8.02			8.02				64 2640
27	Ottawa	23.85			23.85			40 to 72	657 2104 2630
28	Port Arthur Street	7.60			7.60	13			42 2640
29	Port Dalhousie, St. Catharines and Thorold Street	6.82			6.82				50
30	Quebec Railway, Light and Power Co. (Citadel Division).	17.22			17.22				56 & 72 2640
31	Quebec Railway, Light and Power Co. (Montmorency Division).	25.00			25.00	4.50			56-70 2640
32	Sandwich, Windsor and Amherstburg	23.15			23.15			60 & 85	1800
33	Sherbrooke Street	7.00			7.00				60 2000
34	St. John, N.B.	12.00			12.00				74 2464
35	Sumia	4.50			4.50			45, 56 & 66	2112
36	St. Thomas.								
37	South-western Traction Co.		6.00						
38	Toronto Suburban	8.50			8.50			56 & 72	
39	Toronto and Mimico.	5.87			5.87	38			56
40	Toronto Street	96.74			96.74	5.75			
41	Toronto and Scarboro	5.07			5.07	09			56
42	Wesley Park and Clifton	4.50			4.50				60 2600
43	Wimpey Street	20.00			20.00			56 & 70	2000
44	Woodstock, Thames Valley and Ingersoll	11.50			11.50			56 & 65	2112
45	Yarmouth.	2.00			2.00				45 2112
		759.36	26.00	7.00	752.36	32.17			

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Railways, &c., for the Year ended June 30, 1903.

Nature of Rail Fastening.	No. of Level crossings		No. of overhead Bridges.	Height of overhead bridges above rail level.	Pub. Rd's. under crossings Level crossings of other Railways.	No. of Junctions with other Railways.	No. of Junctions with Branch Lines.	Radius of sharpest curve.	No. of feet per mile of heaviest gradient.	Gauge of Railway.	Number.	Remarks.	
	Guarded.	Not Guarded.											
Fish plates.				Ft.				Ft.					
"		6			1	1		30	253	4' 8 $\frac{1}{2}$ "	2	1 From 1901 returns.	
Fish plates and angle bars.					1	5	1	27	630	4' 8 $\frac{1}{2}$ "	3	7.50 miles double track.	
Not given.						3		58	348	4' 7 $\frac{1}{2}$ "	4		
Fish plates and bolts.						1	1	50	100	4' 8 $\frac{1}{2}$ "	5		
Straight ties.		3				1	1	72	264	4' 8 $\frac{1}{2}$ "	6		
Atlas joints.		6						75	264	4' 8 $\frac{1}{2}$ "	7		
Fish plates.		3			1	1		64	396	4' 8 $\frac{1}{2}$ "	8		
"								30	581	4' 8 $\frac{1}{2}$ "	9	1.58 miles double track.	
Angle bars.			1	14 $\frac{1}{2}$		2	2	38	158	4' 8 $\frac{1}{2}$ "	10		
Fish plates and angle bars.		35			2	1		127	211	4' 8 $\frac{1}{2}$ "	11		
Angle bars.	2	2	2	16		5	2	105	158	4' 8 $\frac{1}{2}$ "	12		
Fish plates.					4	1		40	370	4' 8 $\frac{1}{2}$ "	13	10.50 miles double track.	
"		7			4	2	3	193	264	4' 8 $\frac{1}{2}$ "	14	6.85 miles double track.	
Not given.						2	1		20	4' 8 $\frac{1}{2}$ "	15		
Angle fish plates.		55			1	1	3	35	1000	4' 8 $\frac{1}{2}$ "	16		
Six-bolt angle bars.						2		46	686	4' 8 $\frac{1}{2}$ "	17	Only 3 miles in operation, balance in course of completion.	
Angle bars.						4		35	484	4' 8 $\frac{1}{2}$ "	18	11.68 miles double track.	
"		40	1	22	1			38	455	4' 8 $\frac{1}{2}$ "	19		
Fish plates and angle bars.					1	5	4	50	264	4' 8 $\frac{1}{2}$ "	20	12.75 miles double track.	
Fish plates.								40	633	4' 8 $\frac{1}{2}$ "	21	45.78 miles double track.	
Steel ties.			4	29	6	1	15	6					
Angle joints.		11				5	1	6	88	26	4' 8 $\frac{1}{2}$ "	22	
Fish plates.								60	686	4' 8 $\frac{1}{2}$ "	23		
Standard angle bar plates.	1	16	2	14 & 22			2	1	115	300	4' 8 $\frac{1}{2}$ "	24	11.43 miles double track.
Continuous rail joints.		35	3	22	6	2	2	50	182	4' 8 $\frac{1}{2}$ "	25		
Angle iron.		28				1	1	80	211	4' 8 $\frac{1}{2}$ "	26		
Fish plates and angle bars.			1	17		5	2	35	422	4' 8 $\frac{1}{2}$ "	27	18.28 miles double track.	
Fish plates.						1		30	2	4' 8 $\frac{1}{2}$ "	28		
Continuous rail joints.		25	2	25		1	2	50	180	4' 8 $\frac{1}{2}$ "	29		
Plain and angle fish plates.	2					2		35	75	4' 8 $\frac{1}{2}$ "	30		
Plain and angle fish plates.		10				1	2	1433	42	4' 8 $\frac{1}{2}$ "	31	6 miles double track.	
Fish plates.						1		45	10	4' 8 $\frac{1}{2}$ "	32	0.50 miles double track.	
"						2		60	739	4' 8 $\frac{1}{2}$ "	33		
Heavy angle bars and bolts.						1		40	475	4' 8 $\frac{1}{2}$ "	34		
Fish plates.		1								4' 8 $\frac{1}{2}$ "	35		
"											36	No return received.	
"											37		
"						2	1	35	412	4' 10 $\frac{1}{2}$ "	38		
"								65	264	4' 10 $\frac{1}{2}$ "	39		
"						2	2	40	264	4' 10 $\frac{1}{2}$ "	40	46.87 miles double track.	
"							1	65	211	4' 10 $\frac{1}{2}$ "	41		
Continuous rail joints.	1	19			1	2		50	150	4' 8 $\frac{1}{2}$ "	42		
Angle bars.					5			35	1	4' 8 $\frac{1}{2}$ "	43	5.00 miles double track.	
Fish plates.		5						50	290	4' 8 $\frac{1}{2}$ "	44		
Angle irons and fish plates.	1									4' 8 $\frac{1}{2}$ "	45		
	7	307	16		11	89	42	13				184.68 miles double track.	

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## No. 4.—SUMMARY STATEMENT of the Operations of the

Number.	Name of Electric Railway.	Mileage.	TRAIN MILEAGE.			Locomotive Mileage.
			Passenger Cars.	Freight Cars.	Total Car Mileage.	
	Berlin and Bridgeport .....	2.50				
1	Berlin and Waterloo.....	3.02				
2	Brantford Street.....	7.09	66,476		66,456	
3	British Columbia.....	46.00	1,659,163	45,639	1,704,802	
4	Cape Breton.....	11.80	115,597		115,597	
5	Cornwall Street.....	6.00	181,414	11,683	193,097	
6	Galt, Preston and Hespeler.....	9.00	72,310	12,350	84,660	
7	Grand Valley.....	6.09	13,209		13,209	
8	Guelph.....	5.50	196,200	550	196,750	
9	Halifax Tramway.....	9.90	687,819		687,819	
10	Hamilton and Dundas.....	7.25	71,638		71,638	
11	Hamilton, Grimsby and Beamsville.....	23.00	248,746		248,746	
12	Hamilton Radial.....	12.00	199,534		199,534	
13	Hamilton Street.....	22.00	1,190,180		1,190,180	
14	Hull.....	13.63	388,654	15,163	403,817	15,163
15	International Transit.....	3.30	12,200		12,200	
16	Kingston, Portsmouth and Cataraqui.....	7.70	96,011		96,011	
17	Levis County.....	10.25	68,335		68,335	
18	London Street.....	30.00	1,252,162		1,252,162	
19	Metropolitan (Toronto).....	28.00	250,000	40,000	290,000	
20	Montreal Park and Island.....	37.99	720,015	8,808	728,823	
21	Montreal Street.....	117.46	11,232,924		11,232,924	
22	Montreal Terminal.....	14.10	215,764		215,764	20,124
23	Nelson Tramway, B.C.....	3.00	27,905		27,905	
24	Niagara Falls Park and River.....	13.68	368,449	7,640	376,089	
25	Niagara, St. Catharines and Toronto.....	19.94	219,462	288,000	507,462	
26	Ottawa.....	23.85	2,290,065		2,290,065	
27	Oshawa.....	8.02	40,299	21,323	61,622	
28	Port Arthur Street.....	7.60	108,030		108,030	
29	Port Dalhousie, St. Catharines and Thorold St.....	6.82	94,298		94,298	
30	Quebec Ry., Light and Power Co. (Citadel Div.).....	17.22	1,179,031		1,179,031	
31	" " " (Montmorency Div.).....	25.00	176,977		176,977	
32	Sandwich, Windsor and Amberburg.....	23.15	447,468		447,468	
33	Sherbrooke Street.....	7.00				
34	St. John, N.B.....	12.00	521,824		521,824	
35	Sarnia Street.....	4.50	82,632		82,632	
36	St. Thomas Street.....					
37	Toronto Suburban.....	8.50	157,438		157,438	
38	Toronto and Mimico.....	5.87	167,269		167,269	
39	Toronto Street.....	96.74	11,040,257		11,040,257	
40	Toronto and Scarboro.....	5.07	172,428		172,428	
41	Wesley Park and Clifton.....	4.50	139,020		139,020	
42	Winnipeg Street.....	20.00	1,196,503		1,196,503	
43	Woodstock, Thames Valley and Ingersoll.....	11.56	111,456		111,456	
44	Yarmouth.....	2.00	73,060		73,060	
		759.36	37,577,373	451,156	38,028,529	35,287



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Year and Mileage, for the Year ended June 30, 1903.

Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs., Handled.	Average Rate of Speed of Passenger Cars. Miles per Hour.	Average Rate of Speed of Freight Cars. Miles per Hour.	Number.	Remarks.
548,000		7		1	Leased to the Berlin and Waterloo.
318,430		10		2	
7,364,289	6,158	8	8	3	
626,492		5		4	
290,436	25,236	12	5	5	
289,292	31,058	10	6	6	
17,000		15		7	
380,123				8	
3,204,304		6		9	
290,904	1,230	14		10	
345,639	6,380	15	15	11	
581,583	2,400	25		12	
4,353,637		12		13	
705,476	54,452	23		14	
		7		15	Return incomplete. No. of passengers carried not given.
708,824		9	5	16	
197,700		8		17	
4,059,424		8		18	
521,083	800	20	15	19	
1,515,451	11,438	15	10	20	
53,077,467		8		21	
431,953	35,316	20	12	22	
69,893		10		23	
346,560	38,200	9	7	24	
602,035	92,248	25	15	25	
7,649,850		8		26	
133,853	66,370			27	
509,195		15		28	
252,079		8		29	
4,424,127		8		30	
666,460		21		31	
1,720,377				32	
550,000		15		33	Records do not show number of miles run.
2,341,167		7		34	
465,175		8		35	
				36	No return received.
416,854		9		37	
498,507				38	
48,619,704				39	
425,194				40	
349,672		8		41	
5,341,542		10		42	
272,214		15		43	
180,647		9		44	
155,662,812	371,286				

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## No. 5.—SUMMARY STATEMENT of Description of Freight

Number.	NAME OF ELECTRIC RAILWAY.	Mileage.	Flour.		Grain.		Live Stock.	
			Barrels.	Tons.	Bushels.	Tons.	No.	Tons
	Berlin and Bridgeport.....	2.50						
1	Berlin and Waterloo.....	3.02						
2	Brantford Street.....	7.00						
3	British Columbia.....	46.00						
4	Cape Breton.....	11.80						
5	Cornwall Street.....	6.00			36,060	1,080		
6	Galt, Preston and Hespeler.....	9.00	24,600	2,460	119,880	3,596	179	80
7	Grand Valley.....	6.00						
8	Guelph.....	5.50						
9	Halifax Tramway.....	9.90						
10	Hamilton and Dundas.....	7.25						
11	Hamilton, Grimsby and Beamsville.....	23.00						
12	Hamilton Radial.....	12.00						
13	Hamilton Street.....	22.00						
14	Hull.....	13.63	13,983	1,442	8,338	258	1,075	35
15	International Transit.....	3.30						
16	Kingston, Portsmouth and Cataraqui.....	7.70						
17	Levis County.....	10.25						
18	London Street.....	30.00						
19	Metropolitan (Toronto).....	28.00						
20	Montreal Park and Island.....	37.99						
21	Montreal Street.....	117.46						
22	Montreal Terminal.....	14.10	8,670	867		655	60	50
23	Nelson Tramway, B.C.....	3.00						
24	Niagara Falls Park and River.....	13.68						
25	Niagara, St. Catharines and Toronto.....	19.94	22,450	2,245	45,971	783	20	10
26	Ottawa.....	23.85						
27	Oshawa.....	8.02	3,590	359	97,491	2,681	25	10
28	Port Arthur Street.....	7.60						
29	Port Dalhousie, St. Catharines and Thorold Street.....	6.82						
30	Quebec Railway, Light and Power Co. (Citadel Division).....	17.22						
31	Quebec Railway, Light and Power Co. (Montmorency Division).....	25.00						
32	Sandwich, Windsor and Amherstburg.....	23.15						
33	Sherbrooke Street.....	7.00						
34	St. John, N.B.....	12.00						
35	Sarnia Street.....	4.50						
36	St. Thomas Street.....							
37	Toronto Suburban.....	8.59						
38	Toronto and Mimico.....	5.87						
39	Toronto Street.....	96.74						
40	Toronto and Scarborough.....	5.07						
41	Wesley Park and Clifton.....	4.50						
42	Winnipeg Street.....	20.00						
43	Woodstock, Thames Valley and Ingersoll.....	11.50						
44	Yarmouth.....	2.00						
		759.36	73,293	7,373	307,680	9,053	1,359	503

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Carried, for the Year ended June 30, 1903.

Lumber of all kinds except Firewood.		Firewood.		Manufactured Goods.	All other Articles.	Total Weight Carried.	Number.	Remarks.
Feet.	Tons.	Cords.	Tons.	Tons.	Tons.	Tons.		
.....							1	
.....							2	
.....				6,158		6,158	3	
.....							4	
.....	3,408	960	1,920	6,240	12,588	25,236	5	
442,980	1,019	224	392	8,404	15,197	31,058	6	
.....							7	
.....							8	
.....							9	
.....					1,230	1,230	10	
.....					6,380	6,380	11	
.....					2,400	2,400	12	
.....							13	
27,627,511	38,941	375	537	155	12,766	54,452	14	
.....							15	
.....							16	Return incomplete. No description of freight carried.
.....							17	
.....							18	
.....					800	800	19	
.....					11,438	11,438	20	
.....	899			14,060	18,785	35,316	21	
.....							22	
.....							23	
.....					*38,200	38,200	24	*Stone and building material.
159,850	4,060	562	1,075	14,555	69,520	92,248	25	
.....							26	
5,367,619	5,580	1,633	2,449	13,623	41,668	66,370	27	
.....							28	
.....							29	
.....							30	
.....							31	
.....							32	
.....							33	
.....							34	
.....							35	
.....							36	No return received.
.....							37	
.....							38	
.....							39	
.....							40	
.....							41	
.....							42	
.....							43	
.....							44	
33,597,960	58,907	3,754	6,373	63,195	230,882	371,286		

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## No. 6.—SUMMARY STATEMENT of Earnings

Number.	Name of Electric Railway.	Mileage.	Passenger Traffic.		Freight Traffic.		Mails and Express Freight.	
			§	cts.	§	cts.	§	cts.
	Berlin and Bridgeport.....	2.50						
1	Berlin and Waterloo.....	3.02	5.52	23,210 16				608 92
2	Brantford Street.....		7.00	11,355 13				
3	British Columbia.....		46.00	373,099 01	18,471 62			480 00
4	Cape Breton.....		11.80	24,409 15				
5	Cornwall Street.....		6.00	13,204 13	5,961 03			250 00
6	Galt, Preston and Hespeler.....		9.00	18,019 11	11,225 18			
7	Grand Valley.....		6.00	3,399 60	6 40			
8	Guelph.....		5.50	16,104 55	954 19			
9	Halifax Tramway.....		9.90	143,746 31				
10	Hamilton and Dundas.....		7.25	24,718 68	1,652 38			75 33
11	Hamilton, Grimsby and Beamsville.....		23.00	44,612 98	11,266 68			5,180 13
12	Hamilton Radial.....		12.00	43,648 22	3,069 50			
13	Hamilton Street.....		22.00	180,578 73				
14	Hull.....		13.63	47,265 90	7,789 99			600 00
15	International Transit.....		3.30	24,319 97	1,541 53			
16	Kingston, Portsmouth and Cataraqui.....		7.70	27,686 15	625 09			
17	Levis County.....		10.25	9,688 10				
18	London Street.....		30.00	155,694 60				640 00
19	Metropolitan (Toronto).....		28.00	66,056 97	6,176 85			2,000 00
20	Montreal Park and Island.....		37.99	136,367 85	2,350 77			
21	Montreal Street.....		117.46	2,125,480 32				
22	Montreal Terminal.....		14.10	43,888 63	9,273 90			500 00
23	Nelson Tramway, B. C.....		3.00	4,334 60				
24	Niagara Falls, Park and River.....		13.68	75,425 35	8,790 50			
25	Niagara, St. Catharines and Toronto.....		19.94	63,321 00	31,392 22			659 93
26	Ottawa.....		23.85	328,100 22				4,000 00
27	Oshawa.....		8.02	7,783 12	40,337 65			2,183 89
28	Port Arthur Street.....		7.60	23,817 63				
29	Port Dalhousie, St. Catharines and Thorold Street.....		6.82	18,799 55				
30	Quebec Railway, Light and Power Co. (Citadel Division).....		17.22	186,905 69				750 00
31	Quebec Railway, Light and Power Co. (Montmorency Division).....		25.00	82,371 39				562 53
32	Sandwich, Windsor and Amherstburg.....		23.15	71,205 29				513 05
33	Sherbrooke Street.....		7.00	25,000 00				
34	Saint John, N. B.....		12.00	102,154 35				
35	Sarnia Street.....		4.50	18,698 30	3,303 03			688 00
36	St. Thomas Street.....							
37	Toronto Suburban.....		8.50	17,248 22				
38	Toronto and Mimico.....		5.87	26,478 06				
39	Toronto Street.....		96.74	1,987,258 94				
40	Toronto and Scarboro'.....		5.07	17,007 21				
41	Wesley Park and Clifton.....		4.50	18,967 31				
42	Winnipeg Street.....		20.00	230,341 56				
43	Woodstock, Thames Valley and Ingersoll.....		11.50	19,381 65				584 28
44	Yarmouth.....		2.00	7,225 86				
			759.36	6,888,469 55	164,188 51			20,276 06

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Other Sources.	Total Gross Earnings.	Total Net Earnings.	Proportion of Earnings to Working Expenses.	Earnings per Car Mile.	Number.	Remarks.
£ cts.	£ cts.	£ cts.	p. c.	Cts.		
329 45	24,148 53	4,921 28	126	25 60	1	
3,011 96	14,367 09	1,733 07	113	22 02	2	
1,250 00	393,390 63	120,808 24	140	15 98	3	
6,740 80	31,149 95	5,463 18	121	22 00	4	
750 22	20,165 38	301 97	99	104 00	5	
828 35	30,102 64	3,713 66	122	35 50	6	
.....	3,406 00	2,201 06	237	2 60	7	
.....	17,058 74	173 82	10	8 58	8	
578 05	144,324 36	41,781 91	104	26 98	9	
6,661 89	33,108 28	14,825 53	13	46 21	10	
1,471 85	62,531 64	31,363 02	200	255 00	11	
1,461 26	48,178 98	24,387 85	20	24 14	12	
3,059 09	183,637 82	65,676 94	15	15 43	13	
18,293 48	73,949 37	14,869 88	125	18 30	14	
.....	25,861 50	1,921 59	108	212 00	15	
9,910 35	37,321 59	9,071 95	132	38 77	16	
.....	9,688 10	174 27	98	14 20	17	From Dec. 6 to June 30, on 3 miles
8,874 65	165,209 25	63,892 43	163	13 11	18	
569 27	74,803 09	29,428 70	165	26 00	19	
1,622 90	140,341 52	7,515 11	106	18 94	20	
37,489 35	2,162,969 67	881,034 07	169	19 25	21	
2,900 86	56,563 39	29,804 26	211	23 96	22	
.....	4,334 60	13,565 37	30	15 60	23	
17,132 25	101,348 19	47,507 03	188	32 00	24	
1,313 53	96,686 68	25,917 32	136	19 00	25	
.....	332,100 22	139,822 28	107	14 50	26	
1,619 57	51,924 23	16,655 67	145	84 20	27	
230 71	24,048 34	7,554 95	145	22 30	28	
.....	18,799 55	7,836 70	172	19 00	29	
.....	187,655 69	58,133 93	144	159 00	30	
864 86	83,798 78	33,514 04	167	47 73	31	
11,975 65	83,693 99	31,237 57	159	187 00	32	
.....	25,000 00	9,325 00	.....	.....	33	Return incomplete.
.....	102,154 35	36,160 34	135	95 80	34	
3,750 47	26,439 82	6,827 83	135	32 00	35	
.....	.....	.....	.....	.....	36	No returns received.
.....	17,248 22	558 56	103	109 00	37	
.....	26,478 06	10,201 16	162	158 00	38	
12,808 40	2,000,067 34	868,090 57	175	181 00	39	
.....	17,007 21	5,036 05	142	98 00	40	
.....	18,967 31	8,772 25	186	13 00	41	
1,170 39	231,511 95	108,210 15	187	194 00	42	
2,330 25	22,296 18	6,440 09	140	20 00	43	
2,703 35	9,929 21	3,474 73	75	15 50	44	
160,803 23	7,233,677 35	2,760,819 12	.....	.....	.....	

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## No. 7.—SUMMARY STATEMENT of Operating

Number.	Name of Electric Railway.	Mileage	Maintenance of Line	Working and Repairs of	Working and Repairs of
			Buildings, &c.	Engines.	Cars.
			\$ cts.	\$ cts.	\$ cts.
1	Berlin and Bridgeport..... 2.50	5.52	1,084 56		1,763 54
2	Brantford Street..... 3.02	7.00		4,742 10	
3	British Columbia.....	46.00	23,001 39		32,029 92
4	Cape Breton.....	11.80	1,407 02	5,737 39	3,915 90
5	Cornwall Street.....	6.00	1,894 75	2,936 08	3,866 86
6	Galt, Preston and Hespeler.....	9.00	4,777 25	11,639 15	
7	Grand Valley.....	6.00		766 00	
8	Guelph.....	5.50	3,706 51	4,041 66	8,852 22
9	Halifax Tramway.....	9.90	8,193 46	45,251 31	4,000 56
10	Hamilton and Dundas.....	7.25	6,091 68	2,134 20	1,201 68
11	Hamilton, Grimsby and Beamsville.....	23.00	6,815 77	7,462 00	3,660 60
12	Hamilton Radial.....	12.00	1,935 09	8,005 82	1,745 77
13	Hamilton Street.....	22.00	9,601 64	31,946 01	9,059 17
14	Hull.....	13.63	11,997 83	5,171 19	5,903 51
15	International Transit Co.....	3.30	280 14		123 96
16	Kingston, Portsmouth and Cataraqui.....	7.70	744 17	5,703 82	1,750 00
17	Levis County.....	10.25	2,048 55	2,693 91	394 70
18	London Street.....	30.00	5,050 98	23,763 02	4,805 25
19	Metropolitan (Toronto).....	28.00	8,126 92		34,279 74
20	Montreal Park and Island.....	37.99	22,293 65	36,483 95	23,433 63
21	Montreal Street.....	117.46	167,481 91	217,902 09	180,510 83
22	Montreal Terminal.....	14.00	1,069 63	8,362 42	1,158 07
23	Nelson Tramway, B.C.....	3.00	229 22	4,177 84	1,893 90
24	Niagara Falls Park and River.....	13.68	7,870 64	6,285 76	3,128 49
25	Niagara, St. Catharines and Toronto.....	19.94	7,985 83	5,751 18	3,148 52
26	Ottawa.....	23.85	28,771 79	7,350 18	28,133 30
27	Oshawa.....	8.02	8,476 38	8,033 90	2,154 20
28	Port Arthur Street.....	7.60	4,070 06	2,398 23	3,206 78
29	Port Dalhousie, St. Catharines and Thorold Street.....	6.82	1,554 46	681 02	338 36
30	Quebec Railway, Light and Power Co. (Citadel Division).....	17.22	21,316 29	9,296 31	
31	Quebec Railway, Light and Power Co. (Montmorency Division).....	25.00	13,652 06	5,260 16	4,188 18
32	Sandwich, Windsor and Amherstburg.....	23.15	4,590 80	20,458 34	2,281 24
33	Sherbrooke Street.....	7.00	12,125 00		850 00
34	St. John, N.B.....	12.00	7,510 49	5,740 54	42,108 54
35	Sarnia Street.....	4.50	771 45		393 81
36	St. Thomas Street.....				
37	Toronto Suburban.....	8.50	1,545 26	3,713 44	2,217 92
38	Toronto and Mimico.....	5.87	4,310 23	2,069 95	1,030 06
39	Toronto Street.....	96.74	57,773 50	221,719 50	170,654 99
40	Toronto and Scarborough.....	5.07	324 81	2,128 69	286 59
41	Wesley Park and Clifton.....	4.50	1,691 57	542 21	289 43
42	Winnipeg Street.....	20.00	7,605 96	33,326 71	15,905 37
43	Woodstock, Thames Valley and Ingersoll.....	11.50	655 07	5,310 40	852 87
44	Yarmouth.....	2.00	803 00	8,215 03	1,015 50
			759 36	777,201 51	606,602 26

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Expenses for the Year ended June 30, 1903.

General Operating Expenses.	Total.	Cost of Operating per Train Mile.	Number.	Remarks.
₹ cts.	₹ cts.	Cts.		
16,379 15	19,227 25	20 40	1	Leased to Berlin and Waterl
7,891 92	12,634 92	19 00	2	
217,461 08	272,492 39	15 98	3	
14,626 46	25,686 77	22 00	4	
11,769 66	20,467 35	10 60	5	
9,972 58	26,388 98	31 1	6	
4,841 06	5,607 06	42 00	7	
284 53	16,884 92	8 58	8	
45,096 82	102,542 45	14 76	9	
8,855 19	18,282 75	25 52	10	
13,230 25	31,168 62	16 5	11	
12,194 45	23,791 13	11 92	12	
67,354 06	117,960 88	9 73	13	
36,006 96	59,079 49	14 63	14	
23,535 81	23,939 91	19 60	15	
20,051 65	28,249 64	29 42	16	
4,376 67	9,513 83	13 9	17	
67,697 57	101,316 82	8 09	18	
2,967 73	45,374 39	18 00	19	
50,595 18	132,826 41	18 45	20	
716,040 77	1,281,935 60	11 41	21	
16,169 01	26,759 13	11 34	22	
11,599 01	17,899 97	64 00	23	
36,556 18	53,841 07	17 00	24	
53,883 83	70,769 36	14 00	25	
128,022 67	192,277 94	8 40	26	
16,604 08	35,268 56	57 00	27	
6,818 32	16,493 39	15 3	28	
8,339 01	10,962 85	11 0	29	
98,909 16	129,521 76	10 31	30	
27,184 34	50,284 74	28 41	31	
25,126 04	52,456 42	11 72	32	
2,700 00	15,675 00	22 39	33	
10,634 44	65,994 01	12 64	34	
18,446 73	19,611 99	21 31	35	
9,213 04	16,689 66	10 60	36	No return received.
8,866 66	16,276 90	9 70	38	
681,828 78	1,131,976 77	10 20	39	
9,231 07	11,971 16	6 90	40	
7,671 85	10,195 06	7 00	41	
66,463 76	123,301 80	10 33	42	
9,037 75	15,856 09	11 48	43	
3,372 41	13,403 94	18 50	44	
2,607,817 69	4,472,858 23			

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## No. 8.—SUMMARY of Accidents for

Number.	NAME OF ELECTRIC RAILWAY.	Mileage	Passengers, Employees or Others.	Fell from Cars.		Jumping on or off Cars.		At work at or near Track making up Trains.	
				Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1	Berlin and Waterloo Berlin and Bridgeport.	5.52	Other						
2	British Columbia.	46.00	{ Passengers . . . . . Employees . . . . . Others . . . . .	1	2	1	12		1
3	Cape Breton.	11.80	Passengers.		3		2		
4	Halifax Street.	9.90	Passengers.		1		3		
5	Hamilton and Dundas.	7.25	Passengers.		1				
6	Hamilton, Grimsby and Beamsville.	23.00	Employees.						
7	Hamilton Radial.	12.00	Passengers.		1				
8	Hamilton Street.	22.00	Passengers.		26		1		
9	Hull.	13.63	Others.						
10	International Transit.	3.30	Others.						
11	London Street.	30.00	{ Passengers . . . . . Employees . . . . .		20		42		
12	Levis County.	10.25	Others.				2		
13	Metropolitan.	28.00	Others.						
14	Montreal Park and Island.	37.99	{ Passengers . . . . . Others . . . . .		1		3		
15	Montreal Street.	117.46	{ Passengers . . . . . Employees . . . . . Others . . . . .	1	2	1	186		
16	Niagara Falls Park and River.	13.68	{ Passengers . . . . . Employees . . . . . Others . . . . .				1		
17	Niagara, St. Catharines and Toronto.	19.94	Others.						
18	Ottawa.	23.85	{ Passengers . . . . . Employees . . . . . Others . . . . .		1		12		
19	Oshawa.	8.02	Employees.						
20	Quebec Railway, Light and Power Co. (Citadel Division).	17.22	Others.						
21	Quebec Railway, Light and Power Co. (Montmorency Division).	25.00	Passengers.			1			
22	Sandwich, Windsor and Amherstburg.	23.15	Employees.		3				
23	Saint John, N.B.	12.00	{ Passengers . . . . . Others . . . . .				4		
24	Toronto Street.	96.74	{ Passengers . . . . . Employees . . . . . Others . . . . .		17	1	52		2
25	Toronto and Mimico.	5.87	Passengers.		1				
26	Woodstock, Thames Valley and Ingersoll.	11.50	Passengers.						
				2	89	5	320		3





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## No. 9.—TOTAL Fatal Accidents on Electric Railways for the Year ended June 30, 1903.

	Passengers Killed.	Employees Killed.	Others Killed.	Total Killed.
Falling from cars or engines.....		2		2
Jumping on or off trains in motion .....	5			5
At work making up trains.....				
Putting heads or arms out of windows .....				
Coupling cars.....				
Collisions and derailment.....	1	2		3
Struck by engings or cars on highway crossings .....	3	1	8	12
Walking or being on track .....			13	13
Explosions.....				
Striking bridges.....				
Other causes.....	1	2	1	4
Total killed.....	10	7	22	39





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THIRTY-SIXTH ANNUAL REPORT

OF THE

DEPARTMENT OF MARINE AND FISHERIES

1903

M A R I N E

*PRINTED BY ORDER OF PARLIAMENT*



O T T A W A

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

1904



*To His Excellency the Right Honourable SIR GILBERT JOHN ELLIOT, EARL OF MINTO,  
Governor General of Canada.*

MAY IT PLEASE YOUR EXCELLENCY :

I have the honour to submit herewith, for the information of Your Excellency and the Legislature of Canada, the Thirty-Sixth Annual Report of the Department of Marine and Fisheries, Marine Branch.

I have the honour to be,  
Your Excellency's most obedient servant,

JOSEPH RAYMOND F. PRÉFONTAINE,  
*Minister of Marine and Fisheries.*

DEPARTMENT OF MARINE AND FISHERIES,  
OTTAWA, December, 1903.





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# REPORT

## OF THE

### DEPUTY MINISTER OF MARINE AND FISHERIES

To the Honourable

RAYMOND PRÉFONTAINE,  
Minister of Marine and Fisheries.

SIR,—I have the honour to report on the transactions of the Marine branch of this department for the fiscal year ended June 30 last, and to give an account of the business up to date.

In this report will be found references to the reports of the Chief Engineer on construction and maintenance of lighthouses and other aids to navigation, in the different agencies of the department compiled from agents' reports, references to the reports of J. F. Fraser, relating to gas buoys and acetylene lighting, the chairman of the Board of Steamboat Inspection, chairman of the Board of Examiners of Masters and Mates, the inspectors of Live Stock Shipments, the director of the Meteorological and Magnetic Service, the inspectors of Signal Service, the reports on Life-boat Stations and Rewards for Humane Service : also references to the report of the Court of Investigation, into the causes of wrecks and casualties in the St. Lawrence river, and a special report made by myself of a trip to Prince Edward Island, in company with you, to examine the routes and harbours used in connection with the winter service of the steamers *Minto* and *Stanley*.

A short account of the work of the Dominion steamers is given, and the expenditure in connection therewith, the buoyage of the coast, harbours, and inland waters, the purchase of oil for the use of lighthouses, the marine hospitals in the Dominion, certificates to masters and mates, and wrecks and casualties.

The reports in full of officers of the department from which the summaries have been made, consist of the Chief Engineer's report, a report on gas buoys and acetylene lighting, a report from the Engineer in charge of Aids to Navigation statements of expenditure, revenue, sick mariners dues and wharfage and also reports pertaining to wrecks and casualties, steamboat inspection, life-boats, rewards for saving life and a list of lightkeepers. The most of these reports form appendices to this report.

The amount expended on the various branches of the public service comprised in the Marine branch of this department, during the fiscal year ended June 30 last, was \$1,587,052.24, the expenditure for the previous year was \$1,431,371.76, not including expenditure for civil government. The expenditure for civil government for the fiscal year ended June 30 last, was \$73,042.53 and for contingencies \$11,400. It will thus be seen that the expenditure for the various branches of the Marine branch and for

civil government was \$1,671,494.77. The Fisheries expenditure amounted to \$527,944.62, total \$2,199,439.39.

The amount voted by parliament for the different branches of the department of Marine and Fisheries, including Fisheries and the departmental salaries was \$2,256,466.72, it will thus be seen that the expenditure for the fiscal year was \$57,027.33 less than the amount voted by parliament.

The whole number of persons in the outside service of the Marine branch, including crews of fishery and marine steamers at the date of this report is 2027.

During the past fiscal year the expenditure for maintenance of lights and coast service, amounted to \$559,382.53, for construction, \$399,187.73, total for maintenance and construction, \$958,570.26, while for the previous year the expenditure for lighthouse and coast service, including construction, was \$696,088.02, showing an increase of expenditure for the year ending June 30 last, of \$262,782.24.

The appropriation for this service was \$988,370.00, the expenditure being \$29,499.74 less than the appropriation of parliament for the fiscal year.

### LIGHTHOUSE SERVICE.

The lighthouse service of the Dominion is divided as follows :—The Ontario division, embracing all lights from Montreal westward to the North-west Territories; the Quebec division, extending below Montreal and including the river and gulf of St. Lawrence and strait of Belle Isle; the Nova Scotia division, including St. Paul's Island, Cape Breton, Sable Island and Cape Race, Newfoundland; the New Brunswick division, the Prince Edward Island division and the British Columbia division, each including lights within the provincial boundaries.

The several districts, with the exception of the district above Montreal, are in charge of agents who receive instructions from the department, and report annually in addition to communicating with the department, in connection with all matters relating to their agencies.

The total number of light stations, lightships and fog-alarm stations in the Dominion on June 30, 1903, was 754 and lights shown 963, the number of steam whistles, fog-horns, bells and guns 94, the number of lightkeepers and engineers of fog-alarms with masters of lightships was 751.

The report of the chief engineer relating to lighthouse construction, repairs, hydrographic surveys, &c., contains detailed information. The principal repairs, changes and improvements at existing stations are referred to in his report, also, new aids to navigation. The work done at fog-alarm stations in connection with steam whistles, compressed air horns and explosives, is dealt with under the proper headings. Information is also given respecting the extent of repairs and some account of the repairs in detail under the head of the station.

### CORRESPONDENCE.

About 23,766 letters and telegrams were received in the department, during the fiscal year. The correspondence was carefully examined and replied to as far as neces-

SESSIONAL PAPER No. 21

sary. About 14,755 letters were sent out during the same period. Forms, reports, circular letters, and notices inviting tenders, are not included in the number of letters addressed to this department or sent out.

These forms, &c., are numerous and require special attention as the matters to which they refer are important.

In the Records branch of the department, the letters received are carefully examined, entered in the record book, placed on file, and the copy of the reply attached, so that the letters and the answers can readily be seen, and any subject easily followed up.

### MERCHANT SHIPPING.

Reports relating to merchant shipping for the calendar year of 1903, have not been received from the registrars of shipping in various parts of the Dominion. The reports are made up to the end of the calendar year, as provided by the Canadian Shipping Act, and therefore, will not be received until some time after the month of January.

The statements showing the number of vessels in the registry books of the Dominion on December 31, 1903, will appear in Supplement No. 1 of this report. The number of new vessels built and registered will also be shown, and a comparative statement of the tonnage of new vessels built and registered, from 1874 to 1903, both inclusive.

Mr. W. L. Magee, chief clerk, attends to all matters in connection with merchant shipping.

### BUOYS AND BEACONS.

The extended coast line of Canada, numerous bays, inlets, rivers, lakes, harbours and other navigable waters require a large number of buoys. It has been found necessary to increase the number largely, during the past year. The increase in the number of buoys has caused a correspondingly larger expenditure, amounting during the last fiscal year, to a total expenditure of \$84,457.82. The cost of the service is materially increased in years when large contracts are made for steel, signal, gas and other coast buoys.

The department continues to find the use of steel buoys on the coast, more satisfactory than the large wooden can buoys formerly used. The districts now buoyed number about 340, and the buoys number about 3,600. A record of the names of the shoals, dangers, reefs and various points in channels, harbours, &c., where buoys are placed, is carefully maintained; this enables the department to immediately locate the buoys when any reference is made to them in the correspondence.

The contract system has been found to work most economically and efficiently; in the majority of instances the contracts are immediately under the supervision of departmental officers, whose duty it is to report to the department any neglect of work on the part of the contractors. There are now existing about 200 contracts, some of which will shortly expire, but new contracts will be entered into in the spring. These contracts are generally made for a period of three years. The contractors are paid semi-annually upon the certificate of the superintending officer. There are, however, some districts not under contract; the work is being attended to by the harbour masters. In these cases it has been found more advantageous to place the work immediately in the hands of these officers.

A large number of whistling, bell and other iron buoys are maintained along the coast of the several provinces, by Dominion steamers, particularly on the Nova Scotia, New Brunswick and British Columbia coasts. These buoys are called coast buoys to distinguish them from harbour buoys. The cost of this maintenance by the steamers, is not charged directly to the buoy service, but is included in the cost of maintenance of the steamers, which frequently perform the double duty of attending to lighthouses and the coast buoy service, on the same trip.

The expenditure in connection with the buoy service for the year ended June 30, 1903, was as follows:—

For the province of Quebec, including the port of Montreal	\$29,122 91
Above Montreal, including Ontario	26,713 25
Nova Scotia	11,881 51
New Brunswick	11,189 69
British Columbia	3,064 63
Prince Edward Island	2,485 83
Total	\$84,457 82

In addition to the buoys for marking dangers, 68 gas buoys are maintained showing lights; 19 in the Quebec agency, on the St. Lawrence river; 14 between Montreal and Lake St. Peter; 27 between Montreal and Kingston; 1 in Pelee Passage; 1 at the mouth of the Detroit river; 3 in Parry Sound, and 3 in Halifax harbour.

The coast buoy service maintained by Dominion steamers on the coast of Nova Scotia, consists of 23 automatic whistling buoys, 3 gas buoys, 21 bell buoys and 145 steel can and conical buoys. In the New Brunswick agency, there are maintained in the same way, 18 signal buoys, 16 steel can and conical buoys and one bell boat. The signal coast buoys of Prince Edward Island, number 3 and the steel can and conical buoys 5.

In the province of Quebec, under the Quebec agency, one whistling buoy was established at Manicougan, and one bell buoy at Matane. There are sixty nine steel can and conical buoys maintained by the Dominion steamers in this agency. The complete list of these buoys forms part of the chief engineer's report.

The steamer *Shamrock*, is constantly employed in the buoy service on the St. Lawrence river between Montreal and Quebec, and the steamer *Scout* between Montreal and Kingston; the latter steamer attends to the gas buoys above Montreal, on the St. Lawrence river. The new Dominion steamer *Druid*, performs the buoy service below Quebec, and attends to the gas buoys in the Quebec district.

The coast buoy service in British Columbia is performed by the Dominion steamer *Quadra*, and the list of buoys in the chief engineer's report shows the number of steel and other buoys. No whistling buoys have yet been established there. The service at the mouth of the Fraser river is performed by the Public Works steamer *Samson*, employed by this department.

Tenders were invited during the past year for the following steel buoys for the different agencies, viz.: 2 automatic whistling buoys, 2 Trinity bell buoys, 6 United States pattern bell buoys, 22 conical buoys and 12 can buoys for the Nova Scotia agency; 2 automatic whistling, 3 Trinity bell buoys, 5 United States pattern bell buoys, 10 conical buoys, and 4 can buoys for the New Brunswick agency; 2 conical buoys for the Prince Edward

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Island agency, and 3 swift current buoys for the St. Lawrence river. The average cost of each kind of buoy was as follows :—

Whistling .....	8815 00	each
Trinity pattern bell buoy .....	950 00	"
United States pattern bell buoy .....	571 00	"
Conical .....	212 00	"
Can .....	103 00	"

OIL FOR USE OF LIGHTHOUSES.

The contract for supplying lighthouse oil was carried out by the Imperial Oil Company of Montreal, for the season of 1903.

The specification upon which tenders were invited, required the oil to weigh at 62 Fahr., not less than 7.85, nor more than 8 lbs. per gallon, and to withstand a flash test of 115 Fahr.

The quantity of oil supplied lights above Montreal, during the season of 1903, was 21,908 gallons, imperial measure : to the lights in the Quebec district, 28,947 gallons : to the lights in the Nova Scotia district, 41,700 gallons ; to the New Brunswick district, 11,676 gallons, and to the Prince Edward Island district, 6,672 gallons.

In addition to this the department purchased from the Standard Oil Company, of New York, 9,000 gallons of American oil for the Nova Scotia district ; for the New Brunswick district, 5,000 gallons ; for the district above Montreal, 850 gallons, at 18 $\frac{3}{4}$  cents a gallon in New York. The freight was paid by the department. In addition to this, 5,810 gallons of oil was purchased for the British Columbia district, at 25 cents a gallon.

The list of prices according to contract is as follows :—

Delivered at	Per gall. in barrels.	Per gall. in case.
Sarnia .....	16 $\frac{1}{2}$	21 $\frac{1}{4}$
Port Dalhousie .....	17 $\frac{1}{4}$	22
Kingston .....	18	22 $\frac{1}{2}$
Montreal .....	18 $\frac{1}{2}$	22 $\frac{1}{2}$
Quebec .....	18 $\frac{3}{4}$	23 $\frac{1}{2}$
St. John, N.B. ....	18 $\frac{3}{4}$	23 $\frac{1}{2}$
Pictou, N.S. ....	19	23 $\frac{3}{4}$
Halifax, N.S. ....	18 $\frac{3}{4}$	23 $\frac{1}{2}$
Charlottetown, P.E.I. ....	19 $\frac{1}{2}$	24 $\frac{1}{4}$

SICK AND DISTRESSED MARINERS.

MARINE HOSPITALS.

Under the provisions of chapter 76, Revised Statutes, dues of two cents per ton register, is levied on every vessel arriving in any port in the provinces of Quebec, Nova Scotia, New Brunswick, Prince Edward Island and British Columbia, the money thus collected forming the Sick Mariners' Fund. Vessels of the burden of 100 tons and

less, pay the duty once in each calendar year, and vessels of more than 100 tons, three times in each year.

By an amendment of this Act passed at the session of parliament in 1887, 50-51 Victoria, chapter 40, it is provided that no vessel, not registered in Canada and which is employed exclusively in fishing or on a fishing voyage, shall be subject to the payment of this duty.

The receipts for the fiscal year ended June 30 last, amounted to \$64,851.55 being a decrease of \$1,002.28 as compared with the preceding year. The increase and decrease in receipts and for sick mariners' dues in the various provinces were as follows:—Nova Scotia, increase, \$1,805.80; New Brunswick, decrease, \$2,055.58; Quebec decrease, \$1,531.94; Prince Edward Island, decrease, \$4.80; British Columbia, increase, \$676.58.

The Sick Mariners Act does not apply to the province of Ontario, and consequently no dues are collected from vessels in that province, although a small expenditure is incurred on account of sick seamen. An appropriation is made by parliament to cover the expenditure at Kingston and St. Catharines, where general hospitals have been established and sick seamen were paid for at a per diem rate of 90 cents.

In the province of Quebec, the expenditure on account of sick seamen amounted to \$8,600.03, being \$672.41 more than the previous year. The total collections for the entire province amounted to \$18,231.98, being \$1,531.94 less than in the previous year.

At the port of Montreal, sick seamen are cared for at the General Hospital and at Notre Dame Hospital, under an arrangement made by the department, by which 90 cents per diem is paid for board and medical attendance of each seaman. The sick mariners' dues collected at the port of Montreal, during the fiscal year ended June 30 last, amounted to \$7,745.98.

At the port of Quebec, sick seamen are cared for at the Jeffery Hale and the Hotel Dieu hospitals, the sum of 90 cents per diem for each seaman is allowed for medical attendance and board. The sick mariners' dues collected at Quebec, amounted to \$7,773.58.

The expenditure on account of sick seamen in the province of New Brunswick for the fiscal year, amounted to \$6,619.14, being \$2,358.48 less than the preceding year, and the collection of dues to \$11,174.56, or \$2,055.58 less than the previous year. Marine hospitals have been maintained at Miramichi, Richibucto and Bathurst.

In the province of Nova Scotia, marine hospitals are maintained at the ports of Yarmouth, Pictou, Sydney, Lunenburg and Point Tupper. The total expenditure on account of sick seamen in the province of Nova Scotia for the fiscal year amounted to \$25,391.31, and the receipts to \$22,573.35.

At Halifax provision is made for the care of sick seamen at the Victoria General Hospital, under arrangements made with the managers by which the sum of 90 cents per diem is allowed for board and medical attendance.

In the province of Prince Edward Island, the sum expended on account of sick seamen, during the fiscal year, was \$1,279.91 and the receipts from sick mariners' dues \$450.04.

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Sick seamen are cared for at the Charlottetown and Prince Edward Island hospitals, under arrangements made with the managers of these institutions, at the same rate as is paid to the public hospitals in other parts of the Dominion.

In the province of British Columbia, the sum of \$6,159.58 was expended for sick and disabled seamen, while the receipts from the collection of sick mariners' dues amounted to \$12,575.22.

The marine hospital at Victoria has in attendance a medical superintendent with a salary of \$300 per annum, and a keeper whose salary is \$500 per annum. He is also allowed a rate of \$5.00 a week for board and attendance of each seaman. The keeper procures fuel, light, &c., at his own expense.

At the ports where no hospitals are established, in the provinces of Quebec, Nova Scotia, New Brunswick, British Columbia and Prince Edward Island, sick seamen are cared for under the chief officer of customs, when the vessel to which the seamen belong has paid the dues according to law. A circular to collectors of customs was issued February 7, 1891, permitting sick seamen to be attended at the port of arrival of a vessel, provided that the regular dues were previously paid at some port.

During the fiscal year the sum of \$598.67 was expended for shipwrecked and distressed seamen, under the provisions of the sick and distressed Mariners Act.

The total expenditure on account of sick and disabled seamen and marine hospitals amounted to \$48,151.48 and the appropriation of parliament for this service was \$50,000.00. The dues collected amounted to \$64,851.55.

The receipts and expenditure in connection with sick and distressed seamen from the year 1869 were as follows:—

		Receipts.	Expenditure.			Receipts.	Expenditure.
		\$ cts.	\$ cts.			\$ cts.	\$ cts.
For the fiscal year ended				For the fiscal year ended			
June 30, 1869	31,353 78	26,987 64		June 30, 1888	41,669 64	36,447 85	
" 1870	31,410 46	27,029 34		" 1889	39,306 29	41,320 59	
" 1871	29,683 41	28,971 22		" 1890	47,881 75	41,729 11	
" 1872	34,911 64	34,947 69		" 1891	43,829 68	35,155 12	
" 1873	37,136 10	41,016 43		" 1892	45,381 92	33,498 83	
" 1874	41,500 16	59,778 90		" 1893	46,190 69	35,052 37	
" 1875	37,801 46	50,684 76		" 1894	49,105 40	38,403 94	
" 1876	41,287 66	48,828 49		" 1895	42,815 74	38,332 55	
" 1877	43,739 21	51,647 94		" 1896	45,751 61	36,683 36	
" 1878	44,665 07	43,780 90		" 1897	54,358 10	35,931 19	
" 1879	37,779 57	42,729 36		" 1898	54,552 81	34,526 83	
" 1880	42,523 20	42,160 91		" 1899	57,365 79	37,353 29	
" 1881	49,779 72	40,667 52		" 1900	59,971 84	32,743 30	
" 1882	45,951 47	39,359 11		" 1901	59,783 34	34,944 93	
" 1883	45,573 42	36,249 65		" 1902	65,853 83	51,827 12	
" 1884	48,667 07	39,553 58		" 1903	64,851 55	48,151 48	
" 1885	39,068 39	44,591 57					
" 1886	40,848 05	50,377 62		Total .....	1,584,684 74	1,406,827 55	
" 1887	42,334 92	37,447 35					

## STEAMBOAT INSPECTION.

The total number of steamboats reported in the several districts in the Dominion is 1,633, of this number 120 were added to the Dominion during the year, the gross tonnage being 283,326.51. Fees were collected for inspection amounting to \$27,813.09, the fees from engineers for certificates amounted to \$935.00 and fees for inspection of tow barges to \$140.00, making the total receipts from steamboat inspection and engineers' certificates \$28,888.09. The net receipts to the credit of the fund for the previous year amounted to \$37,458.92.

The total expenditure in connection with inspection was \$30,172.09. Increase of expenditure for the last fiscal year of \$2,678.29.

The consolidated laws relating to steamboat inspection came into force on the 1st day of January, 1899.

The report of the chairman of the Board of Steamboat Inspection forms Appendix No. 12.

The following is a comparative statement of the receipts and expenditure in connection with steamboat inspection:—

Receipts.			Expenditure.			Receipts.			Expenditure.		
§ cts.			§ cts.			§ cts.			§ cts.		
For the fiscal year ended						For the fiscal year ended					
June 30, 1870	12,521	29	7,379	18	June 30, 1891	21,644	72	22,183	76		
" 1871	10,369	96	8,321	00	" 1892	20,994	84	22,736	59		
" 1872	11,710	43	8,500	00	" 1893	25,295	35	24,386	95		
" 1873	15,412	75	11,205	54	" 1894	24,835	47	25,961	36		
" 1874	15,603	19	10,291	58	" 1895	24,630	56	26,385	88		
" 1875	15,011	90	12,199	81	" 1896	24,002	32	26,321	27		
" 1876	13,811	24	13,081	86	" 1897	25,094	95	26,837	83		
" 1877	15,858	42	12,073	01	" 1898	31,525	40	26,342	29		
" 1878	12,431	25	13,228	28	" 1899	33,854	45	28,035	49		
" 1879	12,331	16	13,076	46	" 1900	36,474	83	27,965	92		
" 1880	15,424	02	11,854	34	" 1901	34,967	37	29,247	59		
" 1881	16,905	49	12,211	65	" 1902	38,458	92	27,493	80		
" 1882	15,277	78	14,835	97	" 1903	28,888	09	30,172	09		
" 1883	12,577	36	16,209	02							
" 1884	15,371	79	21,893	28							
" 1885	13,343	66	23,235	04	Deduct expenditure	666,243	37	664,033	21		
" 1886	14,087	76	21,775	57	from receipts..	664,033	21				
" 1887	12,701	20	22,837	80	Balance to credit of fund	2,219	16				
" 1888	12,550	14	21,430	45							
" 1889	12,576	18	22,313	03							
" 1890	19,859	18	20,989	52							

The Steamboat Inspection Act of 1898 was amended and fees for the inspection of Dominion steamers will not now be collected. The Governor General in Council, however, may re-impose the steamboat inspection fees when it is considered necessary to do so.

The Act as amended does not exempt foreign steamboats from the charge of inspection fees when inspected in Canada, unless the said foreign steamer belongs to a country which has reciprocal arrangements in steamboat inspection with Canada. The Governor General in Council may direct that no steamboat inspection fee or tax be levied on



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steam vessels of such country, going to and from Canada. It is further provided that any country outside of Canada having steamboat inspection laws approximating the steamboat inspection law of Canada, and the steamboats of such country have unexpired certificates of inspection issued by the proper authorities of such country, the Governor General in Council may direct that they shall be subject to no other inspection than may be necessary to satisfy the Canadian inspectors that the condition of the steamboat, her boilers, machinery and life-saving equipment, are as stated in the current certificate of inspection; but no such certificate of inspection shall be accepted as valid in Canada, except when held by steamboats of a country which has by its laws accorded to the steamboats of Canada the same privilege.

The Act as amended is entitled 'An Act to amend the Steamboat Inspection Act, 1898.' Assented to August 13, 1903.

An Act further to amend the Steamboat Inspection Act of 1898 was passed and assented to October 24, 1903: the following is a copy:—

His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

1. Subsection 1 of section 27 of *The Steamboat Inspection Act*, 1898, is hereby amended by adding, at the end thereof, the following words:—

'Provided, however, that in any case where oil is used as fuel for the production of motive power on steamboats, oil which will bear a test of two hundred degrees Fahrenheit without taking fire may be accepted if properly stored with safe and suitable provisions as to safety, and to guard against fire and explosion from such oil to the satisfaction of the steamboat inspector.'

The following lists contain the names of the inspectors of boilers and machinery, and hulls and equipments of steamboats, viz.:—

Name.	Position.	Address.
Edward Adams . . . . .	Chairman of Board of Steamboat Inspection . . . . .	Ottawa.
M. P. McElhinney . . . . .	Inspector of Hulls and Equipment . . . . .	"
L. J. Olive . . . . .	" . . . . .	St. John, N.B.
S. R. Hill . . . . .	" . . . . .	Halifax, N.S.
William Evans . . . . .	" . . . . .	Toronto, Ont.
M. R. Davis . . . . .	" . . . . .	Kingston.
Philippe Duclos . . . . .	" . . . . .	Sorel.
R. Collister . . . . .	" . . . . .	Victoria, B.C.
John Dodds . . . . .	Inspectors of Boilers and Machinery . . . . .	Toronto, Ont.
E. W. McKean . . . . .	" . . . . .	"
T. P. Thompson . . . . .	" . . . . .	Kingston, Ont.
Wm. Laurie . . . . .	" . . . . .	Montreal, P.Q.
L. Arpin . . . . .	" . . . . .	"
J. Samson . . . . .	" . . . . .	Quebec, P.Q.
J. P. Esdaile . . . . .	" . . . . .	Halifax, N.S.
J. A. Thomson . . . . .	" . . . . .	Victoria, B.C.
G. P. Phillips . . . . .	" . . . . .	Rat Poutage, Ont.
Frank M. Richardson . . . . .	" . . . . .	Vancouver.
Douglas Stevens . . . . .	Inspector of Dominion Steamers . . . . .	Halifax.

## OUTSIDE SERVICE, MARINE BRANCH.

The number of persons employed in the Outside Service on June 30, 1903, was as follows:—

Superintendent of lights and light-keepers, &c., in Ontario and above Montreal . . . . .	194
Officers of agency in the city of Quebec and light-keepers, fog-whistle-keepers, crews of light-ships, &c., at or below Montreal, in the province of Quebec . . . . .	174
Agent, clerk, messenger, superintendent of lights, light-keepers, fog-whistle-keepers, attendants at humane establishments, &c., in Nova Scotia . . . . .	246
Agent, clerk, messenger, superintendent of lights, light-keepers, fog-whistle-keepers, &c., in New Brunswick . . . . .	108
Agent, foreman of works, messenger and light-keepers, in Prince Edward Island . . . . .	50
Agent and light-keepers in British Columbia . . . . .	37
Officers and crews of Dominion steamers and vessels, including Fisheries Protection Service . . . . .	459
Coxwains of life-boats . . . . .	26
Inspectors of steamboats . . . . .	19
“ shipments of live stock . . . . .	3
Examiners of masters and mates . . . . .	15
Officers and servants in marine hospitals . . . . .	20
Shipping masters . . . . .	35
Harbour masters . . . . .	225
Officers of observatories, meteorological observers, &c., receiving pay . . . . .	170
Hydrographers and engineers at Ottawa . . . . .	10
Receivers of wrecks . . . . .	45
Wharfingers . . . . .	190
Making a total of . . . . .	2,027

For the previous year the number was 1,916. In addition to the 2,027 mentioned above, there are 76 registrars of shipping who act under the direction and control of this department, but are, at the same time, collectors of customs at various ports of registration, and receive no salary or fee in their capacity as registrars. There are 95 measurers or surveyors of shipping throughout the Dominion who act as officers of this department, and are remunerated from their fees of office, although in addition to such office, many of them hold positions in the customs service. Also, in addition to the above, by Orders of Council of April 21, and December 2, 1874, the chief officer of customs at each port in the provinces of Quebec, Nova Scotia, New Brunswick, British Columbia and Prince Edward Island, where no separate shipping office has been established, is to be held and deemed a shipping master, is to receive the fees, make the yearly returns to the department, and act in that capacity under its directions.

CERTIFICATES TO MASTERS AND MATES.

The report of Lieutenant Reginald Salmon, chairman of the board of examiners of masters and mates, forms appendix No. 7 of this report.

During the year ended June 30, 1903, 299 candidates for masters' certificates inland and coasting, and 133 candidates for mates' certificates inland and coasting, were examined; 30 applicants for masters and 9 for mates failed, 13 applicants for masters' certificates foreign sea-going, 18 for mates and 23 for second mates were examined; 4 applicants for masters, 5 for mates and 2 for second mates failed.

The total amount collected in fees from applicants for certificates, during the fiscal year ended June 30, 1903, was \$5,790.50 and the amount expended on account of the service was \$4,968.36 leaving a balance to the credit of the service of \$822.14.

The vote for this service was \$5,000, leaving an unexpended balance of \$31.64.

The following statement shows the total receipts and expenditure on account of masters and mates since 1871:—

—			—		
		Expenditure.	Receipts.		
		£	cts.	£	cts.
For the fiscal year ended June 30, 1871.		1,410	45	For the fiscal year ended June 30, 1891.	4,255 24 2,586 00
" " 1872.		4,312	07	" " 1892.	4,363 88 2,194 00
" " 1873.		6,466	18	" " 1893.	4,116 99 2,484 00
" " 1874.		4,520	19	" " 1894.	3,721 33 2,907 04
" " 1875.		5,696	62	" " 1895.	3,758 29 3,974 50
" " 1876.		4,672	08	" " 1896.	4,062 82 2,307 50
" " 1877.		4,050	00	" " 1897.	3,536 29 3,754 00
" " 1878.		4,249	76	" " 1898.	3,335 40 4,800 00
" " 1879.		4,250	12	" " 1899.	3,568 26 4,486 50
" " 1880.		4,253	43	" " 1900.	3,750 69 4,221 50
" " 1881.		3,888	41	" " 1901.	3,720 25 4,808 24
" " 1882.		3,965	19	" " 1902.	3,405 59 5,288 52
" " 1883.		4,021	20	" " 1903.	4,968 36 5,790 50
" " 1884.		3,909	59		
" " 1885.		4,324	15	Expenditure. ....	138,123 92 97,626 97
" " 1886.		5,245	28	Receipts ... ..	97,626 97
" " 1887.		4,855	98		
" " 1888.		5,060	96	Excess of expenditure over receipts.....	40,496 95
" " 1889.		4,381	04		
" " 1890.		4,117	83		

DOMINION STEAMERS.

'MINTO.'

The *Minto* is an iron steamer 225 feet long, 32.6 feet in breadth, 20.6 feet in depth, gross tonnage 1,089, net tonnage 371; indicated horse power 2,900, and nominal horse power 21. The steamer is commanded by Captain Andrew Finlayson, and has a crew of 39 in all. On July 1, 1902, the *Minto* was laying at the wharf in Charlottetown undergoing the usual cleaning and overhauling of the machinery. The steamer remained in Charlottetown preparing for the winter service until December 11, when she took up the service between Charlottetown and Pictou, and continued to

make tri-weekly trips until December 22. Hillsboro bay becoming full of ice and lolly, the captain deemed it unsafe to continue running to Charlottetown and placed the steamer upon the Georgetown-Pictou route.

On December 27, the steamer was ordered to the relief of the schooner *Evolution*, adrift in Hillsboro bay, and the crew said to be in danger of perishing. The schooner was found under sail in fairly open water just outside the port of Charlottetown, and was towed in to the wharf on December 28. The *Minto* then returned to the Georgetown-Pictou route and remained on it until January 14. On that date she left Georgetown to go to Amet island, where a flag of distress was flying from the lighthouse. Information was procured by sending a boat to the light station. It was found that medical assistance was required for the light-keeper's wife and two children, who were very sick. The *Minto* then resumed her trips and continued on the route until February 13, when the steamer was sent to the assistance of the *Stanley*, at that time ice bound.

The *Minto* had great difficulty in reaching the ice pan in which the *Stanley* was fast, and was engaged in the effort from February 13 to 25. The *Minto* was unable to reach the *Stanley* but left on the ice a quantity of coal, some provisions and a horse and sleigh, to convey the articles to the *Stanley*. On February 26, the steamer arrived at Georgetown and on the 28th left again to go to the assistance of the *Stanley*, but on March 2, the *Minto* in attempting to break into the ice pan in which the *Stanley* was fast, broke her propeller blades and became helpless. The weather moderated and the crews of both steamers were set at work to cut the *Stanley* out and succeeded in doing so on March 17.

The *Minto* was taken in tow by the *Stanley* to Pictou reaching that port on the 18th March. A contract was immediately entered into with a Halifax firm to replace the broken propeller blades, and this was successfully finished by divers on the 27th March.

The steamer then resumed her trips on the route between Pictou and Georgetown. She was placed upon the Charlottetown-Pictou route on the 31st of March and continued on it until the 11th of April.

The *Minto* was then laid up for several days and on the 27th of April she was placed upon the marine slip at Pictou, to examine and paint the bottom. When this was done the steamer returned to Charlottetown on the 21st of May, where she remained until the 12th of June. She then replaced one of the steamers of the Steam Navigation Co., while that vessel was on the marine slip at Pictou. The *Minto* continued in the mail and passenger service until the 20th of June.

During the winter of 1902 and 1903, the *Minto* made 44 round trips and her earnings were \$11,249.53.

#### 'STANLEY.'

The *Stanley* is an iron steamer commanded by Captain Angus Brown, and has a crew of 36 in all. Her dimensions are: length 207 feet, breadth 32 feet, and depth of hold 19 feet, tonnage 914 gross, and 395 registered.

On the 1st of July, 1902, this steamer was working in the lighthouse and buoy service, in the Nova Scotia agency. On the 18th October the *Stanley* returned to Charlottetown from Halifax and was inspected by the inspector of Dominion steamers. The annual

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overhaul of the machinery and hull was then begun. The work was begun on the 24th October and completed on the 11th December, on which date the steamer left for Pictou to coal and took on board 150 tons of coal, but owing to a strike in the mines she was unable to get her full quantity and was consequently delayed several days. The vessel arrived at Summerside on the 18th December and was immediately placed on the route between Summerside and Cape Tormentine, without loss of time.

From the 18th December to the 10th January, 1903, regular trips were made between Summerside and Cape Tormentine. On Monday morning of the 12th of January, the *Stanley* left Summerside at 7 a.m. but was caught in the ice off Sea Cow. The captain's daily report of the state of the weather and ice is as follows:— 'First part of this day heavy gale with snow. Wind S.E. At 3 a.m. commenced raining, at 7 a.m. ceased, strong gale and overcast. Found the ice in Summerside harbour and bay very heavy and much rafted. With difficulty the ship worked through it. At noon the ship stuck fast in heavy rafted ice. At 2:25 p.m. the ship cut loose. At 3 p.m. ice commenced running and rafting badly against ship's sides and closing the track behind.'

The 13th. 'Steamed one mile. At 6 p.m. stuck fast in heavy rafted ice and running and piling up heavy against ship's sides. At 3:50 p.m. got out of the jam; at 4:10 p.m. a heavy body of ice rushed in through the board ice taking the ship with it and piling up all around the ship in large quantities.'

On the 14th, 'Teams came out and took mails and passengers ashore.' On the 16th, 'Steamer still fast in the ice, people employed cutting the ice, finding it to be rafted to the depth of 14 feet in some places. The 17th, 'crew employed cutting and moving ice. Port side of steamer badly dinged by the crushing ice on the 13th.' On the 20th, 'Steamer still fast in the ice, crew employed cutting ice.' On the 23rd, men and horses from Summerside went to the relief of the *Stanley*. The 24th, 'During a gale and snow squalls the packed ice broke away from the board ice with the ship fast in it and commenced drifting down the Straits.'

The steamer was held in the ice drifting backwards and forwards in the Strait of Northumberland, going as far east as Merigomish at one time. On the 30th of January an officer of the department was sent off from shore with a crew and with dynamite to blast the ice. The dynamite had no further effect than merely making small holes. The sheet of ice in which the steamer was caught was about two miles long by one mile wide, and packed all around the ship and underneath her so tightly that she could not work her engines nor propeller. Attempts were made on several occasions, to break up the ice by explosives sent out by the agent of the department from shore.

The *Minto* went to the relief of the *Stanley* on the 19th February and put 45 tons of coal on the ice, which was carried by the men to the *Stanley*, she also left some provisions. The *Minto* was unable to reach the *Stanley* and went to Georgetown. Another attempt was made by the *Minto* to reach the *Stanley* but she broke her propeller blades in the heavy ice and became helpless. The whaling steamer *Newfoundland* was engaged to go to the relief of both steamers and left Port Hawkesbury, got around the Island of Cape Breton but was compelled to abandon the attempt to reach the steamers.

The Charlottetown Board of Trade and the local government, sent men to assist in cutting out the *Stanley*, but they rendered very little assistance. The *Stanley* was not very far from the edge of the ice in which she was caught when the men sent by the Board of Trade arrived. The dynamite taken by the men to blast out the *Stanley*

was of very little help. The mild weather and the efforts of the united crews of the steamers *Minto* and *Stanley* enabled the steamer with her own power to get clear of the packed ice.

The *Stanley* got clear of the ice on the 17th of March and began towing the *Minto* to Pictou.

In order that the provisions on board should be sufficient, a portion of the crew was sent ashore in January. The captain and officers and the remaining portion of the crew, were much exhausted when the *Stanley* was finally released.

On the 18th March the *Stanley* reached Georgetown and immediately took up the winter communication between that port and Pictou, continuing on the route until the 7th of April. The steamer was then ordered to Summerside to break up the ice in the bay and arrived on the 9th of April at Summerside after performing the work which she was sent to do. The vessel then proceeded to Charlottetown and was laid up for overhaul of the machinery and boilers.

The *Stanley* made 17 return trips between Summerside and Tormentine and her earnings were \$1,304.96. This steamer made 12 round trips on the Pictou-Georgetown route and her earnings were \$2,865.76. Total earnings \$4,170.72.

Captain Brown was requested to report upon the feasibility of the Summerside and Cape Tormentine route. He stated that he had an exceptional opportunity of judging of the practicability of the route, during the time the *Stanley* was drifting backwards and forwards in the ice pack, and he is of the opinion that it would have been impossible to keep up the service on that route after the 13th of January of the year 1903 even if the steamer had not been forced into the heavy body of ice which packed around her.

Tenders were invited for repairs to the hull of the *Stanley*. From long service the plates above the water line had become indented. The contract required the removal of the indentions and the placing of intermediate frames and the re-inforcing of the plates between the frames.

On the port side, 14 angle bars were fitted and 4 angle bars were placed in the engine store room, 13 angle bars were placed in the side bunker pocket in the way of boilers, and other stiffening angles were properly fitted to the plating and securely riveted.

On the starboard side 14 angle bars were placed in after cabin and in the engine room, 5 angle bars. In the after bunker the angles and stiffeners were removed and replaced. The plates were faired and the bent frames were also faired and brought back to the plating.

The old funnel was removed and a new one placed in position.

The machinery was also overhauled and properly fitted up.

The contract price for the work on the hull and new funnel was \$3,975. The overhauling of the machinery was done by days work, and the engineers of the steamer were employed as well as machinists. The cost for machinist and machine work independently of the work done by the engineers, was \$2,433.42, making a total of \$6,408.42 for repairing the machinery and hull.

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## 'LADY LAURIER.'

The *Lady Laurier* is a twin screw steel steamer, commanded by Captain P. C. Johnson and has a crew of 46 in all. Her dimensions are; 214.9 feet, breadth 34.2 feet, and depth 17.2 feet, tonnage 1,051.04 gross and 413.20 registered.

The report of 1902 contains a short report relating to the construction of the steamer *Lady Laurier*, which was built to take the place of the steamer *Newfield*, wrecked in the Nova Scotia agency. The tender price of the steamer was \$184,983 but some changes, alterations and improvements were made which increased the first cost of the steamer to the sum of \$192,465.91 including the furnishings.

A crew was selected and sent from Halifax to Glasgow to bring the steamer to Halifax. She left Greenock on the 23rd December, 1902, with fair prospects of getting clear of the Irish coast. The weather became very boisterous but the steamer continued on her way until the wind was so violent and the seas so heavy, that she was threatened with damage. The captain deemed it wise to put back for shelter and returned to Greenock on the 29th December, having been out six days.

Some damage was done to the steamer and on examination, it was found necessary to make repairs. While the repairs were being made it was determined to make some still further improvements in connection with the steamer, suggested by the chief engineer. In consequence of the alterations the steamer was detained and the cost materially increased.

When the alterations were completed the steamer sailed for Halifax and arrived on the 22nd February, in Halifax harbour.

On the 24th February, the steamer took in stores and some painting and cleaning was done, rendered necessary by the trip across the Atlantic. On the 6th March the *Lady Laurier* was sent to Sable island with supplies and on her return trip she supplied some of the stations with coal. The steamer was then moored at the wharf at Halifax and the cable gear which had been brought out from Scotland, was taken from on board and stored. On the 17th of March, the steamer entered upon the service of lifting and placing large automatic buoys and continued in that service until she was again sent to Sable island, on the 8th of May. The weather was extremely rough when the steamer arrived at Sable island and she was compelled to lay off the island until the 16th of May, when the supplies were landed.

The steamer was engaged in the lighthouse and buoy service until May 23, when she entered upon fisheries protection service, and was employed in that service until May 27, when she resumed the lighthouse service. The steamer made another trip to Sable island taking two horses which had been imported from Belgium, and landed them on the island on June 13. She continued in the lighthouse and buoy service until June 27, when she moored at the wharf at Halifax for the purpose of inspecting the engines and boilers. When this work was completed, the *Lady Laurier* again took up the lighthouse and buoy service to the westward.

This new steamer is considered a very powerful and staunch boat, but unfortunately has met with accidents which have caused considerable damage to the hull and machinery. In the first case this was due to the very severe weather met on the Atlantic ocean, and in the next case to an accident off Lockport, said to be due to a buoy being out of place.

## 'ABERDEEN.'

The *Aberdeen* is an iron screw steamer 180 feet long, 31 feet broad and 16 feet deep; her tonnage is 674 gross, and 266 net. Her captain is Sigismond Bélanger, and her crew consists of 36 all told.

On July 1, 1902, the *Aberdeen* was engaged in delivering supplies to the lighthouses in the St. Lawrence river and gulf. On the 23rd she went to Pictou to coal for her return trip to Quebec and arrived at Quebec on July 31. The boilers were cleaned and lighthouse supplies were again taken on board. The steamer left Quebec on August 15, with supplies for the lighthouses in the river St. Lawrence and straits of Belle Isle. When the work of delivering these supplies was completed, the *Aberdeen* proceeded to Pictou and was placed upon the slip for the purpose of painting and scraping the bottom of the vessel. This work was completed and the vessel coaled on September 23.

The *Aberdeen* arrived at Quebec on September 28 and the boilers were again cleaned and repaired. Lighthouse supplies were then taken on board and the vessel started on another trip for the delivery of lighthouse supplies, in the St. Lawrence river and gulf and Anticosti Island. The work of delivering supplies in the straits of Belle Isle and on the coast of Newfoundland, was completed on November 3 and the *Aberdeen* then proceeded to Sydney for coal. The Magdalen Islands were visited and supplies delivered; after which the steamer returned to the St. Lawrence river, on her way taking up the Manicougan automatic buoy. She arrived at Quebec on November 17, and on the 25th proceeded to supply some lights in the St. Lawrence river on her way to Prince Edward Island and Nova Scotia.

The bell buoy and other buoys at Cape Tormentine, N.B., were taken to Charlottetown, where the steamer arrived on December 1. The three automatic buoys on the coast of Prince Edward Island were taken up by this steamer and landed on the wharf at Charlottetown. The vessel then proceeded to Pictou to coal and enter upon the work of the Nova Scotia agency. This work consisted of taking up and replacing the coast automatic buoys and delivering supplies to the lighthouses in the Nova Scotia agency. The steamer was engaged in that agency during the winter in the usual work of lifting, painting and replacing buoys and delivering supplies to the lighthouses and fog-alarm stations. The *Aberdeen* also delivered supplies to Sable Island.

The steamer left the Nova Scotia agency on April 26, and proceeded to Charlottetown doing some buoy work on her way, and returned to the Quebec district on the 30th April.

Repairs were then made to the steamer, of various kinds. Supplies were taken on board for the lighthouses in the Quebec district and the *Aberdeen* left Quebec on the 8th of June. She was engaged in the lighthouse service of this agency until the 1st of July.

## 'LANSDOWNE.'

The *Lansdowne* is a wooden steamer, commanded by Captain George W. J. Bissett, and has a crew of 34 men in all. Her dimensions are 188 feet in length, 32 feet in breadth, and 15 feet in depth; gross tonnage 680, and registered tonnage 463.

The steamer *Lansdowne* was engaged in the lighthouse and buoy service of the New Brunswick district, from July 1 up to the 26th of that month, when she took up the



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work of the Nova Scotia agency. The vessel was engaged in the regular lighthouse and buoy service of this agency until September 19, on which date she returned to St. John. The lighthouse and buoy service of the New Brunswick agency was again taken up and the ship was engaged in this service until January 17, on which date the vessel was put out of commission and the crew paid off.

While the *Lansdowne* was out of commission she was placed on Hilyards Blocks, and butts in bottom caulked and bottom painted with copper paint. The deck was also painted, and the ship was painted inside and out.

The steamer was put in commission on May 1, and from that date up to the end of the fiscal year, she was engaged in the lighthouse and buoy service of the New Brunswick agency.

Tenders were invited for new main boilers, a donkey boiler and water tanks for this steamer. The contract was awarded to Messrs. James Fleming, who are to complete the work of making and placing the boilers and tanks in the steamer, for the sum of \$10,955.

## ‘BRANT.’

The *Brant* is a wooden steamer 100 feet long over all, 19 feet in breadth, and 8 feet deep. Her tonnage is 141 gross and 57 net. She is commanded by Captain D. Mackinnon, and has a crew of 12 all told.

The steamer *Brant* was engaged in the lighthouse service of the Prince Edward Island agency from the beginning of the fiscal year up to August 14, on which date she was hauled out on the marine slip at Pictou and a new shoe was placed on her keel, the old shoe having been destroyed by worms. When this work was completed the steamer returned to Charlottetown and entered the fisheries protection service on August 19, in which service she was engaged until the 27th of that month.

The *Brant* was then engaged in the lighthouse service and the fisheries protection up to October 28, and from that date she was employed in the lighthouse and buoy service until she was laid up.

The steamer was put in winter quarters on December 10, and the crew were paid off. While the steamer was out of commission the machinery and gear were overhauled by the engineers. A whale back cover was placed over the forward end of the *Brant* to keep the water from flooding her decks when going head-on in a seaway.

On May 15, the steamer left Charlottetown for Pictou to coal and to tow the Biological Station from Canso to Pictou. The vessel then took up the lighthouse and buoy service and was engaged in it until June 4, on which date the steamer was sent to Pictou, to have a new wooden rudder post put on and other small repairs made.

When this work was completed the steamer towed the Biological Station to Malpeque, and on the return trip called at Cascumpec, to place the conical buoy to mark the best water over the bar. The steamer then returned to Charlottetown and the crew was employed in cleaning and painting the ship until the end of the fiscal year.

## ‘DRUID.’

As reported in the annual report of last year, the *Druid* was built by Messrs. Fleming and Ferguson, of Paisley, Scotland. The tender of the builders was \$110,960,

but a change in the position of the boilers from three abreast to two abreast and one ahead, was deemed necessary for the better arrangement of space. The total cost of the steamer was, \$113,274.30. The *Druid* is a twin-screw steamer and her dimensions are as follows, viz:—length, 160 ft., breadth, 30.1., depth in hold from tonnage deck to ceiling amidships, 12.5 ft. Depth from top of deck amidships to bottom of keel, 13.38 ft. Length of engine-room, 50.8 ft. The gross tonnage is 503.26 and the registered tonnage, 148.55. Engines, triple expansion, two sets, diameter of cylinders 13 ins., 21 ins., and 34 ins., length of stroke 34 ins., steam working pressure 180 lbs. The *Druid* has a crew of 29 men all told.

The steamer was built to take the place of the old *Druid*, which was condemned. She has been employed in the Quebec agency, principally in connection with buoy service, placing and taking up automatic, gas and other buoys. She began her work on the 7th of August, 1902. The steamer delivered supplies to some of the lighthouses and was also engaged in carrying workmen and material for repairs to the Upper Traverse permanent pier. The *Druid* completed her work for the season of 1902 on the 5th of December and was put in winter quarters on the 6th. She resumed her work on the 20th of April, 1903, and was engaged in placing buoys and conveying material to light-houses during the spring. The *Druid* was also employed in carrying material and gear to the Upper Traverse pier. The vessel continued in this work until the 1st of July.

This steamer is a very fine vessel of her kind, and has been found very suitable for the work in which she is engaged. Some slight changes were made in the vessel during the season of 1903.

#### 'BAYFIELD.'

This steamer was formerly called the *Lord Stanley*, and was purchased in the fall of 1901 from Mr. George T. Davie, of Lévis, P.Q., for \$50,000.00. Her length is 140 feet, main breadth to outside of planking 24.1, depth of hold from tonnage deck to ceiling at midships, 11.35, gross tonnage 276.31, registered tonnage 85.58. This steamer was built in Scotland and is a twin-screw with triple compound direct acting vertical engines with inverted cylinders, diameters 12 $\frac{3}{4}$ , 20 and 33, length of stroke 24 inches, horse power 160.

The steamer was purchased for the hydrographic survey in Lake Superior. The old *Bayfield* was not of sufficient size and was otherwise unsuitable for survey work in Lake Superior. The *Lord Stanley* was taken from Quebec to Toronto and on her way was found to be a very powerful steamer, having had to contend with ice in the St. Lawrence river and Soulages canal.

While leaving the dock at Toronto the steamer met with a serious accident, carrying away her rudder and doing considerable damage to her stern. The repairs cost \$3,200, for which a tender had been invited.

In the early part of 1902 the steamer was chartered to the Public Works Department, and was in the employ of that department during the season of navigation.

Alterations for the hydrographic survey work were necessary, and they were made in the government shipyard at Sorel, at a cost of \$15,950.77; this includes the installation of an electric light plant and the fitting up of cabins, mess room and materials for rigging.

The *Bayfield* is a most suitable boat for the work in which she is employed and is a staunch, strong and good steamer.

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It was deemed advisable to change the name of the *Lord Stanley* to *Bayfield*, in order to retain the name in connection with the hydrographic survey steamer, and also because one of the winter service boats running between Prince Edward Island and the mainland, is named *Stanley*.

The *Bayfield* was fitted out at Montreal and left on May 26, for Lake Superior. The survey was begun about the middle of June, on the north shore, from Pigeon river eastward, including Thunder bay, and the islands off it. A traverse of this shore and the islands as far east as Thunder cape was completed and about half the area sounded. The steamer completed her work for the season and was taken to Owen Sound, in Georgian bay, to be put into winter quarters.

## ‘QUADRA.’

The *Quadra* is an iron steamer 174 feet long, 31.1 feet in breadth, and 13.6 feet in depth. Her gross tonnage is 573.30, and her registered tonnage 265.25. This steamer was commanded by Captain John T. Walbran, and has a crew of 21 all told.

On July 1, 1902, the *Quadra* was engaged in the lighthouse service between Victoria and Vancouver. The steamer continued in the lighthouse and buoy service until September 10, then some hydrographic surveys were made with Col. Anderson, chief engineer of the department, Captain Gaudin and Mr. Denison, on board. A site was also selected on this trip for Leonard island lighthouse. The steamer then resumed the lighthouse service and continued delivering supplies and taking material for different stations up to October 8, when the Hon. Mr. Blair, Minister of Railways and Canals, was taken on board, and visited several points in British Columbia waters. On October 10, the steamer again entered upon the lighthouse service and was engaged in it until October 29, when the crew was engaged in building a beacon at Kynumpt. On the 30th the steamer entered the fisheries protection service and on October 31, resumed the building of a beacon.

On November 1, the *Quadra* again took up the lighthouse service and continued in it until December 2, when she was engaged in a special service of conveying Mr. Keefer, resident engineer of the Public Works Department and Messrs. Meyer and Johnson to Port Hardy, to examine the site for a proposed wharf and to take the necessary soundings. The *Quadra* returned to Victoria, having completed the special service on December 10. The lighthouse and buoy service was then resumed and the steamer continued in that service until January 3. The special service was then performed, of conveying the returning officers in connection with the election in Burrard electoral district, going as far north as Port Simpson, and this service was completed on January 17. The steamer then resumed her work of visiting lighthouses, with the agent of the department on board. On January 22, the steamer took on board returning officer Mowatt and other government officers employed in connection with the election, the steamer going again as far as Port Simpson.

This special service was completed on February 16, and the steamer was put in winter quarters for the usual annual overhauling of the machinery, painting of frames and inside, generally. The work was performed by the crew and on March 16, the steamer was again put in commission in the lighthouse service. On March 30, the *Quadra* conveyed the labour commissioners to investigate the labour trouble in British Columbia. Professor Klotz, astronomer of the Canadian Government, was taken to

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Bamfield on March 30. On April 4, the steamer resumed the lighthouse service and continued in it until she was put in the graving dock on May 9. The bottom of the steamer was examined and beyond a small amount of slime it was found to be in perfect condition, the composition used having formed an enamel which preserved the plating. On May 16, she left the dock, and on the 18th the steamer was employed in special service, conveying Judge Hunter and party to hold an investigation into the labour troubles, and the steamer was engaged in this work until June 2, the lighthouse and buoy service was then taken up and the steamer was employed in it until July 1.

‘SCOUT.’

The steamer *Scout* was transferred from the Department of Railways and Canals to this department, and was used one season in connection with the buoy service, between Montreal and Kingston. This steamer was not considered of sufficient length nor power, for the work for which she is required.

Tenders were invited for lengthening the steamer 25 feet, and building a stem of a different model from the bow which the steamer had when handed over. Tenders were received for lengthening the hull, and a contract was entered into with the Davis Dry Dock Company of Kingston, for the sum of \$6,000.00. Steel side arches were placed in the steamer and a fore-castle mess-room. Improvements were also made to the cabin.

Two new fore and aft compound engines were placed in the steamer, at a cost of \$3,300 in cash and the delivery of the old engines to the contractors as part payment.

The steamer has an electric lighting plant and a search light, which was put in at a cost of \$1,600.

The steamer began her work on April 20, 1903 and continued in the service of attending to the gas buoys and charging them, until the close of the season of navigation. The *Scout* has been found to be suitable for the service since the above alterations were made.

The dimensions of the *Scout* are now as follows:—Length 103.6, breadth 25.6, depth 9.2, gross tonnage 175.65 and registered tonnage 69.85.

‘RESERVE.’

The *Reserve* is a small steamer 48.74 gross tonnage and 35.71 registered tonnage. She has a high pressure engine. Diameter of cylinder 13 inches, length of stroke 14 inches and is 30 horse power. Her length is 61.08 feet, breadth 15.03, draught 5½ feet. This steamer was formerly called the *Alaska* but her name has been changed to the *Reserve*. This steamer is used for sweeping the river reaches between Montreal and Kingston, and is also used for towing a scow employed for the placing of buoys in position. The *Reserve* was purchased for the sum of \$3,000.00 and is in good condition and suitable for the class of work for which she has been purchased.

It was found necessary to employ a steamer of light draught to sweep the channels.

‘OLD BAYFIELD.’

The *Old Bayfield*, which had been employed in surveying Georgian Bay, Lake Huron, Lake Ontario and Lake Erie, was no longer suitable for the work and the

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department accepted an offer of \$3,250 for the steamer. Before selling her an inspection was made of the machinery and hull, and it was found that a large amount of money would have to be expended to make her suitable for the department's service. In addition to this the steamer was entirely too small for Lake Superior.

The *Old Bayfield* was built in 1863 and purchased by the department in 1884.

## 'MAISONNEUVE.'

The *Maisonneuve*, formerly named the *Gladys*, is a screw boat 75·7 feet in length, 9·7 feet main breadth, and 7·3 feet depth of hold. The engines are compound, diameter of cylinders 7½ and 14 inches, length of stroke 14 inches and horse power 9. The tonnage of this steamer is 26·01 gross and 17·69 registered.

The steamer was purchased with all equipment, boats, outfit, apparel and machinery complete for the sum of \$8,500. The *Maisonneuve* is employed in patrolling the channel between Quebec and Montreal, for the purpose of ascertaining if the buoys are in position and notifying the officers and crew of the *Shamrock*, respecting any displacement of the buoys or changes necessary. The *Shamrock* is equipped with all the machinery necessary for lifting and placing buoys and is constantly engaged in this work.

## 'VIATOR.'

The *Viator* is a gasoline launch 41 feet 6 inches in length, beam 5 feet, draught under wheel 2 feet eight inches, her engine is a two cylinder gasoline engine and the launch has a speed of 16 miles per hour.

This launch was provided for patrol service on the St. Lawrence river, between Montreal and Kingston. The purchase of this boat was considered necessary to patrol the buoy service so that the *Scout*, which is engaged in the heavier class of work of placing, replacing and taking up buoys, might be enabled to carry on her own work without interruption. The price paid was \$2,150.

The *Viator* can be used when required for fishery protection service on the upper lakes, and probably will be occasionally.

## 'SHAMROCK.'

The *Shamrock* is a steam barge 117 feet long, 25 feet in breadth and 9 feet 7 inches in depth. Her gross tonnage is 237 and her net tonnage 161. The *Shamrock* has a crew of 12 all told including Mr. U. P. Boucher, buoy engineer, who is in charge of the steamer and directs her movements.

This steamer is employed in the buoy service between Montreal and Quebec on the St. Lawrence river; her captain is S. Savaugeau.

The *Shamrock* while in winter quarters at Sorel was overhauled and the necessary repairs made to her for the spring work. The steamer began the service on the St. Lawrence river by placing the buoys between Montreal and Sorel. The work was continued throughout the season. In addition to the buoy service material was carried for building lighthouses.

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In September the steamer was put in a dry-dock for repairs to her screw and her stern was sheeted at the water line, as was done with the bow in 1901.

The *Shamrock* continued in her work until the 2nd December when she was taken to winter quarters.

STATEMENT showing cost of maintaining Dominion Steamers, Marine Branch, from 1884 to 1903.

Year.	Cost of Maintenance.	Year.	Cost of Maintenance.
	\$ cts.		\$ cts.
1883-84.....	122,816 25	1893-94.....	142,487 42
1884-85.....	148,864 26	1894-95.....	129,899 80
1885-86.....	130,759 83	1895-96.....	150,519 41
1886-87.....	141,424 42	1896-97.....	136,940 11
1887-88.....	150,659 19	1897-98.....	117,644 39
1888-89.....	126,629 33	1898-99.....	145,270 75
1889-90.....	114,959 20	1899-1900.....	180,975 45
1890-91.....	111,437 03	1900-1901.....	195,484 75
1891-92.....	127,406 28	1901-1902.....	241,060 98
1892-93.....	146,521 77	1902-1903.....	279,348 06

#### WINTER STEAMERS AND ROUTES.

In the season of 1902, it was determined by the Minister of Marine and Fisheries, to continue the experiment of keeping up winter communication between Summerside, P.E.I., and Cape Tormentine, N.B. The *Stanley* was placed upon the route on the 18th December and continued making return trips until the 10th January, 1903. The steamer left Summerside wharf on the 12th January and with great difficulty got outside the harbour. Several hours were occupied in making six miles progress. Large quantities of ice came down the Gulf of St. Lawrence, the steamer was forced into the board ice off Sea Cow head and was unable to make further way.

Efforts were made to release her from the ice bound condition, but they were ineffectual. The ice had packed around and under the steamer, making it impossible to use her propeller. On the 14th January, a large portion of the shore ice broke off and carried the steamer out into the strait. By the influence of the wind and tide, the *Stanley* was driven backwards and forwards until the 17th March, and was only saved from going ashore by the heavy ice which had packed around her.

The captain had very favourable opportunities for observing the ice and weather conditions, in the vicinity of Cape Tormentine and Summerside harbour, and in fact in all parts of the strait as far east as Merigomish.

Several ineffectual attempts were made to release the *Stanley* by dynamite sent from the shore.

The *Minto*, on the 12th February, was enabled to land coal and supplies within a mile of the *Stanley*, and these were taken on board. On the 28th February, the *Minto* made another effort to reach the *Stanley*, but in doing so, her propeller blades were stripped and she became helpless.

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On the 18th March, the *Stanley* through the efforts of both crews of the steamers, assisted by mild weather, was released from her ice bound position and towed the *Minto* into Pictou harbour, where the *Minto's* propeller blades were renewed.

The promise had been made in parliament, by yourself, to visit Prince Edward Island and go over the routes taken by the steamers in keeping up communication. In accompanying you from Ottawa on the 28th November, I was enabled to go from Pictou on board the *Minto* to Charlottetown, Summerside and Cape Tormentine, visiting also Georgetown.

The report made to you, is herewith subjoined, respecting the trip of inspection.

Honourable RAYMOND PREFONTAINE,  
Minister of Marine and Fisheries,  
Ottawa.

SIR,—Having had the advantage of accompanying you in the steamer *Minto*, on your trip of inspection of the water routes between the mainland and Prince Edward Island, I have the honour to report that I carefully observed the geographical situation of the several harbours on both sides, of the strait of Northumberland, between which the *Minto* and *Stanley* have been plying in the winter seasons.

I have also had the advantage of joining in the discussions, and hearing the representations based on resolutions passed at the meetings of the Boards of Trade at Pictou, Charlottetown, Georgetown and Summerside, called for the purpose of meeting you and where the views of the representative public and business men, were expressed upon the subject of the several routes advocated.

In addition to the favourable opportunities thus offered I met the agent and other officers of the Marine and Fisheries department, and captains Finlayson and Brown, and procured from them their opinions upon the most advantageous and practicable routes, to decide upon for the coming winter.

They had no hesitation in saying that it is only possible to keep up communication between Summerside and Cape Tormentine, in exceptionally mild winters, but during ordinary winters, the route for either the *Stanley* or *Minto* is impracticable. The dangers which the steamers are exposed to from limited sea-room, when the ice accumulates in large bodies, are great, moreover, the harbour of Summerside is difficult of access when the ice is made, owing to a rather narrow channel which steamers of the draught of the *Stanley* must make, or ground.

The pier at Cape Tormentine, is exposed at the outer end, and only under favourable ice conditions can a steamer land and unload or load cargo.

At the meetings of the Boards of Trade of Pictou and Charlottetown, and associations of King's County, the resolutions were strongly in favour of placing the steamers on the most convenient and advantageous routes for the Island as a whole, but none of the resolutions were in favour of the Summerside-Cape Tormentine route, with the exception of the one passed by the Summerside Board of Trade.

From the many opportunities of gaining information afforded by coming in contact with the business men engaged in shipping produce and other materials, and importers of goods on Prince Edward Island, I could not fail to see that the preponderance of opinion was against experimenting with the Summerside-Cape Tormentine route, with the present facilities for keeping up regular winter service.

The experience of last winter leaves no room for discussion, about the disastrous effects upon trade and passenger traffic, caused by the unfortunate interruption of the communication between Summerside and Cape Tormentine, and, due to the sudden appearance of immense bodies of floating ice in the vicinity of Summerside, and in the Northumberland strait.

From a careful study of the events connected with last winter's effort to keep up communication between Summerside and the mainland, I am satisfied that the difficulties were insurmountable, and that Captain Brown was not responsible for the ice-bound

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condition in which the *Stanley* was placed, but showed diligence and caution in the discharge of his duties, and suffered much hardship from his ceaseless efforts to free the *Stanley* during the two months the vessel was drifting back and forth in the strait.

Respectfully submitted,

F. GOURDEAU.

#### ICE BOAT SERVICE BETWEEN CAPES TRAVERSE AND TORMENTINE.

The crews of the ice boats were engaged in the early part of February, and made their first crossing on the 5th of February. Four boats left Cape Traverse and four boats left Cape Tormentine and continued on the route up to the 24th of March, when the mails were transferred to the Georgetown route.

Eight boats, with six men to each boat, were constantly kept crossing on the ice in the straits, four leaving one side in the morning and four leaving the other side, generally meeting about mid-straits.

The quantity of mail matter allowed to each boat was 500 lbs., but that weight was not carried at each crossing unless the mails were exceedingly heavy. The outgoing mails from Prince Edward Island rarely exceeded 1,200 lbs. per trip of the boats.

The gross earnings of all the boats amounted to \$615.25, and the expenditure was \$6,211.28. This included the cost of conveying the mails and ice boats from the point where they landed on the shore ice, to the boat houses.

Passengers carried during the two months.....	246
Pounds of mail carried .....	103,950
Pounds of baggage carried.....	775

#### LIFE BOAT STATIONS.

There are 28 life-saving stations in the Dominion of Canada. Most of these have crews that drill twice or three times a month, in the majority of cases twice a month. The men are paid \$2 for each drill and, an extra sum is paid when any service is rendered to shipwrecked mariners.

At Long Point, Lake Erie, the men are permanently stationed during the months of September, October and November, at the life-saving station, which is well equipped for their accommodation and for the accommodation of those who may be rescued. The men receive \$40 per month during the three months, and are paid for weekly drills during the other months of the season of navigation.

CONSECON.—The crew at Consecon were notified that a steam barge near Presqu'Île was in distress. The life boat was taken 12 miles by teams and launched, but owing to darkness, the barge could not be found. Nothing further was heard as to the cause of the barge being in distress. The coxswain and life-boat crew were paid for extra service.

PORT STANLEY.—A new surf boat with oars was supplied this station. Instructions were given to level up the life-boat house which had settled in the centre. The rescue of the crew of the *Mineral State*, by the crew of the Port Stanley life-saving station, was referred to in last year's report. The American government, bestowed testimonials duly



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inscribed, a gold watch and chain to the coxswain of the life-boat and to each of the crew, a gold medal. The captain of the tug *Gordon Brown*, which assisted the life-boat crew, was awarded a gold watch and chain. These rewards were presented to the men by Mrs. Wilson wife of Dr. Wilson of St. Thomas. The presentation was prefaced by some remarks by Col. Burke, United States Consul.

KINCARDINE, Ont.—A life-saving station was established at Kincardine, Ont., during the season of 1903. The site selected for the station is on the corner of the dock on the opposite side of the small stream which flows past the lighthouse. Tenders were invited for the construction of a boat-house and the tender of Mr. John Watson for \$458 was accepted and a contract entered into and completed. Thomas McGaw is coxswain of the crew and there are six men with him, making a total of seven. A life-boat was built at Collingwood and sent to Kincardine.

YARMOUTH, N.S.—The schooner *M. J. Solay* was stranded on Cape Fourchu on November 31, 1902. The coxwain and crew of the Yarmouth life boat went to the assistance of the crew of the schooner and were allowed one drill for the service.

HERRING COVE, N.S.—The station has been much improved and protected by the breakwater, recently completed to seaward of the boat house, and the renewal of the launching ways. A new Beebe-McLellan self-righting boat is in course of construction, by Mr. John Morrison, of Shelburne, and will be sent to Herring Cove when completed.

DUNCAN'S COVE, N.S.—A new self-bailing surf boat has been supplied this station.

SCATTARIE, N.S.—A new self-bailing surf boat has been supplied Scattarie station.

SEAL ISLAND, N.S.—The small life boat, found to be unseaworthy and faulty in construction, has been condemned and replaced by a new Beebe-McLellan self-righting boat.

By referring to Appendix No. 8, a report from Captain Bloomfield Douglas will be found, and a statement of all the life boats and stations attached.

## METEOROLOGICAL SERVICE.

Three new stations were established in British Columbia, nine in the North-west Territories, twelve in Ontario, three in Quebec, one in Nova Scotia, and one in Davis Strait, Labrador.

There are now 338 stations in the Dominion, Newfoundland and Bermuda using instruments supplied by the Canadian Government. At 256 stations, the observations are taken voluntarily, sending regular monthly returns to the central office. At 42 stations lying chiefly in the far northern territories of Canada, and at lighthouses in the Gulf of St. Lawrence small gratuities are allowed observers. At 40 stations distributed at nearly equal intervals throughout the Dominion, three or more observations are taken daily, and the observers are paid salaries. From 36 of these stations two reports each day are telegraphed to Toronto, to be used in the preparation of the daily weather chart.

Climatological reports are published, each report containing a meteorological summary from nearly 350 stations. An annual meteorological summary is also published for Toronto, a monthly weather review for the Dominion and a monthly weather chart.

Forecasts are of greatest interest to the public and are now issued for all parts of the Dominion, and storm signals have been hoisted at nearly every port, both on the seaboard and on the Great Lakes.

While forecasts and storm warnings, working on fairly established lines is given every attention, research work and investigation of magnetic changes and meteorological phenomena is steadily pursued.

The forecasts and storm warnings have been maintained during the year and 1,190 warnings from Toronto sent, and of these 1,104 or 92.8 per cent were verified. The storm warnings are appreciated by mariners and the forecasts of weather have been considered valuable by forwarders.

Seismological observations have been made by keeping in operation the seismographs in Toronto and Victoria. The work in connection with the magnetic observatory at Toronto, as well as the other operations of the meteorological service, are recorded in detail in the report of R. F. Stupart forming Appendix No. 6, of this report.

### SIGNAL SERVICE.

The reports of the Superintendents of the Signal Service at Quebec and Halifax, contain information for mariners. Mr. J. U. Gregory is superintendent of the service at Quebec and Lieut. George Butler, superintendent of the service at Halifax.

Arrangements have been completed between the government of Canada and the Society of Lloyds, whereby the following signal stations, maintained by the Dominion of Canada, have been included in Lloyds system of reporting stations. Orders forwarded to Lloyds, can be notified to vessels by means of these signal stations, on the same terms and conditions as observations at Lloyds signal stations and vessels signalling to these Canadian signal stations, will be reported to Lloyds for insertion in the Lloyds List and Shipping Gazette, and daily press, in the same manner as reports from Lloyds signal stations.

### LIST OF STATIONS.

Belle Isle,	Chateau Bay,
Cape Ray, Newfoundland,	South-west Point, Anticosti,
St. Paul's Island, Cape Breton,	West Point " "
Cape St. Lawrence,	Cape Rosier, Gaspé coast,
Heath Point, Anticosti,	Fame Point " "
Amherst Island, Magdalen Isds.,	Cape Magdalen " "
Point Amour, Forteau,	South Point " "

The government has had under consideration the matter of night signals. Application has been made by ship-owners for this service and their request is now under consideration. Some further information on the subject will be necessary, before establishing the service.

The government telegraph system was, during the season of 1901, extended along the north coast of the Gulf of St. Lawrence to the strait of Belle Isle, and Belle Isle was connected by cable with the shore telegraph system.

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Arrangements have been completed by the Department of Marine and Fisheries, whereby all inward bound vessels, showing their official numbers, will be reported from marine signal stations in the river and gulf of St. Lawrence immediately, and all reports will be promptly posted on the bulletin board of the Great North-western Telegraph Company's office in St. Peter Street, Quebec, and on that of the Board of Trade in Montreal.

Weather and ice reports will be forwarded twice a day, as formerly; and similarly posted.

Arrangements have also been made for repeating all reports received to the pilot station at Father Point, so that pilots will be promptly advised of the locality of inward bound vessels.

A telegraph station was established by the government of Canada at the light-house at Point Amour, and included in the list of marine signal stations from which reports will be posted at Quebec and Montreal.

Wireless telegraph stations have been established by the Marconi Wireless Telegraph Company (Ltd.) at Belle Isle and Chateau bay, and these stations have been included in the list of marine signal stations.

The reports of the superintendents will be found as an appendix to this report.

## WRECKS AND CASUALTIES.

The total number of casualties to British and Canadian sea-going vessels reported to the department, as having occurred in Canadian waters and to Canadian sea-going vessels in waters other than those of Canada, during the twelve months ended June 30, 1903, was 237, representing a tonnage of 162,297 tons register, and the amount of loss both partial and total, to vessels and cargoes as far as ascertained was \$409,991. The number of casualties to inland vessels so far as have been reported, were slight and unimportant.

The number of lives reported lost in connection with the casualties was 32. A statement of the wrecks and casualties will be found in supplement No. 1 to this report.

## CASUALTIES IN RIVER AND GULF OF ST. LAWRENCE.

Formal investigations were held into accidents to the following vessels:—SS. *Carrigan Head*, ss. *Iberian*, ss. *Protector*, ss. *Stord*, barque *Sardhana*, steam tug *Mersey*, ss. *Manchester Trader*, ss. *Dominion*, ss. *Dominion*, and ss. *Bergenhus*.

On account of the witnesses not being available the undermentioned casualties were not investigated:—SS. *Norwegian*, ss. *Loughrig-Home*, ss. *Hibernian*, ss. *Lake Manitoba*, ss. *Mount Royal*, ss. *Pomeranian*, ship *Alacrite* and ss. *Topaze*.

Of the ten casualties investigated the masters were responsible for four, pilots for three, and three may be classified as due to the perils of navigation.

The object of holding these investigations has been to show where the responsibility for the casualties rests. The department has been of late years putting forth great efforts to make the St. Lawrence route a safe one for ocean going vessels. It has always

been believed in the department, that many accidents have occurred through carelessness on the part of captains and pilots, while in the comparatively quiet waters of the river. This view was not far wrong as was proven by the investigations into casualties in 1902, the report of which was published in the report of that year and also by report of the commissioners for 1903. There is a strong desire to show to the shipping interests that the responsibility of casualties should remain where it belongs. In the year 1902 the casualties were not due to ineffective aids to navigation, nor ineffectual equipment of the vessels, but to ignorance and carelessness on the part of the ship-masters and pilots. Punishment has been meted out to the captains and pilots by suspension of their certificates.

For the more effective working of the 'Shipping Casualties Act,' some important changes were made which are as follows :—

No. 1. The minister may appoint a commissioner to hold formal investigations in place of the necessity for a separate commission being issued for each casualty, as required before.

No. 2. A statement of the case need not be issued as heretofore, before the commencement of the proceedings, where a certificate is to be dealt with. The defendant's certificate may be cancelled or suspended, after he has been furnished with a copy of the report or statement of the case, and had an opportunity of making a defence.

No. 3. An investigation may be held into the stranding of any vessel whether damaged or not.

Captains Archibald Reid and John Temple, have been appointed assessors for a term of three years, and Lieut. Salmon has been appointed a commissioner to hold investigations into shipping casualties.

The report of Commissioner Salmon and the assessors, of the investigations into the cause of the accidents to shipping in the river and gulf of St. Lawrence, with the evidence, is printed in Appendix No. 4 of this report.

#### LIVE STOCK SHIPMENTS.

Mr. E. B. Morgan who was associated with Mr. George Pope as inspector of live stock shipments died on the 10th Dec., 1902, and Mr. Delorme was appointed in his place. The report of Messrs. Pope and Delorme shows that the total number of cattle shipped up to the 24th November, from the port of Montreal to Europe, for the year 1903, was 147,201, sheep 61,017. This is the largest shipment of cattle in the history of the port. The number of horses shipped from the same port during 1903, was 373.

From St. John, N.B., 37,453 cattle were shipped, 19,310 sheep, and 115 horses.

From Halifax, between January 15, and November 30, 3,856 cattle, 426 sheep and 17 horses were shipped.

From Charlottetown, 1,928 sheep were shipped to Europe, but a very much larger number was shipped to the United States which did not come under inspection of shipment of live stock by the officers of this department.

Total from all these ports for European ports, 188,510 cattle, 82,671 sheep and 505 horses.

The shipments in detail will be found in Appendix No. 13, to this report.

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## MONTREAL OFFICES.

The quarters occupied by the steamboat inspectors, live stock inspectors, and other officers of the department were limited, and it was found necessary to procure better accommodation for the officers of the outside service in Montreal.

The Boyer block has been leased for a term of five years at \$2,000 per annum, payable quarterly. This building is a stone building, four stories high, on the corner of Commissioner street and Place Royale square, bearing the Numbers 219, 223 and 225, on Commissioner Street and Number 1 on Place Royale Square.

There are seven rooms on the ground floor and seven on the first floor. The offices were fitted up and also a small court room for the investigation into accidents caused by pilots. There is also an office which will be fitted up for the accommodation of the Minister when in Montreal, attending to official duties.

The steamboat inspectors, live stock inspectors and U. P. Boucher, buoy engineer on the St. Lawrence river, have offices in this building.

## NEW LIGHTSHIPS.

The St. John Board of Trade forwarded to the Department of Marine and Fisheries, a memorandum requesting that a lightship, be moored on the dangerous shoals in the Bay of Fundy known as the Lurcher shoals. These shoals lay directly in the course of all vessels entering the Bay of Fundy from the eastward. They are a standing cause of dread to captains while making the entrance into the bay.

Application was also made by the shipping interest concerned in navigation in the gulf and river St. Lawrence, for a lightship to be placed on the north east coast of Anticosti island.

The matter had received due consideration in the department since 1897. Plans and specifications of different lightships of the United States and other places were examined, and it was decided to adopt the plans and specifications similar to those in position on the Atlantic coast in the United States, which had been tried and found successful in withstanding the storms, and of great assistance to the navigation in the waters of the United States.

Tenders were invited for the construction of two lightships, and several were received. The tender of the Polson Iron Works, Toronto, for \$179,950.00 for the two lightships, being the lowest, was accepted.

The length of each lightship is 112 feet, breadth moulded 28 feet 6 inches, depth of hold from top of main deck beam amidships, 14 feet 10½ inches. They are fitted up with auxiliary engines and machinery for propelling themselves. The hulls are of steel and each lightship has two masts and no bowsprit.

Owing to strikes in the shipyard and difficulty in getting material, due also to strikes, the lightships were not completed at the time specified in the contract.

The lightship for the Lurcher shoals in the Bay, of Fundy, left Toronto for Quebec on the 26th November, 1903, and was taken to Quebec to be completed. It was considered important that this lightship should be moored near the shoals this winter, to assist ocean going and other vessels navigating the Bay of Fundy during the winter.

Some work was done at Quebec and the vessel proceeded to Halifax, where additional work was done at the expense of the contractors, who sent workmen on board the lightship.

The Lurher lightship was placed in position on February 8, 1904. She is supplied with heavy mushroom and other anchors and stud link chain, tested by Lloyds.

This lightship is now moored off Lurher shoal, about 16 miles outside of Yarmouth in about 36 fathoms, 2 miles west of the  $1\frac{1}{2}$  fathom spot now marked by a whistling buoy.

Lat . . . . . N.	43°	49'	32"
Long . . . . . W.	66	32	0

Three seventh order lens lanterns encircle each mast head, at an elevation of 60 feet above the water. From them occulting electric lights, showing bright for 8 seconds and eclipsed for 4 seconds, alternately, will be exhibited. These should be visible 13 miles from all points of approach. If from any cause the electric light apparatus should become inoperative, fixed white oil lights, of less intensity, will be shown.

A diaphone, operated by compressed air, will be used as a fog alarm. This is similar in sound to a siren, but gives a note of great intensity and uniform pitch. It will give blasts of 4 seconds' duration, with intervals of 56 seconds between the blasts. Should it become disabled, blasts of similar duration and frequency will be sounded through a whistle. Should both from any cause become inoperative a bell will be rung by hand.

The other lightship is drawing near completion, and will be placed in the spring on the northeast of Anticosti island.

#### COASTING TRADE OF CANADA.

By the provisions of chapter 83, Consolidated Statutes of Canada, being an Act respecting the Coasting Trade of Canada, no goods or passengers can be carried by water from one port in Canada to another except in British ships, but the Governor in Council may from time to time declare that the Act shall not apply to ships or vessels of any foreign country in which British ships are admitted to the coasting trade of such country, and to carry goods and passengers from one port or place to another in such country. The Parliament of Canada was empowered to pass the Act alluded to under the provisions of the Imperial Act 32 Vic., chapter 11, intituled: An Act to amend the law relating to the Coasting Trade and Merchant Shipping in British Possessions, which came into operation in this country on its proclamation by the Governor General on October 23, 1869.

It was ascertained that the following countries, viz., Italy, Germany, the Netherlands, Sweden and Norway, Austro-Hungary, Denmark, Belgium and the Argentine Republic allowed British ships or vessels to participate in their coasting trade on the same footing as their own national vessels:—the ships of Italy, by Order in Council of August 13, 1873: those of Germany, by Order in Council of May 14, 1874: those of the Netherlands, by Order in Council of September 9, 1874: those of Sweden and Norway, by Order in Council of November 5, 1874: those of Austro-Hungary, by Order in Council of June 1, 1876: those of Denmark, by Order in Council of January 25, 1877: those of Belgium, by Order in Council of September 30, 1879; and those of the Argen-

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tine Republic, by Order in Council of May 18, 1881, were admitted to the coasting trade of Canada.

The following Act, entitled an Act respecting the Coasting Trade of Canada, was assented to 15th May, 1902, and relates to the payment of duty on foreign-built British ships :—

His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows :

1. In this Act, unless the context otherwise requires, the expression ' British ships ' means and includes all ships belonging wholly to persons qualified or entitled to be owners of British ships, under the provisions of ' The Merchant Shipping Act, 1894,' or any other Act of the Parliament of the United Kingdom in that behalf, in force for the time being.

(2.) For all purposes of this Act the expression ' the coasting trade of Canada ' shall be deemed to include the carriage by water of goods or passengers from one port or place in Canada to another port or place in Canada.

2. No foreign-built British ship, whether registered in Canada or elsewhere, shall be entitled to engage or take part in the coasting trade of Canada, unless such foreign-built British ship has first obtained a license for that purpose, which may be granted by the Minister of Customs.

(2.) The Minister of Customs shall issue such license to any foreign-built British ship, whether registered in Canada or elsewhere, upon application therefor and upon the payment of a duty of twenty-five per cent ad valorem on the fair market value of the hull, rigging, machinery, boilers, furniture and appurtenances of such ship.

(3.) This section shall not apply to any foreign-built British ship registered as a British ship prior to the first day of September, 1902.

3. No goods or passengers shall be carried by water, from one port of Canada to another, except in British ships ; and if any goods or passengers are so carried, as aforesaid, contrary to this Act, the master of the ship or vessel so carrying them shall incur a penalty of four hundred dollars : and any goods so carried shall be forfeited, as smuggled ; and such ship or vessel may be detained by the collector of customs, at any port or place to which such goods or passengers are brought, until such penalty is paid, or security for the payment thereof given to his satisfaction, and until such goods are delivered up to him, to be dealt with as goods forfeited under the provisions of the Customs Act.

4. The master of any steam vessel, not being a British ship, engaged, or having been engaged, in towing any ship, vessel or raft, from one port or place in Canada to another, except in case of distress, shall incur a penalty of four hundred dollars ; and such steam vessel may be detained by the collector of customs at any port or place to or in which such ship, vessel or raft is towed, until such penalty is paid.

5. Penalties and forfeitures under this Act may be recovered and enforced in the manner provided by *The Customs Act*, with respect to penalties and forfeitures incurred under it, and as if imposed by it ; and this Act shall accordingly be construed with reference to the said Act, and as forming one Act with it, and all words and expressions in this Act shall have the same meaning as the like words and expressions in the said Act.

6. The Governor in Council may, from time to time, declare that the foregoing provisions of this Act shall not apply to the ships or vessels of any foreign country in which British ships are admitted to the coasting trade of such country, and to carry goods and passengers from one port or place to another in such country.

7. Where by treaty made before the passing of 'The Merchant Shipping (Colonial) Act, 1869,' (that is to say before the thirteenth day of May, eighteen hundred and sixty-nine,) Her late Majesty, Queen Victoria, agreed to grant to any ships of any foreign state any rights or privileges in respect of the coasting trade of Canada, those rights and privileges shall be enjoyed by those ships for so long as Her late Majesty agreed, or His Majesty the King may hereafter agree, to grant them.

8. Chapter 83 of the Revised Statutes is repealed.

### SUBMARINE SIGNALLING.

Submarine signalling is now receiving the attention of the department. This method of conveying warnings has been tested in the United States and it is claimed for it, that in cases where wind or thick folds of mist interfere with fog signals, that submarine signalling is more effective than fog-horns or other methods of warning.

The idea of making use of the water as a means of transmitting sound signals, appears to be a new field, and due consideration will be given the matter before any action is taken by the department.

I accompanied you to Boston, for the purpose of studying the submarine bell signals with several gentlemen connected with steamship lines. The test was made when six miles away from Vinyard sound, Pollock Rip and Boston lightship. With a view of still further studying submarine bell signals, officers of the department were sent to Vinyard sound and their reports on the whole question are now under consideration, but before any action will be taken by the department the whole system will be thoroughly studied.

In connection with submarine signals, it should be borne in mind, that ships must be equipped with receiving apparatus to be able to make use of the warning signals.

### ACETYLENE LIGHTING BETWEEN MONTREAL AND KINGSTON.

With a view of securing the best illuminant for the gas buoys that have been placed between Montreal and Kingston, experiments have been made with acetylene gas. Difficulties have arisen from time to time in transporting pintsch or oil gas from Montreal or Quebec to the buoys and it was assumed that the use of acetylene gas would enable the department, to a large extent, to increase the gas buoys and supply them with gas more effectively, than from Montreal.

In August, 1902, experiments were carried out on board the *Scout*, to determine the suitability of acetylene gas for the lighthouse and buoy service. A temporary generating plant was erected and though crude, worked perfectly up to the fall of 1902.



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Other experiments were made by mixing oil-gas and acetylene and experiments with pure acetylene but some difficulty having arisen with the burners, a new burner was introduced.

New acetylene apparatus was designed and put in operation in 1903. The result of the experiments has been to increase the candle power five times by the substitution of acetylene for oil gas.

A temporary depot was established at Morrisburg in November, 1902, but it has been found more convenient to have a depot at Prescott, and one has been established at the latter place which will be known as the Dominion Lighthouse Depot. Special apparatus for the lighthouse service will be made at this depot and distributed.

On the opening of navigation of 1903, a gas store holder and gas buoy lantern were placed at Stone House Point and appears to have worked satisfactorily during the season.

Welded steel storeholders have been provided for the lights in this division. They are 20 feet long, 50 inches in diameter and hold nearly 4,000 feet of gas at 15 atmospheres. The larger part of these are placed and will be connected with special lanterns and lighted on the opening of navigation.

The dredged cut at the foot of Wolf Island was completed by the Department of Public Works, and a red gas buoy and black spar buoy were placed to mark the cut. Deep draught boats from Kingston can now enter the American channel without going around the head of Wolf Island.

The department has now under consideration some surveys of Lake St. Francis, Lake St. Louis and the St. Lawrence River between Cornwall and Prescott. It is probable that plans will be made for placing the buoys by means of sextant angles after the surveys are completed.

Mr. J. F. Fraser has been appointed engineer in charge of aids to navigation in the Department of Marine and Fisheries. His report on the subject of the use of acetylene and the establishment of gas buoys between Montreal and Kingston forms appendix No. 5 to this report.

#### REMOVAL OF OBSTRUCTIONS TO NAVIGATION.

The sum of \$1,000 was appropriated by Parliament for the removal of obstructions to navigation. By reference to the statement of expenditure it will be seen that the sum of \$682.98 was expended for the fiscal year. The department recovered during the year the sum of \$184.44, being settlement of the claim for the removal of the *Rothsay*, which was sunk in the vicinity of Brockville some years ago.

The department endeavours to recover from the owners of vessels the cost of removal of sunken wrecks and where the owners are worth anything, the money is frequently recovered.

A statement in detail of the work done will be found in the report of the chief engineer of this department under the heading of removal of obstructions.

## LEGISLATION.

During the session of 1903 the following Acts were passed and assented to:—

An Act to further amend the Act respecting the Safety of Ships.

An Act to amend the Steamboat Inspection Act, 1898.

An Act to amend the Act respecting Certificates to Masters and Mates of Ships.

An Act further to amend the Steamboat Inspection Act, 1898.

An Act to amend the Act respecting the Harbour of North Sydney in Nova Scotia.

An Act respecting the management and control of public and other works.

An Act respecting the Pilotage District of Montreal, and the Port and Pilotage District of Quebec.

An Act to amend the Shipping Casualties Act, 1901.

F. GOURDEAU, Lt.-Col.,  
*Deputy Minister of Marine and Fisheries.*

DEPARTMENT OF MARINE AND FISHERIES,  
OTTAWA, January, 1904.

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ANNUAL REPORT OF THE CHIEF ENGINEER OF THE DEPARTMENT  
OF MARINE AND FISHERIES.The Deputy Minister of Marine and Fisheries,  
Ottawa.

SIR,—I have the honour to submit a report of the work done in the several services under the supervision of this office during the twelve months ended November 30, 1903.

This embraces most of the technical work at departmental headquarters, including the construction of lighthouses, lightships, fog-alarms, buoys and beacons; the supervision of construction and repairs of lifeboats; the administration of the vote for the removal of wrecks and obstructions in navigable waters; tidal and current surveys; hydrographic surveys, and the publication, examination and correction of hydrographic charts; construction of and repairs to fish hatcheries and refrigerators; engineering points in connection with the construction and maintenance of fish-passes; supervision of surveys of oyster beds; examination of applications for foreshore, wharf and water lots as they affect the interests of navigation; preparation and publication of notices to mariners and hydrographic notes, &c. Up to November 5, 1903, it also included the maintenance of aids to navigation, and this report therefore includes work done under that head.

There are special staffs appointed for the tidal observation work and for the hydrographic survey work; the remainder of the work of the branch is attended to by the general staff of the office.

## STAFF.

I have again much pleasure in testifying to the good work done by my staff throughout the past year.

The great increase in the quantity of work required from this branch, noted in last year's report, continued during the past year, but has been to some extent lately relieved by the appointment, on November 5, 1903, of Mr. J. F. Fraser, engineer in charge of aids to navigation in the River St. Lawrence above Montreal, as Commissioner of Lighthouses, to administer that portion of the work which formerly came under my control as General Superintendent of Lighthouses. Mr. W. H. Noble, long my efficient foreman of works in charge of lighthouse construction and repairs was at the same time promoted to Assistant Commissioner of Lighthouses.

All my staff employed last year have been continued at work: Mr. Louis Hurtubise, appointed as draughtsman on July 1, 1903, at a salary of \$600, secured more lucrative employment from a railway company and left the office on September 12; Mr. J. L. Burnand was appointed a draughtsman on May 8, 1903, at \$500 per annum; and Mr. J. A. Léger has been employed as draughtsman since October 20, 1903, at \$800 per annum.

## OFFICE WORK.

A large proportion of the work done by the general staff of the branch consists in the construction and maintenance of light buildings, fog-alarms, buoys, beacons and other aids to navigation. Full details of the work done in this connection last year are contained in a separate report prepared by me, in my capacity of general superintendent of lighthouses, which is attached hereto. (Inclosure A.) All the work in connection with maintenance of lights will hereafter be transferred to the control of the Commissioner of Lighthouses.

Plans and specifications for all important new buildings and repairs, new vessels, buoys, &c., are made or approved in this office.

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The following table indicates the work done in the draughting office during the twelve months ending November 30, 1903 :—

Description of Work.	Plans Designed.	Plans Received.	Copies Made.
Lighthouse towers and dwellings.....	36	5	127
Fog alarm buildings.....	4		17
Details.....	34	19	93
Wharfs, piers, &c.....	2	1	8
Outbuildings.....	1		6
Buoys and apparatus.....	5	5	65
Machinery.....	7	33	20
Lanterns and illuminating apparatus.....	3	32	17
Fish and lobster hatcheries.....	2		13
Marine hospitals.....	1		7
Land surveys.....		13	55
Charts.....	2		3
Miscellaneous.....	10	85	111
Plans relating to foreshore.....		139	19
	107	332	561
Total plans for twelve months from December 1, 1902, to November 30, 1903.....			1,000
Charts received and recorded.....			55
" " entered in chart book.....			45
Photographs received and recorded.....			157
Specifications written.....			42
Notices to mariners issued (comprising 328 subjects).....			125

The work of issuing notices to mariners has continued very heavy, 125 notices embracing 328 subjects having been published. Some of these notices are long ones involving considerable labour in compilation, and embodying the results of surveys or inspections made by this branch. Amongst the most important of these may be mentioned a description of the aids to navigation in Lake St. Louis; sailing directions for Sable island, completely rewritten from the undersigned's survey of the island in 1899; full particulars respecting Collingwood harbour; improvement of aids to enter Halifax harbour; hydrographic notes respecting Smith inlet, B.C., written by Capt. Walbran; and several notices covering improvements made in the ship channel between Sorel and Montreal, to fit it for night navigation.

During the past twelve months, foreign notices were issued, covering 11 items relating to Newfoundland, 7 items relating to the Atlantic, 33 to the inland, and 18 to the Pacific waters of the United States, as well as 29 notices referring to transatlantic, and 4 to transpacific subjects.

The annual edition of the List of Lights and Fog signals in Canada, corrected to April 1, 1903, was issued on the 25th of that month.

The undersigned has been working on a list of buoys maintained in the river St. Lawrence below Quebec, and also on a complete list of buoys and beacons on the Pacific coast of Canada, and hopes to have both ready for publication soon after the new year. It is desirable that a complete list of buoys in the Dominion should be published regularly, as our list of lights is published, but there are many difficulties in the way of accomplishing this with the accuracy that would make it of any value; the method of maintaining many buoys under contract to suit local wants and the absence of a special hydrographic staff in my office, both militate against the proposition.

#### REMOVAL OF OBSTRUCTIONS.

During the past twelve months, the following work was done, under the vote for the removal of wrecks:

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The barque *Ashlow* formed an obstruction to navigation in Indian harbour, N.S. Tenders were invited and a contract entered into for \$100.00 and the wreck was successfully removed for that sum.

The *Bessie Carson* was sunk in the channel of the Magaguadavic river, N.B. Tenders were invited and a contract entered into for \$425.00; the work was successfully carried out.

Sunken saw-logs were removed from Tusket river at a cost of \$30.00.

The wrecked schooner *Marian* formed an obstruction to navigation about a mile southwest of New Campbellton, in Big Bras d'Or lake. This obstruction was removed under contract for \$120.00.

Sunken logs were removed from Bear River, N.S., at a cost of \$21.00 and logs were also removed from the St. John river, at a cost of \$21.00.

Captain E. Dunn, D.G.S. *Petrel* reports that he has been to the site of the wreck of the schooner *H. A. Barr* on the course between Southeast shoal lightship and Long point, Lake Erie, that he found the foretopmast floating with wire rigging attached to it but could find no other trace of the wreck. The rigging was cut adrift from the topmast and all evidence of the wreck has disappeared.

## BUOYAGE.

The buoy service in the Dominion received great attention during the last year and a large number of buoys was added to those already in position. Special attention has been given to gas and steel buoys, with a view of making them suitable for marking dangers and giving warning in time of fog and foul weather.

As stated in my report of last year, the *Scout* and a number of gas buoys were transferred to the Department of Marine and Fisheries, and the buoys were kept in position during the past season between Montreal and Kingston. The steamer *Scout* was lengthened 25 feet and new compound engines placed in her. There are 27 gas buoys between Montreal and Kingston and 14 between Montreal and Lake St. Peter, 19 in the Quebec agency, 1 in Pelee Passage, 1 at the mouth of the Detroit river, 3 in Parry Sound and 3 in Halifax harbour, making 68 in all, in position. The gas buoys between Montreal and Sorel were placed in position in the early part of November by the *Shamrock*, under the direction of U. P. Boucher.

Several contracts for buoy service including Lake St. Francis and Kingston terminated and were not renewed as the work of placing and taking up the buoys is done by the *Scout*.

There are now existing about 200 buoy contracts and the districts buoyed number about 340, the total number of buoys employed is about 3,600.

In addition to buoys placed in harbours, lakes and rivers, coast buoys are maintained by the departmental steamers. The system of lifting the large warning buoys every three months for examination of moorings and the condition of the buoys has been followed out in the Nova Scotia and Bay of Fundy districts.

The coast buoys in the Nova Scotia district number 23 automatic whistling, 3 gas buoys, 21 bell buoys and 145 steel can and conical buoys.

In the New Brunswick agency there are maintained 18 signal buoys, 16 steel can and conical buoys and 1 bell boat.

In Prince Edward Island there are 4 signal buoys and 5 steel conical buoys.

In British Columbia there are 3 signal buoys and a number of can and conical buoys, all maintained by the Government steamers *Quadra* and *Samson*. One contract exists for buoying Kootenay lake with platform buoys.

In Quebec there are 69 steel can and conical buoys, 2 warning buoys and 19 gas buoys, some of which are also signal buoys. These buoys are maintained by the *Druid*.

In Ontario there are 5 bell buoys and a number of conical and can buoys maintained under contract. Gas buoys as already stated, number 27 but a portion of these are in Lake St. Louis above Montreal.

The ship channel buoys, St. Lawrence river, were placed by the *Shamrock* in the early part of April last and were left in position until the latter part of November.

Some of the buoys were not taken up until the 28th November. The buoys which had been sunk during the winter of 1902-3 to escape injury by running ice, were all recovered. These buoys had been frozen in in the fall of 1902 having been left in position to accommodate outgoing steamships but before they could be taken up heavy frost had set in and surrounded them with ice.

The maintenance of the buoy service, preparation of contracts, examination of accounts, and indeed all the work in connection with the construction of new buoys and the maintenance of all buoys except those looked after by Dominion steamers, has been most efficiently done by Mr. W. W. Stumbles, and involves an immense amount of detail.

#### HYDROGRAPHIC WORK.

The hydrographic survey of the Canadian shores of the great lakes has made fair progress during the season of 1903. Mr. W. J. Stewart, on the steamer *Bayfield* (formerly *Lord Stanley*) was not able to reach Lake Superior until the middle of June, when he began a survey of the north shore from the international boundary line near Pigeon river eastward including Thunder bay and the islands lying off it. A traverse of this shore and of the islands as far east as Thunder cape was completed and about half the area of it sounded.

As is usual, the triangulation points of the United States Corps of Engineers, that came in the district, were used as a basis for the triangulation of Thunder bay. These points were found upon Victoria island, Pic island and Thunder cape.

No new shoals were discovered during the season, but several were found to be incorrectly placed upon the existing charts. It may safely be said that, with the new chart, the inside channel between Port Arthur and Victoria island will be much more frequently used, as the dangers in it, when properly marked, are not serious. Preliminary sailing directions for this channel are being prepared.

After surveying the localities 3 buoys were placed on the shoals at Victoria island and one off Hare island, which were much appreciated by the masters passing.

Acting upon instructions, the survey built and maintained at the mouth of the dredged channel into Kaministiquia river, a platform buoy supporting a Wigham 31 day lamp, which proved a great boon to the large steamers frequenting Fort William.

Observations for the variation of the magnetic needle were taken at Fort William and it was found to be  $3^{\circ} 06.5$  easterly.

Mr. Stewart had as assistants during the season only some transient students. It is very desirable that assistants for this class of technical work should be men of scientific attainments, permanently employed, as their value increases greatly with their experience.

In April last a fair sheet of part of the east shore of Lake Superior, embracing the work of the season of 1902, was completed and forwarded to the Hydrographer of the Admiralty. It is hoped that this sheet will be ready for issue before the opening of navigation in 1904. In May, 1903, a coast chart of the east shore of Lake Huron, embraced between Goderich and Chantry island, was issued for sale. A chart of the whole lake showing the completed survey has also been issued.

A new and complete edition of the Georgian Bay and North Channel Pilot was issued in April, 1903, and has been in great demand.

The survey of Lake Winnipeg under Mr. F. Anderson assisted by Mr. R. E. Tyrwhitt using the chartered tug *Frank Burton*, has made good progress during the season. The various small harbours at Spider islands, Warren's Landing (entrance to Nelson river) and Selkirk island have been carefully examined and the narrow, crooked and none too deep entrances marked out by range beacons.

The open part of the lake has now been pretty thoroughly gone over, so that there is not much necessity for continuing the work at present.

A chart of the portion of Lake Winnipeg extending from the mouth of Red river northward to Berens river, embodying the results of the hydrographic survey made in 1901 by Mr. W. J. Stewart, was prepared, and instead of being sent to the Admiralty to be engraved it was photolithographed in Ottawa, to save time. The demand for this

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chart has been exceedingly small. It is hoped that a chart of the northern half of the lake will be ready for photo-lithographing before the opening of navigation in 1904.

Special attention has been paid, as in past years, to the publication, in Notices to Mariners, of all information obtained respecting hydrography, and a point has been made of including sailing directions in the description of aids to navigation. Hydrographic notes were issued as follows :

*Affecting the Atlantic coast* : Derelict reported in the North Atlantic ocean, by the officer of the Royal navy in charge at Bermuda ; bank reported S. E. of Sable island, by Mr. A. H. Davis, ss. *Lord Charlemont* ; warning to avoid the current survey steamer off Newfoundland ; position of fog signal and action of fog at Cape Spear described by Dr. W. Bell Dawson ; the arc of visibility of Swallowtail light corrected ; sailing directions for the new arrangement of range lights and gas buoys in Halifax harbour, and boats warned of danger zone at McNab island rifle range ; banks reported off Belle Isle by Capt. Tooker, R.N., and depth less than given in charts off the same island reported by Capt. Wallace, ss. *Montevidean*.

*Gulf of St. Lawrence*.—Hydrographic notes respecting Crapaud, by our local agent ; bridge located at Rexton, and approaches described by the undersigned.

*River St. Lawrence*.—Arc of visibility of the high light at Belle Isle corrected by Capt. Tooker, R. N. ; new bridge at Quebec, as it affects navigation, and lights marking it, described from information obtained from the contractors ; sailing directions for the river from Platon to Cape Charles written from departmental records ; report of ss. *Dominion* touching at Cape Levant ; shoaling of the ship channel at Champlain reported in June, and dredging reported completed here and at Pointe au Citrouille in July ; mariners warned not to mistake dredging marks in Lake St. Peter for buoys ; in June mariners were warned of temporary change in arrangement of aids to navigation to suit the operations of the dredge *Tarte* ; again in September, when the dredging reached lightship No. 1, and later in Ile aux Raisins traverse : completed ship channel at Contrecoeur described from a report by Mr. F. W. Cowie ; also, the improved ship channel at Longue Pointe traverse.

*Inland waters*.—The lights, buoys and approaches at the lower end of the Soulanges canal, described from personal inspection by the undersigned : two shoals formerly charted in the Thousand Islands proved not to exist, and an uncharted shoal located by Mr. S. J. Chapleau, P. W. D. ; mariners asked to assist in maintenance of buoys at the foot of Wolfe island on complaint of Chief Engineer P. W. D. ; the buoys maintained by the corporation of Toronto described, with hydrographic notes, from a report of the harbour-master ; mariners warned that the east breakwater at the east entrance was undermined ; Bronte harbour described, from an inspection by the undersigned ; sand bar reported at Port Credit by the director of the meteorological service ; lights and improvements to harbour of Meaford described by Mr. John Clark ; sailing directions and hydrographic notes issued for Collingwood from data by Mr. Hughes ; wharf in Providence bay described from inspection by the undersigned ; also a shoal ; wharf on the east side of Great Duck island, located by the undersigned ; uncharted shoal in Tenby bay located by Mr. Stewart ; private range lights at Silver islet described and sailing directions written by Mr. Stewart ; rocks in Pigeon bay located by Mr. Stewart.

*Pacific Coast*.—Notes respecting the range lights, at Portier pass from Capt. Walbran ; Cecil rock Queen Charlotte sound, located, off Redfern island, by Capt. H. Newcomb. Details, respecting several dangers furnished by Comm. Parry, R. N.

Rock reported off Sidney, by Capt. C. Hackett, and located by Capt. Walbran ; Patch reported off Nanoose by Comm. Parry, R. N.

Rocks located in Blunden harbour and sailing directions, by Comm. Parry, R. N.

Uncharted rock reported off the Sisters by Capt. Walbran ; depth on Walbran rock, corrected by Capt. Walbran ; longitude of Esquimalt determined, anchorage-

proclaimed rocks; reported in Colburne passage, by Comm. Simpson, R. N.; rock reported in Sidney channell by Comm. Simpson, R.N.; hydrographic notes on Oriflamme passage, from inspection by the undersigned; Khutze inlet described from survey by the undersigned; hydrographic notes on Howe sound, by Capt. Walbran; uncharted rock in Oyster harbour, reported by Capt. Walbran.

#### TIDAL AND CURRENT SURVEY.

In this survey, an important advance has been made, by the purchase of the steamer *Gulnare* to enable the investigation of the currents to be resumed. The importance of further work of this character, was pointed out in my Annual Report for 1897, where observations of current were discontinued under the head of the Tidal Survey. The region requiring most immediate investigation, as there explained, was taken up to begin with: namely, the waters around the south-eastern coasts of Newfoundland, on the line of our most frequented steamship route. The currents in this region were examined last season, under the personal supervision of Dr. W. B. Dawson, the engineer in charge of the Survey. Special attention was given to the question of indraught into the larger bays on the south coast, and to the behaviour of the polar current which follows the eastern coast. For this work, the D. G. S. *Gulnare* was equipped with appliances for deep sea anchorage, and apparatus of a modern type, in some ways specially devised for the purpose. At anchorages carefully chosen, the speed of the currents was measured, and the direction noted every half hour, day and night. The observations also included the undercurrent, the density and temperature of the water, the mileage and direction of the wind, and a continuous record of the tide on a self-registering gauge placed in a harbour in the region, for comparison with the set of the current.

The behaviour of these currents is very varied, and they were found to be so weak as to be readily influenced by the wind; but by a systematic reduction of the results, Dr. Dawson has prepared a report which describes the currents as concisely as possible, while avoiding technicalities. The report is divided into two parts: the first deals with the currents met with on the steamship route, which follows the south coast for 180 miles, and the question of indraught into the larger bays; and the second part describes the character of the polar current on the east coast, and its possible change of direction when disturbed. The report is illustrated by nine diagrams and maps, which represent the results graphically. A Notice to Mariners will be issued, describing some of the leading features of the currents, for the immediate information of seamen.

In the tidal branch of the Survey, the principal tidal stations in Eastern Canada and Labrador have been continued in operation throughout the year without any serious interruption. At Father Point, the tide gauge was not installed in its new position: as the wharf, now being built there, was not sufficiently advanced. A specially devised system of piping was put in at St. Paul island, to decrease the wave motion, which is troublesome where the exposure is so severe, and a Notice to Mariners was issued giving tidal differences for additional localities. Also during the summer season, further observations were obtained at Charlottetown, Pictou and Souris, under the supervision of Mr. S. C. Hayden. Additional observations of the turn of the current in Northumberland Strait were also secured at Cape Traverse.

On the Pacific coast, the tidal observations have been continued at Sand Heads, Victoria, Bamfield in Barkley sound, and Port Simpson.

Tide tables for the year were prepared and issued in three sets as heretofore. This is convenient, because the regions they embrace are so distinct. In one set, our principal eastern harbours are included, with the Lower St. Lawrence, Bay of Fundy, and the Atlantic coast of Nova Scotia. Another set includes Charlottetown, Pictou, and Northumberland and Cabot straits. The third embraces the tide tables and tidal information for the Pacific coast. The extension of the observations there is gradually indicating the most rational subdivision of those waters into regions referable to the



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various tidal stations. All new results obtained from the observations are embodied in the tide tables.

Further reduction of tidal record from the principal stations, to improve the accuracy of the tide tables, is being made from year to year. For this, the height of the tide hour by hour, throughout the year is required; as well as a careful preparation of the record in other ways; and the progress made is but slow, for the want of sufficient assistance.

The tidal information for the Pacific coast meets with even more appreciation than the Atlantic tide tables. Besides the copies regularly distributed, 641 additional copies were sent out on request. Many applications are also received for information and reports; and 150 copies of the two latest reports on the tides of the St. Lawrence were sent to our leading steamship lines for distribution to their captains.

The appropriation for this Survey was increased last year to \$22,500 to cover the cost of the maintenance of the new steamer, as well as the maintenance of the tidal stations and salaries of observers.

The whole respectfully submitted,

WM. P. ANDERSON,  
*Chief Engineer.*

10th December, 1903.

DETAILED REPORT OF THE GENERAL SUPERINTENDENT OF LIGHT-  
HOUSES ON CONSTRUCTION AND MAINTENANCE OF LIGHT-  
HOUSES AND OTHER AIDS TO NAVIGATION UP  
TO NOVEMBER 30, 1903.

To the Deputy Minister  
of Marine and Fisheries.

SIR,—I have the honour to submit the usual annual report of work done in the construction and maintenance of aids to navigation for the year ended November 30, 1903.

Lighthouses, fog-alarms, buoys, beacons, and other aids to navigation throughout the Dominion of Canada are administered by the Department of Marine and Fisheries. The construction of new buildings and the more important repairs are under my direct supervision, the maintenance of existing stations is controlled by the several agents of the department, and the periodical inspection of the stations is made by inspectors resident in the different provinces, the agents in Prince Edward Island and British Columbia fulfilling the double duties. Much of the information contained herein is compiled from the annual reports of these officers.

The numbers and distribution of the several aids to navigation throughout the Dominion are shown in the following table:—

District.	Light-stations, Lights.	Keepers.	Fog-whistles and sirens.	Fog-horns.	Fog-bells.	Fog-guns or bombs.	Whistling buoys.	Bell-buoys.	Gas-buoys.
Province of Ontario . . . . .	210	282	197	4	11	4		6	32
Light ships . . . . .	3	3							
Province of Quebec . . . . .	148	209	167	5	8	1	8	1	33
Light ships . . . . .	7	7		3					(4 with bells).
Province of Nova Scotia . . . . .	197	244	204	11	6	2	1	22	22
Fog alarms . . . . .	3								3
Light ships . . . . .	1	1							
Province of New Brunswick . . . . .	103	133	103	4	8	2	1	5	6
Fog alarms . . . . .	4								
Light ships . . . . .	2	2				1			
Province of Prince Edward Island . . . . .	40	69	46		1			3	1
" British Columbia . . . . .	36	43	34	1	6	6		1	
	754	963	751	28	40	16	10	31	68

Lightships and fog alarms where there are no lights are in this column included in the total number of light stations in the Dominion.

Supplies for the lighthouse services are purchased in bulk, under contract, except in the case of articles of which only small quantities are required, in which case they are purchased locally in the open market. These supplies are distributed from the stores at each district headquarters, usually under the personal supervision of the inspectors of lights, who inspect the stations when delivering the supplies. They also arrange for all small ordinary repairs and periodical painting of the buildings. These routine duties are not alluded to in describing the repairs executed at the several stations.

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Work of construction and extensive repairs are usually executed under contract; minor repairs are done under the lightkeeper's supervision, or by foremen employed in the several districts.

Details of small repairs at established stations are herein omitted. Ordinary small repairs, such as are required for the proper upkeep of the stations, have been made, usually under the supervision of the keepers, on authority from the several provincial agents.

Estimates for any unusual repairs, or items involving considerable expense, have heretofore been submitted to the undersigned, and are authorized by the department from Ottawa before the work is undertaken. Full particulars respecting the cost of all repairs is contained in the Auditor General's report.

Lightkeepers and fog alarm engineers are expected to make any small repairs that can be reasonably expected of unskilled workmen, without charge, and are also called upon to do all painting required at the stations, being allowed some assistance when the buildings are so high as to require hanging scaffolds.

## ONTARIO LIGHTHOUSE DIVISION.

This division includes the lighthouses and other aids to navigation in that part of the province of Quebec lying west of Montreal, all those in the province of Ontario, and those on Lake Winnipeg, in the province of Manitoba. It is under the direct management of the headquarters staff at Ottawa.

The number of lighthouses, lighted beacons and lightships maintained by the Dominion in the Ontario division, as above described, is 283, located at 213 different stations.

The number of lightkeepers in this division paid directly by the government is 197; but in several cases assistants are employed by keepers and paid by them out of the allowance made by the government for that purpose.

There are in Ontario four fog whistles, eleven steam fog-horns and four fog-bells operated by machinery, all located at lightstations, as well as six bell-buoys and thirty two gas-buoys.

Besides the lights maintained by this department as above described there are in Ontario the following aids to navigation: three lights on swing bridges; a system of lights on the Murray canal, maintained by the Department of Railways and Canals; five pairs of range lights on the Detroit and St. Clair rivers and one lightship with steam fog-alarm in Lake Erie, maintained by the American vessel owners principally interested; eleven wharf lights maintained by the municipalities or corporations to which the wharfs belong; two range lights maintained by local interest at Silver islet and one on Coppermine point.

Six of these last described stations are aided by this department to the extent of being furnished with the necessary oil for their maintenance.

A steamer is chartered yearly for the supply of the lightstations on the River St. Lawrence and the great lakes, between Montreal and the head of Lake Superior, and the lighthouses are supplied and the stations inspected on this trip, which occupies about seven weeks, by Mr. Patrick Harty, Superintendent of Lights. Mr. Harty also inspected the lights on the Ottawa river, but a few small lights on isolated waters, including Lake Timiskaming, Lake Nipissing, Lake Simcoe and the Bay of Quinte, were not inspected. Mr. John Nash, local agent of this department at Rat Portage, inspects the lights in Lake of the Woods from time to time, and generally attends to the interests of this department throughout Rainy river district.

## NEW AIDS TO NAVIGATION.

*Soulanges canal lower entrance.*—The eastern end of the south pier head, at the entrance, is marked by an occulting gas light shown from the summit of an open work pyramidal steel structure. The frame rises 21½ feet above the pier.

The light is elevated 34 feet above the summer level of the lake and should be visible four miles from all points of approach. The illuminant is compressed gas. The light is white and shows a steady light for 8 seconds, and is totally occulted for 4 seconds alternately.

On the eastern extremity of the north pier head a fixed red light is shown from an iron lighthouse tower, circular in plan, surmounted by a circular metal lantern. The building is painted white, with the lantern roof red. The height of the tower from the top of its concrete foundation to the vane on the lantern, is  $29\frac{1}{2}$  feet. The light is elevated 37 feet above the summer level of the lake and should be visible 2 miles in the line of range. The illuminant is compressed gas. The illuminating apparatus is catoptric.

A similar light, shown from a similar tower, is maintained on the north bank of the canal, north of the second lock, and distant, 1,826 feet S.  $78^{\circ} 12'$  W. from the last described light.

The tower is  $45\frac{1}{2}$  feet high and the fixed red light is elevated 59 feet above the summer level of the lake. The light should be visible 2 miles in the line of range.

These two fixed red lights, in one, lead into the canal from the most westerly of the three gas buoys indicating the north side of the channel between the point where the channel leaves the alignment of the Beauharnois range lights and the axis of the canal.

The lights were established by the canal authorities as part of the new canal equipment, and were transferred to the care of this department in moving order.

*Port Colborne.*—A lighthouse has been erected on the outer end of the new breakwater at the entrance to Port Colborne, and the light put in operation on the 17th October, 1903. This light replaces the temporary lights, shown from lens lanterns, referred to in last year's report which have been discontinued and the mast removed.

The tower is of concrete, square in plan, the sides of the lower portion being vertical and those of the upper portion sloping, and the whole painted white. It is surmounted by an octagonal iron lantern painted red. The tower is 46 feet high from its base to the top of the ventilator on the lantern.

The light is a fixed red light, elevated 50 feet above the level of the lake, and should be visible 8 miles from all points of approach by water. The illuminating apparatus is dioptric of the seventh order. A stronger and more distinctive light will be substituted later.

A diaphone has been installed in the base of the lighthouse, which will be put in operation on the opening of navigation in 1904.

The tower was erected under contract by Messrs Hogan and MacDonell, contractors for the breakwater, and cost \$6,200.00: the fog alarm machinery, supplied by the Canadian Fog Signal Company cost \$2,400.

*Point Edward.*—Range light buildings have been erected at Point Edward, at the the entrance of St. Clair river to guide from the lake into the river through the axis of the channel dredged by the United States government, and the lights were put in operation on September 1, 1903.

The towers are wooden structures, square in plan, with sloping sides, surmounted by square wooden lanterns, the whole painted white.

The front tower stands on the beach, 107 feet back from the water's edge.

The height of the tower from its base to the top of the ventilator on the lantern is 34 feet.

The light a fixed red light, elevated 35 feet above the level of the lake, should be visible 7 miles from all points of approach by water. The illuminating apparatus is dioptric of the seventh order.

The back tower stands on the same beach, 579 feet from the front tower. The height of the tower from its base to the top of the ventilator on the lantern is 54 feet.

The light is a fixed red light, elevated 58 feet above the level of the lake and should be visible 8 miles in the line of range. The illuminating apparatus is catoptric.

The buildings were erected by days' labour, under the supervision of Mr. W. K. Morris, of Ottawa, and cost \$2,119.86.

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*Kincardine.*—A steam fog siren, established in connection with the town waterworks machinery was put in operation on May 1, 1903.

During thick weather, throughout the season of navigation, the siren gives blasts of  $2\frac{1}{2}$  seconds' duration, with intervals of  $42\frac{1}{2}$  seconds between them, or one blast every 45 seconds.

The waterworks building is situated on the lake shore, north of the harbour entrance. It is a conspicuous building of white brick, with a high stack, the siren rises above the roof.

The machinery and installation cost \$293.08; the alarm is operated by the town at its own cost.

*Stoies bay.*—The back day beacon of the range established in 1899 to lead into this bay on the Saugeen peninsula, was blown down on May 27, 1903, but was not re-erected, as this department is proceeding with the erection of range lights on the sites of the two beacons.

The work is in charge of Mr. W. K. Morris as foreman, and will be completed next spring.

*Collingwood range lights and beacons.*—Temporary range lights, locally known as the 'shore range' have been established and are maintained by the corporation of Collingwood, in the south extremity of the harbour, which in one indicate the middle of the 20-foot channel from its outer extremity, outside the west breakwater pier, to the curve near the fixed red light on the crib in the harbour.

The front light of this range stands upon the shore in the south part of the harbour at a point 330 feet S.  $17^{\circ}$  W. from the northwest extremity of Fleming's wharf.

It consists of two fixed white lantern lights six feet apart vertically, hoisted on a pole painted white, having a diamond shaped white slatted beacon on top.

The back light pole stands on the south side of Second street, 130 feet west from its intersection with the west side of Cedar street, and is distant 1,610 feet S.  $10^{\circ}$  W. from the front light pole.

Two fixed white lights, shown from lanterns 6 feet apart vertically, hoisted on this pole, are shown. The pole is 55 feet high, and has on its top a diamond shaped slatwork beacon, 12 feet high by 8 feet wide, the whole painted white.

The middle of the 20-foot channel leading to the elevator is marked by two day beacons, the front one consisting of a diamond shaped slatwork, painted white, attached to a mast rising 32 feet above water level, on the outer or northwest end of the elevator wharf, the back beacon of a diamond shaped white mark, painted on the northwest end of the elevator, at a height of 40 feet above the water.

These two beacons in one, mark the middle of the 20-foot channel, 110 feet wide leading from the south end of the curve to the elevator.

*Bruce mines.*—A light was put in operation in July, 1902, on the new government wharf. It is shown from an anchor lens lantern on a shelf on the southeast corner of the unpainted warehouse, and 60 feet from the outer end of the wharf.

The light is a fixed white light, elevated 12 feet above the level of the lake, and should be visible 5 miles from all points of approach by water. The illuminating apparatus is dioptric of the seventh order.

The Bruce Copper Mines, limited, have notified the department of their intention to continue maintaining a red light on the southeast corner of the warehouse on the outer end of their private wharf, but this will be in no way under governmental control, or receive assistance, and will therefore be no longer considered an official light.

*Tolmsaville.*—A light was established on July 24, 1903, on the government wharf at Tolmsaville, on the north side of Cockburn island. It is shown from a pressed lens lantern, fixed on a stand 12 feet high, on the outer end of the wharf.

The light is a fixed white light, elevated 20 feet above the level of the lake, and should be visible 9 miles from all points of approach by water.

## NEW AIDS TO NAVIGATION.

*Lachine canal.*—The mast light maintained by this department on the upper end of the railway wharf at the upper entrance to the Lachine canal, was, in 1900, replaced by a permanent lighthouse forming the front light of a range established by the Department of Railways and Canals to indicate the axis of the dredged cut leading from the upper entrance of the canal into the 14 foot channel of the upper St. Lawrence system. These two lights were in 1902 transferred to the control of this department.

The front range lighthouse stands on an unpainted cribwork block, built on the west extremity of the railway wharf.

The tower is in the form of the frustum of a cone, in steel, surmounted by a cylindrical metal lantern. It is painted white; the roof of the lantern is of unpainted copper. The height of the building, from the deck of the block on which it stands to the top of the ventilator on the lantern is 29½ feet.

The light is an occulting white acetylene light, burning with full power for eight seconds, and with a dim light for two seconds, alternately, elevated 30 feet above the summer level of the lake. It should be visible 10 miles in, and over a small arc on each side of the line of range, and also in the channel in passing. The illuminating apparatus is catoptric.

The back light is distant 904 feet N. 80° 47' E., from the front one, and is a similar light. It is elevated 44 feet above the summer level of the lake, and should be visible 12 miles in, and over a small arc on each side of, the line of range.

The tower is similar to the front range light tower, but is higher. It stands on an unpainted cribwork block, in shoal water, in the bottom of the bay east of the railway wharf, and is connected with the shore by an elevated footpath. The height of the building, from the deck of the block to the top of the ventilator on the lantern, is 48½ feet.

The two lights in one, lead through the axis of the dredged cut, to the turning point 1½ miles distant.

*Oka.*—A pole light was, on September 16, 1903, established on the outer end of the wharf in front of the village of Oka, on the north side of the Lake of Two Mountains, Ottawa river.

The light is a fixed white light shown from a lens lantern hoisted on a pole fixed to the front of the freight shed on the wharf near its outer extremity. It is elevated 28 feet above the summer level of the river and should be visible 5 miles from all points of approach by water. The illuminating apparatus is dioptric of the seventh order.

The pole is 20 feet high and has a box at its base. It is attached to the southeast corner of the freight shed, which is a wooden building painted drab.

The work was done by Mr. Hyacinthe Lacroix, keeper of the lighthouse above Oka, at a cost of \$258.30, the lens lantern being provided from our stores.

*Narrow island.*—A new lighthouse has been built to replace the old lighthouse destroyed by fire on March 30, 1902. The light was put in operation on the opening of navigation in 1903, and the exhibition of the temporary light discontinued.

The lighthouse is erected on the site of the old lighthouse, on the western extremity of the island, and is a rectangular wooden building, with an octagonal wooden lantern standing on the west end of the roof, the whole painted white. The height of the building from its base to the vane on the lantern is 37 feet.

The light is a fixed white light, elevated 36 feet above the level of the lake, and should be visible 11 miles from all points of approach by water. The illuminating apparatus is dioptric of the seventh order.

A red centre has been inserted in this light, which covers Foster bank and the shoals in its neighbourhood, and also indicates the direction of the shoals extending westward from the head of Narrow island.

The building was erected under contract by Mr. J. Candlish Kennedy, of Owen Sound. His contract price was \$2,376.40.

*Pointe aux Pins.*—On April 11, 1903, two temporary pole lights were established here, which on September 28, were replaced by inclosed range buildings.

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The towers are wooden buildings, square in plan, with sloping sides, surmounted by square, wooden lanterns, the whole painted white. The lights are fixed white catoptric lights.

The front tower stands on the north extremity of the sand spit running northward from the lighthouse on the south extremity of Pointe aux Pins.

The tower is 31 feet high from its base to the top of the ventilator on the lantern.

The light is elevated 28 feet above the level of the river, and should be visible 4 miles in the line of range.

The back tower stands on the west shore of the little bay formed by the sand spit, and is 920 feet S.  $54\frac{1}{2}^{\circ}$  W. from the front tower. It is 56 feet high from its base to the top of the ventilator on the lantern.

The light is elevated 53 feet above the level of the river, and should be visible 4 miles in the line of range.

This range takes the place of a private range, maintained by Mr. Rouleau, pilot, a short distance further north, which was ordered discontinued when our temporary lights were established.

*Otter island.*—A lighthouse has been erected on the northwest extremity of this island, off Otter head, northeast shore of Lake Superior.

The lighthouse is an octagonal wooden building, with sloping sides, painted white, surmounted by a polygonal iron lantern painted red. The height of the building from its base to the vane on the lantern is 36 feet.

The tower stands about 100 yards from the extreme north point of the island, on rock about 70 feet above the level of the lake. The lightkeeper's dwelling, a white wooden building, is on the south shore of Big Daves harbour, inside the north point of the island.

Pending the completion of the permanent illuminating apparatus for this lighthouse a temporary fixed white light was on October 23, 1903, exhibited from a seventh order dioptric lens placed in the lantern. The light is elevated 97 feet above the level of the lake, and should be visible 10 miles from all points of approach by water.

The buildings at this station were erected by contract by Mr. Wm. Fryer of Collingwood. His contract price for the work here and at Slate islands together was \$9,400.

The expenditure in this station to date exclusive of the contract price has been \$1,071.85.

*Peninsula harbour.*—A hand fog horn has been established at this light station, which will be used in answer to the fog signals of vessels whenever they are heard from the station.

*Slate islands.*—A lighthouse has been erected on the south extremity of the south Slate island, in the north part of Lake Superior.

It is an octagonal wooden building, with sloping sides, painted white, surmounted by a polygonal iron lantern painted red. The height of the building from its base to the vane on the lantern is 36 feet.

The tower stands on the summit of the hill which forms the south side of a harbour, now named Sunday harbour, at the south extremity of the group of islands. The light keeper's dwelling, a white wooden building, is on the beach of the harbour, northeast from the lighthouse.

Pending the completion of the permanent illuminating apparatus for this lighthouse, a temporary fixed white light, was on October 28, 1903, exhibited from a seventh order dioptric lens placed in the lantern.

The light is elevated 224 feet above the level of the lake, and should be visible 10 miles from all points of approach by water.

The buildings here were erected by Mr. Wm. Fryer of Collingwood, who took a contract for them and the Otter island work jointly as hereinbefore detailed; the expenditure outside the contract to date has been \$1,071.85.

*Silver islet.*—Two range lights, maintained by private parties since 1869 on the wharf on the Thunder cape shore of Lake Superior, inside Burnt island, abreast of

Silver islet, and known as Silver islet range lights, are now assisted by this department, by being supplied with oil for illuminating purposes.

The lights are fixed white, shown from tubular lanterns supported upon posts painted white, and should be visible 2 miles in the line of range.

The front post is 12 feet high, and is situated on the wharf near its southwestern end. The light is elevated 10 feet above the water.

The back post stands on the wharf 116 feet N. 50° E. from the front one. It is 18 feet high and the light is 16 feet above the water.

The two lights in one bearing N. 50° E. lead to the wharf from the southwestward between the shoals off Burnt island and Catholic church point.

#### AIDS TO NAVIGATION DISCONTINUED.

*Presqu'île.*—The light in the back tower of the range which formerly led into Presqu'île bay, on the north shore of Lake Ontario, was discontinued when the ranges leading to the upper entrance of the Murray canal were established in 1891, but the tower was left standing because it was of use to small boats entering by the old shallow channel. In one with the lighthouse on Salt point it led through that channel. In consequence of decay it was found necessary this year to take down the old tower, and it is therefore no longer available as a day beacon.

*Pine Tree harbour.*—The range lights heretofore maintained by private enterprise on the northeast side of Pine Tree harbour, Sauguen peninsula, on the east side of Lake Huron, have not been in operation since the sawmill in the harbour was closed down.

#### CHANGES AND PRINCIPAL IMPROVEMENTS IN EXISTING AIDS.

*Baskins wharf.*—Towers have been erected at this Ottawa river station to replace the masts from which lights were previously exhibited. The masts have been removed and the lights were shown from the new towers on the opening of navigation in 1903.

The front tower stands 60 feet back from the water's edge, and is a wooden building, square in plan, with sloping sides, painted white. The height of the tower from base to vane is 26 feet. The light is elevated 30 feet above high water mark, and should be visible 6 miles in the line of range, and across the lake at right angles to the line of range. The illuminating apparatus is a pressed glass lens. The illuminant is acetylene.

The back range tower stands  $\frac{1}{2}$  mile S.E. from the front tower. It is a similar building. The height of the tower from base to vane is 31 feet. The light is elevated 50 feet above high water mark, and should be visible 6 miles in the line of range. The illuminating apparatus is catoptric. The illuminant is acetylene.

This work was done by day's labour under the superintendency of Mr. Madore, at a cost of \$1,154.43.

*Belleville.*—In consequence of the existence of a large number of bright lights in the vicinity of the lighthouse it was difficult to pick it out, and its colour was subsequently changed from white to red on September 15, 1903.

*Kincardine.*—The new lighthouse referred to in last year's report to replace the old front range lighthouse, destroyed by fire, was completed and the light was put in operation in May, 1903, when the exhibition of the temporary light was discontinued.

The lighthouse stands on the north pier, 230 feet from its west end, and 1,200 feet from the main lighthouse.

The lighthouse consists of a skeleton steel frame, square in plan, with sloping sides, painted brown, surmounted by a white, octagonal, wooden lantern. The tower is 33 feet high from its base to the vane on the lantern.

The light is a fixed red light, elevated 35 feet above the level of the lake, and should be visible 7 miles from all points of approach by water. The illuminating apparatus is dioptric of the seventh order.



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The steel work was supplied by the Gould, Shapley & Muir Co., Brantford, at a cost of \$442, and erected by Mr. John Watson, at a cost of \$598.52.

*Saugeen range.*—The maintenance of the back range light at the mouth of Saugeen river, established as a private light, has been assumed by this department, and the range has been improved by substituting for the lanterns on masts heretofore used enclosed lighthouse towers.

The towers are wooden buildings, square in plan, with sloping sides, surmounted by square, wooden lanterns, the whole painted white. Each tower is 31 feet high from its base to the top of the ventilator on the lantern.

The front tower stands on a cribwork block, built on the breakwater on the north side of the mouth of the river, and is distant 40 feet from the extremity of the breakwater.

The light shown from this building is fixed green (instead of the fixed white light shown from the mast). It is elevated 36 feet above the level of the lake, and should be visible 4 miles from all points of approach by water. The illuminating apparatus consist of a pressed glass lens.

The back tower stands on the point formerly occupied by the mast from which the back light was shown, on the hillside near the inner extremity of the breakwater, 700 feet inside the front light.

The light is a fixed green light, elevated 49 feet above the level of the lake, and should be visible 4 miles in and over a small arc on each side of the line of range.

The work was done under contract by Mr. John McAulay. His contract price was \$1,085.

*Point au Baril.*—The back range tower has been replaced by a new tower erected on the site of the old one, upon the summit of an island in the inner channel, 4,800 feet from the front range lighthouse.

The new building is square in plan, with sloping sides, and consists of a skeleton steel frame, surmounted by an inclosed wooden watch room and a square wooden lantern. The steel frame is painted red, and the woodwork white. The building is 51 feet high from the ground to the vane on the lantern.

The light shown from the new tower is a fixed red light, elevated 62 feet above the level of the bay, and should be visible 9 miles in, and over a small arc on each side of the line of range. The illuminating apparatus is catoptric.

The steel framework was furnished by the Gould, Shapley & Muir Co., of Brantford, at a cost of \$410.00, and was erected under contract by Mr. R. Hudson whose price was \$490.00.

*Little Current.*—Immediately after the opening of navigation in 1903, the light shown from the tower in the village was changed from fixed white to fixed red, so as to render it readily distinguishable from the village lights. At the same time the old catoptric apparatus was removed and replaced by a dioptric lens of the seventh order.

*Flowerpot island.*—The fog bell at this station referred to in the last year's report as disabled in August, 1902, was again put in operation in September.

*Cape Croker.*—The light has been changed from a fixed white to an occulting white light, visible for 23 seconds and eclipsed for  $4\frac{1}{2}$  seconds, alternately. In other respects the light is unchanged.

The electric fog horn has been replaced by a fog siren operated by compressed air, which, during thick or foggy weather, will give blasts of 15 seconds' duration, separated by silent intervals of 15 seconds.

*Meaford.*—The illuminant used in the lighthouse on the outer end of the breakwater on the west side of the entrance to the harbour, was on 1st May, 1903, changed from coal oil to electricity, and increased in intensity; and the maintenance of the pole light established by the corporation of the town on the east breakwater pier, as described in last year's report was assumed by this department, and the light was on 29th May, 1903, changed from an oil light to an incandescent electric light. It shows a fixed

bright light from a 32-candle power lamp placed in a lantern hoisted on a pole at an elevation of 14 feet above the level of the water, and standing two feet from the extremity of the east breakwater.

In the event of the failure of either of these electric lights, an oil light will temporarily replace it.

*Sault Ste. Marie*.—On the opening of navigation in 1903, the range lights marking the approach from the westward to the Canadian canal were improved by substituting for the illuminating apparatus hitherto used in each lighthouse a group of three incandescent electric lamps, each of 65-candle power, placed in the foci of paraboloidal reflectors.

Both lights were also changed in colour from fixed white to fixed red.

These lights should show very strong beams in and over a small arc on each side of the line range.

The lights herein referred to are those shown from the lantern on the cribwork beacon at the turn in the channel, and from the tower on Davignon point.

At the same time the electric arc light, maintained by the Department of Railways and Canals on the upper end of the north pier of the Canadian canal and the similar light on the upper end of the south pier, were changed in colour from red to green, so as to distinguish them from the red range described above.

The two lights changed in colour are respectively the most westwardly light of each of the two rows of arc lights illuminating the canal bank and cribwork approaches.

These changes were made under the supervision of Mr. J. C. Boyd, superintendent of the canal, who in the interests of shipping has been very kind in rendering gratuitous assistance to this department on all possible occasions.

#### BUOYS AND BEACONS.

*Windmill point*.—On June 6, 1903, the steamer *Keefe* of the Wolvin line drawing 14 feet water, touched in the main channel of Lake St. Louis, at a spot 200 feet south of gas buoy No. 98 S, which marks the north side of the channel east of Windmill point, Ile Perrot. This gas buoy was consequently moved to a new position about 300 feet south of its former location.

*Macnair shoal*.—On September 23, 1903, a spar buoy, painted in red and black horizontal bands, was established in 15 feet water near the centre of Macnair shoal, a rocky ledge about 800 feet from Macnair island, below Brockville, replacing a spar buoy theretofore maintained in the same locality by the United States Government.

*Hillcrest shoal*.—On September 23, 1903, a gas buoy was established on the south-east edge of the shoal in the St. Lawrence river, about 250 feet from the north shore, opposite Hillcrest, and near the upper end of the narrows at the Brock group of islands, replacing a gas buoy theretofore maintained by the United States Government in the same locality.

The buoy is of steel, cylindrical, surmounted by a conical slatwork, on which stands the usual Pintsch type of lantern, the whole painted red. The light is a fixed white acetylene light. It is elevated 9 feet above the level of the river, and should be visible 4 miles.

*Toronto*.—The bell buoy heretofore maintained by the corporation to reach the crib at the outer end of the waterworks intake pipe has been discontinued. A notice to mariners was issued in August, 1903, describing all the buoys maintained by the corporation of Toronto in the approaches to the harbour.

*Surprise shoal*.—On the opening of navigation in 1903, the bell buoy was changed in colour from red to black, as it is on the south-west side of the shoal, and the usual course of steamers is between it and the shore.

*Lone rock*.—The bell buoy marking this rock, which was sunk on its station has been replaced by a new one on the opening of navigation in 1903.

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*Jennie Graham shoal.*—The platform buoy marking this shoal, south of the Duck islands, Lake Huron, has been replaced by a bell buoy of United States Government pattern, moored in June, 1903, south of the shoal, in 7 fathoms.

The buoy is of steel, painted red, and is surmounted by a bell rung by the motion of the buoy on the waves.

*Hare island shoal.*—On August 26, 1903, a red-spar buoy, showing 6 feet out of water was placed by Mr. Stewart, hydrographic surveyor, to mark the south end of the dangerously shoal spit running out for Hare island, Thunder bay.

*Fort William.*—On August 25, 1903, a wooden platform buoy, 12 feet square, surmounted by an octagonal wooden pyramid 8 feet high, with vertical slatwork, the whole painted red, was established at the outer end of the northern edge of the dredged channel into Fort William, at the mouth of the Kaminiistikwia river.

The superstructure of this buoy is capped by a Wigham 31-day lamp painted white, which, from a height of 9 feet above the water, exhibits a fixed white light, that should be visible 5 miles from all points of approach.

The buoy is moored in 23 feet water, replacing the outer red spar buoy, which marked the edge of the dredged channel.

*Victoria island channel.*—On the 2nd September, 1903, Mr. W. J. Stewart, hydrographic surveyer, established three spar buoys off the western end of Victoria island Lake Superior, as follows:—

1. A spar buoy painted in red and black horizontal bands, showing 12 feet out of water, 3,200 feet from the most westerly point of Victoria island, and 2,000 feet from the nearest rock of Tiger island.

The buoy is on the middle of a small rock with 6 feet least water upon it, the shoalest part lying northeast 100 feet from it. Southeast 100 feet from the buoy is the outer end with only 14 feet of water over it.

2. A black spar buoy, showing 10 feet out of water, close off the spit from the most westerly end of Victoria island in 5 fathoms.

3. A red spar buoy, showing 10 feet out of water, 4125 feet from Victoria island lighthouse, and 1600 feet off the nearest, low, grassy point.

## QUEBEC LIGHTHOUSE DIVISION.

This district extends from the entrance of the Strait of Belle Isle to Montreal, a distance of over 1,200 miles, and includes aids to navigation in the Richelieu river and Lake Memphremagog, as well as in the River St. Lawrence, Saguenay river, Lake St. John, Chaleur bay, Gulf of St. Lawrence, Strait of Belle Isle, north and west coasts of Newfoundland and Labrador.

This division is under the control of Mr. J. U. Gregory, I.S.O., agent of the Department of Marine and Fisheries, at Quebec, who is also shipping master, attends to the requirements of the British Board of Trade in matters of shipwrecked and distressed seamen and casualties at sea, is receiver of wrecks, supervisor of wharfs, a fisheries officer for the province of Quebec, and superintendent of the signal service.

The agent's staff consists of Mr. L. A. Blanchet, chief clerk and accountant, and deputy shipping master: Mr. George D. O'Farrell, lighthouse inspector: Mr. Alphonse Hamel, clerk; and Mr. P. J. O'Brien, storekeeper and wharfinger, with assistants as required.

The workshops with a large stock of models of various kinds needed for the service are under Mr. Ernest Roy, Mr. François Turgeon and Mr. Louis Gagné, master carpenters, and Mr. Narcisse Dufour, master-shipsmith. The gas works are under Mr. G. Bélanger.

The steamers at the disposal of this agency during the past year were the New Dominion steamer *Druid*, Captain C. Koenig, in charge of lights, and buoys and beacons from Platon to Father point and the steamer *Aberdeen*, Captain Bélanger, which

supplied the lights in the river and Gulf of St. Lawrence, Strait of Belle Isle, Anticosti, Magdalen islands and Chaleur bay.

The lights above Quebec were supplied by passenger steamer or by rail as proved most economical and convenient.

The buoys between Platon and Montreal are under the supervision of Mr. U. P. Boucher, as engineer, who has the steamer *Shamrock* allotted to him for this service.

There have been put in operation, between Quebec and Montreal, 12 new lights since my last annual report, which now brings the total number of aids to navigation in this division to 200 lights at 121 stations, 6 lightships, 3 of which are supplied with powerful steam fog whistles, one powerful first order siren blown by compressed air, 9 explosive bomb signal stations in connection with lights, 2 steam fog whistles and 9 steam fog horns; 12 gas buoys, 4 of which are supplied with bells, 170 wooden and iron buoys and 59 beacons.

#### NEW AIDS TO NAVIGATION.

*New Carlisle.*—A light, shown from a lantern hoisted on a mast, was established on 1st August, 1903, on the Government wharf.

The light is fixed red, shown from a square tubular lantern, elevated 32 feet above high water mark, and visible 2 miles in the approach to the wharf.

The mast is 25 feet high, above the deck of the wharf. It stands against the south side of the freight shed at the outer end of the wharf.

*Barachois de Malbaie.*—A pole light was established on the north side of the entrance in May, 1903.

The light is fixed red shown from a lantern with a small reflector behind it, hoisted on a pole. It is elevated 70 feet above high water mark, and visible 4 miles from all points seaward.

The pole is white and is 38 feet high. It has a wooden shed, white with red roof, at its base, and stands on the point opposite the sand beach known as the Barachois.

The total expenditure in connection with the establishment of this aid has been \$128.29.

*Seven islands.*—An explosive fog alarm was established at the light station on Carousel island, on 15th August, 1903, for the protection of vessels trading along the north shore. It consists of cotton powder bombs, exploded every 10 minutes from a jib 300 feet southeast of the lighthouse.

*Rivière à la Pipe.*—In the summer of 1901 the agent of this department at Quebec completed arrangements for the establishment of a light, on the government wharf at this point on Lake St. John. It is shown from a pressed glass lantern hoisted on a pole on the southwest corner of the wharf, which is built on lot 18 in the first range of Taillon,  $\frac{3}{4}$  mile west of the mouth of the river.

*Ile au Béliet.*—A similar light was at the same time established on Ile au Béliet, east of Ile Verte,  $\frac{1}{2}$  mile northwest from St. Gédéon, is shown from a pole on the southwestern part of the island. The pole is 16 feet high with a small shed at its base.

*Pointe Noire.*—The range lights formerly maintained at the entrance to the Saguenay were re-established on the 15th August, 1903.

They are fixed white catoptric, shown from square wooden towers, with sloping sides, surmounted by hexagonal wooden lanterns, the whole painted white. Each tower is 27 feet high from its base to the top of the ventilator on the lantern.

The front tower stands on the point, near its east extremity.

The light is elevated 60 feet above high water mark, and visible 13 miles in the line of range.

The back range tower stands 1558 feet N. 60° 15' W. from the front tower. The light is elevated 131 feet above high water mark, and visible 15 miles in the line of range.

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The two lights in one, bearing N. 60° 15' W., lead into the mouth of the Saguenay, clear of Prince shoal, Bar reef and Vache shoal.

The work of refitting the old towers was done by men sent from the shops of our Quebec agency.

*St. Ours traverse.*—Two range light towers were erected and put in operation on the 27th October, 1903. They show fixed white catoptric lights, visible only in the line of range. They mark the tangent previously marked by day beacons, but 75 feet westward of and parallel to them.

The front tower is a square wooden building, with sloping sides, painted white, surmounted by a square wooden lantern painted white with a red roof. It is 33 feet high from the pier to the ventilator on the lantern.

It stands upon a whitewashed concrete pier 22 feet high, built on the beach, 2580 N. 13° 52' E. from the front day beacon, lately removed.

The light is elevated 50 feet above the summer level of the river, and visible 4 miles.

The back light is elevated 87 feet above the water, and visible 4 miles.

It is shown temporarily from a lantern hoisted on a mast rising 15 feet above the steelwork of a skeleton tower. This tower when completed will consist of an open steel framework, square in plan, with sloping sides, painted brown, surmounted by an enclosed wooden watchroom, capped by a square wooden lantern. The side of the framework facing the channel is rendered more conspicuous as a day beacon by being covered half way down with wooden slatwork. The lantern roof will be painted red, the remainder of the lantern, the watchroom, and the slats, will be white. The height of the tower from its base to the ventilator on the lantern will be 64 feet.

The tower stands 2,700 feet S. 15° 30' W. from the front light, and 125 feet S. 54° 4' W. from the front beacon, lately removed.

The two lights in one, bearing S. 15° 30' W., mark the axis of the improved ship channel from gas buoy 5 M. to Bellmouth curve.

*Petite Traverse.*—Two range lights were on the 27th October, 1903, established to mark the axis of the straight cut known as Petite Traverse in the improved ship channel.

The lights and towers are similar in every respect to those last described, marking the St. Ours traverse.

The front tower stands on the ground on the crest of the river bank east of St. Ours traverse, 185 feet from the position occupied by the day beacon which it replaces, and 6735 feet N. 27° 24' E. from St. Ours traverse front range lighthouse.

The light is elevated 62 feet above the level of the river.

The back tower stands in the fields 205 feet N. from the day beacon which it replaces, and 1836 feet N. 61° E. from the front tower. The light is elevated 117 feet above the level of the river.

The two lights in one astern lead through Petite Traverse in the axis of the ship channel, from Bellmouth curve to Contrecoeur bend.

*Contrecoeur course.*—Two range lights, exactly similar to those last described, were established on the 27th October, 1903, to mark the axis of the cut in the improved ship channel known as Contrecoeur course.

The front tower stands on the ground on the crest of the river bank east of St. Ours traverse, 155 feet from the position occupied by the day beacon which it replaces, and 4275 feet N. S° 48' E. from the front tower of the Petite Traverse range.

The light is elevated 63 feet above the level of the river.

The back tower stands in the fields, 75 feet S. 40° 30' E. from the position previously occupied by the day beacon which it replaces, and 2555 feet N. 48° 15' E. from the front tower.

The light is elevated 127 feet above the level of the river.

The two lights in one astern lead through Contrecoeur course in the axis of the ship channel S. 48° 15' W. from Contrecoeur bend to the bend at gas buoy No. 43 M.

*Contrecoeur to Verchères range.*—Two range light towers, with the above designation, were erected last year and completed this season in the prolongation of the axis of the new dredged channel eastward between Verchères Traverse and Contrecoeur Traverse. The western end of the same axis is marked by the Verchères village range lights.

Lights were shown from these buildings on 27th October, 1903.

The lights are fixed white catoptric lights, visible 6 miles in the line of range.

The front tower is a square wooden building, with vertical sides, standing on a concrete pier. The pier is whitewashed, and the lighthouse is painted white with a red roof. It stands in one foot water on the flats making out from Contrecoeur, on the south shore of the river. It is distant 4350 feet N. 42° W. from Contrecoeur village church.

The back light is shown temporarily from a lantern hoisted on a pole above the steel framework of the tower, which is a square building, with sloping sides, consisting of an open, steel framework, with wooden slats on the upper portion of the side facing the alignment. The skeleton steelwork is painted brown, and the slats are white. The height of the tower from the pier to the top of the slatwork is 42 feet. When the wooden superstructure of this tower is completed the light will be shown from the lantern thereof without any change in its height or character.

The pier on which the tower stands is of concrete, whitewashed.

The deck of the pier is 26 feet above the summer level of the river. This pier stands upon an islet rising out of the same flat on which the front one stands. It is distant 9,250 feet N. 54° 30' E. from the front tower.

These buildings, with their concrete foundations, were erected by day's labour, under the supervision of Mr. E. Roy, foreman of works, and together with the three new ranges at Contrecoeur, have cost to date \$26,631.84.

*Ile aux Ruisins.*—The back tower of the range was in July, 1903, replaced by a new lighthouse, consisting of a skeleton steel frame, square in plan, with sloping sides, surmounted by an enclosed wooden watch room and an octagonal wooden lantern. The steel frame is painted brown and the woodwork white. The building is 85 feet high from the ground to the vane on the lantern. It stands on concrete piers, built on piles.

The light is, as heretofore, fixed white catoptric. It is elevated 86 feet above the level of the river, and should be visible 7 miles in the line of range. It may also be seen dimly from other parts of the channel.

The lighthouse is built immediately in rear of the old one; the distance between the two range lights is 2,020 feet, and the bearing of the range is S. 25° W. The old tower and the pier on which it stood are being removed.

The work was done under the supervision of Mr. E. Roy, foreman of works, and cost \$3,941.75.

*Pointe aux Trembles, en haut.*—On the opening of navigation this year the range lights, which had originally been erected by the Montreal Trinity House, but which no longer marked the axis of the improved ship channel, were permanently discontinued, having been replaced by Ile aux Vaches traverse range lights, herein described. The back range tower was taken down and re-erected in Varennes village; the front range tower, a very old building almost obscured by trees and buildings, was sold with the land formerly occupied by the range. The change was made under the supervision of Mr. E. Roy.

*North of Halfway point.*—The front lighthouse of this range was overturned by ice in the spring of 1902.

Until repairs could be made a temporary light shown from a lantern hoisted on a pole was exhibited.

On July 28, 1902, the light was again shown from the front range tower.

In making repairs the range was improved by placing the tower on a new cribwork pier, built on the edge of the river, 345 feet in front of the old site, so that the front tower now stands S. 17° W. 1,158 feet from the back range tower. The tower was also

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decreased in height so that it is now only 13 feet high. The light is elevated 15 feet above high water mark and should be visible 8 miles in the line of range.

These changes were made under contract by Mr. A. Boivin, and cost \$710.91.

*Ile Bouchard range.*—On June 18, 1903, lights were shown from the range light towers erected in 1902 on Ile Marie and Ile Bouchard, described in last year's report. These lights will be permanently maintained.

Both lights are fixed white catoptric lights, visible 8 miles in, and over a small arc on each side of, the line of range. The front light is 39 feet and the back light 75 feet above the level of the river.

The two lights in one, bearing N.  $51^{\circ} 15'$  E., indicate the axis of the ship channel from Cap St. Michel to the head of Verchères traverse.

*Varenes.*—The back range lighthouse removed from Pointe aux Trembles was erected last winter in the village of Varenes, and put in operation on the opening of navigation in 1903.

It stands on the outer edge of the main road in the village, 265 feet from the village church.

The lighthouse consists of a square skeleton steel frame, painted red standing on a concrete abutment, with sloping sides, an enclosed wooden watch room and a square wooden lantern painted white. The side of the framing facing the channel is rendered more conspicuous by a wooden slatwork extending below the watch room. The building is 61 feet high from the ground to the vane on the lantern.

The light is a fixed white catoptric light, elevated 80 feet above the summer level of the river, visible 4 miles in the line of range.

This light in one with the front range light on Ile à l'Aigle, bearing N.  $46^{\circ}$  E., forms a range known as Ile aux Vaches traverse range, which indicates the axis of the dredged ship channel from the point where it leaves the alignment of Ile Ste. Thérèse upper range lights to the bend below Ile aux Vaches light.

The work of removal was done under the supervision of Mr. E. Roy, foreman of works, at a cost of \$2,637.40.

*Boucherville range.*—Range lights were put in operation on September 1, 1903, on the north end of Ile St. Joseph or Grosbois, to guide through the south channel, used by market boats, leading from Varenes into Boucherville channel.

The lights are fixed white lights shown from pressed lens lanterns, hoisted on masts. The masts have diamond-shaped targets attached to them, to serve as day marks,  $4\frac{1}{2}$  feet square, painted black.

The front light is 480 feet back from the water's edge in the line of range, on the north end of the island and is elevated 18 feet above the summer level of the river and visible 4 miles.

The back light is situated 760 feet S.  $23^{\circ} 12'$  W., from the front light.

It is elevated 25 feet above the summer level of the river, and visible 4 miles.

The lights are intended to guide through the south channel leading from Varenes into Boucherville channel.

The work of erection was done under the supervision of Mr. U. P. Boucher, engineer in charge.

*Bellerive park range.*—Two range lights established by the harbour commissioners of Montreal, were put in operation on November 9, 1903, to mark the middle of the ship channel from the turn of Longueuil gas buoy No. 181 M to the turn below Ile Ronde gas buoy, No. 195 M.

The lights are fixed red electric arc lights elevated on poles and visible two miles in the line of range.

The front line pole stands in Bellerive park on section 32 of the wharf, forming the west shore of the River St. Lawrence, near its edge. The light is elevated 55 feet above low water.

The back light pole stands on the high ground S.  $50^{\circ}$  W. 580 feet from the front one. The light is elevated 75 feet above low water.

*Hochelaga range.*—Two range lights established by the harbour commissioners of Montreal, were put in operation on November 9, 1903, to mark the middle of the ship channel from the turn at Ile Ronde gas buoy No. 195 M. up into the harbour of Montreal.

The lights are fixed red electric arc lights, attached to day beacons which have marked this alignment since 1888.

The front beacon stands on section 41 of the wharf forming the west shore of the river at Hochelaga. The light is elevated 38 feet above low water.

The back beacon stands on the high ground behind section 43, N. 25° 45' E. 1,010 feet from the front one. The light is elevated 51 feet above low water.

*Longue pointe.*—Two range lights were established on October 28, 1903, 1½ miles below Longue pointe church.

The lights are fixed white with seventh order lens lanterns hoisted on poles and visible 4 miles from all points of approach by water.

The front light is shown from a mast 6 feet high, S. 82° 25' N. 5° 42' E. from Longue point church. It is elevated 30 feet above extreme low water mark.

The mast of the back light is 29 feet high, and the light is elevated 55 feet above the water. It stands 818 feet due north from the front one and is on the south side of the main road along the shore.

The lights in one, astern, lead through Longue point traverse, on a due south course, from the upper end of the curve at the head of Pointe aux Trembles channel to the turn above Longue point village. It is intended during the present winter to replace the masts by lighthouse towers.

#### CHANGES AND IMPROVEMENTS IN EXISTING AIDS.

*Bird rocks.*—On October 1, 1903, the light shown which has heretofore been fixed white, was advertized to be changed to occulting white: the light showing for 15 seconds and being eclipsed for 5 seconds alternately, and the illuminant to be petroleum vapour burned with an incandescent mantle of power greatly superior to that of the old light. The keeper appears to have had difficulty with the vapour burners and the occulting mechanism, as the light was reported as showing fixed as before during the late autumn.

*Amour point.*—On September 15, 1903, the light which had theretofore been fixed white, was changed to occulting white: the light showing for 16 seconds and being eclipsed for 4 seconds alternately. The illuminating apparatus is dioptric of the second order, and the new illuminant is petroleum vapour burned with an incandescent mantle.

The keeper here has also had trouble with the incandescent burners.

*Cape Rosier.*—On May 23, 1903, the light was changed from fixed to occulting, showing for 15 seconds and eclipsed for 5 seconds, alternately.

The illuminant is petroleum vapour, burned with incandescent mantles, and the new light is much whiter and more powerful than the old one.

*Fame point.*—On July 1, 1903, the lighthouse tower at this station was changed in colour from white with a black horizontal band as at present to bright red. The lantern roof, gallery and walls of the tower are all painted the same bright red colour.

This change was made as an experiment to ascertain whether the building against the green back ground in the summer time and against the snow in spring and autumn would be more conspicuous than it was when white.

Reports received from mariners have been to the effect that its visibility was increased by the change.

*Father point.*—On the opening of navigation in the spring of 1903 the explosive fog signal heretofore operated at Father point lightstation was discontinued, and replaced by a first class siren, operated by compressed air, giving a high and a low note each of 2½ seconds duration, with an interval of 2½ seconds between them, at intervals of two minutes.



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The fog alarm building is a white, wooden, rectangular building, with a shingled roof, and stands on the beach 432 feet N. 80° E. from the lighthouse. The siren projects from an annex on the north side of the building; its axis is 17 feet above high water mark.

In the event of the siren being out of order, the use of the explosive fog signal will be temporarily resumed.

*Bellechasse.*—On the opening of navigation in 1903 the light which was theretofore fixed white catoptric, was changed to occulting white; the light showing for  $5\frac{1}{2}$  seconds and being eclipsed for 3 seconds alternately. The new illuminating apparatus is dioptric of the fourth order, and the illuminant petroleum vapour burned with an incandescent mantle.

*St. Laurent.*—In 1902 the government wharf here was lengthened 70 feet, and on the opening of navigation in 1903 the light theretofore shown from a lighthouse on the wharf was removed to a lantern on the roof of the freight shed, which has been removed to the new extension. The light is now shown from a point 75 feet outside its old position and 55 feet inside the extremity of the wharf. The old lighthouse has been taken down.

The light is elevated 33 feet above high water mark, and is, as heretofore, a fixed white light, visible 11 miles from all points of approach by water.

The freight shed is a rectangular wooden building and stands over the slip in the middle of the end of the wharf. It is painted pink, with moss green roof. The octagonal metal lantern is painted white, with green roof. The height, from the deck of the pier to the ventilator on the lantern is 38 feet.

*Ste. Petronille.*—In May, 1903, the colour of the lighthouse was changed from green to white, with a red lantern roof.

*Barre à Boulard.*—The range lights, heretofore fixed red, were on July 1, 1903, made fixed white and greatly increased in intensity, so as to have a range of 11 miles; they indicate the axis of the ship channel from its intersection with the Lotbinière range alignment to Batture Simon.

(b.) The back light of Barre à Boulard range is now shown from a new tower erected over the old back range light shed, which, with the day beacon surmounting it, have been taken down.

The new structure consists of a skeleton steel frame, square in plan, with sloping sides, surmounted by an enclosed wooden watch room and a square wooden lantern. The side of the framing facing the channel is rendered more conspicuous by wooden slatwork extending below the watch room. The steel frame is painted red and the woodwork white. The building is 61 feet high from the ground to the vane on the lantern.

The light is elevated 160 feet above high water mark, and should be visible 11 miles in, and over a small arc on each side of, the line of range.

*Platon.*—On July 1, 1903, the fixed white lights in the high land and the light on Richelieu islet were discontinued, as the portion of the ship channel covered by them is better indicated by the improved Barre à Boulard range; but at the solicitation of the pilots these three lights were relit on October 22, though at the same time mariners were warned that they do not correctly mark the improved ship channel, and were advised not to be guided by them.

*Lake St. John.*—Eight spar buoys were in 1901 established for the benefit of the ferry steamer running between the government wharfs at St. Jérôme, St. Gédéon, and Rivière à la Pipe. No particulars respecting these positions have been received. They are maintained by Mr. Alex. Morin at an annual cost of \$40.

In 1903 arrangements were made with Lt. Col. B. A. Scott, whereby small spar buoys are maintained in the entrances to the principal rivers falling into lake St. John to guide through their navigable channels, as follows: In the Assonapmouchouan, 68

buoys : in the Mistassini, 120 ; in the Peribonka, 24 ; and near Roberval, 3 buoys. An allowance of \$250 per annum is made for this service.

*Chicoutimi anchorage.*—Two buoys were, on the 10th August, 1903, established in the Saguenay river below Point Roches to indicate the best anchorage for deep draught vessels waiting for cargo from Chicoutimi ; one, an iron can buoy painted in black and white chequers, moored in 5 fathoms on the east edge of the flats, with Cape West just open of High Rocky point.

The other a red spar moored in 43 feet a short half cable from a rocky spit carrying 7 feet water and shoaling to 2 feet inshore.

*Rimouski road.*—A gas buoy was, on the 25th June, 1903, established to mark the point where the mail steamers should meet the tenders carrying the mails to and from Rimouski wharf.

It is a steel cylindrical buoy surmounted by a conical slatwork, the whole painted black, on which stands the usual Pintsch type of lantern. The light is a white light, visible for 7 seconds and occulted for 6 seconds alternately.

The buoy is moored in 7 fathoms water,  $1\frac{1}{2}$  miles N. 24° E. from the outer end of Rimouski wharf, and 2 miles N. 85° W. from Father Point lighthouse.

*Ship channel below Quebec.*—The colouring of the following buoys was changed in July, 1903, to bring them into conformity with the uniform system of buoyage adopted in Canada ; Alcide rock can, from black and white chequers to black ; Barrett ledges can, from black and white chequers to red and black bands ; Channel patch gas, from black and white chequers to red and black bands ; Grosse Ile patch can from black and white chequers to black ; Grosse Ile rock, from a black and white chequered can to a red conical buoy ; and West Sand spit, from black and white chequers to black.

*Lower Traverse.*—On the 22nd May, 1903, the red, conical, steel buoy marking the south edge of the South Traverse middle ground was replaced by a steel, cylindrical gas buoy, painted red, surmounted by a conical slatwork, on which stands the usual Pintsch type of lantern. The light is a white light, occulted at short intervals. This buoy is nearly opposite the new Lower Traverse lighthouse pier.

*Batture Simon.*—A gas buoy, showing an occulting white light, was on the 17th June, 1903, moored in place of the red conical buoy No. 68Q, marking the south extremity of Batture Simon.

The buoy is of steel, cylindrical, painted red, with 68Q in white on the sides, surmounted by a conical slatwork topmark, on which stands the usual Pintsch type of lantern. The light is elevated 9 feet above the level of the water and should be visible 4 miles.

*Yamachiche bend.*—On the 22nd June, 1903, Buoy No. 57 L, the can buoy painted in white and black horizontal bands, moored in Lake St. Peter at the bend between lightships No. 1 and 2, and known as "La bouée caille," was replaced by a steel, cylindrical gas buoy, painted black, surmounted by the usual Pintsch type of lantern. The light is an occulting white light, visible for 10 seconds and obscured for 10 seconds, alternately.

*Contrecoeur channel.*—In connection with the improvement and widening of the 30-foot ship channel between Lanoraie and Ile Bouchard, known as Contrecoeur channel, the buoys maintained by this Department required re-arrangement to suit the improvements, and to equip the channel for night navigation. During the month of October, 1903, all the buoys in this stretch were re-arranged to suit the improvements ; three spar buoys being discontinued, and four unlighted buoys replaced by gas buoys. A notice to mariners fully describing these changes was issued.

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*Ile Bouchard to Varennes.*—In connection with the straightening and widening of the 30 foot ship channel between Contrecoeur and Varennes, the buoys maintained by this department required re-arrangement to suit the improvements. Most of this work was done on the opening of navigation in 1902, but particulars of the changes made only reached my office in June, 1903. They were immediately embodied in a notice to mariners.

*Longue pointe.*—On June 21, 1903, red spar buoy No. 174 M, moored off Longue pointe, was replaced by a steel cylindrical Pintsch gas buoy, painted red, from which an occulting white acetylene light, visible for ten seconds and obscured for ten seconds alternately, is shown.

*Longueuil.*—On June 21, 1903, black can buoy No. 181 M, moored off Longueuil, was replaced by a steel cylindrical Pintsch gas buoy, painted black, from which an occulting white acetylene light, visible for ten seconds and obscured for ten seconds alternately, is shown.

## NOVA SCOTIA LIGHTHOUSE DIVISION.

This division, in charge of Mr. J. Parsons, agent of the department in this province, comprises 215 lighthouses, exhibiting 225 lights, 1 light vessel, 18 steam fog alarms, 1 explosive fog alarm station, 32 hand fog-horn stations, 2 fog-bells, 23 automatic whistling buoys, 21 automatic bell-buoys, 3 gas buoys, 145 iron or steel buoys, about 82 spar and other small buoys, 10 day beacons, 17 life saving stations, 5 marine hospitals, 2 humane establishments, and 8 signal stations. The steamers *Aberdeen* during winter, and the *Lansdowne* and the *Lady Laurier* during spring and summer, were utilized as lighthouse and buoy tenders.

The stations have been inspected by Mr. C. A. Hutchins, superintendent of lights, the boilers and machinery at the fog alarm stations have been examined by Mr. D. Stevens, inspector of government steamboats and by the first engineer of the government steamers during Mr. Stevens' absences: and the life saving stations and apparatus have mainly been visited and cared for by Capt. Bloomfield Douglas, R.N.R., Naval Assistant. The coast buoys have been placed and changed by the government ships under direction of Supt. Hutchins.

The hundreds of harbour buoys are mostly under contract with reliable local men. The wharfs have been inspected by the agent personally.

## NEW AIDS TO NAVIGATION.

*Pennant harbour.*—A lighthouse was put in operation on July 7, 1903, on the north side of the entrance to Pennant cove, in the county of Halifax, for the benefit of the local fishermen.

The building is a square wooden tower with sloping sides surmounted by a square wooden lantern, the whole painted white. It is 32 feet high from its base to the top of the elevator on the lantern. It stands 10 feet above and 30 feet back from high water mark.

The light is a fixed white catoptric light, elevated 37 feet above high water mark, and should be visible 7 miles from seaward. It shows only from the southwestern face of the lantern.

The work was done by day labour under the foremanship of Mr. Wm. H. Whebby at a cost of \$384.

*McNab island.*—A lighthouse erected on McNab island, near the northwestern end, was put in operation on March 31, 1903.

It is located 90 feet above high water mark  $\frac{1}{2}$  mile N. 16° E. from the south point of Finlay cove, and in the alignment of Mauger beach and Chebucto head lighthouses.

It is a square wooden building painted white with a sloping tower rising from the middle of roof surmounted by a wooden lantern and is 49 feet high from its base to the vane on the lantern.

The fixed white catoptric light, elevated 132 feet above high water mark, should be visible 17 miles in the line of range.

This light is intended to be worked in conjunction with Mauger beach light, to form a range leading in.

The work was done by day labour at a cost of \$3,578.

*Dartmouth.*—The tower of the Exhibition building, Dartmouth, Halifax harbour, has been increased in height and surmounted by a white wooden lantern, from which on 31st March, 1903, a light was shown in line with the George island revolving red light.

The height of the tower from the base to the vane on the lantern is 70 feet. It is painted white with a black diamond on the south face.

The fixed red light, elevated 140 feet above high water mark, should be visible 12 miles in the line of range. The illuminating apparatus is catoptric.

This light in one with George island light leads up the harbour from Mauger beach.

The work was done by day labour at a cost of \$737.00.

*False passage.*—A light, established on the rocky shoal lying about the centre of False passage, at the north entrance to Canso harbour, was put in operation on the 30th December 1902.

The light is a fixed green light, shown from a pressed glass lens lantern hoisted on a pole on a rock,  $\frac{1}{2}$  mile N. 73° W. from the lighthouse on Hart island. The pole was carried away by storm last winter, and this year was replaced by a pole rising from the middle of a concrete pier, built on the north end of the reef. The pier is 7 feet square by 5 feet high; its top is 3 feet above high water.

The pole rises 23 feet above the top of the pier, and the light which was first lit on the 10th November, 1903, is now 25 feet above high water mark, and should be visible 4 miles.

The light is intended principally for the benefit of local fishermen, and will be kept lit each year only during the months of November, December and January.

The work was done by day labour, at a cost of \$172.39.

*Bourgeois inlet.*—A light was put in operation on the opening of navigation in 1903, at the mouth of Bourgeois inlet, on the north side of Lennox passage, in the lighthouse reported, in last year's report, as under construction.

The lighthouse stands immediately inside of high water mark on the west extremity of the low gravel point on the east side of the mouth of the inlet, where the channel is narrowest.

The tower is a wooden building, square in plan, with sloping sides, surmounted by a square wooden lantern, the whole painted white. It is 27 feet high from the stone foundation to the vane on the lantern.

The fixed white seventh order, dioptric light, elevated 25 feet above high water mark, should be visible 10 miles from all points of approach by water.

*Clarke Cove.*—Enclosed range light towers, from which fixed red catoptric lights are shown, have been erected at Marble mountain; and the pole light hitherto maintained in the same locality has been discontinued.

Both towers are wooden structures, square in plan, with sloping sides, surmounted by square wooden lanterns, the whole painted white.

The front tower stands 20 feet above high water mark, 40 feet back from the water's edge, and about 100 yards easterly of the site of the discontinued pole light.

It is 32 feet high from its base to the top of the ventilator on the lantern.

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The light is elevated 46 feet above high water mark, and should be visible 8 miles in the line of range.

The back tower stands on the side of the mountain, 800 feet N. 42° W. from the front tower. It is 20 feet high from its base to the top of the ventilator on the lantern.

The light is elevated 244 feet above high water mark, and should be visible 11 miles in the line of range.

The new towers were erected by day labour, under the supervision of Mr. W. E. Whebby, as foreman of works, at a cost of \$1,112.

*Low point.*—A steam fog whistle is to be put in operation at this light station on January 1, 1904.

The whistle will give blasts of 10 seconds' duration, separated by silent intervals of 50 seconds.

The fog alarm building stands 34 feet back from the edge of the bank, west of the lighthouse and east of the marine signal flagstaff and light keeper's dwelling.

The building is of wood, rectangular, painted white, with a red roof. The 10-inch whistle, rising above the roof, is 60 feet above high water mark.

The building was erected by day labour, under the superintendence of Mr. J. McSween of Sydney. The total expenditure on the installation, including boilers and machinery has been \$4,600.

*Great Bras d'Or.*—Range light buildings erected near the eastern entrance of Great Bras d'Or, on the west side of Boularderie island, were put in operation, on the opening of navigation in 1903.

The front tower stands on Noir point, 35 feet back from the water's edge, and 16 feet above high water mark.

The tower is a square wooden building, surmounted by a square wooden lantern. It is 31 feet high from base to vane and is painted white.

The lights is a fixed white seventh order, dioptric, light elevated 41 feet above high water mark, and visible 11 miles from all points of approach by water.

The back range tower is 46 feet high from the base to the lantern vane and stands on land 23 feet above high water mark, 1,689 feet S. 55° 15' W. from the front tower. It is a wooden building, square in plan, with sloping sides, surmounted by a square wooden lantern, the whole painted white.

The light is a fixed white catoptric light, elevated 63 feet above high water mark, and should be visible 13 miles in the line of range.

The two lights in one lead into Great Bras d'Or clear of Middle shoal and Carey point bar on the starboard and clear of Blackrock shoal on the port hand.

The buildings were erected under contract by Mr. P. L. McFarlane of Baddeck; his price was \$1,500.

*Henry island.*—The light here was put in operation on December 1, 1902, as indicated in last year's report.

## AIDS TO NAVIGATION DISCONTINUED.

*Cranberry head fog alarm.*—When the steam fog whistle on Low point is put in operation, on the first January, 1904, the steam fog horn on Cranberry head, on the opposite side of the entrance to Sydney harbour, will be permanently discontinued.

*Carey point.*—On the opening of navigation in 1903, the fixed red mast light, heretofore maintained on the north side of the entrance to Great Bras d'Or at its eastern end, was permanently discontinued, having been rendered unnecessary by the establishment of Great Bras d'Or range lights.

## CHANGES AND IMPROVEMENTS IN EXISTING AIDS.

*Seal island.*—The fog whistle at this light station, off the southwest extremity of Nova Scotia, which was formerly operated from a building near the lighthouse, has been

removed to a building erected on the extreme south point of the island, 585 feet S 26 W. from the lighthouse. At a cost of \$3,837.56.

The new fog alarm building is a long, low white, wooden, rectangular building with a shingled roof painted red, and stands on the beach. The whistles, which are in duplicate and stand above the roof, are about 49 feet above high water mark.

The whistle was operated from the new building for the first time on the 16th February, 1903.

*Baccaro.*—On the 11th July, 1903, the light shown from this lighthouse, on the east side of Barrington bay was changed from a fixed red light to a revolving white light with intervals of 30 seconds between its points of greatest brilliancy. The light shows for about 18 seconds, increasing in brilliancy to a maximum, and then decreasing to an eclipse, which lasts about 12 seconds, the apparatus completing a phase in 30 seconds.

The illuminating apparatus utilized is that formerly in use in Cape Sable lighthouse.

*Shelburne.*—The lighthouse on Sand spit, on the east side of the entrance to the harbour, has been moved on to a new foundation immediately to the eastward or on the landward side of the old wooden crib on which it formerly stood.

The new foundation is of concrete, square in plan, 17 feet high, and is whitewashed.

The work was done by day labour, under the superintendence of Mr. Amos McLellan at a cost of \$1,562.

*Terence bay.*—The light maintained on Shipley head, at the entrance to this bay, on the south coast has been improved by substituting for the lantern on a mast a stronger light, shown from an enclosed lighthouse tower.

The tower stands where the mast and shed formerly stood; it is a square wooden building with sloping sides, surmounted by a square wooden lantern, the whole painted white; it is 32 feet high from its base to the ventilator on the lantern.

The light is a fixed red light, elevated 57 feet above high water mark. It should be visible 8 miles from all points of approach by water; the illuminating apparatus is dioptric of the seventh order.

The building was erected by day labour, at a cost of \$471.

*Inner Sambro island.*—The fishing light here has been improved by substituting for the pressed glass lens lantern previously used a lantern having a dioptric lens of the seventh order.

A wooden shed painted white has also been built at the foot of the mast.

*Pictou bar.*—The lighthouse on the bar on the south side of the entrance to the harbour, was burnt down on May 26, 1903. A temporary mast has been erected on the site of the burned building. It is 48 feet high.

Two anchor lens lanterns are attached to the masthead, and show fixed white lights up the harbour and seaward.

A pressed lens lantern, showing a fixed red light, is attached to the mast on the seaward side, 20 feet below the fixed white lights.

A spherical wooden cage, painted white, to serve as a day-mark, is attached to the top of the mast, for the purpose of getting the range on with the Pictou custom-house, for vessels coming up the outside channel.

A new lighthouse is in course of construction.

*Manger Leach.*—On or about March 31, 1903, the fixed white light shown from the lighthouse was replaced by a flashing white light.

The illuminating apparatus is dioptric of the fifth order, and gives flashes of .8 second duration, separated by intervals of 6.70 seconds.

The lighthouse, including the roof is painted white; the lantern is red.

The fog signal at this station has also been improved by the substitution of a 10-inch whistle for the reed horn formerly used. The whistle is operated by compressed air, and gives blasts of five seconds' duration, with silent intervals of 20 seconds between them.

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*George island.*—Early in the spring of 1903 the two fixed white lights shown from the lighthouse were discontinued and replaced by one revolving red light shown from a polygonal iron lantern surmounting a square wooden tower adjoining the western side of the keeper's dwelling. The light is catoptric the flashes attaining their greatest brilliancy every 10 seconds. It is elevated 50 feet above high water mark, and should be visible 8 miles from all points of approach.

The lighthouse is painted white, with a black diamond on the south side, below the lantern. The iron lantern is painted red. The building is 35 feet high from its base to the vane on the lantern.

The cost of erecting the new lighthouse, which was built by day labor, and of installing the light, was \$2,813.08.

## BUOYAGE.

*Cat rock.*—On September 19, 1903, Cat rock bell buoy, was moved in a southerly direction to a new position in 9 fathoms water.

From the buoy Cape Fourchu lighthouse bears N. 22½ E., distant ¾ mile.

*Gannet dry ledge.*—A bell buoy painted red, was on June 18, 1903, moored in 16 fathoms water, 1 mile N. 73° W. from the middle of this ledge.

*Clarke harbour.*—A bell buoy of United States Government pattern has been established in 8 fathoms water ½ mile N. W. from the extremity of Hospital reef.

The buoy is painted red, and is surmounted by a bell rung by the motion of the buoy on the waves.

*Bull rock.*—About January 1, 1904, a bell buoy is to be established in place of the can buoy heretofore marking this danger in the entrance to Lockeport. It will be moored in 15 fathoms water ½ mile S. 17° W from the rock.

The buoy is of steel, painted black, with 'Bull rock' in white letters on the top, and is surmounted by a bell rung by the motion of the buoy on the waves.

*Indian harbour.*—Four wooden spar buoys have been placed to mark shoals in this harbour on the eastern side of Margaret bay.

*Nautilus rock.*—A black can buoy has been moored off this danger in Port Medway in view of the wooden spar buoy heretofore in use.

*Grampus rock.*—An iron can buoy has been moored in 18 fathoms water 2 cables south of this rock. It is painted black, with 'Grampus' in white letters on the deck.

This coast buoy is intended principally for the benefit of vessels bound into Turner (or Terence) bay and Pennant, and will be maintained throughout the year.

*Sambro channel.*—A wooden spar buoy, painted red, with a cone-shaped top was moored on the northwestern side of Whaletail; inside of Sambro island, and a complete list and description of the ten buoys marking the channel inside Sambro island was published in two notices to mariners.

*Halifax harbour and approaches.*—A notice to mariners was issued in July, 1903, correcting the Admiralty charts with respect to buoyage, some buoys maintained not being shown, and others incorrectly indicated.

Last winter three gas buoys, lighted by acetylene, were established. They are steel cylinders, surmounted by conical slatwork topmarks in which stand Pintsch type lanterns. The lights show fixed white at a height of 9 feet above the water. They are not under constant supervision, and may therefore be occasionally extinguished for short intervals.

(a) Middle ground. A gas buoy, painted in red and black horizontal bands, moored in 6 fathoms water, one cable south from the centre of the middle ground west of McNab island, replacing the iron can buoy heretofore maintained.

(b) Neverfail. A gas buoy, painted in red and black horizontal bands, moored in  $6\frac{1}{2}$  fathoms water,  $1\frac{1}{2}$  cables south from the middle of Neverfail shoal, replacing the iron spar buoy heretofore maintained.

(c) Thrumcap. A gas buoy, painted red, moored in 10 fathoms water south of Thrumcap shoal, and about 30 yards outside Thrumcap bell buoy.

These three gas buoys were several times injured by collision last season, and it was therefore deemed advisable to issue an advertisement warning mariners that prosecution would follow any further careless or malicious injury to them.

It is intended to place a bell buoy to mark Pleasant shoal about 20th December, 1903, instead of the Can buoy heretofore used. It will be of steel, painted black with 'Pt. Pleasant' in white letters, and will be surmounted by the usual bell.

*New Harbour head.*—On the 11th November, 1903, a bell buoy was established in 10 fathoms water half mile S.  $22^{\circ}$  W. from the southern extremity of this head, in Guysborough county to guide vessels bound westerly into the eastern entrance to the sound, or as a point of departure for vessels bound easterly, or into adjacent harbours. It will be maintained during the season of navigation.

The buoy is painted red, with 'New Har. Hd.' in white letters on the deck, and is surmounted by a bell rung by the motion of the buoy on the waves.

*Lennox passage.*—A set of new wooden spar buoys has been supplied and placed to mark the shoals through this much frequented passage, and steel can buoys have replaced the wooden spar buoys heretofore marking Thomas shoal and Grandigue shoal.

*Wallace harbour.*—In June, 1902, three buoys were placed to mark the entrance of the harbour over Ship bar. These will hereafter be maintained in addition to the eight buoys previously marking the channel into the harbour over Oak island bar, and in the harbour.

A notice to mariners was issued describing the buoyage of the harbour, and giving sailing directions for using them.

*Winter buoy service.*—The minister has issued instructions that all the bell buoys and whistling buoys on the south and east coasts of Nova Scotia from Pennant point westward of Halifax, to Cape North, Cape Breton, will be maintained all the year round, with the exception of Cape Breaker bell buoy, Grime shoal whistling buoy, Louisbourg whistling buoy and Louisbourg bell buoy which will be replaced for the winter each year by wooden spar buoys coloured similarly to the signal buoys, and Canso harbour bell buoy, Fourchu bell buoy and Point Aconi whistling buoy which will be taken up for the winter each year.

## NEW BRUNSWICK LIGHTHOUSE DIVISION.

The New Brunswick division comprises all the lighthouses and other aids to navigation within the boundaries of the province both on the Bay of Fundy and on the Gulf of St. Lawrence coast. The large buoys maintained by the government on the Nova Scotia coast of the Bay of Fundy are attended to by the steamer *Lansdowne*, under the direction of the New Brunswick agent, but are otherwise under the control of the Nova Scotia agent.

This division is under the charge of Mr. F. J. Harding, agent of the department at St. John, N.B.

The lights and other aids to navigation were inspected by Mr. John Kelly, inspector of lights.

There are in this agency 132 lighthouses, 2 lightships, 12 steam fog-alarms, and one fog-bell station, under the charge of lightkeepers and engineers.

The method of supplying the lights varied in accordance with location. The supplies for St. John river, Grand lake and Washademoak lake lights were shipped by direct steamers, and a separate bill of lading furnished for each station.



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The supplies for the Miramichi river lights were sent by the lightship *Frederick Gerring* and by regular line of steamers or schooners trading to the different points.

The Bay of Fundy lights were supplied by the steamer *Lansdowne*, and those in Chaleur bay were supplied by rail. In all cases the supplies have been delivered in the most convenient and economical way.

## NEW AIDS TO NAVIGATION.

*Cherry island*.—On June 16, 1903, a fog bell was established on the southwest point of Cherry island at the entrance to the river St. Croix.

The fog bell tower is a square, wooden building painted white, surmounted by a bell. The building is 17 feet high.

The fog bell, elevated 43 feet above high water mark, is operated by machinery, and during thick or foggy weather will give two strokes in quick succession every six seconds.

The work was done by Mr. J. Kelly, superintendent of lights, at a cost of \$633.32. The machinery cost \$400.

*Letite*.—A lighthouse erected at the fog alarm station on Mascabin point, was put in operation on September 1, 1903. It stands a few feet northwestward of the fog alarm building, on a site 11 feet above high water mark. It is an octagonal wooden tower, painted white, surmounted by a red, octagonal, iron lantern. It is 43 feet high from its base to the top of the ventilator on the lantern.

The light is a fixed white light, dioptric, of the seventh order, elevated 48 feet above high water mark, and should be visible 12 miles from all points of approach by water.

The work was done under contract by Mr. C. L. McKeen, of St. Andrews. His contract price was \$800.

*Gull Cove*.—A light was established here as a guide for fishing boats on December 30, 1902.

The light is fixed white, shown from a lantern with a pressed glass lens, hoisted on a mast. It is elevated 90 feet above high water mark, and should be visible 6 miles from all points of approach by water.

The mast is 35 feet high, and stands about 600 feet back from the shore in the bottom of the cove, near Mr. Lewis Frankland's house.

*Tiner point*.—A fog alarm will be put in operation here on or about February 1, 1904.

Tiner point is the most prominent headland on the coast between Split rock and Negro head, and the fog alarm building, a rectangular wooden structure painted white, stands on the summit of the headland, with the horn projecting from its sea-ward face, elevated about 100 feet above the sea.

The fog alarm consists of a diaphone operated with air compressed by oil engines. It will give blasts of three seconds' duration every minute.

The building is being erected by contract by Mr. John Flood, of St. John, his price for the work being \$9,781.08.

*Anderson hollow*.—A lighthouse has been built here to replace the old one on the government breakwater carried away on January 12, 1902. It stands on the edge of the bank on the shore north of the breakwater and directly opposite its outer end.

It is a wooden tower, square in plan, with sloping sides, surmounted by a square wooden lantern, the whole painted white, and 31 feet high from its base to the vane on the lantern.

The light was shown for the first time from the new building on the opening of navigation in 1903. It is a fixed *white* light, elevated 91 feet above high water mark, and should be visible six miles from all points of approach by water. The illuminating apparatus is dioptric of the seventh order.

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A hand fog horn at the lighthouse is blown in answer to fog signals of vessels approaching the breakwater.

The temporary light and fog horn maintained on the breakwater were discontinued when this permanent station was put in operation.

The building was erected by Mr. W. C. Anderson, of Waterside, whose contract price was \$362.

*Black Lands gully.*—Range lights, established on the south end of the north beach were put in operation on July 22, 1903, and will hereafter be maintained whenever fishing operations are being carried on in the neighbourhood.

The lights are fixed white lights shown from pressed lens lanterns hoisted on masts painted white, with white sheds at their bases. The front mast is 26 feet high and the back mast 37 feet high.

The front light is situated on the sand beach 40 feet back from the shore at high tide.

The light is elevated 29 feet above high water mark, and should be visible 10 miles from all points of approach by water.

The back light is situated 137 feet from the front light. It is elevated 42 feet above high water mark and should be visible 11 miles from all points of approach by water.

*Sapin point.*—A pole light, established in the settlement of Sapin point, at the north extremity of Kouchibouguac bay, was put in operation on May 28, 1903, and will hereafter be maintained whenever fishing operations are being conducted in the neighbourhood.

The light is fixed white, shown from a seventh order lens lantern hoisted on a pole, it is elevated 50 feet above high water mark and should be visible 12 miles from all points of approach by water.

The pole is painted white, is 34 feet high, and has a white wooden shed at its base, it stands 50 feet back from the edge of the sandstone cliff which forms the shore; between Messrs. Loggie's lobster factory and the Roman Catholic church.

*Caraquet.*—Range light towers have been erected at Lower Caraquet, to lead into the harbour through Caraquet channel and the lights were put in operation on September 24, 1903.

The towers are inclosed wooden buildings, square in plan, with sloping sides, surmounted by square wooden lanterns, the whole painted white.

The front tower stands close to the shore, on the point below Stoke point.

It is 30 feet high from its base to the top of the ventilator on the lantern.

The fixed white light is elevated 31 feet above high water mark, and should be visible 10 miles from all points of approach by water. The illuminating apparatus is dioptric of the seventh order.

The back tower is distant 3,800 feet from the front tower. It is 45 feet high from its base to the top of the ventilator on the lantern.

The fixed white light is elevated 70 feet above high water mark and should be visible 10 miles in the line of range. The illuminating apparatus is catoptric.

A contract for the erection of these range light buildings was awarded to Mr. J. R. Chiasson, of Lower Caraquet, in 1902, but he proved unable to do the work, which was therefore completed by Mr. John Kelly, Inspector of Lights. Accounts in connection with the work have not yet been settled.

#### AID TO NAVIGATION DISCONTINUED.

*Hatfield point.*—The back range light at this point on Belle Isle bay has been discontinued, and the front light will hereafter be maintained as a single beacon light.

#### CHANGES AND IMPROVEMENTS IN EXISTING AIDS.

*Bliss island.*—The lighthouse has been increased in height, and the former wooden lantern replaced by an octagonal iron lantern. The tower is painted white and the

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lantern red. The height of the building, from its base to the vane on the lantern is now 40 feet.

The light is changed from fixed white to occulting white, the light showing for 10 seconds and eclipsed for 5 seconds alternately. The illuminating apparatus is dioptric of the fifth order. The light is elevated 55 feet above high water mark, and visible 12 miles from all points of approach by water.

These improvements, which were made under the direction of our local agent, cost \$1,248.43.

*Escuminac.*—The steam fog-alarm was shut down for a few days in July, 1903, for repairs.

*Grant beach.*—The range lights have been improved by substituting for the lights shown from masts stronger lights shown from enclosed lighthouse towers, which have been built on the sites formerly occupied by the masts and trestle work on which they stood.

The new towers are wooden buildings, square in plan, with sloping sides, surmounted with square wooden lanterns, and are painted white throughout. Each tower is 37 feet high, from its base to the ventilator on the lantern.

The lights are, as heretofore, fixed white. That shown from the front tower is dioptric, of the seventh order, is elevated 69 feet above highwater mark, and is visible 4 miles from all points of approach by water; that shown from the back tower is catoptric, is elevated 107 feet above highwater mark, and visible 4 miles in the line of range and also up the river.

The two lights in range, bearing N. 66° W. mark the channel from the conical buoy at the narrows of Shel Drake channel up to abreast of Malcolm point.

The new buildings were erected by Mr. Alex. Fitzgerald, of Newcastle; his contract price was \$1,250.00.

*For island.*—The intensity of the three range lights shown from lanterns on masts at the northwest end of the island, has been increased by substituting lanterns with dioptric lenses of the seventh order for the pressed lens lanterns formerly used. The frame works from which the old lanterns were shown have also been replaced by new masts, with sheds at their bases.

*Miscou island.*—The fog-alarm at Birch point lightstation was discontinued for a few days in July, 1903, for repairs to the operating machinery.

*Shippigan gully.*—The colour of the front range light on Indian point was, on September 26, 1903, changed from red to white. The present fixed white light is visible 10 miles from all points of approach by water.

The mast carrying the back light has been increased in height 10 feet. The fixed white light, shown from a lantern hoisted on a mast, is now elevated 46 feet above high water mark, and should be visible 12 miles. The height of the mast is 46 feet. The mast and shed at its base are painted white.

*North Tracavie.*—The outer range light at this gully, discontinued in September, 1901, was re-established on 5th June, 1903.

The fixed white light is shown from a pressed lens lantern, hoisted on a mast painted red. It is elevated 20 feet above high water mark, and should be visible 4 miles.

The mast stands on the sands 161 feet S. 48° E. from the back tower.

The two lights in one, lead to the red can buoy moored in 4½ fathoms water on the outside of the bar, and should be kept on until the red can buoy at the mouth of the gully is made; thence the tortuous channel up to 'the block' is marked by buoys and stakes.

*Zephyr rock.*—The lightship was placed on her station in Shediac harbour for the autumn, on or about 15th October, 1903, and was maintained thereon until the close of navigation.

*Richibucto harbour.*—The channel through the bar across the entrance to the harbour having been shifted by the winter gales and action of the ice, the bar range lights have been changed to suit the same, and in one lead to the black can buoy at the entrance.

The back light of this range has been removed to the tower used from 1895 to 1900 as the back range tower of the old bar range.

The light is a fixed white light, elevated 44 feet above high water mark, and visible 12 miles in the line of range. The illuminating apparatus is catoptric.

The tower is of wood, with an open frame, surmounted by an enclosed square lantern, and is painted white. It is 43 feet high from the ground to the ventilator on the lantern. It stands on the south shore of the south beach, 2,760 feet N. 54° W. from where the back mast of the bar range stood last year, and 325 feet S. 64° W. from the old tower with dwelling attached, used previous to 1900 for the front light of the bar range.

The front light is shown from a pressed glass lens lantern hoisted on a mast on the north side of the south beach.

It is 130 feet back from the water's edge, and is distant 366 feet N. 81° E. from the back range lighthouse.

The light is a fixed white light, elevated 32 feet above high water mark, and visible 10 miles.

There is a depth of 10 feet over the bar in the best water.

The two masts from which the bar range lights were shown last year, half a mile eastward of the present bar range lights, have been removed; the old tower used for the back light of the bar range previous to 1895 has been taken down; but the old tower with dwelling attached, used up to 1900 for the front light of the bar range still stands, being utilized as a dwelling, though no light is shown from it.

The back light of the channel range has been moved and is now located 472 feet from the front light.

#### BUOYS AND BEACONS.

*St. Andrews.*—The west beacon, referred to in last year's report, has been replaced by a new one built 36 feet southeast from the site of the old one, which has been entirely removed. The new structure is similar to the old one, being built of cribwork in the form of the frustum of a square pyramid, 30 feet square at the base and 26 feet high, raising 6 feet above high water mark. From the middle of the pier rises an iron mast 24 feet high, carrying on its top a triangle of slatwork.

The work was done under the supervision of Mr. John Kelly, inspector of lights, and cost \$1,208.19.

*Chambers rock.*—On January 1, 1903, a conical buoy was established off this rock in Little passage, replacing an inferior buoy previously maintained there.

The buoy is of steel, painted red, with the words 'Chambers rock' in white letters. It is moored in 5 fathoms water, 90 feet west of Chambers rock, which has but 5 feet on it at low water.

*Bliss harbour.*—On January 1, 1903, two steel can buoys were placed off Man of War rock, instead of the wooden buoys heretofore used.

These buoys are painted black, with the words 'Man o' War rock' in white letters.

One of them is moored in 6 fathoms water 300 feet from the south-west end of Man of War rock, which covers at high water. The other is moored in 9 fathoms, 150 feet east of the same rock.

*L'Etang harbour.*—On December 31, 1902, an iron can buoy was established off Mink island, entrance to L'Etang harbour and eastern entrance to Bliss harbour replacing the wooden spar buoy previously maintained.

The buoy is painted black, with the words 'Mink island' in white letters. It is moored in 8 fathoms water, east of Mink island.

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A steel conical buoy was at the same time established west of Roaring Bull rocks, at the entrance to the harbour, replacing the spar buoy previously maintained. The buoy is painted red, with the words 'Roaring Bull' in white letters, and is moored in 9 fathoms water.

*Partridge island.*—The bell boat maintained off the eastern side of the island lost its top hamper late in 1902 by storm and while repairs were being made to it a bell buoy of Trinity House pattern was temporarily moored at the same site.

This was replaced by the old bell boat which had done service for upwards of 40 years, but on February 11, 1903, the old boat sank at its moorings. Finally on May 26, the new bell boat was replaced on the station, with new bell and fittings of stronger construction.

*Round reef*, in St. John harbour, is marked by a red iron can buoy maintained by the corporation of the city. It is moored in 6 feet water, N. 53° 26' E. one cable from the beacon light. This buoy ought to be changed in shape to conical, and the attention of the corporation has been drawn to their departure from the international rules governing the shapes of buoys.

*Quaco.*—The department issued instructions that the bell buoys on the ledge and reef, and conical buoy on the shoal, should be kept in position all the year round. In November, 1902, three clean buoys were placed in position with good moorings. In March and April last all these buoys were adrift, and on May 19 and 20 were replaced by new buoys. Two of the missing buoys were ultimately recovered, but one, a Trinity House bell buoy, was lost.

*Buctouche.*—In 1902 the undersigned visited this harbour, and reported the buoyage maintained under contract in very unsatisfactory condition. Since that time the buoys in the harbour and approach have been improved under the supervision of Capt. McKinnon, D.G.S. *Brant*, four spars having been replaced by cask buoys, and three cask buoys by two steel cans and one steel conical buoy.

Between the turn of channel and Priest point the sides of the channel are marked by bushes on the north side and black pickets on the south side, all driven into the mud banks.

The buoy on Priest point is now a red cask, instead of a red spar.

From Priest point to the bridge the sides of the channel are marked by five black pickets on the south side and by bushes on the north side.

*Richibucto.*—In addition to the twenty-eight buoys formerly maintained by Mr. James Legocf in Richibucto, Albion and North channels, he was authorized last year to place and maintain one extra buoy.

*Kouchibouguac and Black rivers.*—The department authorized the bushing of these rivers by the harbour master, whose account for the same amounted to \$25.00.

*Pokemouche.*—An iron can buoy, painted black, has been established in 3 fathoms directly outside the entrance to this gully. Fishing vessels make this buoy, whence the best water through the gully is shown by spar buoys.

*Shippigan gully.*—In consequence of a report made by the undersigned as a result of inspections, condemning the buoyage of Shippigan gully and sound, it has since been improved so that the starboard buoys and stakes can be readily distinguished by a stranger from those marking the port side of the channel.

Entering the gully from the southward, a red can buoy is found in the alignment of the range lights outside the bar, thence to the sharp turn inside Taylor island break-water there are 3 more red can buoys, all these red buoys must be kept close on board. At the last of them the channel turns short towards the lighthouse on Shippigan island. From this point to the government wharf the channel is very narrow, winding its way through extensive mud flats covered with eel grass, and is well defined by pickets driven in the bank close to the edge, and by spar buoys. The starboard pickets and buoys are

red and are surmounted by cones, the port marks are plain and are black. The last point near the wharf is marked by a dolphin surmounted by a barrel, painted black. From the government wharf northward to Caraque channel the channel is similarly buoyed and staked, but the colours are reversed, red marks being on the starboard hand in entering from the north.

*Pokesnedie*.—The red buoy marking the northeast extremity of the shoal has been changed from a small can buoy to a large red, steel, conical buoy.

*Restigouche river*.—The wooden buoy marking the end of Maguacha spit has been replaced by a red iron conical buoy, moored in  $2\frac{1}{2}$  fathoms of water; the wooden buoy moored in the north side of Dalhousie Middle or ballast ground, by a black iron can buoy, moored in the same depth; and the wooden buoy moored off Garde point, by a black iron can buoy, moored in 9 feet water.

### PRINCE EDWARD ISLAND LIGHTHOUSE DIVISION.

This division which embraces the whole province, is under the charge of Mr. Artemas Lord, agent of the department at Charlottetown, who also acts as inspector of lights. The general routine of the office work has been performed by the agent, assisted by Mr. Laurence W. Watson, as clerk. The work of superintending more extensive repairs at existing stations has been done under Mr. M. Walsh, as foreman of works. Under the agent's instructions, Mr. Walsh is also warehouseman for the lighthouse stores in Charlottetown.

There are in the division, 66 lights at 39 stations, and one fog-horn, under the charge of 45 keepers. There are three automatic whistling buoys and one bell-buoy. The majority of lights are situated on headlands and serve the general purposes of navigation, the remainder being harbour lights intended particularly for the benefit of fishermen. There are thirty harbours buoyed under the system of three years contracts, and seven in which buoys are maintained by the department under the local harbour masters.

All the stations on the island were inspected by the agent on the annual supply trip last summer, which was made on the D.G.S. *Brant*, Capt. McKinnon.

#### CHANGES AND IMPROVEMENTS IN EXISTING AIDS.

*Souris east*.—The fixed red light shown from a lantern on a mast on the outer end of the breakwater has been increased in intensity by substituting for the lantern with a pressed glass lens heretofore used a lantern with a cut glass lens of the 7th order.

*New London*.—During the past winter heavy ice grounded off the entrance to this harbour on the north coast of Prince Edward Island; causing the heavy current running out of the harbour to scour a new channel through the outer bar, with  $9\frac{1}{2}$  feet at low water in it now close up to the rock reef at Simms' shore, farther to the northwest than that indicated by the range lights, which was filled up.

It was therefore necessary to extinguish the fixed white front light temporarily. In July it was found possible to place temporary range lights to indicate the new channel through the bar at the entrance to the harbour.

The front light of this range is shown from the old front range tower, which stands in its old position 1,500 feet from the red light. It is as heretofore a fixed white catoptric light elevated 24 feet above high water mark, and should be visible 10 miles in, and over a small arc on each side of the line of range.

The back light of the new range consists of a fixed white light, shown from a square lantern hoisted on a mast. It is elevated 31 feet above high water mark, and should be visible 10 miles in, and over a small arc on each side of the line of range. The illuminating apparatus is catoptric.

The mast stands on the beach, distant 1,019 feet S.  $48^{\circ}$  W. from the front light. The mast and the small shed at its base are painted white.

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The two lights in one, lead over the bar in past Simms point with  $9\frac{1}{2}$  feet water at low tide. The old back red light is continued as a coast light.

The buoys at the entrance of the harbour were changed in place to mark the new channel, and show the best water into the harbour during daylight.

*Northport.*—The towers from which the range lights are shown have been enclosed and painted white.

## BUOYAGE.

*Wood islands.*—For the purpose of marking the channel used by small craft between Wood islands and Indian rocks, off the southern coast of Prince Edward Island, the following buoys were established on May 26, 1903 :—

(a.) A steel conical buoy, painted red, with 'Rifleman reef' in white letters on it, in 15 fathoms water off the south-west point of Rifleman reef, which runs out westward from Bell point.

(b.) A red spar buoy in 13 feet water off Kenneth bank.

(c.) A red cask buoy in  $3\frac{3}{4}$  fathoms water off the south-west extremity of Wood islands.

*Crapaud road.*—The black can buoy, formerly moored off Brockelsby head, has been replaced by a steel, conical buoy, painted red, with the word 'Crapaud' in white letters, moored in 18 feet water.

A black cask buoy is moored in 12 feet water off the east extremity of Tryon shoals. Another similar black cask buoy, marking the best anchorage in Crapaud basin, is moored in 12 feet water off the entrance to the dredged cut leading up to the wharfs.

The dredged cut leading from the basin to the wharfs is marked as follows :

At south end a black spar buoy is anchored on the port side in 12 feet water. Two other black spar buoys are anchored at equal intervals on the port edge of the cut in 4 feet water. A black stake is driven at the north end of the cut on the port side. A red spar buoy is anchored in 9 feet water on the starboard side opposite the last described stake.

*Cascumpeque.*—A steel conical buoy, painted red, with 'Cascumpeque' in white letters, has been moored in 29 feet water off the outer bar at the entrance to the harbour, in place of the spar formerly maintained.

## BRITISH COLUMBIA LIGHTHOUSE DIVISION.

This division comprises all Canadian waters on the Pacific coast and the inland navigation systems of British Columbia, and is under the charge of Captain James Gaudin, agent of the department at Victoria, who also acts as inspector of lights.

There are in this province thirty-two light-stations, at six of which are steam fog-alarms, and at six others bells are rung by machinery. There are three beacon lights in Victoria harbour, and one similar light in Nanaimo harbour.

The lights are in charge of thirty-four light keepers, some of whom supply assistance out of the salaries allowed.

The lights are supplied by the Dominion steamer *Quadra*, Capt. J. T. Walbran, master, and the fog-alarm machinery at the several stations was periodically inspected by the engineers of the *Quadra*.

## NEW AIDS TO NAVIGATION.

*Lennard island.*—It is proposed to erect a lighthouse on this island, at the Templar channel entrance to Clayoquot, to serve as a coast light and also to mark the entrance to the sound.

The site for the propose lighthouse, which is very uneven rocky ground, has been cleared of trees ; about 10 acres have been slashed and the fallen trees have been moved

and burned at a cost of \$1,120. Plans and specifications for the lighthouse are in the hands of the agent, who will erect it by days' work next season.

*Dock island.*—A light was put in operation on the 18th April, 1903, on Dock island, the northeasterly islet of Little group, Sidney channel.

It is shown from a 31-day Wigham lamp placed upon the summit of a square, wooden tower standing on a wooden framework, the whole painted white. The tower stands on the east end of the islet.

The light is a fixed white light, elevated 40 feet above high water mark, and should be visible 10 miles from all points of approach by water. The illuminating apparatus consists of a pressed glass lens. The light is unwatched.

The small tower was erected and the light installed under the superintendence of our local agent.

*Fraser river mouth.*—Two beacon lights were put in operation on the 1st March, 1903, on the Sand heads.

They are fixed lights, shown from 31-day Wigham lamps, elevated 22 feet above high water mark, and should be visible 9 miles from all points of approach by water. The illuminating apparatus consists of pressed glass lenses. The lights will be of the class of unwatched lights. Each structure consists of a square wooden tower, 8 feet high, painted white, standing on a platform supported on piles.

The more easterly structure, known as North dam lighthouse, stands at the southwest end of the dam across the opening to the northward, on the south edge of the sand head on the north side of the main channel into the Fraser river, and to the north of No. 2 red buoy.

The light is S.  $72^{\circ}$   $51'$  W.  $1\frac{2}{3}$  miles from Garry point light, and a line joining the two lights is directly in the channel and brings the red buoys on the starboard side in entering.

During the freshet in the spring of the year it was found necessary temporarily to remove the lamp for safety, but the operation of the light was resumed as soon as the state of the river permitted.

The more westerly light, known as South curve lighthouse, originally stood on the north edge of the sand heads on the south side of the main channel into the Fraser river, southwardly from No. 4 black buoy; about 2 miles S. by W. from north dam lighthouse where a line from Sand heads bell buoy was almost directly in the channel, and brought all the black buoys on the port side in entering.

In consequence of the scouring of the bed of the channel during the spring freshet it became necessary to remove this lighthouse 600 feet to the southward of its original position and mariners were warned that changes in the channel are sudden and frequent when the river is in freshet, so that it is impossible to issue a notice to mariners that can be relied upon for any length of time, but the beacon structures will be kept on the edge of the channel and removed, without notice being given, to safe ground whenever the sites they occupy become unsafe.

Both these lights were originally white, but while the salmon were running so many fishing boats carrying white lights were on the Sands heads that it was impossible to distinguish between their riding lights and those shown from the lighthouses; it was therefore arranged that the two beacon lights should be fixed red from the 1st July to the 30th September in each year. During the remainder of the year the lights will be fixed white as heretofore.

*Miami reef.*—A light was put in operation on April 17, 1903, on the bow of the wreck of the steamer *Miami* stranded off White rock, Stuart channel. The bow of the wrecked steamer, on which the light is placed, lies in  $5\frac{3}{4}$  fathoms water,  $93\frac{1}{2}$  feet N.  $49^{\circ}$  W. from the northwest point of White rock.

The light is shown from a 31-day Wigham lamp placed upon the summit of a small, square, wooden tower, painted white, standing on a wooden framework on the bow of the wreck.

The light is a fixed white light, elevated 19 feet above high water mark, and should be visible nine miles from all points of approach by water. The illuminating apparatus consists of a pressed glass lens. The light is unwatched.



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*Coffin islet.*—A light was put in operation on April 16, 1903, on this islet, northern part of entrance to Oyster harbour, Stuart channel.

The light is shown from a 31-day Wigham lamp placed upon the summit of a small, square wooden tower standing on a wooden framework, the whole painted white. The tower stands on the middle of the islet.

The light is a fixed white light, elevated twenty-nine feet above high water mark, and should be visible ten miles from all points of approach by water. The illuminating apparatus consists of a pressed glass lens. The light is unwatched.

*Merry island.*—A lighthouse has been erected on the summit of the low point forming the southeast extremity of Merry island, at the southeast entrance to Welcome pass, which separates Thormanby island from Seechelt peninsula off the southwest coast of the mainland.

The light is shown from an octagonal wooden lantern, standing on the roof of the lightkeeper's dwelling, which is a rectangular wooden building with a mansard roof. The lantern and building are painted white throughout. The height of the lighthouse from the base to the ventilator on the lantern is 35 feet.

From November 6, 1903, until the permanent illuminating apparatus is ready for installation, a temporary fixed white light will be shown from this station. It is elevated 57 feet above high water mark, and should be visible 6 miles from all points of approach by water.

The lighthouse was erected by day labour, under the superintendence of Mr. P. G. Fenton, of Vancouver.

## CHANGES AND IMPROVEMENTS IN EXISTING AIDS.

*Egg island.*—The lighthouse on the islet close to the westward of Egg island, has been moved 64 feet from the place where it formerly stood, to the extreme summit of the islet, to protect it against waves, and has been placed upon a substantial concrete foundation. The cost of removal, which was done by Mr. A. O. Roy with the assistance of the crew of the *Quadra*, was \$1,612.

*Dryad point.*—A red sector was inserted in this light at the request of mariners, who complained that the light was so bright when close aboard, that they could not correctly estimate their distance in rounding the point.

*Balfour.*—During the freshet last spring the pole and shed from which a light was shown, was carried away by a flood, since which time a temporary anchor light has been maintained, pending the construction of a new building.

*Kaslo.*—The electric light maintained under an arrangement with the Kootenay Electric Company, on the end of the spit, is moved back, when the lake rises during the summer months, to a safe distance from high water mark, and moved forward to the end of the channel when the waters of the lake subside.

## BUOYAGE.

*Sydney.*—A small uncharted rock, on which the ss. *Victorian* struck, lying off the railway wharf at Sydney, was located by Capt. Hackett and later, more accurately, by Capt. Walbran, has been made by a platform buoy, surmounted by a pyramid of lattice work, the whole painted red, moored  $\frac{1}{4}$  cable east of the rock.

*Victoria rock.*—A steel can buoy, painted in red and black horizontal bands, is moored on the north-west edge of the rock in 6 fathoms water.

*Portier pass.*—The fairway buoy off Portier pass, has been moved from the alignment of Portier pass range lights to a new position 250 feet to the westward of the alignment, where it is moored in 17 fathoms water.

*Kelp bar.*—The beacon marking the east side of the crossing on Kelp bar, off the north end of Denman island, having been destroyed during late gales, the eastern side of the crossing has been marked by a red spar buoy moored in  $3\frac{1}{2}$  fathoms water.

*Watson rock.*—A beacon was last autumn built by the crew of the *Quadra* on this danger, off the southwest side of Gibson island, western entrance to Grenville channel, consisting of a wooden pyramid, with a square base, painted white, supported on concrete piers, and surmounted by a slatwork top painted red. The beacon is 22 feet high. This beacon was carried away by storm in november, 1903, and will be replaced by a more substantial structure next year.

The rock covers 5 feet at extreme high water.

LIST of Buoys maintained by the Department of Marine and Fisheries in Canadian Waters in 1903.

ONTARIO AND PORTIONS OF QUEBEC IN ONTARIO LIGHTHOUSE DISTRICT.

	No. of buoys.		No. of buoys.
Amherstburg, including Bois Blanc	44	Pancake shoal, bell buoy	1
Bar point, gas buoy	1	Parry Sound	26
Bay of Quinte (three contracts)	32	" gas-buoys	3
Bears Rump	1	Pelee middle ground	3
Big Duck island, bell-buoy	1	Pembroke	20
Byng inlet	7	Pointe au Baril, beacons	15
Collingwood	14	" buoys	4
Clapperton channel	8	Penetanguishene	10
Georgian bay	12	Port Arthur	1
Goderich	2	Port Rowan	10
Green shoal	1	Rainy river, beacons, pairs	11
Grecian shoal	1	" buoys	14
Grubb reef, gas-buoy	1	River Thames	7
Hawkesbury	16	Rondeau	6
Kanmistikwia	20	St. Lawrence river, Montreal to Kingston, spars	144
Lake Erie, maintained by "Petrel"	3	" " can-buoys	13
Lake Nipissing	32	" gas-buoys	27
Lake of the Woods, including bell-buoy	115	Ste. Placide, stakes and buoys	40 or 50
Lake Simcoe	12	Sault Ste. Marie	20
Lake Superior, including bell-buoy	7	" canal approaches	25
Little Current	8	Seine river and Grassy lake, piles	30
Lone rock, bell-buoy	1	" buoys	10
Midland	7	South Baymouth	4
Murray canal and Presqu'île bay	23	Stokes bay	6
Napanee	14	Surprise shoal, bell-buoy	1
Niagara, bell-buoy	1	Trenton	11
Orillia	9	Waubashene	37

QUEBEC.

Agnès	1	Little river west	1
Amherst harbour	8	Maria	1
Bonaventure	1	Matane	4
Cap Chat	1	Mont Louis	1
Cape Cove	1	New Richmond	3
Cap Meule	1	North channel, Island of Orleans	12
Carleton point	1	Nouvelle	1
Chicoutimi	15	Paspébiac	1
Cock point	1	Pentecost	1
English bay	3	Percé	2
Fox river	1	Port Daniel	1
Gaspé	5	Restigouche river	10
Grand Entry	13	Richelieu rapids, balises	—
Griffin cove	1	" river, to St. Johns	35
House harbour, Magdalen islands	6	" " above St. Johns	19
Lake St. John—		Rivière à la Pipe, Lake St. John	8
River Ashuapmunchuan	68	Rivière des Prairies	10
" Mistassini	120	Ste. Adelaide de Pabos	1
" Peribonka	24	Ste. Anne river	1
Roberval harbour	3	St. Thomas	8
	— 215		

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LIST of Buoys maintained by the Department of Marine and Fisheries, &c.—Continued.

QUEBEC—Concluded.

	No. of buoys.		No. of buoys.
St. Lawrence river between Quebec and Montreal, gas-buoys.....	19	Maintained by Quebec agent below Quebec, gas-buoys.....	15
St. Lawrence river between Quebec and Montreal, unlighted buoys.....	256	Maintained by Quebec agent below Quebec, unlighted buoys.....	32
Serpent reef.....	1		

NOVA SCOTIA.

Advocate harbour.....	6	McKinnon harbour.....	4
Apple river.....	8	Musquodoboit.....	7
Arichat.....	21	Northport.....	12
Argyle river and sound.....	10	North Sydney.....	5
Avon river.....	6	Parrsboro.....	6
Barrington.....	52	Petitdegrat.....	11
Bear river.....	12	Pictou.....	6
Beaver harbour.....	2	Popes harbour.....	3
Blandford.....	5	Port Felix.....	7
Bridgewater.....	10	Port Hood.....	7
Canning or Habitant river..... (6 dolphins).		Port Le Tour.....	12
Canso and St. Andrews passage.....	28	Port Medway.....	9
Cape Negro or North-east harbour.....	17	Port Morien.....	2
Cariboo.....	6	Port Hebert.....	12
Chester.....	23	Pubnico.....	18
Cheticamp.....	12	Pugwash.....	9
Chezzeetook and Petpiswick.....	6	Prospect, Lower.....	10
Christmas island and Barra strait.....	11	Queensport.....	3
Clarks cove, West bay.....	3	River John.....	3
Clarks harbour.....	17	Roseway.....	3
Cockerwit pass and Woods harbour.....	20	St. Anns.....	3
Cocks cove, Toby cove.....	4	St. Mary river.....	8
D'Escousse and Lennox passage.....	27	" up to Sherbrooke.....	18
Digby and Annapolis.....	163	St. Peter bay.....	16
Dover.....	4	St. Peters inlet.....	10
East bay, Bras d'Or.....	7	Sambro.....	11
Great Bras d'Or.....	7	Shag harbour.....	13
Gillis point, Boulaquet.....	1	Sheet harbour.....	9
Guysborough.....	3	Shelburne.....	10
Hay cove.....	8	Ship harbour.....	9
Harbour au Bouche..... (6 stakes).	4	Ship rock.....	1
Ingonish, South bay.....	8	Shulee.....	8
Isaacs harbour.....	12	Smith island.....	1
Jeddore.....	9	Sydney.....	2
Judique.....	1	Tangier.....	4
Ketch harbour.....	6	Tatamagouche, 46 stakes and.....	18
L'Ardoise.....	3	Terrence bay.....	3
Lahave.....	8	Tor bay.....	19
Little narrows.....	10	Three Fathom harbour.....	5
Little Dover.....	9	Tidnish.....	5
Little Bras d'Or.....	2	Tusket (two contracts)..... (3 spindles).	23
Liverpool.....	3	Upper Prospect.....	4
Lockeport.....	6	Wallace.....	14
Lunenburg, back cove.....	9	West bay.....	3
" middle south.....	16	West Dublin and Crooked channel.....	13
Louisburg.....	7	Westport.....	3
Mabou.....	12	Weymouth.....	13
Mahone bay and Chester.....	12	Whitehead.....	9
Main-à-Dieu.....	6	Yarmouth.....	50
Margaree harbour.....	9	Maintained by agency..... (whistling-buoys).	23
Merigonish.....	6	" " (bell-buoys).	21
Marie Joseph.....	5	" " (conical and can-buoys).	145
Montsellier.....	10		

LIST of Buoys maintained by the Department of Marine and Fisheries, &c.--*Continued.*

## NEW BRUNSWICK.

	No. of buoys.		No. of buoys.
Bathurst	26	Miramichi	18
Baie Verte and Port Elgin	36	Musquash	7
Bay du Vin	7	Neguae	21
Beaver and Blacks harbour	9	Neil harbour	1
Big Shemogue	7	Napan river, 24 stakes and	3
Black brook, Miramichi river	3	Northwest arm, Miramichi	6
Black Landsgully	12	Oromocto	7
Buctouche	16	Ox island, St. John river	5
" stakes	32	Petit Rocher	2
" river, bushes	200	Pisarince	2
Campobello, 1 spindle and	9	Pokemouche	8
Caraquet	21	Richibucto and Albion	28
Cocagne, stakes, 30	11	" Rexton and Browns yard	30
Dalhousie and Restigouche	12	Shediac	11
Digdequash	5	" north of island, 26 bushes and	2
Dipper harbour	3	Shippigan	19
Dorchester	3	St. Andrews	14
Grande anse	4	St. Croix ledge	11
Grand lake and Salmon river	73	St. John river, 155 stakes and	68
Grand Manan, 1 spindle and	28	St. Louis, 10 bushes and	20
Great Shemogue	7	South Tracadie gully, 30 bushes and	5
Harvey	7	Tabusintac	18
Kouchibouguac and Black river, bushes	7	Tracadie	19
Lepreau	3	Tynemouth creek	3
Letite and Back bay, 1 spindle and	14	Washademoak, 144 bushes and	2
Little Shemogue, 1 beacon and	5	Waweig river	1
Little Shippigan	12	West Isles, 4 spindles and	23
Magaguadavic	13	Maintained by agency (signal-buoys)	18
Maquapit and French lakes, 20 stakes and	4	" " (can and conical-buoys)	16

## PRINCE EDWARD ISLAND.

Bay Fortune	3	Little channel	3
Beach point	3	Montague	6
Bedeque	11	Murray harbour	33
Brae harbour	5	New London	9
Cardigan, Lower	6	Orwell and Vernon river, 36 bushes	6
" Upper	12	Pinette	5
Casumpec, 12 stakes	14	Port Hill	12
Charlotte-town, 20 stakes	22	Pownal	7
Cove Head	2	Rollo bay	3
Craynaud, stakes and	5	Rustico	5
East river (Hillsboro')	17	Savage harbour	2
Egmont bay	12	Souris	4
" south, 8 stakes and	2	St. Peters harbour	8
George-town	13	Summerside	11
Goose harbour	2	Tracadie	3
Grand river, 1 beacon and	12	West point	1
" lot 14	8	Wood island	4
Indian rocks	1	Maintained by agency (signal-buoys)	3
Malpeque	16	" " (can and conical)	5
Minnegash	6		

## BRITISH COLUMBIA.

Alford reef, can	1	Dall patch, cage	1
Bennohr rock, cage	1	Darcy shoal, can	1
Browning passage, spar	1	Departure bay, cage	2
Burnaby reef, spar	1	Doreas rock, spar	1
Canoe pass, Fraser river, spar	8	Entrance point, conical	1
Celia reef, conical	1	Esquimalt harbour, cage	2
Clayoquot, can	1	First narrows, B. I., spar	1
" platform	2	False narrows, spar	2
Clark rock, platform	1	False reef, can	1
Colburne passage, cage	2	Fraser river, conical	14
Cortez island, can	1	" spar	2

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List of Buoys maintained by the Department of Marine and Fisheries, &c.—*Concluded.*

BRITISH COLUMBIA—*Concluded.*

	No. of buoys.		No. of buoys.
Ganges harbour, can.	1	Portier pass, can with cage	1
Gossip reef, can	1	Reef point, conical	2
Governor rock, cage	1	Rosedale reef, can	1
Grappler reef, can	1	Rosenfelt reef, conical	1
Hazel point, spar	1	Sand heads, conical	12
Hodgson reef, can	1	"    bell	1
Horda rock, can	1	Sidney spit E., conical	1
Hornby rock, spar	1	"    W., can	1
Horsewell reef, can	1	"    reef, spar	2
Indian reef, can	1	"    rock, platform	1
Johns n reef, can	1	Sparrowhawk rock, cage	1
Kelp bar, spar	2	Tazwell reef, spar	1
"    bell	1	Ucluellet, cage	1
Ledge point, spar	1	Victoria harbour, cage	2
Lighthouse island, conical	1	"    rock, can	1
Malaspina strait, cage	2	Village point, spar	1
Mears spit, cage	1	Virago rock, spar	1
Metlacatlah, cage	2	Welcome point, spar	1
Nanaimo harbour, cage	9	Whale rock, spar	1
"    -spar	2	White rock, can	1
Paterson rock, cage	1	Kootenay lake, platform	12
Point Grey, can with cage	1		

BEACONS.

	No. of beacons		No. of beacons.
Atkins reef	1	Mud bay, Serpentine and Nicomeek l.	40
Base flat	1	Nanaimo harbour	3
Broteby ledge	1	North reef	1
Canoe rock	1	Oyster harbour	2
Danger reef	1	Panther shoal	2
Dyke point	1	Regatta rock	1
Enterprise reef	1	Rouaults rock	4
False narrows	2	Sand heads, lighthouse beacon	1
First narrows, Burrard Inlet	2	Shark spit	1
marking water pipe line	2	Shrub	1
Gabriola reef	1	Shute reef	1
Gibson landing	1	Sidney spit	1
Goose spit	1	Union spit	1
Grassy point	1	Victoria harbour	2
Kelp reef	1	Walker rock	1
Lewis rock	1	White islet	1
Maple spit	1	White point	1
Moresby rock	1	Z-ro rock	1



## APPENDIX No. I.

## GENERAL SUMMARY of Expenditure for Fiscal Year, 1902-3.

Service.	Amount.	Total.
	\$ cts.	\$ cts.
<b>Ocean and River--</b>		
Maintenance and repairs to Dominion steamers.....	279,348 06	
Balance contract for steamer to replace <i>Newfield</i> .....	90,465 91	
Examination of Masters and Mates.....	4,968 36	
Rewards for saving life, &c.....	9,306 25	
Investigations into wrecks.....	1,367 45	
Registry of Canadian shipping.....	417 25	
Removal of obstructions in navigable rivers.....	682 98	
Tidal service.....	14,520 00	
Winter mail service.....	6,211 28	
Marine biological station.....	2,000 00	
Export cattle trade.....	3,026 25	
Montreal pilotage commission.....	1,745 23	
Montreal dry dock.....	3,528 25	
Unforeseen expenses.....	4,822 78	
		422,410 05
<b>Lighthouse and Coast--</b>		
Salaries and allowance of lightkeepers.....	222,499 38	
Agencies, rents and contingencies.....	16,566 14	
Maintenance and repairs to lighthouses.....	304,785 39	
Construction of lights and aids to navigation.....	319,496 33	
"    Lurchee shoal.....	79,991 40	
Salaries of temporary officers.....	6,945 96	
Signal service.....	6,863 75	
Repairs to wharfs.....	1,721 91	
		958,870 26
<b>Scientific Institutions, Surveys, &amp;c.—</b>		
Meteorological service.....	82,554 01	
Magnetic observatory.....	2,723 80	
Hydrographic survey.....	35,243 97	
Observatory, St. John, N. B.....	1,015 19	
"    Sulphur Mountain.....	3,167 62	
Time ball, Halifax, N.S.....	1,000 00	
		125,704 59
<b>Marine Hospitals--</b>		
Care of sick seamen in marine hospitals in Maritime Provinces and repairs.	48,151 48	
Shipwrecked and distressed seamen.....	598 67	
		48,750 15
<b>Steamboat Inspection.....</b>		
		30,172 09
Capt. A. M. MacGregor, gratuity.....		1,050 00
Parliamentary returns.....		95 10
Carried forward.....		1,587,052 24

GENERAL SUMMARY of Expenditure for Fiscal Year ended June 30, 1903—*Concluded.*

Service.	Amount.	Total.
	\$ cts.	\$ cts.
Brought forward total Marine.....		1,587,052 24
FISHERIES.		
Salaries and disbursements of fishery overseers, &c.....	114,719 00	
Building and maintenance of fishbreeding establishments.....	77,330 86	
Fisheries protection service.....	115,667 99	
Building fishways, &c.....	938 69	
Legal and incidental expenses.....	1,998 95	
Canadian fishery exhibit.....	2,817 20	
Distributing fishing bounty.....	4,900 11	
Oyster culture.....	3,712 16	
Cold storage.....	11,331 49	
Georgian Bay biological laboratory.....	1,495 95	
Balance building vessels in B. C.....	23,695 00	
Two patrol boats.....	5,775 00	
Wharf and storage at Sapperton.....	3,000 00	
Seizures by Russian cruisers.....	87 50	
Licenses of U. S. vessels.....	505 72	
Revenue.....	115 50	
Fishing bounty.....	159,853 50	
	<hr/>	527,944 62
Civil government—salaries, including Minister.....	73,042 53	
"    "    contingencies.....	11,460 00	
	<hr/>	84,442 53
Total Marine and Fisheries.....		<hr/> 2,199,439 39 <hr/>

F. GOURDEAU,  
*Deputy Minister of Marine and Fisheries.*

A. W. OWEN,  
Accountant.



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## APPENDIX No. 2.

STATEMENT of Revenue of Marine and Fisheries Department for Fiscal Year ended  
June 30, 1903.

Service.	Refunds.		Amount.
	₹	cts.	
Harbour, piers and wharfs .....			12,557 50
Dominion steamers .....			17,478 10
Winter mail service .....			608 25
Examinations, masters and mates .....			5,790 50
Fines and forfeitures .....	1,120 50	225 00	895 50
Steamboat inspection fund .....	27,821 09	8 00	27,813 09
"    engineers' certificates .....			935 00
"    inspection of barges .....			140 00
Sick mariners' fund .....	65,065 15	153 60	64,851 55
Marine registry searches .....			59 17
Signal station service .....			2,873 66
Shipping forms .....			
Casual revenue, sundries .....	7,934 30	59 90	7,874 40
			<u>8139,876 72</u>
FISHERIES.			
Ontario .....			1,808 83
Quebec .....			4,379 15
Nova Scotia .....			3,962 45
New Brunswick .....	11,188 02	1 50	11,186 52
Prince Edward Island .....			2,007 35
Manitoba .....			1,636 00
North-west Territories .....	1,498 50	78 00	1,420 50
British Columbia .....	43,015 62	36 00	42,979 62
Yukon Territory .....			320 00
Hudson Bay .....			10 00
			69,710 42
Licenses to United States fishing vessels .....	9,057 40	132 00	8,925 40
			<u>878,365 82</u>

## RECAPITULATION.

Marine revenue .....	8139,876 72
Fisheries revenue .....	78,635 82
	<u>8218,512 54</u>

F. GOURDEAU,

*Deputy Minister of Marine and Fisheries.*

A. W. OWEN,

*Accountant.*

## APPENDIX No. 3.

STATEMENT of Steamboat Inspection Dues collected during the Fiscal Year ended June 30, 1903.

<i>Ontario.</i>		<i>§</i>	<i>cts.</i>	<i>Nova Scotia.</i>		<i>§</i>	<i>cts.</i>
Amherstburg		39	48	Amherst		12	40
Belleville				Annapolis			
Brockville		46	88	Ariciat			
Chatham		81	36	Baddeck			
Collingwood		819	12	Barrington		5	96
Cornwall		75	16	Canso		18	76
Deseronto		170	68	Digby		5	32
Fort Erie				Halifax		3,079	24
Fort William		16	40	Kentville			349 08
Goderich		333	51	Liverpool			40 32
Hamilton		256	32	Lockeport			
Kingston		1,150	04	Lunenburg		20	52
Lindsay		242	76	New Glasgow			
Midland		348	04	North Sydney		199	12
Morrisburg		75	41	Parsonsboro'			15 60
Napanee		5	80	Pictou			
Niagara Falls		15	60	Port Hawkesbury			54 28
Ottawa		605	68	Sydney		112	72
Owen Sound		1,148	36	Windsor			32 04
Parry Sound		378	16	Yarmouth			109 04
Peterboro'		180	00				4,054 40
Pictou		150	12	<i>Manitoba.</i>			
Port Arthur		228	00	Brandon			11 84
Prescott		200	52	Winnipeg			130 36
Rat Portage		60	28				142 20
St. Catharines		276	16	<i>British Columbia.</i>			
St. Thomas		340	04	Kaslo		210	16
Sarnia		676	84	Nanaimo		8	52
Sault Ste. Marie		745	68	Nelson		692	72
Simcoe		28	72	New Westminster		400	80
Stratford		21	00	Vancouver		935	84
Toronto		1,529	48	Victoria		3,697	68
Trenton		6	60				5,945 72
Wallaceburg		56	32	<i>Prince Edward Island.</i>			
Windsor		1,573	33	Charlottetown			317 56
		11,881	85	Summerside			
<i>Quebec.</i>							317 56
Cookshire		24	56	<i>North-west Territories.</i>			
Montreal		624	44	Calgary			11 40
Quebec		1,201	36	Dawson			689 24
St. Johns				White Horse			1,051 00
Sorel		16	68				1,751 64
Stranwad		62	04	Total		27,821	09
Three Rivers				Less refunds		8	00
							27,813 09
<i>New Brunswick.</i>				Inspection tow barges			140 00
Bathurst		20	64	Fees for engineers' certificates			935 00
Campbellton		46	40				
Chatham		46	84	Grand total		28,888	09
Dalhousie		31	12				
Fredrieton		11	20				
Moncton		6	60				
Newcastle		6	44				
Sackville		7	00				
St. John		1,554	92				
St. Stephen		67	48				
		1,798	64				

APPENDIX No. 4.

INVESTIGATION INTO WRECKS IN THE ST. LAWRENCE RIVER  
AND GULF.

To the Deputy Minister  
of Marine and Fisheries,  
Ottawa.

SIR,—I have the honour to submit my report upon the principal casualties that occurred during the season of navigation, in the River and Gulf of St. Lawrence.

Formal investigations were held into accidents to the following vessels :—

SS. <i>Carrigan Head</i> .	Steam tug <i>Mersey</i> .
SS. <i>Iberian</i> .	SS. <i>Manchester Trader</i> .
SS. <i>Protector</i> .	SS. <i>Dominion</i> .
SS. <i>Stord</i> .	SS. <i>Dominion</i> .
Barque <i>Sardhana</i> .	SS. <i>Bergenhus</i> .

On account of the witnesses not being available the under-mentioned casualties were not investigated :—

SS. <i>Norwegian</i> .	SS. <i>Mount Royal</i> .
SS. <i>Loughrig Holme</i> .	SS. <i>Pomeranian</i> .
SS. <i>Homelea</i> .	Ship <i>Alacrite</i> .
SS. <i>Hibernian</i> .	SS. <i>Topaze</i> .
SS. <i>Lake Manitoba</i> .	

Owing to the fact that in almost every case, the department is compelled to rely upon the press for information with regard to shipping casualties, it not infrequently occurs that accidents to vessels do not become known in sufficient time to permit of an investigation being held. If ship-owners and agents understood how anxious the department is to improve aids to navigation, and punish carelessness on the part of shipmasters or pilots, I think they would render more assistance in this respect.

The list for the season is a heavy one, and will, I fear, tend to maintain the high rates of marine insurance at present in operation on Gulf and River St. Lawrence shipping.

The following table shows the particulars of the casualties investigated :

Name of Vessel.	Sail or Steam.	Net Registered Tonnage.	Port of Registry.	Date of Casualty.	Place of Casualty.	Damage Sustained.	Result of Investigation.
Carriagan Head.....	S.S.	2,717	Belfast.....	April 24.....	River St. Lawrence, between Montreal and Quebec.....	Slight	Buoys out of position.
Uberian.....	S.S.	3,347	Liverpool.....	June 6.....	River St. Lawrence, between Montreal and Quebec.....	Slight	Atmosphere smoky; pilot to blame.
Protector.....	S.S.	1,678	Drammen, Norway.....	June 4.....	Saguenay River.....	Total loss	Pilot to blame, suspended for 18 months.
Stord.....	S.S.	352	Londres, France.....	June 10.....	Stc. Anne des Monts.....	Badly damaged	Dense fog; master censured.
Sordhana.....	Barque.....	1,119	Glasgow.....	July 19.....	Point des Monts.....	Badly damaged	Dense fog; master censured.
Morsay.....	Tug.....	34	Quebec.....	Aug. 12.....	Point Outaouais.....	Total loss.	Foundered in deep water through springing a leak; master, mate's and engineer's certificates cancelled.
Manchester-Trader.....	S.S.	2,136	Manchester.....	Aug. 10.....	South Point, Anticosti.....	Badly damaged.	Master's certificate suspended for 6 months.
Dominion.....	S.S.	2,581	London.....	June 7.....	River St. Lawrence, between Montreal and Quebec.....	No damage.	Struck some obstruction in the ship channel.
Donnion.....	S.S.	2,581	London.....	July 13.....	Bird Rocks.....	Badly damaged.	Probably a sunken log.
Bergenhus.....	S.S.	2,344	Bergenhus, Norway.....	Sept. 24.....	St. Charles River, Quebec.....	Slight damage.....	Dense fog; inefficient fog signal. Pilot to blame; branch cancelled.
Hektos.....	S.S.	.....	Russian and Swedish vessels.	Nov. 3.....	River St. Lawrence, between Montreal and Quebec.....	Badly damaged.	In collision and afterwards stranded. Pilot on Hektos to blame; branch suspended for 6½ months.
Drottning-Sofia.....	S.S.	.....	Russian and Swedish vessels.	Nov. 3.....	River St. Lawrence, between Montreal and Quebec.....	Badly damaged.	In collision and afterwards stranded. Pilot on Hektos to blame; branch suspended for 6½ months.

PRINCIPAL CASUALTY LIST NOT INVESTIGATED.

Leuchting Holme.....	S.S.	1,317	Maryport.....	June 10.....	Matane.....	Slight damage.
Hobben.....	S.S.	1,143	Hartlepool.....	Aug. 7.....	Pt. Rich., Nfld.....	Slight damage.
Hibernian.....	S.S.	1,166	Liverpool.....	Oct. 1.....	Longueuil Bay.....	Slight damage.
Lake Manitoba.....	S.S.	5,705	Liverpool.....	Sept. 30.....	Montreal.....	Slight damage.
Mount Royal.....	S.S.	4,599	Liverpool.....	Oct. 10.....	River St. Lawrence, between Quebec and Montreal.....	Damage.
Pomeranian.....	S.S.	2,700	Glasgow.....	July 29.....	Quebec and Montreal.....	Slight damage.
Aberic.....	Ship.....	1,823	Christiana, Sweden.....	Sept. 29.....	Cap Chatter.....	Slight damage.
Norwegian.....	S.S.	2,303	Glasgow.....	June 13.....	Little Godroy River, Nfld.....	Slight damage.
Topaze.....	S.S.	1,211	London.....	Sept. 18.....	Port au Basque, Nfld.....	Total loss.

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Of the ten casualties investigated, the masters were responsible for four, pilots for three, and three may be classified as due to the perils of navigation.

The casualty to the ss. *Homelea* was investigated by the Imperial Board of Trade, and the master's certificate suspended for three months. The loss of the ss. *Topaze* will also be investigated in England.

In a recent return of the casualties which occurred in the River and Gulf of St. Lawrence during the season April to November, 1903, issued by the Liverpool Underwriters Association, the ss. *Monterey* is included. This vessel was wrecked at Plate Point, St. Pierre-Miquelon, and the master's certificate suspended for six months by the Imperial Board of Trade.

The total value of the trade via the St. Lawrence for the fiscal year ending June 30, 1903, was \$132,019,550. In 1902, it was \$113,414,381; in 1901, \$111,500,341, and in 1900, \$97,948,377; with the trade increasing so enormously, a greater number of casualties is only to be expected.

The prevalence of fog in the Gulf and River St. Lawrence, and the variability of the currents, both as regards strength and direction, account for nearly every casualty, but I am of the opinion that these conditions can be easily overcome by ordinary care and the usual precautions adopted by practical seamen and pilots.

The ss. *Lake Champlain* struck some obstacle in the harbour of St. John, N.B., on January 28, 1903, sustaining slight damage; a thorough search of the spot by the pilot in charge of that vessel brought nothing to light which could account for the accident, and it is to be presumed that she came in contact with a sunken log or piece of cribwork.

On June 11, the ss. *Halifax* stranded on Point Pleasant shoals, Halifax harbour, but sustained no damage; the master was censured.

With the object of facilitating the holding of investigations the 'Shipping Casualties Act' was amended in October. The most important changes being as follows:—

(1) The Minister may appoint a Commissioner to hold formal investigations, in place of the necessity for a separate commission being issued for each casualty as required before.

(2) A 'Statement of the Case' need not be issued—as heretofore—before the commencement of the proceedings where a certificate is to be dealt with; the defendant's certificate may be cancelled or suspended after he has been furnished with a copy of the report or statement of the case, and had an opportunity of making a defence.

(3) An investigation may be held into the stranding of any vessel, whether damaged or not.

The Honourable the Minister of Marine and Fisheries has appointed Captains Archibald Reid and John Temple to be assessors for a term of three years, at the ports of Montreal and Quebec respectively; and—in pursuance of Section 8 of the amended 'Shipping Casualties Act'—he has appointed me a commissioner to hold investigations into shipping casualties.

A full statement of wrecks and casualties that have occurred during the twelve months ended June 30, 1903, in Canadian waters and to Canadian sea-going vessels in other waters will appear in Appendix No. 48 of the supplement to this report.

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

R. SALMON,  
*Wreck Commissioner.*

OTTAWA, December 31, 1903.

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The findings of the court upon the casualties investigated are as follows :—

‘ CARRIGAN HEAD ’ (SS.)

This British steamship grounded opposite No. 3 lightship, Lake St. Peter, River St. Lawrence, on April 24, 1903. A formal investigation was held into the casualty at the harbour commissioners’ office, Montreal, and the finding of the court was as follows :—

That the captain was not to blame for the disaster. That the officer of the watch was not to blame for the disaster. That the quartermaster carried out the orders of the pilot. That pilot Angers was not to blame. That the casualty was due to the buoys being out of place.

The court has decided that Mr. Boucher is not to blame for this, as, from the evidence produced, the buoys were placed in their proper positions in the first instance, but in some unforeseen way they had dragged therefrom.

The light-keeper of No. 3 lightship having noticed that these buoys were out of position for some time previously, should have reported the fact.

Pilot Prudent Belleisle, who was in charge of the *Fridtjof Nansen*, on April 22, which it is presumed touched the ground at or about the same locality on that date, should have reported the matter immediately on his arrival in Montreal, in which case the court considers that Mr. Boucher would have been able to attend at once and see whether the buoys were in their proper positions or not.

The court strongly recommends that a steam launch should be procured and used for patrolling up and down the river three or four times a week to see that the buoys are in their proper positions.

Dated June 5, 1903.

O. G. V. SPAIN,  
*Commissioner.*

We concur in the above report,

R. SALMON, }  
L. ST. LOUIS, } Assessors.

‘ IBERIAN ’ (SS.)

This British steamship grounded on the south side of the channel, near Isle aux Raisins, River St. Lawrence, on June 6, 1903, and at a formal investigation into the causes which led to the casualty, held at the harbour commissioner’s office, Montreal, the court found :—

That nothing in the ship or her equipment contributed toward the accident.

That the conditions of the weather prevailing at the time of the casualty were favourable, but navigation was rendered difficult, though not unsafe, by smoke from bush fires, which limited the distance the buoys were visible to about half a mile.

That proper precautions were taken with regard to speed, the ship steaming about four (4) knots per hour; and a good look-out was kept, the captain, 1st and 3rd officers being on the bridge as well as the pilot.

That no blame is attached to the master or officers for the casualty.

The buoys were apparently in their proper position.

That the casualty was due to Pilot O. Naud in attempting to pick up the buoy which marked the south side of the channel—starboarding his helm to avoid a bateau, which he supposed was on the north side of the channel, whereas it was on the south side, and obscuring from view the buoy he was looking for. Owing to this error of judgment the ship ran out of the channel and grounded before it was possible for the pilot to see his mistake.

The court is of the opinion, that the pilot, having proceeded about half the distance between the buoys without seeing the spar buoy he was looking for, should have anchored.

The court wishes to draw attention to the fact that Pilot Naud has had thirty-three (33) years’ experience as a pilot, with a clean record, having taken over eleven hundred (1,100) ships up or down the river, and he is the senior pilot on the route.

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The court is of the opinion that pilots should have a better knowledge of the compass and charts and steer by compass when the buoys are so far apart as to be invisible one from the other, instead of trusting entirely to shore marks, which in the present instance were ill-defined.

Had Pilot Naud steered by compass this casualty would have been averted.

Mr. Meredith's suggestion that the harbour commissioners' charts should be corrected to date and rendered accessible to ship captains and pilots is a good one, though having no bearing on the present case, and the court will take steps to bring it to the notice of the authorities.

R. S. CLIFT,  
JOHN TEMPLE,  
Assessor.

(Signed) R. SALMON,  
*Commissioner.*

At QUEBEC, P.Q., June 15, 1903.

· PROTECTOR' (SS)

This Norwegian steamship stranded at the mouth of the Saguenay river, on June 4, 1903, subsequently becoming a total loss. At a formal investigation into the case, held at the harbour commissioners' office, Quebec, the court found:—

That the ship was properly equipped and in a good and sea-worthy condition when she left Chicoutimi.

That she was supplied with proper and sufficient charts and sailing directions.

That the reef on which she stranded was properly marked on the Admiralty charts.

That the entrance to the Saguenay river is properly and sufficiently buoyed for the purposes of navigation.

That some blame attaches to the master for the stranding of the ship, in that he took no steps to ascertain whether the pilot was steering a proper course, in waters that any practical seaman could have navigated without the assistance of a pilot: the channel being perfectly straight, and at no part less than six (6) cables wide.

That the master committed a grave error of judgment in taking no steps towards saving his vessel after stranding by jettisoning cargo from Nos. 1 and 2 holds and the deck cargo forward whereby the strain on the vessel would have been minimized, and the salvors enabled to place and work their pumps on arrival. The court is of the opinion that had these steps been taken the vessel would have been floated, and saved.

That the casualty was caused by the wrongful act of Pilot Nazaire Delisle in steering an improper course, the evidence going to show that he had never piloted a vessel out of the Saguenay river before, and that his knowledge of this river was so limited as to be dangerous.

In the opinion of the court, the sentence of the harbour commissioners that Pilot Delisle be suspended for eighteen (18) months, does not meet with the requirements of the case; this man will return to his work at the expiration of that sentence more incompetent than now, since he will be out of touch with his work for that time. Any shipmaster who caused the stranding and loss of a vessel valued—with her freight and cargo—at upwards of \$250,000 under such conditions of gross neglect, would be dealt with much more severely.

The court desires to add that the system of employing St. Lawrence pilots on the Saguenay river, with the imperfect training which the evidence showed they receive, is one that needs revision, and the authorities responsible must realize that until pilots serve an approved apprenticeship and pass higher examinations than the present standard requires, these accidents will continue to happen.

R. SALMON,  
*Commissioner.*

Assessors : { R. S. CLIFT,  
Marine Surveyer and Master Mariner.  
{ J. TEMPLE.

At Quebec, P.Q., June 22, 1903.

## 'STORD' (SS.)

This British steamship stranded at Ste. Anne des Monts, Gulf of St. Lawrence, on June 19, 1903. The causes which led to this casualty were the subject of a formal investigation, held at the harbour commissioners office, Quebec, and the finding of the court was:—

That the ship was properly equipped, and in a good and sea-worthy condition, when she left St. John's, Newfoundland.

That she was not properly and sufficiently equipped with charts, in that there was only a general chart of the Gulf and River St. Lawrence (No. 1271) on board; but that the sailing directions on board were sufficient.

That the coast, in the vicinity of the place where the vessel stranded, is properly and sufficiently buoyed and marked for the purposes of navigation.

That blame attaches to the master for the stranding of the ship, in that he was attempting to navigate his vessel in close proximity to the land with a general chart; and in that he omitted to study his sailing directions sufficiently to inform himself of the set of the currents in those waters.

That the vessel was not proceeding at a safe rate of speed considering the distance from the land and conditions of the weather.

That the master used every possible means to save his vessel after stranding.

The court considers that the master committed an error of judgment in attempting to navigate his vessel with a small scale chart, and that he deserves censure for his insufficient study of the sailing directions, and for proceeding at an unsafe speed, but refrains from dealing with his certificate in view of the fact that he was almost constantly on deck from St. John's, Newfoundland, to the place of the stranding, during trying circumstances when it is necessary to display the greatest caution and judgment: also owing to his past clean record.

In evidence taken on the fog-signals along the coast between Cape Magdalen and Mataue, suggestions were made for improvements, which the court will take steps to bring before the notice of the authorities at an early date.

QUEBEC, P.Q., June 22, 1903.

R. SALMON,  
*Commissioner.*

We concur in the above report,

R. S. CLIFT, }  
JOHN TEMPLE, } Assessors.

## BARQUE 'SARDHANA.'

This British barque was stranded at Point des Monts, Gulf of St. Lawrence, on July 19, 1903, and the causes which led thereto were formally investigated at the City Hall, Quebec, the finding of the court being:—

That the ship was in a good and sea-worthy condition when she sailed from the port of Baltimore.

That having regard to the state of the weather, proper precautions were taken with respect to the lead, look out, and fog signals.

That proper and sufficient charts were provided for the navigation of the Gulf of St. Lawrence, and the sailing directions the best obtainable.

That after the stranding every effort was made to keep the water under and save the vessel.

That the aids to navigation—in so far as the fog signal at Point des Monts is concerned—were inefficient: the evidence of various witnesses going to show that it was impossible to hear the fog-signal, even after the vessel stranded, within a mile and a-half of the lighthouse.

That the casualty was due to the application by the master of a correction to his course for a supposed south-easterly set of current, whereas, owing to prevailing easterly winds, the current appears to have set in the opposite direction.



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The court severely reprimands the master for attempting to pick up the fog signal at Point des Monts in a dense fog, after being assured of the bearing and approximate distance of Cape Chatte, and there being nothing to prevent his steering a straight course up the middle of the gulf for the distance of about eighty (80) miles.

The court further censures the master and chief officer for adopting a most irregular proceeding of only logging the mean of their courses, and keeping no detailed record of the courses and distances run, so that it was impossible to check their positions by the courses entered in the log book.

We concur : (Sgd.) R. SALMON,  
*Commissioner.*

(Sgd.) J. TEMPLE,  
Master Mariner. } Assessors:  
F. X. LAMARRE. }

QUEBEC, August 11, 1903.

THE STEAM TUG 'MERSEY.'

This steam tug foundered near Pointe Outarde, River St. Lawrence, on August 12, 1903, five lives being lost. A formal investigation was held into the case at the Admiralty Court, Quebec, and the finding of the court was as follows :—

(1) That the *Mersey* was in a sea-worthy condition—so far as the evidence adduced went to show—when she left Quebec.

(2) That the boat supplied to her was sufficient, had the master used the material at his disposal to increase its buoyancy, to have saved all the souls on board.

(3) That the evidence was insufficient to prove what caused the casualty whereby loss of life ensued.

(4) That the master made no effort to stop the leak and save the vessel.

(5) In the opinion of the court, the vessel might have been kept afloat for an indefinite time, if proper steps had been taken.

(6) That the vessel was prematurely abandoned by the only experienced men on board.

(7) That Gagnon, the master, was guilty of a brutal and inhuman crime in seizing the only boat and deserting his vessel, leaving to drown five landsmen who were helpless to save themselves.

(8) That Barras, the mate, was guilty of an act of disgraceful cowardice in being a party to the desertion.

(9) That Lanothe, the engineer, was guilty of being accessory to the desertion, but—in the opinion of the court—less to blame than his accomplices, owing to his age and infirmities.

(10) The court cancels the certificate of Gagnon, the master.

(11) Owing to the fact that a 'statement of the case' was not furnished to Barras, the mate, before the commencement of the proceedings, the court is unable to deal with his certificate, but will recommend the Honourables the Minister of Marine and Fisheries to deal with it summarily, under section 20, of chapter 35, of the Statutes of 1901, being 'An Act respecting Inquiries and Investigations into Shipping Casualties.'

(12) The following are the names of the missing men :—Thomas Bissonnette, Eugene Grenier, Joseph Barette : Emmanuel Gagnon, Joseph Martel, bodies recovered.

The court desires to express its sympathy with the relatives of the missing men.

We concur, (Signed) R. SALMON,  
*Commissioner.*

(Signed) J. TEMPLE, Master Mariner, } Assessors.  
F. X. LAMARRE, Pilot, }

QUEBEC, P.Q., August 29, 1903.

## 'HALIFAX' (SS.)

This British steamship stranded on Point Pleasant Shoals, Halifax harbour, on June 11, 1903. A formal investigation was held into the case, the court finding :—

That the steamship *Halifax* of the port of Halifax, Nova Scotia, left Hawkesbury, Cape Breton, for Halifax and Boston on June 10, 1903, with a crew of fifty hands all told; fifty-five (55) passengers and about five hundred (500) tons of general cargo. Her draught of water at the time of leaving port being 13' 6" forward and 16' 6" aft.

That at 8.15 a.m., on Thursday, June 11, the weather being very thick and wind blowing lightly from the south, southeast, steering a northerly course and sea smooth, the ship going dead slow, lead going continuously, she grounded off Point Pleasant on the western side of Halifax harbour.

That a portion of her cargo being removed, the ship came off at next high tide under her own steam without any other assistance. She was examined by divers, and then placed in dry dock, where further examination was made, but no damage was found to have been sustained.

The *Halifax* was commanded by Captain Ellis, who holds a Canadian coasting master's certificate, and also acts as pilot for the ship.

From Port Hawkesbury until she picked up the automatic buoy at the entrance to Halifax harbour, no land of any sort was seen.

The vessel was well found in all necessary charts and aids to navigation.

The captain was an experienced navigator on this coast, and although some evidence was adduced that there was probably some local attraction at this place caused by the military electric works in the vicinity, the court is of the opinion that this had no bearing on the casualty, considering that the *Orinoco* passed in within a few minutes of the *Halifax*: and also taking into consideration the evidence of the pilot of the *Orinoco*, who distinctly states that his compasses were not affected in any way on that day.

The court is of the opinion that this casualty was caused by the master neglecting to make sufficient allowance for a strong westerly current which existed at the time, and which is usually encountered after heavy easterly weather.

In view, however, of the master's previous excellent record, and the fact, that, during the whole voyage from Port Hawkesbury to Halifax, the ship was more or less enveloped in dense fog, and that every precaution in the way of log, lead and lookout, had been closely observed, the court finds no cause for dealing with his certificate, but considers that the master, Alfred Ellis, is deserving of censure for neglecting to steer a more westerly course, and he is hereby censured accordingly, and admonished to be more careful in future.

The court also finds that the other officers of the ship were not in any way to blame for the casualty.

(Sgd) S. R. HILL, )  
" A. KENNEDY, ) Assessors.

(Signed) O. G. V. SPAIN,  
Commissioner.

## 'MANCHESTER TRADER' (SS.)

This British steamship was stranded near South point, Anticosti, Gulf of St Lawrence, on August 10, 1903. A formal investigation was held into the case, the court sitting at the Admiralty Court, Quebec. The finding was as follows :—

1. That the *Manchester Trader* was properly equipped and in good, sea-worthy condition when she left Montreal.

2. That she had proper and sufficient charts and sailing directions for the navigation of the Gulf of St. Lawrence.

3. That the coast in the vicinity of the place where the vessel stranded is properly charted for the purposes of navigation.

4. That the course set at 9 o'clock p.m. on August 9, to pass about six (6) miles to the southward of South point, Anticosti, was a safe and proper one, but the master

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should have recognized on sighting Southwest point light that he was a number of miles to the northward of his course, and should have altered his course materially.

Again, at 6:22 o'clock a.m. on August 10, on sighting South point lighthouse almost ahead, the master had a second indication that he was considerably to the northward of his course, and had he acted with any judgment the stranding would never have occurred.

5. That the vessel stranded about 6:45 o'clock a.m. on August 10, near South point, Anticosti, through the wrongful act of the master, Michael Swords, steering improper courses after receiving two convincing proofs that he was very much out of his reckoning.

6. That the master did not take proper and sufficient means to save his vessel after the stranding.

7. The court suspends the certificate, numbered 025282, of the master, Michael Swords, for a period of six (6) months from the date hereof, but recommends that he be granted a certificate as first mate during the period of his suspension as master.

(Signed) R. SALMON,  
*Commissioner.*

We concur.

(Signed) J. TEMPLE, Master Mariner. } Assessors.  
HY. ROUS, Master. }

QUEBEC, P.Q., August 29, 1903.

'DOMINION' (ss.)

This British steamship, on June 7, 1903, touched some obstruction in the ship channel, while passing buoy 'Q 107', off Liveur point, river St. Lawrence. The mishap was the subject of a formal investigation at the harbour commissioners' office, Montreal, and the finding of the court was:

(1) That the ss. *Dominion* was properly equipped and in a good and sea-worthy condition, when she left Sydney, Cape Breton,

(2) That proper precautions were taken with regard to speed, and a good look-out was kept.

(3) That the conditions of weather prevailing at the time were not unfavourable, but navigation was occasionally rendered difficult by the smoke from bush fires.

(4) The court is unable to determine—from the evidence adduced—the nature of the obstruction which the vessel came in contact with, or that any damage resulted therefrom; and it is evident that the said obstruction did not exist in that part of the channel extending from Cap Levrant curve to Cap à la Roche after July 2, since nothing could be found when the channel was swept by the Department of Public Works, between June 29 and July 2.

(5) That no blame attaches to the pilot, master, or officers of the *Dominion*, it being evident that the vessel was in or near the centre of the channel.

(6) The court is of the opinion that a red buoy placed on the north side of the channel, abreast of the black buoy Q. 107, would be of great advantage in enabling pilots and masters to determine the width of the channel at this point.

We concur. (Sgd.) R. SALMON,  
(Sgd.) ARCHIBALD REID, *Commissioner*  
Port Warden and Surveyor } Assessors.  
to Lloyd's Register. }  
(Sgd.) J. TEMPLE,  
Master Mariner. }

MONTREAL, P.Q., September 15, 1903.

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## 'DOMINION' (ss.)

This British steamship, while proceeding from Montreal to Sydney, Nova Scotia, on July 13, 1903, touched bottom at Bird Rocks, Gulf of St. Lawrence, so heavily as to cause material damage. A formal investigation was held into the case at the harbour commissioners' office, Montreal, and the court found:—

(1) That the ss. *Dominion* was properly equipped, and in good and sea-worthy condition, when she left Montreal.

(2) That the vessel was provided with sufficient charts and sailing directions for the navigation of the River and Gulf of St. Lawrence.

(3) That the courses steered after taking a departure from Cape Magdalen were rather fine for the conditions of the weather prevailing at the time, but, in accordance with the master's previous usage, and in view of the fact that he had great experience in these waters, the court considers that the master was justified in setting those courses.

(4) That the sparsity of the soundings in the vicinity of the Bird Rocks tended to mislead the master into the belief that his vessel was to the northward of her actual position.

(5.) That the fog signal on board Bird Rocks, as sounded at present, at intervals of fifteen (15) minutes, is—in the opinion of the court—quite useless as an efficient aid to navigation.

(6.) That the vessel touched some outlying rock to the northward of the Bird Rocks about 8.15 o'clock a.m., on July 13, and that the damage resulting therefrom amounted to \$36,800, and thirty-eight (38) days' detention in dock.

(7.) That the casualty was mainly due to the inefficiency of the fog signal, but some blame attaches to the master for maintaining an injudicious speed after obtaining a sounding of twenty seven (27) fathoms at 7.30 o'clock, a.m.

(8.) That the court—in consideration of the master's previous record—abstains from censuring him, but cautions him to exercise greater care in his future navigation of waters where the soundings are as sparse and irregular as shown on the chart in this vicinity.

(9.) The court recommends that a fog signal, which could be sounded at frequent intervals, be provided at the Bird Rocks as soon as possible, this being a most important point in navigation of the Cabot straits' entrance to the St. Lawrence.

(Sgd) R. SALMON,  
*Commissioner.*

We concur:

(Sgd) ARCHIBALD REID, Port Warden and Surveyor to Lloyd's Register.	} Assessors.
J. TEMPLE, Master Mariner.	

MONTREAL, September 15, 1903.

## 'BERGENHUS' (ss.)

This Norwegian steamship was stranded near the mouth of the St. Charles river, harbour of Quebec, on September 24, 1903, The casualty was the subject of a formal investigation held at the Admiralty Court, Quebec, when the court found:—

(1.) That the ss. *Bergenhus* was in a good and seaworthy condition, and properly equipped when she left Montreal.

(2.) That Pilot Eugene Anctil boarded the vessel and took charge about 3.30 a.m., on September 24, off Crawford's wharf, the ship heading towards the Lévis shore, the tide on the last quarter of the ebb, and the lights on both sides of the river being visible. That he gave the order 'hard astarboard,' 'full speed ahead,' and subsequently 'steady,' with the ship heading N. by W., then reducing to half speed with a view of coming to an anchor. That no further order was given till the ship grounded at 3.45

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o'clock a.m., on the north shore about  $3\frac{1}{2}$  cables to the N.E. of the breakwater light-house, where she remained for one hour, sustaining damage to the extent of some \$8,000 and sixteen (16) days' detention.

(3.) That the orders of the pilot were carried out by the man at the wheel.

(4.) That the master and officers of the vessel are in no way to blame for the stranding.

(5.) That the stranding was caused by the wrongful act of the pilot, Eugene Ancil, steering an improper course.

(6.) That the master used all the means at his disposal to save the ship after the stranding.

(7.) The evidence showed that the pilot had absolutely no knowledge of the application of deviation to a magnetic course, and the court considers that the employment of pilots without a thorough knowledge of the above is reprehensible and dangerous in the extreme.

R. SALMON,  
*Commissioner.*

We concur :

(Sgd.)	JAMES BAIN,	}	Assessors.
	Master Mariner.		
	JOHN TEMPLE,	}	Assessors.
	Master Mariner.		

QUEBEC, P.Q., October 5, 1903.

Russian ss. 'HEKTOS' and Swedish ss. 'DROTTNING SOPHIA'.

The causes which led to a collision between these steamships, in lake St. Peter, river St. Lawrence, on November 3, 1903, was inquired into by the Commissioner of the Montreal Pilot's Court, whose finding was as follows :—

That the *Hektos* and the *Drottning Sophia*, two ocean steamships, on November 3, A.D., 1903, in the St. Lawrence channel, at a point in Lake St. Peter, did sustain damage by a collision, which was caused through the fault of Joseph Melville Labranche, a branch pilot for and above the harbour of Quebec, and the branch of the said pilot, Joseph Melville Labranche, is hereby declared to be forfeited for a period to be reckoned from this date to the 1st July next, A.D., 1904, during which time he shall be suspended from exercising the functions of a branch pilot.

(Signed)

EDMUND GUERIN,  
*Commissioner of the Montreal Pilots' Court.*

Montreal, P.Q., December 14, 1903.

## APPENDIX No. 5.

ANNUAL REPORT OF ENGINEER IN CHARGE AIDS TO NAVIGATION  
MONTREAL TO KINGSTON.

OTTAWA, December 31, 1903.

TO DEPUTY MINISTER, ETC.,

SIR,—I have the honour to submit my annual report on the work of the Montreal-Kingston division of the Marine and Fisheries Department for the year 1903.

In the spring of 1902, the Department of Railways and Canals turned over to this department the buoyage of the River St. Lawrence between Lachine and Prescott, together with the steamer *Scout*, which was built by that department for buoy work and gate lifting.

Thirty-nine (39) shallow draught gas buoys were received, and of this number fourteen (14) were held as spare buoys to replace those buoys in position which required filling, the practice being to lift a spent buoy and put out a filled one.

This arrangement was unsatisfactory, as it required a large reserve of buoys, and at the time the transfer was made negotiations were in progress with the agents of the Pintsch Compressing Company in Montreal for the installation of a compressor and store holders for the purpose of transporting Pintsch or oil gas from Montreal to the buoys in position.

The plant referred to above was installed and consisted of three welded steel store-holders 5 ft. in diameter and 15 ft. long, each holding 265 cub. ft. per atmosphere, and a 'New York' duplex air pump (standard railway type).

The combined capacity of the three gas storeholders at 10 atmospheres was 7,950 cub. ft. Pintsch gas.

The installation of this plant at a cost of \$4,270 released for general service fourteen (14) gas buoys worth \$21,000, and of this number five (5) were shipped to the Quebec agency and four (4) to the Nova Scotia agency for Halifax harbour.

The gas used for the buoy service above Montreal was an extra refined oil gas, known as Pintsch gas and supplied by the Montreal works of the Pintsch Compressing Company. It was received through a pipe laid from the works to Guy Street basin, Montreal.

During 1902 five special trips were made to Montreal to obtain gas for the buoy service.

In August, 1902, experiments were carried out on board the *Scout* to determine the suitability of acetylene for the lighthouse and buoy service.

A temporary generating plant was erected on the port side of the steamer and consisted of a vertical boiler plate generator 4 ft. in diameter and 6 ft. high, carrying two cast iron hoppers with screw feeds.

This generator was originally intended for town lighting and was loaned to the department. As it was not practicable to put a gasometer on the steamer's deck, the body of a standard swift current buoy 4 ft. in diameter and 10 ft. long, was placed vertically in a large wooden box, (4½ x 4 x 8) lined with galvanized iron. A four inch gate valve at the bottom of the buoy provided connection with the tank.

The generator was connected with the buoy-body at the top, and connection made with the compressor from the same point of the buoy-body through a drier and scrubber. A flexible armoured gas hose led from the compressor to the gas buoy. The acetylene was dried by passing over large lumps of carbide and strained through hair felt. No chemical purifier was used.

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The method of operation was as follows :—

The generator (a carbide into water machine) being ready, having sufficient water in the body and carbide in the hopper, the wooden box was filled with water as high as the top of the gate valve which was closed and the buoy-body filled entirely with water. The generator was started for a few minutes and the 4-inch gate valve opened. The gas made, forced the water from the buoy-body into the box, and when the box was partly filled, connection having been made with a storeholder or gas buoy, the compressor was started.

Little difficulty was experienced in keeping the water level in the box fairly constant and this provided a reserve of gas for the compressor.

The apparatus, though crude, worked perfectly at all times, and was used when required until the steamer laid up in the fall of 1902.

During October and November, 1902, experiments were carried out on Lake St. Louis, using mixtures of oil, gas and acetylene and also pure acetylene. At this time difficulty arose with the burners, which were too small and not of the proper type.

On the conclusion of the season's operations and during the winter of 1902 and 1903, further experiments were carried out at the temporary depôt of this division at Morrisburg, and it was found that by using the 'Economic' burner, not smaller than  $\frac{1}{2}$  ft. size, that it is possible to obtain from three to five months' continuous service with one burner.

As the department's steamers are constantly patrolling the river, this was found satisfactory, and in the spring of 1903, the Montreal-Kingston gas buoy service was put on an acetylene basis.

During the past summer the service has been maintained with few complaints.

The evolution of an occulting acetylene light presented more difficulty, and none were installed in 1903, except on the new gas buoys placed late in the season between Montreal and Sorel. But this difficulty has been overcome, and during the season of navigation, 1904, the gas buoys on the starboard side between Montreal and Kingston will carry occulting lights.

New acetylene apparatus has been designed and was in operation in 1903.

The generator, which is of  $\frac{1}{4}$ -inch boiler plate, carries two hoppers, each of which holds 600 pounds of carbide, and the expansion chamber, represented by the buoy-body and wooden box in the original apparatus, forms an integral portion of the new generator. The drier and strainer have been combined, and provision is made for shaking the ash from the carbide, which is contained in a revolving squirrel cage.

A chemical purifier will be added this season to the plant.

The acetylene, on generation, passes in very fine bubbles through a scrubber filled with water. It is then dried and strained and passes to the compressor, then through an 'after cooler' and thence to the gas buoy or gas storeholder.

The 'New York air brake' (two stage compressor without intercooler) has been replaced by a three stage Ingersoll-Sergeant machine made by the James Cooper Manufacturing Company of Montreal. This machine will compress 4,000 feet of free gas per hour and raise it to a pressure of 300 pounds. Fifteen (15) atmospheres or approximately 225 pounds, is the highest pressure used in this gas buoy work.

An increase of about five times the candle power has been obtained by the substitution of acetylene for oil gas, and it is more convenient to generate gas as required than to transport the same in storeholders and equalize and pump into a buoy. The extra run from the buoy to the generating point and back is avoided.

Oil gas costs in Montreal, \$5.10 per 1000 ft. : acetylene costs (carbide) about \$7.50 per 1000 ft.

The ability to rely on an acetylene burner for a given length of time, will also enable the department to make the lighthouse system between Montreal and Kingston practically automatic.

Before the opening of navigation in 1903, the keeper of the lighthouse at Stonehouse point died, and no appointment was made. A gas storeholder and gas buoy lantern were placed at this station and worked in an entirely satisfactory manner during the past season.

Welded steel storeholders have been provided for the lights in this division. They are 20 ft. long, 50 inches in diameter, and hold nearly 4,000 ft. of gas at 15 atmospheres. The larger part of these are placed, and will be connected with special lanterns and lighted on the opening of navigation.

The department having purchased the property at Prescott known as the Labatt property, the temporary depot at Morrisburg was transferred to that point in November and the necessary changes in the buildings are now being carried out. The depot is now known as the Dominion Lighthouse Depôt, as special apparatus for the lighthouse service will be made and distributed from this point. It will also be headquarters for the department's steamers for the Montreal-Kingston division.

Anticipating the extension of the gas-lighting service in the Bay of Quinté, application was made to the Department of Militia and Defence for permission to use the shoal tower in Kingston harbour, which was granted. The landing cribs will require to be extended when carbide can be stored there.

The water has been high in the river during the past season, and no accidents have occurred in the river reaches, or Lakes St. Francis and St. Louis, except the striking of the steamer *Keefe* of the Wolvin Line, near gas buoy 98 S. Windmill Point, Lake St. Louis. Examination disclosed boulders outside the gas buoy not known before, and the buoy was moved 100 ft. south.

The lower entrance of the Farran's point canal has proved a source of danger to several vessels. The new steel steamer *Wacandah* on her first trip up the river struck the piers, passed through the locks and sunk in the canal. An American yacht had her bow stove in attempting the entrance. The pilots are of different opinions as to the best method of making the entrance, which is difficult. A current survey of the lower entrance of this canal was made by Mr. Ross, C. E., under orders from Mr. W. A. Stewart, superintendent of operations, St. Lawrence Canals, during the past season, which may throw light on the best method of dealing with this matter.

If the water lowers again to a point approximating the low water of 1895, the deep draught freighters now on the river, will experience difficulty in the river reaches which should be thoroughly swept and in places improved.

The department purchased from Captain W. Murphy of Morrisburg the steamer *Alaska*, (which name was afterwards changed to *Reserve*) for the purpose of sweeping the channel. The *Reserve* is well adapted for the work and has rendered good service. At the latter part of the season she was employed in distributing steel store holders for the lighthouse service.

A scow 70 × 24 × 5 ft. is now under construction at Prescott to be used in conjunction with the *Reserve* for placing and lifting spar and gas buoys. This scow will have a derrick hoisting and swinging engine and can be used for pile driving.

On the arrival of the gas buoys intended for the Sorel-Montreal section they were taken to Lachine by the *Scout*, valves, &c., fitted and charged with acetylene, after which they were placed by Mr. U. P. Boucher, C.E., engineer in charge, Platon to Montreal. The *Scout* will, during the season of 1904, keep the ship channel gas buoys charged.

The dredged cut at the foot of Wolfe island was completed by the Department of Public Works. It is 300 feet wide and is 16 feet deep at extreme low water (November, 1895). Deep draught boats from Kingston can enter the American channel through this cut without the necessity of going around the head of Wolfe Island. This dredged cut is marked by a red gas buoy and a black spar buoy.

The Snake island middle ground spar buoy has been replaced by a black gas buoy showing a fixed light.

No adequate surveys have been made of Lakes St. Francis or St. Louis from Cornwall to Montreal, and this work should be carried out as soon as possible. Correct charts could then be issued, proper buoy plans would be available, and the surveys would be advantageous for any improvements such as dredging and laying out ranges of lights.

A secondary triangulation should also be carried out between Cornwall and Prescott, connected with the United States triangulation of 1872-1873, to provide plans for placing buoys by means of sextant angles and for sweeping purposes.

Respectfully submitted, •

J. F. FRASER,  
Commissioner of Lights.



## APPENDIX No. 6.

## METEOROLOGICAL REPORT.

METEOROLOGICAL OFFICE,

TORONTO, December, 1903.

LT.-COL. F. GOURDEAU,  
Deputy Minister of Marine and Fisheries,  
Ottawa.

SIR,—I have the honour to submit the thirty-second annual report of the Meteorological Service of Canada, this report being for the fiscal year, July 1, 1902, to June 30, 1903, with Appendices A and B, reports of St. John and Quebec observatories.

The number of persons in receipt of pay from the Meteorological Service on June 30 for various duties performed in connection therewith was 167. Of this number twenty are employed in the Central Office, and with a few at outside stations devote their whole time to the work of the service; others are occupied in observing during only a portion of each day, and others again are employed only to attend to the display of storm signals when notified.

Since the issue of my last report the following stations have been opened :—

## BRITISH COLUMBIA.

- Class I.—Bamfield, R. G. McLachlan.
- “ II.—Enderby, J. A. Row (resumed).
- “ II.—Kitamaat, Rev. G. H. Raley.

## NORTH-WEST TERRITORIES.

- Class II.—High River, Alta., P. W. Robertson.
- “ II.—Wetaskiwin, Alta., J. H. Walker.
- “ II.—New Hope, Assa., L. G. Summers.
- “ II.—Onion Lake, Sask., Mrs. E. B. Matheson, M.D.
- “ III.—Victoria, Alta., J. A. Mitchell.
- “ III.—Cardston, Alta., Martin Wolf.
- “ III.—Willow Bunch, Assa., McGregor Rapelje.
- “ III.—Lacombe, Alta., Ben. Howell.
- “ III.—Gleichen, Alta., Rev. Canon Stocken.

## ONTARIO.

- Class II.—Walkerton, K. McNaughton.
- “ II.—Vankleek Hill, T. Jamieson.
- “ II.—Belleville, P. C. Jones.
- “ II.—Sutton West, Rev. G. J. Everest.
- “ II.—Niagara Falls, A. H. Telfer.
- “ II.—North Gower, Clarence Craig.
- “ II.—Coldwater, James Lazonby (resumed).
- “ II.—Bear Island, H. G. Wood.

- Class II.—Clinton, George Baird.  
 “ II.—St. Mary's, G. H. McIntyre, (resumed).  
 “ II.—Madoc, Rev. W. W. Burton.  
 “ II.—Craigleigh, Andrew Goodchild.

#### QUEBEC.

- Class II.—Shawinigan Falls, A. L. Whitworth.  
 “ II.—Clark City, T. N. Ritchie.  
 Sunshine recorder, Quebec observatory.

#### NOVA SCOTIA.

Windsor, Rev. C. E. Willets.

#### LABRADOR.

Davis Inlet, Stuart Cotter.

The following stations have become inoperative from various causes:—Carmanah, B.C., resignation of observer; Dalhousie Mills, removal of observer; Richmond, Q., resignation of observer; Bathurst, N.B.

Orillia was closed for a short time owing to the death of Mr. H. W. Fitton, who for 32 years was an efficient and careful observer.

There are now in the Dominion, Newfoundland and Bermuda, 338 meteorological stations using instruments which have been supplied by the government. The observers at 256 of these stations take the observations voluntarily, sending regular monthly returns to the central office, and to these persons are due the hearty thanks of the service. At 42 stations, lying chiefly in the far northern territories of Canada, and at lighthouses in the Gulf of St. Lawrence, small gratuities are allowed observers. At 40 stations distributed at nearly equal intervals throughout the Dominion, three or more observations are taken daily, and as the observers are paid salaries, promptness and careful attention to duty is insisted upon. From 36 of these stations two reports each day are telegraphed to Toronto to be used in the preparation of the daily weather chart.

#### CENTRAL OFFICE.

There have been no changes in the central office staff. Mr. Kingsford returned from military service in South Africa on October 30, and resumed his position as assistant forecast official. The services of Miss Ballard were retained as a temporary assistant secretary throughout the year, it being impossible to prevent the work of the secretary's office from falling into arrears without such assistance.

The routine work of the Central Office has continued to steadily increase, while the number of assistants has remained the same with the exception of one lady type-writer.

I would again respectfully call attention to the fact that the Central Office accommodation is entirely inadequate. In the present building the offices are much smaller than moderate hygienic science recommends—they are offices of 50 years ago. The building might, I am satisfied, be suitably enlarged to meet the requirements of the service, but in the event of it not being deemed expedient to remain at the present site the erection of another building, especially designed would probably still better provide for the successful carrying on of meteorological work in Canada.

I desire to express my appreciation of the steady conscientious manner in which the members of the staff under my direction perform their allotted duties. I have few complaints to make—office hours are well kept and nearly all are deserving of praise for their consistent performance of duty.

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It is a pleasure to be able to state that satisfactory progress has been made towards bringing the climatological reports nearly to date. Two, those for 1900 and 1901 have been issued during the year just closed and that for 1902 will very shortly be issued. It will soon now be possible to devote attention to the publication of the records for 1891, 1892, 1893 and 1894 which have never yet been printed. The work entailed in the preparation of these reports is very great—each of them has during the past 8 years been an octavo volume of nearly 400 pages. The volume contains a meteorological summary from each of nearly 350 stations and when it is remembered that nearly all the mean values are computed at the Central Office, the labour entailed will be understood.

Other publications are: An annual Meteorological Summary for Toronto: A monthly Weather Review for the Dominion: A monthly Weather Chart, issued three days after the close of each month. This chart serves one very useful purpose. Our observers both voluntary and paid seem to like it and its issue undoubtedly has had the effect of making one and all prompt in sending in returns.

The work of the central office however which is best known to the public is that of forecasting, and this branch of the service is being rapidly extended and forecasts are now issued for all parts of the Dominion, and storm signals have, when it has been deemed necessary, been hoisted at nearly every port, both on the seaboard and on the Great Lakes.

The forecasts have as for some years past been issued twice daily, at about 10 a.m. and 10 p.m. The morning issue is now perhaps the more widely disseminated of the two, and as it covers two days, has been found to be of incalculable value to shippers of perishable goods in many of our business centres. The weather chart on which these forenoon forecasts are based continues to be duplicated and copies are posted at various points in Toronto and Hamilton: including many of the Public Schools where they doubtless have an educational value. The evening issue appears next morning in most of the daily journals and is displayed at every telegraph office in the Dominion.

While every attention is paid to increasing the usefulness of forecasts and storm warnings, working on fairly established lines, the fact has not been lost sight of, that research work is absolutely essential to the future of meteorology, and hence investigation of the probable correlation between solar and terrestrial magnetic changes and meteorological phenomena is steadily pursued. Mr. Webber has made a special study of the storm tracks across Canada and the United States during the past thirty years and the information suitably tabulated affords most valuable data for the solution of several meteorological problems.

The number of publications received in the library during the year was 332; being for the most part annual, quarterly, monthly, weekly and daily reports and periodicals, from the principal astronomical and magnetical observatories of the world.

The Annual Climatological Reports for the year 1900 were issued during the year, 857 copies of which were distributed in the various countries; 852 copies of the Monthly Weather Review; 840 copies of the Toronto General Meteorological Register and 675 copies of the Monthly Weather Chart were distributed to institutions and persons in Canada and the United States. There were also distributed and posted daily, chiefly in Toronto, 88 copies of the Daily Weather Map and four bulletins to the daily newspapers.

## STORM WARNINGS AND FORECASTS.

During the year 1,190 storm warnings were issued to the various districts in Canada where signals are displayed, and of the number 1,104 or 92.8 per cent were verified; on 160 occasions however the wind did not reach and on 83 occasions exceeded the force as indicated by the signal displayed; also 87 warnings were received late owing to issue and 53 on account of delay in transmission.

In connection with the warnings the probable directions from which the gales would blow were also given and of the 1,104 verified as to force, 1,018 or 92.2 were fully and 97.4 per cent fully and partially verified.

3-4 EDWARD VII. A. 1904

The following letter recently received I am sure expresses very nearly the opinion regarding the service held very generally along the seaboard :—

CANSO, NOVA SCOTIA, January 5, 1904.

R. F. STUPART, Esq.,  
Director Canadian Meteorological Service,  
Toronto, Ont.

DEAR SIR,—Allow us to congratulate you on the accuracy of your forecasts for the past few weeks.

If you could see the group of eager fishermen scanning the 'Probs.' every afternoon of late, and to hear their expressions of confidence in the man who issues them, it could not fail to please you.

Our winter haddock fishery is now in full swing and the changeable weather of the past few weeks has made the forecasts a matter of intense interest to our fishermen ; and we feel confident has made it possible for them to prosecute their work more safely and more profitably than they could otherwise have done.

So important do we consider these that we plan to have a large bulletin board placed outside of our office upon which we shall copy 'Probs.' when they come in, that they may be more accessible and plainer to these men to whom the changes in the weather are of such vital importance.

Again assuring you of our appreciation of your splendid work and wishing you the season's compliments.

We remain,  
Yours truly,

(Signed)

A. N. WHITMAN & SON.

It is extremely difficult to discover to what extent the storms signals are instrumental in preventing loss of life and shipping. Shipmasters while ready to admit that they closely watch the signals and the ordinary daily forecasts are scarcely over willing to admit that disaster might have occurred and they put to sea without observing the storm warnings. The months of December, January and February of this fiscal year were marked by many heavy gales in the maritime provinces, and timely warning of these great storms was given in nearly every instance. There is every reason to believe that an enormous amount of property has been saved by the warnings of the Meteorological Service. On the Great Lakes several violent gales occurred during the latter part of November. Good warning was given of these storms, but it is probable that in some instances the warnings were disregarded and at least four large vessels were wrecked with a loss of 51 souls. Requests by telephone from shippers of perishable goods in Toronto for special forecasts regarding temperature changes continue to increase and without doubt the very comprehensive daily bulletins now published in all the larger centres are consulted with the same object in view. It is altogether probable that much valuable produce is saved by these forecasts and many merchants have borne witness to this in letters, some of which accompanied my last report.

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TABLE I.—METEOROLOGICAL SERVICE—Number of Forecasts and percentage of fulfillment under each district, in each month and in the year, July, 1902, to the end of June, 1903, inclusive.

MONTH.	MANTOYA.				LAKE SUPERIOR.				GEORGIAN BAY.				LOWER LAKE REGION.				OTTAWA VALLEY.								
	Verified.				Verified.				Verified.				Verified.				Verified.								
	Number fully.	Number partly.	Number not.	Percentage.	Number fully.	Number partly.	Number not.	Percentage.	Number fully.	Number partly.	Number not.	Percentage.	Number fully.	Number partly.	Number not.	Percentage.	Number fully.	Number partly.	Number not.	Percentage.					
1902.																									
July.....	68	18	5	86.5	105	30	19	6	85.2	118	97	16	5	89.0	120	104	10	6	90.8	97	81	11	5	87.7	
August.....	90	10	3	91.1	108	38	16	4	88.9	106	85	12	11	84.0	105	80	16	9	83.8	102	85	18	3	87.2	
September.....	90	64	11	80.9	106	40	21	5	85.4	119	101	11	7	89.5	120	92	12	6	85.8	100	84	6	10	87.6	
October.....	84	39	11	80.9	109	77	25	7	78.1	123	105	12	6	90.2	123	106	9	8	89.8	119	91	11	17	81.1	
November.....	79	61	11	84.2	106	71	25	10	78.8	105	87	17	10	78.1	105	76	11	7	82.9	100	79	13	8	85.5	
December.....	63	61	20	76.3	104	67	19	10	83.3	126	98	11	11	78.1	127	94	11	11	82.9	119	88	19	17	77.7	
1903.																									
January.....	78	74	10	89.6	99	72	20	6	83.7	111	90	15	6	87.8	111	93	13	5	89.6	102	88	10	9	86.3	
February.....	78	63	12	81.6	78	57	4	2	94.9	100	79	15	6	86.5	100	85	11	4	90.5	95	81	9	9	83.2	
March.....	79	57	12	82.8	80	51	19	4	83.1	91	67	16	8	82.4	93	67	18	8	81.7	90	56	23	11	75.0	
April.....	84	58	23	82.7	109	71	31	7	79.4	123	85	26	12	79.7	126	98	18	10	84.9	101	76	18	7	81.2	
May.....	81	56	16	97.9	108	87	13	7	87.5	118	91	18	15	79.7	119	91	23	5	86.1	101	77	15	9	82.1	
June.....	77	63	9	87.7	99	87	4	4	91.9	107	77	21	7	82.4	112	88	16	7	86.6	95	79	10	6	83.4	
Totals.....	1,011	771	174	84.9	1,210	918	220	72	85.0	1,348	1,032	209	107	84.3	1,361	1,075	200	86	86.3	1,221	954	163	104	84.8	

TABLE II.—METEOROLOGICAL SERVICE.—Number of Forecasts and percentage of Fulfilment under each District, in each Month and in the Year, July, 1902, to end of June, 1903, inclusive

Month.	UPPER ST. LAWRENCE VALLEY.				LOWER ST. LAWRENCE VALLEY.				GULF.				MARITIME PROVINCES WEST.				MARITIME PROVINCES EAST.				TOTAL.											
	Verified.		Number of Forecasts.	Percentage.	Verified.		Number of Forecasts.	Percentage.	Verified.		Number of Forecasts.	Percentage.	Verified.		Number of Forecasts.	Percentage.	Verified.		Number of Forecasts.	Percentage.	Verified.		Number of Forecasts.	Percentage.								
	Number fully.	Number partly.			Number fully.	Number partly.			Number fully.	Number partly.			Number fully.	Number partly.			Number fully.	Number partly.			Number fully.	Number partly.			Number fully.	Number partly.	Number fully.	Number partly.				
1902.																																
July	102	56	330	7	105	12	357	1	109	96	8	5	91	112	94	13	5	7	109	96	13	6	88	5	1061	78	141	47	88	9		
August	103	18	388	3	113	11	681	5	117	100	11	6	90	113	98	13	2	92	112	96	12	4	91	0	1069	69	149	51	88	3		
September	101	11	688	6	101	11	1184	1	103	78	12	11	83	103	78	12	4	86	102	76	12	9	12	86	3	1049	37	124	38	5	7	
October	121	100	987	6	113	17	1182	7	109	81	14	11	83	111	92	9	16	86	9	92	8	9	16	86	9	1124	84	124	98	5	0	
November	100	79	786	0	104	13	787	0	105	79	21	5	85	97	71	18	8	82	5	97	72	11	11	81	4	908	750	168	80	83	6	
December	120	30	1247	5	112	14	925	7	97	70	15	12	80	123	74	18	19	75	6	124	87	21	15	73	4	1145	565	269	131	73	4	
1903.																																
January	102	58	788	1	101	10	881	1	110	91	12	7	88	113	95	15	3	90	7	113	98	11	4	91	6	1049	865	121	59	88	5	
February	95	86	491	8	98	11	191	8	97	76	16	5	86	102	79	13	7	86	8	102	79	13	8	84	8	941	789	117	38	80	7	
March	90	60	1174	1	91	66	1379	1	86	61	15	10	79	114	79	25	10	80	3	114	81	20	13	79	8	928	631	181	93	80	1	
April	101	25	585	1	110	78	583	2	109	77	25	7	82	106	73	24	9	80	2	102	61	30	8	77	5	1071	736	212	73	81	9	
May	101	74	982	2	103	70	681	1	106	75	17	14	78	112	84	20	8	83	7	112	72	23	11	79	9	1061	778	190	93	92	2	
June	96	77	185	9	101	76	637	6	103	80	15	8	84	9	74	21	8	82	6	102	74	13	11	82	3	996	781	149	66	85	9	
Totals.	1257	939	1191	77	85	9	1255	21	969	200	86	83	21	1307	998	210	99	81	4	1300	1001	186	113	81	2	12	105	9639	1439	917	81	9

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TABLE II.—METEOROLOGICAL SERVICE.—Forecasts issued at Victoria, British Columbia, —Number of forecasts and percentage of fulfilment in each month and in the year, July, 1902, to the end of May, 1903, inclusive.

MONTH.	VICTORIA AND VICINITY.					LOWER MAINLAND.				TOTAL.					
	Number of Forecasts.	Verified.				Number of Forecasts.	Verified.			Number of Forecasts.	Verified.				
		Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.		Percentage.	Number fully.	Number partly.	Number not.	Percentage.
1902.															
July.....	132	114	3	15	87.5	114	94	9	11	86.4	246	208	12	26	87.0
August.....	140	116	2	22	83.5	126	97	11	18	81.3	266	213	13	40	82.5
September.....	108	82	6	18	79.6	96	65	11	20	73.4	204	147	19	38	76.7
October.....	123	90	3	30	74.4	109	79	9	21	76.6	232	169	12	51	75.4
November.....	113	80	8	25	74.3	107	83	6	18	80.4	220	163	14	43	77.3
December.....	120	75	9	36	66.3	107	72	15	20	74.3	227	147	24	56	70.0
1903.															
January.....	118	93	8	17	82.2	108	93	2	13	87.0	226	186	10	30	84.5
February.....	117	86	7	24	76.5	108	68	17	23	70.8	225	154	24	47	75.8
March.....	113	88	3	22	79.2	103	74	14	15	78.6	216	162	17	37	78.9
April.....	120	87	11	22	77.1	109	74	19	16	77.3	229	161	30	38	76.9
May.....	117	91	9	17	81.6	109	85	14	19	84.4	226	176	23	27	83.0
* June.....															
Totals.....	1321	1002	71	248	78.5	1196	884	127	185	79.2	2517	1886	198	433	78.9

\* Missing.

INSPECTION OF METEOROLOGICAL STATIONS.

During the month of August the director inspected the larger number of the telegraph reporting and storm signal stations in the maritime provinces and northern portion of the Gulf of St. Lawrence and also the two stations in Newfoundland, St. John's and St. George's bay which are maintained by the Dominion service. At the majority of the stations, instruments and apparatus were found to be in a most satisfactory condition although as was to be expected, several barometers required cleaning. Observers and agents generally are at present almost without exception satisfactory and are zealous in the performance of their duties. At Southwest point, Anticosti, the new observer Mr. Lemieux has proved himself most capable and efficient. At St. John's, N.F., the observer Mr. Higgins has recently removed to a new house and the instruments were without exception badly located and imperfectly adjusted. The new site however gives a better wind exposure and there are hopes that with the instruction now given, better work may be looked for in the future. St. George's bay had not been visited for many years and the instruments were found much in need of cleaning and adjustment. All were put in order and as the observer is painstaking and efficient, reports may be relied on.

In the spring the director visited Halifax and St. John for the purpose of arranging for a time signal. It had been intended that the ball should be placed in the tower of the custom-house now in course of erection, but as this will not be ready for over a year or perhaps two years, it was decided to ask permission to erect a temporary mast at the Citadel. A variety of delays have occurred and the signal is not

yet in operation but the various apparatus has been constructed and will it is hoped be soon placed in position. En route back to Toronto, Quebec was visited and the observatory at that city and also the time signal were inspected.

Sixteen stations were inspected by B. C. Webber, who reports as follows: 'Barometers, thermometers and anemometers were cleaned, adjusted and tested at stations where the several instruments were in use. At Barrie, the observer declined to continue the elaborate series of observations as previously taken gratuitously, but to observe the maximum and minimum thermometer readings and the precipitation. Mr. Lazenby at Coldwater consents to take similar observations. At Woodstock, the instruments were in very bad shape and the observing done in the most perfunctory manner, the work being relegated to the chore man. The duties at Winnipeg are still mainly given over to the students at the college, who of course have little or no interest in the work. The hygrometrical observations there as indeed as in many other stations, were found to be so carelessly attended to that they are practically valueless. At Banff in conjunction with Mr. Edwards, superintendent of telegraph construction of the Canadian Pacific Railway, a survey was made of the most suitable route for the Sulphur mountain cable, the decision being that it must adjoin the trail, other routes suggested being out of the question owing to their inaccessibility. The instruments were removed to the new museum building, the mountain barometer unpacked and adjusted, the other instruments to be used in connection with the mountain observatory placed in position and all left in readiness for the subsequent erection of the cable. The observer at Kamloops adheres to his former assertions that the utmost care is taken in observing and that supposed erroneous barometric readings are correct unquestionably abnormal isobars must often occur in that mountainous country. Barkerville the terminal point on the old Cariboo road was visited, reached by a stage drive of 28½ miles from Ashcroft the nearest railway station. The thermometers and rain gauge were poorly exposed, but the topographical surroundings will allow of nothing better. No wind gauge is used and there is no exposure for one. In the event of a change at any time, Quesnel would be, in many respects a more suitable point for a telegraph reporting station than Barkerville. A new square barometer was carried to this station and the instrument in use which was in bad shape, put in good order. The time gun work at Vancouver is very faulty. The shed inclosing the gun is shattered to pieces and the gun continually misses fire. On my present visit, the electrical connections were found to be the cause of the gun missing fire. An immediate improvement is imperative, otherwise the gun should be discontinued.'

In November Mr. Menzies was instructed to visit Banff and arrange for the stringing of the cable which had been purchased, to connect the new high level stations on Sulphur mountain with the Museum. The instruments which had been received at Banff direct from France, were unpacked and adjusted. A final choice was made of the route for the cable, and certain necessary alterations made in the upper observing house, but as the season was too far advanced for cable stringing, this was postponed until the spring.

Mr. Allan visited thirteen stations as follows: Durham, Walkerton, Southampton, Collingwood, Barrie, Midland, Port Dalhousie, Port Colborne, Port Stanley, Port Burwell, Pelee Island, Amhestburg and Woodstock, where necessary adjusting and cleaning instruments, and at storm signal stations assuring himself that apparatus was in good order and properly looked after, and in some instances arranging for the painting of signal poles. The steel towers which have been placed at Port Colborne and Midland he reports to be a success and it is expected will last longer than the wooden masts.

#### TIME SERVICE.

During the year ending June 30, 1903, 62 stellar observations for time were made in the meridian with the transit instrument, also 6 solar observations were taken. The position of the stars used were those given in the *Berliner Jahrbuch*. The collimation error of the transit instrument has been determined frequently from micrometrical measurements on the collimating telescope and by reversal on stars. This error remains



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practically unchanged from last year. The stability of the mounting of the transit instrument still remains in a very satisfactory condition, the variation of the azimuth and level errors being exceedingly small.

With the equatorial telescope the sun spot observations have been continued, maps of the sun's surface four inches in diameter being obtained on 138 days. On 56 of these days the sun was free of spots, the longest period being from July 3 to September 11, 1902. The period of greatest amount of sun spots was from March 26 to about May 3, 1903. On April 23, a large mass of faculae appeared on the north-east limb of the sun which finally developed into a very large group of small spots being north of the sun's centre about April 28 and 29. This group was by far the largest disturbance on the sun for the year ending June 30, 1903.

The time exchanges with Montreal, Quebec and St. John have been carried on as usual and registered on the chronograph at Toronto. The errors of the Toronto clock and of the time-pieces used by the different observers elsewhere are computed from the latest observations. Both the sidereal and mean time clocks of the Toronto Observatory with their various electrical appliances are working well and giving great satisfaction.

The following table shows the difference between the time by 'Standard Observer' and that given at the various exchanges. The sign + indicates that the time sent from the different observatories is faster than that by 'Standard Observer.' The time by 'Standard Observer' is the arithmetical mean of the times determined at Toronto and Montreal.

—		Toronto.	Montreal.	Quebec.	St. John.
1902.		"	"	"	"
July	4	- 0.17	- 0.17	- 0.63	- 0.14
"	18	- 0.11	- 0.11	- 0.14	+ 0.58
Aug.	15	- 0.55	- 0.55	- 0.98	- 0.50
Sept.	12	- 0.11	- 0.11	- 0.19	.....
Oct.	3	0.00	.....	- 0.91	+ 0.67
"	17	0.00	.....	- 0.33	- 0.49
Nov.	21	- 0.11	+ 0.11	+ 1.35	- 0.61
"	28	0.00	0.00	- 0.03	- 0.23
Dec.	12	+ 0.12	- 0.12	- 0.57	- 0.69
"	26	+ 0.04	- 0.04	+ 1.15	- 0.99
1903.					
Jan.	16	- 0.11	+ 0.11	+ 0.54	+ 0.89
Feb.	13	+ 0.25	- 0.25	- 0.70	+ 0.10
Mar.	13	+ 0.15	- 0.15	- 0.12	- 0.65
"	27	- 0.07	+ 0.07	+ 0.19	+ 0.62
Apr.	17	+ 0.10	- 0.10	- 0.49	- 0.64
May	15	+ 0.34	- 0.34	- 0.97	- 0.21
"	29	- 0.01	+ 0.01	- 0.15	.....
June	12	- 0.13	+ 0.13	+ 2.08	.....
"	25	- 0.04	- 0.04	- 0.32	+ 0.41

SEISMOLOGICAL OBSERVATIONS.

The Milne seismographs at Toronto and Victoria, B.C. have been kept in successful operation throughout the year and photographic copies of any important disturbances from both stations have been regularly made and forwarded to Professor Milne, secretary of the seismological committee of the British Association for comparisons with similar records obtained at other places in the world. There are now some 37 stations in different parts of the world working under their respective governments equipped with the British Association type of instrument. The stations are Shide, Kew, Bidston, Edinburgh, Paisley, Toronto, Victoria, B.C., San Fernando, Cairo, Cape of Good Hope, Calcutta, Bombay, Ceylon, Kodaikaral (S. India) Batavia, Baltimore, Philadelphia,

Honolulu, Mexico, Mauritius, Trinidad, Christchurch, Sydney, Melbourne, Wellington, Perth (West Australia), Cordova (Argentina), Strassburgh, Coimbra, Beirut, Vizagapatam, Tiflis, Tashkent, Tokio (Japan), Irkutsk (Siberia), and two instruments at the Azores.

At Toronto from July, 1902, to June, 1903, there were recorded 59 disturbances and at Victoria 70, most of them small but some few very marked and important. These disturbances were the result of world shaking quakes and it is satisfactory to know that the Canadian observations are valued abroad and that they are an important contribution to international science.

All of which is respectfully submitted.

R. F. STUPART.

## APPENDIX 'A'.

ST. JOHN OBSERVATORY,

ST. JOHN, N.B., December 31, 1903.

R. F. STUPART, F.R.S.C.,  
Director, Meteorological Service,  
Toronto, Ont.

SIR,—I have the honour to present the annual report of the St. John observatory for the fiscal year ending June 30, 1903.

The meteorological instruments are all in good condition, and the observations have been recorded without change from the last annual report.

In connection with the time service some changes and additions have been made to the instrumental outfit. A standard astronomical chronograph was received from the Warner & Swasey Co. on September 22, 1902; this instrument has a cylinder of about 7 inches diameter, is fitted with a single pen and when driven at the rate of one turn per minute holds the record for two and half hours, by means of change wheels the cylinder can be driven double speed if desired. After the necessary electrical connections were made this instrument has been in use for recording star observations, clock comparisons and time exchanges. Previous to the installation of the chronograph observations of stars for determination of clock errors and rates were made by the eye and ear method.

The new meridian telescope was received from the makers, Messrs. Troughton & Simms, London, on May 30, 1903, and was mounted on the transit pier which formerly carried the small instrument. The instrument has a reversing carriage and with the delicate level attached to one of the six inch finding circles and micrometer which is available in declination as well as right ascension may be used as a zenith telescope as well as transit. Small electric lamps are used for the illumination.

The standard sidereal and mean time transmitting clocks have been giving good satisfaction and no trouble has occurred with the various electrical connections. Signals from the transmitting clock are telegraphed over the greater portion of the maritime provinces for the two minutes ending at 10 a.m. every week day morning, and are used generally as a standard of time, also by navigators in many of our ports for comparing rating their chronometers. Special signals have frequently been sent on application and from British, French, American and German war ships, to the English and French cable ships as well as to vessels of the merchant marine.

The time ball on customs building has been dropped each week day at 1 p.m. standard time of the 60th meridian, for the benefit of shipping and others.

The issue of the morning weather bulletin continues to increase, reports of prevailing conditions from the different stations together with the forecasts and synopses

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received from Toronto are of inestimable value to mariners as well as being of great importance and utility to the general public. The bulletin is posted in public places, published by all of our daily papers and distributed through the mails to adjacent points. The forecasts are telephoned to St. Martin's and posted at the telephone exchange. Storm warnings are also telephoned to St. Martin's and signals displayed for the benefit of shipping in that part of the Bay of Fundy.

There has been a decided increase in the number of inquiries from those whose commercial and other interests are affected by weather changes and a considerable portion of my time especially during the winter and stormy months is taken in answering personal and telephone calls. Information from the office records is in constant demand to assist in the settlement of various claims and at times in making statements for the courts. Storm signals are as formerly displayed from the staff on southern tower of customs buildings. A decided improvement was made by substituting electric lamps in place of the oil lights formerly used at this station, they may be seen from a much greater distance and are not so liable to be extinguished by high winds.

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

D. L. HUTCHINSON,  
*Director, St. John Observatory.*

## APPENDIX 'B.'

To the Director,  
Meteorological Service, Toronto.

SIR,—I have the honour to transmit my annual report for the fiscal year ending June 30, 1903.

My duties at the observatory have been the same as in the past years, and consist in meteorological and transit observations for time. I also answer frequent inquiries made by the public respecting this service, and am obliged to appear as witness in certain cases before the courts.

During the present year, a sunshine recorder was added to the ordinary instruments and has been used since the 1st September last.

The time ball service has been very much improved by placing a direct wire to the Citadel, and the whole is in good working order. The ball was dropped for the first time this spring on April 15, date of the opening of navigation.

Several chronometers were rated at this observatory, and the correct time given to watchmakers and others every day as formerly.

Visitors were received at the observatory on several clear nights and during the day.

I have the honour to be, sir,  
Yours respectfully,

ARTHUR SMITH, *Director.*

## MAGNETIC OBSERVATORY.

Lieut.-Colonel F. GOURDEAU,  
Deputy Minister of Marine and Fisheries,  
Ottawa.

SIR,—I have the honour to report that the Magnetic Observatory has been maintained in operation during the past year, and the results obtained have been in every way satisfactory. Since the removal of the observatory to the country Mr. Menzies has continued in immediate charge and has resided in a rented house in Agincourt, about a mile distant, which arrangement is not entirely satisfactory, as the owner of the house, which is the only one available, will not give a satisfactory lease, and is constantly threatening to resume occupation unless the rent, already high, be still further augmented. It would be well were the Government to erect a small house on the observatory property. Should the neighbourhood ever be invaded by the electric trams the house and property could with little doubt be sold at a satisfactory figure.

There have been no mechanical alterations or adjustments made to the differential magnetographs. By means of these instruments continuous photographic records have been maintained of the declination and horizontal force, as also the temperature changes connected therewith. The resulting curves have been duly measured, checked and tabulated and the means computed. The absolute determinations of declination, inclination and horizontal force have been made at stated intervals and the results compared with photographic curves and auxiliary scale readings of differential instruments. The time values of all curves have been determined by daily comparisons with chronometers, whose rates were checked by weekly time exchange with Toronto. There has been the usual percentage of loss of record owing to light failure and defect (*viz.*, old age) of driving clock. Meteorological records, consisting of registration of wind velocities and directions by means of electrical anemograph, readings of maximum, minimum and incidental temperatures, state of weather, &c., have been maintained and results forwarded to head office.

All of which is respectfully submitted.

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

R. F. STUPART,  
*Director.*

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## APPENDIX No. 7.

REPORT OF THE CHAIRMAN OF THE BOARD OF EXAMINERS OF  
MASTERS AND MATES.

OTTAWA, August, 1903.

To the Deputy Minister of  
Marine and Fisheries.

SIR,—I have the honour to submit the annual report relating to the examination of candidates for certificates of competency as masters and mates, during the fiscal year ended June 30, 1903.

I was appointed Chairman of the Board of Examiners of Masters and Mates, on January 30, 1903; and on my arrival at Halifax, on February 18, following, commenced the duties of my office. From August 10, 1901, to the date of my arrival Captain Bloomfield Douglas, acted as chairman, and his duties in that capacity were to conduct examinations for foreign going certificates, at Halifax and Yarmouth, N.S., and St. John, N.B., and for coasting and minor waters certificates at Halifax and St. John.

On April 4, I undertook the superintendence of examinations for every grade of certificate in the various trades throughout the Dominion, which includes in addition to the examinations for foreign-going certificates at Halifax, Yarmouth and St. John examinations at Lunenburg, Yarmouth and Sydney, N.S.; Quebec, P.Q.; Charlottetown, P.E.I.; Ottawa, Kingston, St. Catharines and Rat Portage, Ontario; Winnipeg, Manitoba; Nelson, Victoria and Vancouver, B.C.; for coasting, inland or minor waters certificates as the case may be, examinations at these ports having been previously superintended by the department at Ottawa.

The total amount collected in fees from applicants for certificates, during the fiscal year ended June 30, 1903, was \$5,790.50, and the amount expended on account of the service, as will be seen by Appendix No. 1 to this report, was \$4,996.06, leaving a balance to this service of \$794.44. The vote for this service was \$5,000, and the sum expended to June 30, 1903, \$4,996.06, leaving an unexpended balance of \$3.94.

During the year, 468 certificates have been issued; and 50 candidates have failed on examination to procure certificates.

The following statements show the number of candidates examined at each port, during the twelve months ended June 30, 1903; and the total number of certificates issued for each trade:—

Name of Port.	Inland and coasting number of candidates examined.		Inland and coasting number of candidates failed.		Foreign Sea-going number of candidates examined.			Foreign sea-going number of candidates failed.		
	Master.	Mate.	Master.	Mate.	Master.	Mate.	2nd Mate.	Master.	Mate.	2nd Mate.
Charlottetown	6	2	1							
Dalhousie	1									
Fredericton	4		1							
Halifax	13	2	2		3	7	14	1	2	1
Kingston	17	11	4							
Lunenburg	7	3	1							
New Castle, N.B.	3		1							
Nelson	3	6								
Ottawa	26	10	1							
Quebec	18	10	1	1						
Rat Portage	11		1							
Richibucto	1									
St. John	18	4	2		3					
St. Catharines	57	35	6	3						
Sorel	4									
Sydney	19	5	2							
Spanish River	1									
Vancouver	40	20	5	4						
Victoria	23	9	1		5	9	4	3	3	1
Wallaceburg	1									
Winnipeg	1	3		1						
Yarmouth	31	13	1		2	2	5			
Totals	299	133	30	9	13	18	23	4	5	2

	Compe- tency.	Service.	Total.
Foreign Sea-Going	45	Nil	45
Coasting	172	6	178
Inland	89	1	90
Minor Inland	153	2	155

A list of certificates issued during the twelve months ended June 30, 1903, will be found in supplement No. 1 to this report.

Since taking up the duties of chairman, I have made several trips in the interest of the service, viz., to Halifax, Yarmouth and St. John in March, for the purpose of seeing examinations conducted at those ports and to ascertain the requirements of the examination rooms, as to books, instruments, &c.

On May 8 I proceeded to Victoria, B.C., for the purpose of examining a candidate for the position of examiner for the port of Vancouver, and to inquire into sundry matters connected with the department.

In an interview with members of the Shipmasters Association of B. C., various reforms and alterations were suggested to the existing regulations governing the examination of masters and mates. Their suggestions have been laid before you in my report of 1st June.

On my return journey I interviewed Captain L. H. Fraser, the examiner of masters and mates at Nelson, B.C., and Commander E. B. Tinsling, examiner of masters and mates at Winnipeg.

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Most of the examiners pointed out the necessity of raising the standard of examination for coasting and inland waters certificates especially for tug boats; and limiting the coasting voyage to our own, Newfoundland and the adjacent American coasts. My proposals for an amendment to the Masters and Mates Act give effect to some of these representations.

I have the honour to be, sir,

Your obedient servant,

R. SALMON,

*Chairman.*

## APPENDIX No. 8.

## REPORT ON LIFE SAVING STATIONS.

To the Deputy Minister of Marine and Fisheries,  
Ottawa.

SIR,—In obedience to instructions contained in your letter of the 22nd inst., I have the honour to submit the following report on the life-saving stations in the Maritime provinces, Sable island excepted, that being under the inspection of Mr. C. A. Hutchins, superintendent of lighthouses in the province.

## INSPECTION OF STATIONS.

The whole of the stations have been inspected by me during the year 1903, St. Paul's island excepted; but during an interview with the superintendent of the island, Mr. Samuel Campbell, in Halifax, in November last, I received the fullest information and assurance from that officer, that his station was in a complete state of efficiency and discipline.

The other stations, when I inspected them, were found to be efficient, discipline has been carefully maintained, and a laudable and earnest desire was exhibited on the part of the coxswains in charge and the crews, to be ready to render life saving service in case of wreck.

## SERVICES AT WRECKS.

The following casualty occurred and assistance was rendered by the life saving station at Yarmouth since the date of my last report in October, 1902.

The schooner *M. J. Solay* missed stays and stranded on Cape Fourchu, November 31, 1902, and the coxswain and crew of the Yarmouth life boat went to her assistance.

## HERRING COVE.

The launching ways at this station have been efficiently renewed and repaired; rocks in the channel have been removed and the station has been much improved and protected by the breakwater recently completed to seaward of the boat house and launching ways.

A new Beebe-McLellan self-bailing boat is in course of construction by Mr. John Morrison of Shelburne, and will be sent there when completed.

## DEVIL'S ISLAND.

The Dobbin self-righting life boat at this station, is in bad order, and will shortly require extensive and expensive repairs. I strongly recommend that a Beebe-McLellan self-bailing boat be built by Mr. John Morrison of Shelburne for this station at a cost of \$240.00.

As reported previously, the Dobbin self righting boats cost over \$500. They are very heavy to handle by a crew of men, they are slow in a strong head wind and sea, and if blowing hard, almost impossible to pull off from a lee shore.



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## DUNCAN'S COVE.

The Dobbin self righting boat at this station, was condemned, as being unseaworthy and not worth extensive and costly repairs.

A Beebe McLellan self-bailing boat has been built by Mr. Morrison of Shelburne, in lieu of the condemned boat.

## SCATTARIE.

A new Beebe-McLellan self-bailing boat has been built for this station by Mr. Morrison, and has recently been placed there.

## SEAL ISLAND, WEST STATION.

The small life boat, found to be unseaworthy and faulty in construction, has been condemned and replaced by a new Beebe-McLellan self-bailing boat built by Mr. John Morrison of Shelburne.

## SEAL COVE, GRAND MANAN, N.B.

The launching ways, consisting of a heavy timber frame work from the level of the boat house door to the rocky shore, with railway rails, continued on the rocks to the sandy beach at low water springs, remained in as good order as when placed under my supervision in August, 1900. Neither the heavy ice in the winter, nor the heavy seas from S. E. gales have had any effect on the structure.

Although this form of launching ways is more expensive than timber with the iron plates for rails, it is more economical in the end.

In reference to this station, I have great pleasure in reporting that the coxswain, Mr. Frank Benson, keeps it in excellent and efficient order, maintaining good discipline and watchfulness on the part of the crew.

## GENERAL BI-MONTHLY DRILLS.

The crews of the respective stations in the maritime provinces, have been regularly drilled from and including the months of May and November.

The coxswains' reports have been sent every month and certified to by me.

## LYLE GUN APPARATUS.

There are three sets of this apparatus in the province of Nova Scotia.

No. 1 at St. Paul Island.

No. 2 at Duncan's Cove.

No. 3 in reserve at Halifax.

The crews at St. Paul island and Duncan's cove have been frequently drilled and the apparatus is in efficient order.

I have the honour to remain, sir,

Your obedient servant,

BLOOMFIELD DOUGLAS, R.N.R.,  
*Naval Assistant.*

## LIST OF LIFE SAVING STATIONS.

## BAY OF FUNDY.

1. *Seal cove*.—Established in 1898; F. Benson, coxswain; No. of crew 7; coxswain's salary per annum, \$75; pay of crew, \$1.50 per drill, and extra when engaged saving life; description of boat, Beebe-McLellan surf-boat, self-bailing, 25 feet long, cost \$250, built at Shelburne, N.S.; equipment, full regulations; remarks, iron rails laid in 1900.

2. *Yarmouth*.—Established in 1886; A. Cain, coxswain; No. of crew, 7; coxswain's salary per annum, \$75; pay of crew, \$1.50 per drill, and extra when engaged saving life; description of boat, Dobbin's pattern; self-bailing and self-righting, 25 feet long, cost \$575, built at Dartmouth, N.S.; equipment, full regulations.

3. *Mud island*.—Established in 1887; J. Pitman, coxswain; coxswain's salary per annum, \$80; description of boats, fishing boats and dories, cost \$80 per annum; equipment, ordinary; remarks, kept by contract with fishermen.

4. *Seal island*.—Established in 1880; H. Hitchens, coxswain; No. of crew 7; coxswain's salary per annum, \$250; pay of crew, \$100 each per annum; description of boat, Beebe-McLellan boats on east and west sides, cost \$240 each, one built at Halifax and one at Shelburne, N.S.; equipment, full regulations.

## ATLANTIC COAST.

5. *Clark's harbour*.—Established in 1900; Thomas N. Nickerson, coxswain; No. of crew 7; coxswain's salary per annum, \$75; pay of crew, \$1.50 per drill, and extra when saving life; description of boat, Beebe-McLellan self-bailing, 25 feet long, low ends, cost \$250, built at Shelburne, N.S.; equipment, full regulations; remarks, boat house and gear cost \$700.

6. *Blanche*.—Established in 1895; W. A. B. Smith, coxswain; No. of crew 7; coxswain's salary per annum, \$75; pay of crew \$1.50 per drill, and extra when saving life; description of boat, Beebe-McLellan, surf-boat, self-bailing 25 feet long, cost \$250, built at Shelburne, N.S.; equipment, full regulations; remarks, new boat in 1901.

7. *Port Mouton*.—Established in 1889; J. Frausel, coxswain; No. of crew 7; coxswain's salary per annum, \$75; pay of crew \$1.50 per drill, and extra when saving life; description of boat, Beebe-McLellan self-bailing, 25 feet long, cost \$250, built at Shelburne, N.S.; equipment, full regulations.

8. *Duncan's Cove*.—Established in 1886; J. W. Holland, coxswain; No. of crew 7; coxswain's salary per annum, \$75; pay of crew, \$1.50 per drill, and extra when saving life; description of boat, Dobbin's pattern, self-righting bailing, 25 feet long, cost \$575, built in Dartmouth, N. S., equipment, full regulations.

9. *Herring Cove*.—Established in 1885; J. Gorman, coxswain; No. of crew 7; coxswain's salary per annum, \$75; pay of crew \$1.50 per drill and extra when saving life; description of boat, Dobbin's pattern, self-righting and bailing, 25 feet long, cost \$575, built at Dartmouth, N.S.; equipment, full regulations; remarks, Beebe-McLellan boat building for this station.

10. *Devil's Island*.—Established in 1885; G. DeYoung, coxswain; No. of crew 7; coxswain's salary per annum \$75; pay of crew, \$1.50 per drill and extra when saving life; description of boat, Dobbin's pattern, self-righting and bailing, 25 feet long, cost \$575, built at Dartmouth, N.S.; equipment, full regulations; remarks, Beebe-McLellan boat recommended for this station.

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11. *Whitehead*.—Established in 1890; H. P. Munroe, coxswain: No. of crew 7; coxswain's salary per annum \$75; pay of crew \$1.50 per drill and extra when saving life: description of boat, Dobbin's pattern, self-righting and bailing, 25 feet long, cost \$575, built at Darmouth, N.S.; equipment, full regulations.

12. *Scatterie*.—Established in 1885; F. Martell, coxswain: No. of crew 7; coxswain's salary per annum \$75; pay of crew \$1.50 per drill and extra when saving life: description of boat, Beebe-McLellan self-righting boat, 25 feet long, cost \$240, built at Shelburne, N.S.; equipment, full regulations.

13. *St. Paul Island*. Established in 1885: coxswain, superintendent of Humane Establishment; No. of crew 3; pay of crew, \$300 each per annum: description of boat, Beebe-McLellan self-bailing, 25 feet long, cost \$250, built at Shelburne, N.S.: equipment, full regulations: remarks, Lyle gun added in 1890.

BLOOMFIELD DOUGLAS, R.N.R.

*Naval Assistant.*

LIFE Saving Stations maintained

Number.	Stations.	Established	Coxswain.	Crew.	Coxswain's Salary. Per annum.	Pay of Crew.
	Bay of Fundy—				75	
1	Seal Cove, .....	1898	F. Benson .....	7	75	\$2.00 per drill, and extra when engaged saving life.
2	Yarmouth.....	1886	A. Cain .....	7	75	" " ..
3	Mud Island, .....	1887	J. Pitman.....		80	.....
4	Seal Island.....	1880	H. Hitchens....	7	250	\$100 each of crew per annum ..
	Atlantic Coast—					
5	Clark's Harbour .....	1900	J. M. Kenny....	7	75	\$2.00 per drill, and extra when saving life.
6	Blanche .....	1895	W. A. B. Smith. 7	75	" " ..	
7	Port Mouton.....	1889	J. Frowell.....	7	75	" " ..
8	Duncan's Cove .....	1886	J. W. Holland..	7	75	" " ..
9	Herring Cove, .....	1885	J. Gorman.....	7	75	" " ..
10	Halifax .....	1900	.....			No crew here .....
11	Devil's Island .....	1885	G. de Young....	7	75	\$2.00 per drill, and extra when saving life.
12	White Head.....	1890	H. P. Mumroe ..	6	75	" " ..
13	Sable Island .....	1885	J. G. Soderberg..... J. J. Ritcey.....	250 225		Paid as island staff.....
14	Scatterie Island .....	1885	F. Martell....	7	75	\$2.00 per drill, and extra when saving life.
	Gulf of St. Lawrence—					
15	St. Paul's Island.....	1885	Supt. Humane Establishment.	3		\$300 each per annum .....
16	Pictou Island.....		Alex. Currie....	7	75	\$2.00 per drill, and extra when saving life.
17	Cape Tormentine.....	1893	No organized crew.			.....
	Great Lakes—					
18	Wellington.....	1883	" .....			\$2.00 per drill, and extra when saving life.
19	Consecon.....	1898	W. A. Young....	7	75	" " ..
20	Cobourg.....	1882	D. Rooney.....	7	75	" " ..
21	Port Hope.....	1889	W. T. Clarke....	7	75	" " ..
22	Toronto Island.....	1883	Wm. Ward.....	7	75	" " ..
23	Long Point.....	1902	Geo. Wisner....	87	†75 & 40	\$2.00 per drill, and \$40 per month for three months.
24	Port Stanley.....	1885	Wm. Berry.....	7	75	\$2.00 per drill, and extra when saving life.
25	Point Pelee.....	1900	W. A. Grubb, jr.	7	75	" " ..
26	Goderich.....	1886	J. R. Craigie....	7	75	" " ..
27	Collingwood.....	1885	P. Doherty.....	7	75	" " ..
28	Kincardine.....	1903	Thos. McGaw ..	7	75	" " ..

\* Crew at station permanently for three months during autumn. † \$75 and \$40 per month for three.

SESSIONAL PAPER No. 21

by the Dominion Government.

Description of Boat.	Cost.	Where Built.	Equipment.	Remarks.
	8			
Beebe-McLellan surf-boat, self-bailing, 25 feet long.	250	Shelburne, N.S.	Full regulation	Iron rails laid in 1900.
Dobbin's pattern, self-bailing and self-righting, 25 feet long.	575	Dartmouth, N.S.	"	"
Fishing boats and dories . . . . .	80 pr. an.		Ordinary . . . . .	Kept by contract with fishermen.
Beebe-McLellan boat on east side, surf-boat on west side.	240	Shelburne, N.S.	Full regulation	New boat, 1903.
Beebe-McLellan, self-bailing, 25 feet long, low ends.	250	"	"	Boat house and gear cost \$700.
Beebe-McLellan surf-boat, self-bailing, 25 feet long.	250	Dartmouth, N.S.	"	New boat in 1901.
Dobbin's pattern, self-righting and bailing, 25 feet long.	575	"	"	"
Beebe-McLellan surf-boat, self-bailing, 25 feet long.	240	Shelburne, N.S.	"	Lyle gun established here in 1900; new boat, 1903.
Dobbin's pattern. " . . . . .	250	"	"	"
" " . . . . .	375	"	Ordinary . . . . .	This is a spare boat which can be used with volunteer crew when required.
" " . . . . .	575	"	Full regulation	"
" " . . . . .	575	"	"	Lyle gun.
Two Dobbin's self-righting and bailing boats and one Beebe-McLellan surf-boat, self-bailing.	1,100	Halifax, N.S.	"	Lyle gun and rocket apparatus kept here. Coxswains are under the control of Superintendent of Humane Establishment.
Beebe-McLellan surf-boat, self-bailing, 25 feet long.	240	Shelburne, N.S.	"	New boat, 1903.
Beebe-McLellan, self-bailing, 25 feet long, low ends.	250	"	Full equipment	Lyle gun added in 1900.
Dobbin's pattern, self-righting and bailing, 25 feet long.	575	Dartmouth, N.S.	"	"
Boats of winter mail service . . . . .			Ordinary . . . . .	
Dobbin's pattern, self-righting and bailing.	750	Buffalo, N.Y.	Full equipment	Removed from Poplar Point in 1900.
" " . . . . .	750	"	"	Removed from Wellington in 1893.
" " . . . . .	575	Goderich, Ont.	"	"
" " . . . . .	620	"	"	"
" " . . . . .	600	"	"	New boat, 1895.
Surf-boat . . . . .	330	Collingwood.	"	New station and new boat, 1902.
Beebe-McLellan surf-boat, self-bailing, 25 feet long.	350	"	"	"
Surf-boat . . . . .	330	"	"	Boat house removed from Point up 200 yards and tramway built.
" . . . . .	330	"	"	New boat, 1902.
Beebe-McLellan self-bailing surf-boat.	375	"	"	New boat in 1896.
" " . . . . .	350	"	"	New boat, 1903.

months while permanently at station.

## APPENDIX No. 9.

STATEMENT relating to the Wharfs under the control of the Department, on  
June 30, 1903.

Locality.	Wharfinger.	Date of Appointment of Wharfinger.	Remuneration allowed.	Amount deposited to credit of Receiver General.
<i>Ontario.</i>				\$ cts.
Bruce Mines.....	Wm. Fleming.....			117 79
Cockburn Island.....	Alfred Monck.....	May 20, 1890.	25 p.c. of collections.....	33 39
Goderich.....	W. Marlton.....	Feb. 14, 1894.	25 ".....	400 10
Hilton, St. Joseph Id., Algoma	E. Stubbs.....	June 20, 1898.	50 ".....	269 50
Kingsville.....	A. E. Malott.....	Nov. 6, 1895.	25 ".....	62 43
Morpeth.....	C. Stammers.....	Aug. 1, 1894.	25 ".....	
North Bay.....	W. McKenzie.....	Oct. 1, 1900.	25 ".....	
Port Rowan.....	John Collett.....	May 2, 1898.	25 ".....	
Richard's Landing, Algoma	R. Armstrong.....	Mar. 11, 1899.	25 ".....	245 06
Rondeau.....	W. R. Fellows.....	Dec. 17, 1888.	25 ".....	66 03
Sault Ste. Marie.....	Geo. A. Boyd.....	April 9, 1897.	\$142 per month during season of navigation.....	1,774 21
Sheguiandah.....				163 56
Southampton.....	Geo. McVittie.....	Aug. 16, 1895.	25 p.c. of collections.....	116 23
Summerstown.....	Under lease.....			
Thessalon, Algoma.....	D. J. Sandie.....	Apr. 22, 1902.	25 p.c. of collections.....	231 47
Warton.....	G. Phillips.....	" 1902.	25 ".....	120 27
<i>Quebec.</i>				
				Total.....
				3,540 04
Agnes.....	L. A. Roy.....	Nov. 27, 1891.	25 p.c. of collections.....	
Anse St. Jean.....	F. Savoie.....	Mar. 13, 1895.	25 ".....	48 95
Baie St. Paul.....	Vacant.....		25 ".....	
Baie St. Paul, Isolated Block	A. Simard.....	Aug. 25, 1891.	25 ".....	83 96
Beauport.....	D. Giroux.....	Nov. 11, 1896.	25 ".....	
Berthier.....	E. Gammond.....	July 5, 1897.	50 ".....	54 25
Cap-a-l'Ange.....	Jos. Guay.....	Oct. 7, 1896.	25 ".....	53 50
1 Carleton.....	Jos. E. Cullen.....	Mar. 25, 1896.	\$50 per annum.....	20 53
Cascades.....	Moïse Leroux.....	Oct. 20, 1897.	25 p.c. of collections.....	
Cedars.....	J. Reay.....	April 29, 1898.	25 ".....	
Chicoutimi.....	Thomas Tremblay.....	May 13, 1901.	25 ".....	306 03
Coteau du Lac.....	M. St. Amour.....	Sept. 21, 1896.	25 ".....	11 91
Coteau Landing.....	J. A. Prieur.....	May 25, 1897.	25 ".....	
Echo Vale, Lac Megantic	D. P. Matheson.....	May 16, 1894.	25 ".....	
Esquimaux Point.....	Vacant.....			
Grand River.....	Geo. Beaudin.....	Nov. 16, 1896.	25 ".....	137 28
Greece's Point.....	T. Ranger.....			28 11
Isle aux Grues.....	Jos. Painchaud.....	Feb. 17, 1890.	25 ".....	
Isle Perrot.....	Roger Leduc.....	Oct. 20, 1897.	25 ".....	
Knowlton's Landing.....	L. Knowlton.....	Nov. 26, 1897.	25 ".....	
Lacolle.....	R. J. Robinson.....	Mar. 8, 1894.	25 ".....	10 69
2 Les Eboulements.....	M. Tremblay.....	Sept. 4, 1894.	25 ".....	102 75
L'Islet.....	Octave Morin.....	Feb. 8, 1893.	25 ".....	
Longueuil.....	Eusebe Denicourt.....	May 15, 1901.	25 ".....	
Magog.....	Edward Addy.....	June 20, 1898.	25 ".....	
Mataane.....	Louis Durette.....	Aug. 25, 1900.	25 ".....	94 34
3 Murray Bay.....	Elie Maltais.....	" 15, 1893.	25 ".....	120 25
New Carlisle.....	John C. Hall.....	June 4, 1889.	25 ".....	116 12
Perce.....	T. W. Flynn.....	Jan. 19, 1893.	25 ".....	8 17
Port Daniel.....	C. Sweetman.....	Mar. 2, 1901.	\$50 per annum.....	74 44

\* Commission on collections not to exceed \$200 per annum.

1	Paid wharfinger from general collection.....	\$24 42
2	" " " ".....	28 50
3	" " " ".....	89 81
		\$92 73

SESSIONAL PAPER No. 21

## STATEMENT relating to Wharves, &amp;c.—Continued.

Locality.	Wharfinger.	Date of Appointment of Wharfinger.	Remuneration allowed.	Amount deposited to credit of Receiver General.
<i>Quebec—Con.</i>				8 cts.
Port Lewis.....	Sam. Carson.....	Sept. 21, 1899.	25 p.c. of collections.....	
Rimouski.....	Chas. Lepage.....	July 24, 1894.	25 " ".....	
Rivière Ouelle.....	J. Hudon dit Beau- lieu.....	Nov. 28, 1892.	25 " ".....	
Rivière du Loup.....	F. E. Gilbert.....	May 26, 1900.	25 " ".....	356 01
St. Anicet.....	S. Dupuis.....	Sept. 14, 1896.	25 " ".....	
St. Alphonse de Bagotville.....	Abel Tremblay.....	July 7, 1891.	25 " ".....	128 80
St. Irénée.....				58 87
St. Jean d'Orléans.....	L. Lachance.....	Sept. 26, 1896.	25 " ".....	74 58
St. Jean Port Joli.....	J. Pelletier.....	" 14, 1896.	25 " ".....	
Ste. Cécile du Bic.....	Olivier Ouellette.....	Aug. 24, 1900.	25 " ".....	44 74
St. Laurent d'Orléans.....	Ed. Chabot.....	" 25, 1894.	25 " ".....	19 33
St. Thomas de Montmagny.....	L. L. Dionne.....	Oct. 22, 1896.	25 " ".....	3 30
St. Zotique.....	J. M. Leroux.....	Sept. 21, 1896.	25 " ".....	
Tadoussac.....	A. Christiansen.....	Oct. 20, 1897.	25 " ".....	72 44
Trois Pistoles.....	D. Damour.....	May 10, 1886.	25 " ".....	
Valois Point.....	L. Gastonguay.....	Oct. 20, 1897.	25 " ".....	
Ville Marie.....	Jules Maillard.....	Feb. 2, 1899.	25 " ".....	
			Total.....	2,028 45
			Less.....	92 73
				1,935 72
<i>Nova Scotia.</i>				
Arisaig.....	H. R. McAdam.....	Dec. 30, 1898.	25 p.c. of collections.....	
Avonport.....	L. F. Fuller.....	Aug. 15, 1902.	25 " ".....	13 21
Babbins Cove.....	Alex. Thomas.....	Oct. 20, 1897.	25 " ".....	4 47
Barrington.....	J. H. Christie.....	Aug. 31, 1896.	25 " ".....	103 14
Bass River.....	Jotham Fulton.....	Jan. 6, 1898.	25 " ".....	
Bayfield.....	Roderick Grant.....	April 23, 1902.	25 " ".....	47 26
Bear Point.....	E. R. Smith.....	Feb. 19, 1902.	25 " ".....	6 63
Belleveau Cove.....	St. Clair Thériault.....	Nov. 24, 1892.	25 " ".....	66 40
Broad Cove.....	John Teal.....	Jun. 12, 1893.	25 " ".....	
Broad Cove Marsh.....	Hugh McDonald.....	Oct. 19, 1892.	25 " ".....	
Brooklyn.....	F. T. Gardiner.....	" 20, 1882.	25 " ".....	
Canada Creek.....	Henry Dickey.....	Aug. 12, 1899.	25 " ".....	5 78
Cape Cove.....	J. A. Ellis.....	May 14, 1897.	25 " ".....	
Centreville.....	Alfred Ward.....	" 29, 1897.	25 " ".....	108 23
Chipman's Brook.....	John Kirby.....	" 24, 1900.	25 " ".....	0 29
Church Point.....	Chas. F. Belliveau.....	Aug. 20, 1892.	25 " ".....	54 92
Cranberry Head.....	Abram Thurston.....	Feb. 16, 1889.	25 " ".....	
Cribbens Pier, Antigonish Hr.....	A. R. Boyd.....	Oct. 2, 1895.	25 " ".....	
Delap's Cove.....	R. W. McCaul.....	Nov. 28, 1889.	25 " ".....	4 35
Descousse.....	Thos. Boudrot.....	Feb. 22, 1902.	25 " ".....	31 27
Digby.....	W. W. Hayden.....	April 20, 1897.	25 " ".....	2,177 50
Eagle Head.....	Nathan Leslie.....	Jan. 9, 1889.	25 " ".....	
East Bay.....	Donald McInnis (Ronald's son).....	April 5, 1886.	50 " ".....	
East River, Sheet Harbour.....	Malcolm McFarlane.....	May 20, 1890.	25 " ".....	
Grand Narrows, Victoria Co.....	F. X. McNeil.....	Nov. 11, 1896.	25 " ".....	
Grand Narrows, Cape Breton Co.....	Neil McNeil, jr.....	Aug. 6, 1898.	25 " ".....	
Grand Village.....	Vacant.....			
Hall's Harbour.....	T. A. Neville.....	Jan. 8, 1897.	25 " ".....	34 77
Hampton.....	Judson Foster.....	Aug. 25, 1888.	25 " ".....	36 82
Hantsport.....	Vacant.....			
Harbourville.....	Isaac Cook.....	May 28, 1897.	25 " ".....	25 19
Horton Landing.....	F. G. Curry.....	April 30, 1898.	25 " ".....	1 50
Iona, Grand Narrows.....	F. T. X. McNeil.....	June 8, 1901.	25 " ".....	
Irish Cove.....	Malcolm McNeil.....	" 6, 1902.	25 " ".....	14 26
Isaac's Harbour.....	T. D. Cook.....	Jan. 30, 1902.	25 " ".....	12 39
Jordan Bay.....	John Fridericks.....	Feb. 20, 1900.	25 " ".....	119 30
Kelly Cove.....	Jos. B. Huskins.....	April 11, 1899.	25 " ".....	
Little Narrows.....	Vacant.....			
Lismore.....	D. A. McKimmon.....	July 5, 1895.	25 " ".....	
Maitland, Hants Co.....	Vacant.....			

STATEMENT relating to Wharfs, &c.—*Continued.*

Locality.	Wharfinger.	Date of Appointment of Wharfinger.	Remuneration allowed.	Amount deposited to credit of Receiver General.
				\$ cts.
<i>Nova Scotia—Con.</i>				
Port Maitland, Yarmouth Co.	J. Ellis.	Dec. 10, 1896.	25 p. c. of collections.	49 12
Margaretsville	C. S. McLean.	May 7, 1897.	25 "	117 15
Meteghan Cove	H. F. Robicheau.	" 28, 1897.	25 "	24 00
Meteghan River.	D. D'Entremont.	" 14, 1897.	25 "	19 40
Militia Point.	D. McIntosh.	Aug. 25, 1892.	25 "	
Morden.	John Redgate.	Nov. 16, 1893.	25 "	19 01
Noel.	Vacant.			
Northside, Boularderie.	Dan. McKenzie.	Nov. 26, 1897.	25 "	
Oak Point (Kingsport).	Rent from Railway Company.			200 00
Ogilvie	R. S. Armstrong.	May 13, 1901.	25 p. c. of collections.	22 46
Parrsboro'	Thompson Tipping.	Nov. 26, 1888.	25 "	26 06
Parker's Cove	John A. Clark.	June 26, 1901.	25 "	27 78
Pickett's Wharf.	Freeman Eaton.	Aug. 2, 1899.	25 "	61 61
Pictou Island	Vacant.			
Plympton	Wm. K. Smith.	Aug. 8, 1899.	25 "	
Port Dufferin, Halifax Co.	H. J. Balcom.	Feb. 17, 1899.	25 "	
Point Brulé.	Alex. Craig.	Dec. 26, 1898.	25 "	1 16
Port George	Onthit Douglas.	June 26, 1900.	25 "	83 84
Port Greville	Vacant.			
Port Hood	Albert Macdonnell.	May 22, 1900.	25 "	
Port Joli	Jos. S. McAdams.	Feb. 5, 1900.	25 "	
Port La Tour	David Sholds.	" 1, 1900.	25 "	17 87
Port Lorne.	Freeman Beardsley.	June 27, 1897.	25 "	48 22
Port Morien	John McAulay.	Dec. 10, 1896.	7½ "	449 76
Riverside	Geo. W. Hawes.	Mar. 11, 1902.		14 59
Sabnon River, Digby Co.	J. M. Deveau.	Nov. 29, 1890.	25 p. c. of collections.	51 07
Saulmierville	John T. Saulmier.	Aug. 25, 1888.	25 "	
Swims Point				21 54
Tancook Island.	Amos H. Stevens.	Mar. 11, 1898.	25 p. c. of collections.	
Tidnish.	R. A. Smith.	Sept. 27, 1901.	25 "	
Tracadie	J. M. Hall.	Nov. 6, 1888.	25 "	
Tusket Wedge	Vacant.			
Town Point	J. A. Haley.	Aug. 16, 1901.		3 30
Victoria	Amos West.	Dec. 4, 1900.	25 p. c. of collections.	13 39
Wallace	Vacant.			
Wallace Harbour, South side.	"			
West Pubnico	Chas. C. D'Entremont.	Mar. 28, 1898.	25 p. c. of collections.	19 87
West River, Sheet Harbour.	Malcolm McFarlane.	Sept. 3, 1889.	25 "	
White Point.	Elisha West.	Jan. 9, 1889.	25 "	
White Waters.	Jos. Irvine.	Sept. 27, 1901.	25 "	13 94
Whycogomah		Oct. 22, 1901.		28 16
Wolfville	J. L. Franklin			
Total.				4,227 79
<i>New Brunswick.</i>				
Anderson's Hollow	W. C. Anderson.	Feb. 13, 1890.	25 p. c. of collections.	10 89
Black River	Vacant.		25 "	
Buctouche	J. J. Leblanc.	May 2, 1892.	25 "	35 66
Campbellton.	Alfred J. Venner.	June 10, 1893.	25 "	257 87
Cape Tormentine.	E. T. Allen.	Oct. 20, 1897.	25 "	427 42
Clifton, Stonehaven.	S. Payne.	Nov. 9, 1894.	25 "	
Cocagne.	H. Bourgeois.	Aug. 9, 1900.	25 "	2 10
Dalhousie.	W. J. Smith.	June 27, 1891.	25 "	84 70
Eggett's Landing	Thos. Barnett.	July 5, 1895.	25 "	20 49
Gardner's Creek	Robert Wallace.	Dec. 11, 1899.	25 "	58 30
Howell Cape.	Geo. D. Wilson.	April 10, 1899.	25 "	26 06
Kingston	P. Thibodeau.	Jan. 31, 1901.	25 "	
Negiac	B. Poirier.	June 17, 1897.	25 "	
Quaco.	Wellington Vale.	Dec. 19, 1899.	25 "	1 23
St. Louis.	C. Frigand.	Oct. 29, 1895.	25 "	
St. Mary's.	M. J. S. Leblanc.	Mar. 1, 1897.	25 "	
St. Nicholas River, S. Welford	John Grant.	June 26, 1901.	25 "	
Tracadie	Prosper Savoy.	Sept. 23, 1899.	50 "	
Total.				924 72



SESSIONAL PAPER No. 21

STATEMENT relating to Wharfs, &c.—*Concluded.*

Locality.	Wharfinger.	Date of Appointment of Wharfinger.	Remuneration allowed.	Amount deposited to credit of Receiver General.
<i>Prince Edward Island.</i>				§ cts.
Annamdale.....	W. C. Jenkins.....	May 4, 1897	25 p.c. of collections.....	60 48
Bay View.....	Joseph Harrington.....	Oct. 2, 1885	25 " ".....	19 04
Belfast.....	Jas F. Halliday.....	Mar. 1, 1901	25 " ".....	95 33
Brush Wharf, Port Selkirk.....	Levi R. Ings.....	Sept. 18, 1885	25 " ".....	106 02
Campbell's Cove.....	Angus McIntyre.....	Oct. 17, 1888	25 " ".....	" ".....
Chapel Point.....	Roland McCormack.....	Sep. 18, 1885	25 " ".....	15 90
Chilra Point.....	W. S. N. Crane.....	" 18, 1885	25 " ".....	21 23
Clifton.....	John Gunn.....	May 24, 1900	25 " ".....	" ".....
Cranberry, East River.....	James Hughes.....	Mar. 11, 1898	25 " ".....	" ".....
Crapaud and Victoria Pier.....	E. McKinnon.....	July 7, 1897	25 " ".....	237 36
Georgetown.....	James Bourke.....	" 2, 1885	25 " ".....	17 29
Haggerty's Wharf, E. River.....	M. Burnett.....	Feb. 14, 1898	25 " ".....	" ".....
Hickey's Wharf.....	Mark Webster.....	Oct. 22, 1896	25 " ".....	21 75
Higgin's Shore.....	G. G. Henry.....	Nov. 9, 1891	25 " ".....	" ".....
Hurd's Point.....	Thos. Montgomery.....	Aug. 16, 1901	25 " ".....	51 33
Kier's Shore.....	W. Hodgson.....	June 10, 1895	25 " ".....	65 89
Lambert.....	Wellington Johnston.....	May 3, 1900	25 " ".....	" ".....
Lewis Point.....	J. G. Scribnigour.....	Oct. 14, 1896	25 " ".....	" ".....
McGee's Wharf, Abram's Vill.....	Norman Gallant.....	Nov. 9, 1891	25 " ".....	" ".....
Mink River or Murray Harbour, South.....	James P. Clow.....	Aug. 25, 1900	25 " ".....	3 96
Murray Harbour, South.....	J. McKinnon.....	Jan. 27, 1896	25 " ".....	" ".....
Nine Mile Creek.....	Edward Harrington.....	Oct. 29, 1885	25 " ".....	" ".....
North Cardigan.....	Rodk. J. Steele.....	May 1, 1901	25 " ".....	40 61
Pinette.....	Malcolm McLeod.....	Jan. 3, 1901	25 " ".....	10 10
Pownal.....	M. M. Haley.....	Oct. 13, 1896	25 " ".....	66 39
Red Point.....	Arch. Smith.....	Apr. 3, 1900	25 " ".....	14 95
St. Mary's Bay.....	John Dickson.....	Dec. 10, 1896	25 " ".....	12 50
Souris.....	Angus McDonald, caretaker.....	Sep. 27, 1894	25 " ".....	" ".....
South Rustico, Oyster Bed Bridge.....	D. Gallant.....	Feb. 23, 1895	25 " ".....	6 97
Stevens and Montague.....	Wellgt'n A. Johnston.....	May 3, 1900	25 " ".....	" ".....
Sturgeon River.....	Bernard Kearney.....	Sep. 18, 1885	25 " ".....	33 53
Tignish.....	A. J. Gaudet.....	Aug. 28, 1898	25 " ".....	5 55
Vernon River.....	W. M. Forbes.....	April 22, 1902	25 " ".....	99 93
Wood Island.....	James Young.....	Apr. 10, 1899	25 " ".....	35 89
Total.....				1,049 48

## RECAPITULATION.

Ontario.....	§	3,540 04
Quebec.....	\$2,028.45 less \$92.73.	1,935 72
Nova Scotia.....		4,227 79
New Brunswick.....		924 72
Prince Edward Island.....		1,049 48

Total wharfage dues collected and placed to credit of Receiver General . . . § 11,677 75

ADD—Fees received by undermentioned harbour masters in excess of remuneration allowed:—

Harbour Master—St. Johns, Que. ....	§	213 50
" Sorel.....		39 50
" Canso, N. S.....		23 50
" Hantsport, N.S.....		59 75
" International Pier, N. S.....		319 00
" St. Andrews, N.B.....		1 00
" Chenainus, E. C.....		112 50
" Comox, B. C.....		6 50
" Victoria, B. C.....		113 50
		879 75

Total Revenue from Wharfs and Harbours . . . § 12,557 50

## APPENDIX No. 10.

STATEMENT of Sick Mariners' Dues collected for the fiscal year ended June 30, 1903.

<i>Quebec.</i>	S cts.	<i>Nova Scotia—Continued.</i>	S cts.
Gaspé.....	146 40	Kentville.....	157 24
Montreal.....	7,745 98	Liverpool.....	141 66
Paspébiac.....	296 60	Lockeport.....	17 72
Perce.....	123 50	Lunenburg.....	523 00
Quebec.....	7,773 58	Middleton.....	3 30
Rimouski.....	138 82	North Sydney.....	975 40
St. Arnaud.....	25 46	Parrsboro'.....	1,033 46
St. John.....	1,495 54	Pictou.....	657 66
Sorel.....	.....	Port Hawkesbury.....	156 51
Stanstead.....	22 22	Port Hood.....	79 68
Three Rivers.....	553 88	Shelburne.....	72 46
Total.....	18,231 98	Sydney.....	4,675 20
		Truro.....	1 94
<i>New Brunswick.</i>		Weymouth.....	170 80
Bathurst.....	310 90	Windsor.....	1,063 62
Campbellton.....	98 74	Yarmouth.....	612 72
Chatham.....	1,323 28	Total.....	22,573 35
Dalhousie.....	674 12		
Moncton.....	1,353 64	<i>Prince Edward Island.</i>	
Newcastle.....	645 98	Charlotte-town.....	396 60
Sackville.....	199 12	Summerside.....	53 44
St. John.....	6,466 34	Total.....	450 04
St. Stephen.....	102 44		
Total.....	11,174 56	<i>British Columbia.</i>	
<i>Nova Scotia.</i>		Nanaimo.....	3,317 68
Amherst.....	405 46	New Westminster.....	90 10
Amapolis.....	109 40	Vancouver.....	2,330 44
Arichat.....	55 80	Victoria.....	6,837 00
Antigonish.....	4 76	Total.....	12,575 22
Baddeck.....	26 30	Total.....	65,005 15
Barrington.....	2 22	LESS—Rebuds.....	153 60
Causo.....	187 18	Grand total.....	64,851 55
Digby.....	136 52		
Halifax.....	11,303 34		

## APPENDIX No. II.

## SIGNAL SERVICE.

QUEBEC, November 15, 1903.

As in preceding seasons, reports have been received from the stations in the lower part of the river and gulf, recording the weather, wind, condition, location and movement of the ice during the winter and spring months, and during the season of navigation all inward and outward bound vessels as signalled when passing each station, including the Straits of Belle Isle.

From the 1st to the 20th, of April, three reports per week were obtained and forwarded to the Boards of Trade, Montreal and Quebec, and to the Chamber of Commerce, Halifax, N.S., also to the Press of Montreal and Quebec, to the agent of the Department, Quebec, to the Custom-house and Immigration Agent, to the agents of steamship lines, tug owners, to the pilots for below and above Quebec, also to Messrs. Henry Fry & Co., Lloyds Agents, Quebec.

From April 21 reports were received daily and forwarded as above.

The Chief Superintendent of the Quarantine station at Grosse Isle is also supplied with full information as to the weather, wind and the incoming of all transatlantic or foreign vessels.

Information was supplied from the bureau here as in past seasons, to the agents at Anticosti, Magdalen islands, Meat Cove, C.B., Cape Ray and Cape Race, Newfoundland, from April 13 as to weather, wind, movement and condition of the ice in the Gulf and River St. Lawrence up to Montreal, for the guidance of any vessel calling for information.

The Quarantine doctor at Rimouski is also supplied with a report of the incoming mail steamers, name of station and hour of passing being given when vessel was first signalled.

Information as to wind, weather and ice in the vicinity of Anticosti, Magdalen islands, Meat Cove, St. Pauls island and Cape Ray, Newfoundland, is also sent to Point aux Esquimaux in March for the guidance of the sealing fleet.

All reports received of inward bound vessels were repeated to the pilot station at Father Point, so that pilots could be promptly advised of the locality of inward bound vessels.

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

J. U. GREGORY,  
*Agent Department of Marine & Fisheries.*

3-4 EDWARD VII., A. 1904

PORT OF HALIFAX, N.S.,

PARTICULARS of Vessels Signalled during

YEAR AND MONTH.	ENGLISH MEN-OF-WAR AND TROOPERS.			FOREIGN MEN-OF-WAR.			STEAMERS, 1ST CLASS.			STEAMERS, 2ND CLASS.		
	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.
1902.												
July.....	2	2	0	0	0	0	36	29	7	54	50	4
August.....	1	1	0	2	2	0	13	13	0	52	52	0
September.....	4	4	0	0	0	0	17	17	0	73	73	0
October.....	0	0	0	0	0	0	20	20	0	54	53	1
November.....	2	2	0	0	0	0	21	21	0	76	64	12
December.....	0	0	0	0	0	0	45	45	0	77	60	17
1903												
January.....	0	0	0	0	0	0	32	32	0	54	46	8
February.....	0	0	0	1	1	0	28	28	0	51	46	5
March.....	0	0	0	0	0	0	38	38	0	63	55	8
April.....	3	3	0	0	0	0	33	33	0	73	60	13
May.....	4	4	0	0	0	0	26	26	0	71	62	9
June.....	3	3	0	1	1	0	17	17	0	67	63	4
Totals.....	19	19	0	4	4	0	326	319	7	765	684	81

A. E. SHAW, C.S.M.R.E.

CITADEL, October 14, 1903.

SESSIONAL PAPER No. 21

## SIGNAL SERVICE.

the Year ending June 30, 1903.

BARQUES.			BARQUENTINES.			BRIGS.			BRIGAN- TINES.			SCHOONERS, 3-MASTED OR BEAR- ING PRIVATE SIGNALS.			MONTHLY TOTALS.		
Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.
4	4	0	1	1	0	0	0	0	0	0	0	0	0	0	97	86	11
2	1	1	4	3	1	0	0	0	1	1	0	0	0	0	75	73	2
1	1	0	0	0	0	0	0	0	2	2	0	0	0	0	97	97	0
0	0	0	0	0	0	0	0	0	1	1	0	8	8	0	83	82	1
4	3	1	1	1	0	0	0	0	0	0	0	0	0	0	104	91	13
3	3	0	1	1	0	1	1	0	0	0	0	0	0	0	127	110	17
1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	87	79	8
7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	87	82	5
3	3	0	0	0	0	0	0	0	0	0	0	3	3	0	107	99	8
0	0	0	0	0	0	1	1	0	0	0	0	2	2	0	112	99	13
9	9	0	3	3	0	0	0	0	0	0	0	6	6	0	119	110	9
4	4	4	0	0	0	0	0	0	0	0	0	13	13	0	105	101	4
38	36	2	10	9	1	2	2	0	4	4	0	32	32	0	1200	1109	91

GEORGE BUTLER, LT. Q.M. R.E.,  
*Superintendent of Signals,*  
*Halifax.*

## APPENDIX No. 12.

REPORT OF THE CHAIRMAN OF THE BOARD OF STEAMBOAT  
INSPECTION.

CHAIRMAN'S OFFICE

OTTAWA, November, 1903.

To the Deputy  
Minister of Marine and Fisheries,  
Ottawa.

SIR,—I have the honour to submit the annual report of the operations of the Steamboat Inspection Service for the fiscal year ending June 30, 1903.

It represents the general work of the service during the period mentioned, with the names and number of steamboats inspected in the several divisions, and their gross tonnage, also the amount of tonnage dues and fees collected as known by the inspectors on account of inspection; a statement of the Board meetings held, and the penalties enforced for violations of the Steamboat Inspection Act; the casualties occurring as reported from the several divisions, together with the reports as to the number of vessels lost or unfit for service in the several districts, and the number of vessels added thereto.

In addition to the steamboats inspected at the port of Montreal, the hoisting gear and ships tackle of 436 vessels, used for the purpose of loading and unloading those vessels was also inspected by the steamboat inspectors of that port.

As will be noticed in comparison with former reports, the work of the staff in general has materially increased; in some districts taxing it to the utmost and notably in the West Ontario Division where it has got beyond the reach of the present staff, necessitating an additional appointment to meet the demands of the service.

It is my unpleasant duty to state, that during the past year the service has lost two of its very efficient officers: namely Mr. P. D. Brunelle formerly Hull Inspector for Quebec, who retired owing to his physical condition and advanced age; and Mr. W. L. Waring, Boiler and Machinery Inspector of St. John, N.B., who expired June 1, which is deeply regretted.

The position vacated by Mr. Brunelle has been filled by the appointment of Mr. Philippe Duclou of Sorel: that of Mr. Waring, it not being possible to get an appointment made at the time of his demise, owing to the work of inspection Mr. Esdaile inspector for Halifax with the assistance of Mr. Olive, have kindly exerted themselves to endeavour as far as possible to meet the demands of the service until an appointment could be made.

SESSIONAL PAPER No. 21

NUMBER of steam vessels reported as known by the inspectors of steamboats in the Dominion, and their gross tonnage, for the year ended June 30, 1903; also the number of vessels inspected, but not registered in the Dominion, for same date.

DIVISION.	Number of Dominion registered steamers.	Gross tonnage of Dominion registered steamers.	Number of steamers inspected but not registered in the Dominion.	Gross tonnage of steamers inspected but not registered in the Dominion.
West Ontario.....	450	95,783 00	35	18,052 00
Kingston.....	168	21,030 15	29	2,097 58
Montreal.....	212	24,517 00	1	1,387 00
Quebec.....	162	42,144 00	Nil.	.....
Nova Scotia.....	144	19,854 26	19	27,268 05
New Brunswick and Prince Edward Island.....	126	18,192 44	9	7,785 13
British Columbia and Yukon Territory.....	251	55,984 00	28	31,553 44
Manitoba and North-west Territories.....	120	6,721 66	2	1,500 89
	1,633	283,326 51	123	89,644 09

NUMBER of Dominion registered steam vessels inspected and their gross tonnage, with the amount of dues and fees collected on account of steamboat inspection, during the year ended June 30, 1903.

DIVISION.	Number of Dominion registered steamers inspected.	Gross tonnage of Dominion registered steamers inspected.	Amount of dues and fees collected on account of steamboat inspection.
West Ontario.....	411	95,744 00	7,977 56
Kingston.....	167	21,357 45	2,138 93
Montreal.....	183	23,168 00	1,077 28
Quebec.....	159	41,486 00	1,511 84
Nova Scotia.....	116	15,293 86	3,552 90
New Brunswick and Prince Edward Island.....	104	11,635 13	1,891 04
British Columbia and Yukon Territory.....	246	54,979 64	7,596 13
Manitoba and North-west Territories.....	74	5,579 27	428 24
Inspection of tow-barges.....			140 00
Engineers' certificates.....			935 00
	1,460	269,243 35	27,248 92

BOARD MEETINGS.

A meeting of a quorum of the Board of Boiler and Machinery inspectors was convened at Toronto, December 11, 1902, for the consideration of a formula to be adopted for arriving at the working pressure to be permitted on the new form of furnace known as the Brown Purvis ribbed and grooved type, when it was decided and recommended to adopt the formula in present use as applied to furnaces of similar description, which would be in unison with the standard as adopted by British Board of Trade for same purpose. Also the rules and regulations as prepared for the proposed new issue were given consideration, and formulas adopted and added thereto, for the strength to be permitted on doubling plates for flat surfaces.

On March 18, 1903. A meeting of a quorum of the Board of Hull inspectors was convened at Quebec for the purpose of examining candidates for the position of Hull Inspector, to fill the vacancy caused by the retirement of Mr. P. D. Brunelle; at which meeting "Mr. Philippe Duclos" of Sorel passed a satisfactory examination, subsequently being appointed to the position, by Order in Council of May 16, 1903, at a salary of \$1,100 per annum.

A meeting of a quorum of the Board of Boiler and Machinery inspectors was convened at Montreal on May 5, 1903, for the purpose of examining a candidate for the position of boiler and machinery inspector, who failed to pass the examination.

PROSECUTIONS WITH PENALTIES ENFORCED FOR VIOLATION OF THE STEAMBOAT INSPECTION ACT.

A complaint having been reported to the department, that the tug *Spray* of Montreal had violated the Steamboat Inspection Act, by carrying passengers without having the necessary certificate for such; proceedings were taken against the owners for so doing, when they pleaded guilty and paid the fine of \$100 and costs incurred, which was deposited to the credit of the Receiver General, August 15, 1902.

September 29, 1902.—The steamer *Thistle* of Dawson, Y. T., arrived at White Horse with a greater number of passengers than that permitted by her certificate of inspection, and also being short of the equipment as required by her certificate; which facts were verified by the customs officer and also by the police at the time of their landing; and being reported as having previously left that port on the 19th inst. under similar conditions, the collector of customs inflicted the full penalty of \$500 for said violation which was deposited to the credit of the Receiver General and vouchers for same received by the department October 29, 1902.

August 25, 1902.—Proceedings were taken against the steamer *Rival* of Kingston for carrying a greater number of passengers than that permitted by her certificate of inspection, to which the owner pleaded guilty, when a penalty of \$100 and costs was inflicted for which the department received the amount of penalty September 10, 1902.

October 10, 1902.—Information was forwarded the department of a collision between the steamers *Argyle* and *Clipper*, both passenger steamers, which occurred on the Lake of the Woods on September 27. The steamer *Argyle* not having the proper officers in charge, proceedings were taken against the owner before the police magistrate at Rat Portage, for violation of the law, when the charge was found to be proven and the defendant was fined a penalty of \$100 and costs, which was received by the department March 11, 1903.

April 8, 1903.—Information having been laid and proceedings taken to prosecute the tug *Vigilant* of Vancouver for carrying passengers without being certificated for that purpose, the case being heard before his honour Judge Henderson who found the defendant guilty, inflicted a fine of \$100 which was received by the department June 17, 1903.

CASUALTIES.

The following are the casualties reported from the several districts as having occurred during the fiscal year ending June 30, 1903.

WEST ONTARIO DIVISION.

August 4, 1902.—SS. *Seguin* of Owen Sound, collided with the U. S. steamer *City of Venice*, near Rondeau, Lake Erie, the latter steamer sank and three of her crew were drowned, the *Seguin* proceeded to Cleveland, Ohio, with the survivors, where the necessary repairs were made of the damage received by her.

October 5, 1902.—The dredge *Sir Wilfrid* left Toronto for Montreal in tow of the tug *Mary* of Sarnia, when they encountered a severe gale, the dredge sprang a leak and sank, her crew were taken aboard the tug.



## SESSIONAL PAPER No. 21

January 24, 1903.—Steamer *Myles* of Hamilton, laid up for the winter at Toronto, was partially destroyed by fire, the cause of fire is unknown, was thoroughly repaired during the winter.

May 30, 1903.—The walking beam in the steamer *White Star*, of Montreal, broke on her trip in the vicinity of Bronte, Ont. ; the connecting rod destroying a portion of the cabin ; the cylinder and cover was also broken, she was towed to Toronto and repaired, new beam cylinder, and cylinder cover, being provided.

June 1, 1903.—SS. *Orion* of Kingston, while on her trip on Lake Erie the crank pin strap of the engine broke, causing a fracture of the high pressure cylinder, and intermediate head between the high and low pressure cylinder. The steamer was towed to Toronto where the necessary repairs were made.

## EAST ONTARIO DIVISION.

July 18, 1902.—Steamer *Konosha* of Lindsay on a trip from Fenelon Falls to Bobcaygeon, when off Sturgeon point broke her main shaft and engine frame, no person was injured, and steamer was towed to Lindsay for repairs.

October 8, 1902.—Steam-barge *Alberta* of Kingston, whilst lying at Trenton awaiting cargo was totally destroyed by fire, cause unknown, no fatalities.

October 12, 1902.—Steam-barge *Owen* of Chatham on a trip from Wellington to Kingston, was wrecked and went to pieces on the Prince Edward shore. The crew were all saved.

November 20, 1902.—The ss. *Bannockburn* of Montreal, 1,620 gross tonnage, cleared from Fort William for Kingston, laden with wheat, being last sighted by the officers of ss. *Algonquin* on the morning of 21st in a moderate gale of wind on Lake Superior, and has not been heard of since : the matter is difficult to account for she being of the modern type steel vessel and well built. The cause apparently will never be explained.

*Montreal Division.*

August 22, 1902.—Steamer *Comet* of Ottawa, while under way on Lake Temiscamingue caught fire and was run ashore where she burned to the water's edge becoming a total loss, the flames spread so rapidly that none of the crew could say where the fire originated, or the cause. No fatalities.

May 4, 1903.—Grain elevator St. Lawrence No. 1 while coming up the St. Mary's current into Montreal harbour, took a sheer and struck the corner of the wharf knocking a hole in her bow, when she suddenly sank. Several attempts have been made to raise her, but as yet have not succeeded owing to the strong current. No fatalities.

*Quebec Division.*

April 18, 1903.—The paddle steamer *Kathleen*, of Quebec, while lying in winter quarters, sprang a leak and sank in thirty feet of water whereby she was broken in two, and other damage was done to engine and joiner work. The vessel was raised and found unfit for service.

*Nova Scotia Division.*

No casualties reported as having occurred.

*New Brunswick and Prince Edward Island Division.*

September 25, 1902.—The steamer *Star*, of St. John, while moored at her dock at the north end of St. John, took fire and became a total loss. Cause of fire unknown.

November 30, 1902.—Steamer *Jacques Cartier*, of Charlottetown, on a voyage near Pugwash, was caught in a gale of wind on the north shore of Nova Scotia, and became a total loss ; there was no loss of life.

*Manitoba and North-west Territories.*

November 28, 1902.—Owing to fire caused by the burning of the lumber yard of the Rat Portage Lumber Company, the following named steamers while lying on the marine slip at Norman, in the town of Rat Portage, were burned and became a total loss, viz.: Steamers *Phantom*, *Kennina*, *Spray*, *Princess*, *Pearl*, *Day Star* and *Midge*.

*British Columbia and Yukon Territory.*

October 11, 1902.—SS. *Venture*, of Victoria, B.C., 655 tons, gross tonnage, on a voyage from Naas river, B.C., to Fraser river, struck Hodgins' reefs off Metlakathla, B.C., filled and sank; was afterwards raised and subsequently towed to Victoria and placed in dock for examination and repairs; damage, keel gone and planking badly damaged; boilers displaced, propellers and tail shafts broken; was thoroughly repaired, and again inspected December 11, previous to going into service.

April 9, 1903.—SS. *Victoria*, of Victoria, B.C., 2,374 tons, gross tonnage; on a voyage from Puget Sound to Taku, in a dense fog, stranded on Little Bamboo island gulf of Pechilis, north China, becoming a total wreck; no lives lost; the master being censured by court of inquiry for not using the lead more frequently.

I am, Sir, your obedient servant,

EDWARD ADAMS,  
*Chairman Board of Steamboat Inspection.*

SESSIONAL PAPER No. 21

STEAM Vessels Inspected for the Year ended June 30, 1903.

WEST ONTARIO DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1903.		\$ cts.	
Snowstorm	Tug	July 3	17	6 36	Screw, Toronto Bay.
Winona	Pass.	" 8	231	26 48	" Port Stanley and vicinity.
International	Car ferry	" 9	851		Twin Screw, Sarnia and Pt. Huron.
Delila	Yacht	Not issued	4		Screw, St. Clair River.
Winslow	Tug	" "	353	33 24	" Lakes.
Abino	Fish'g Tug	July 15	8	5 64	" Lake Ontario.
Maid of the Mist		80 " 15	62	9 96	" Niagara river.
Hope		300 " 16	170	21 60	" Buffalo and Fort Erie.
Chas. E. Armstrong	Tug	" 17	49	8 92	" Welland Canal.
A. D. Cross	"	" 17	47	8 76	" "
Escart	"	" 17	49	8 20	" "
Maggie R. Mitchell	"	" 17	40	8 20	" "
Mary R	"	" 17	44	8 52	" "
Golden City	"	" 17	35	7 80	" "
Augusta	"	" 18	57	9 56	" "
Maggie A. Bennett	"	" 18	34	7 72	" "
F. B. Bradey	"	" 18	29	7 32	" "
Meteor	"	" 19	47	8 76	" "
Nellie Bly	Fish'g Tug	" 19	13	6 04	" Lake Ontario.
Alert	Tug	" 19	47	8 76	" Welland Canal.
Nautilus	Fish'g Tug	" 19	9	5 72	" Lake Ontario.
Nellie H	Tug	Not issued	25	7 00	" Detroit river.
Scotia	Pass.	" "	13	6 04	" "
W. E. C. U.	Yacht	" "	6	5 48	" "
Menew	Freight	July 25	109	13 72	" Hudson Bay.
Advance		10 Aug. 12	1,031	90 48	" Duluth and Montreal.
Arctic	Freight	" 19	101	13 08	" Lake Ontario.
D. W. Crow	Tug	Not issued	27	7 16	" Chatham and vicinity.
City of Dresden		100 Aug. 22	194	23 52	" Windsor and Lake Erie.
Frank G. McAulay	Tug	" 26	43	8 44	" Lake Huron.
Winnie	"	" 26	14	6 12	" "
Thistle	Fish'g Tug	" 26	36	7 88	" "
A. Chambers	"	" 27	23	6 84	" "
Earl	"	" 27	18	6 44	" "
Mabel M.	Tug	Not issued	7	5 56	" "
*Mary Annott	"	Aug. 27	8	11 28	" "
John Logie	Fish'g Tug	" 28	37	7 96	" "
R. H. Dobson	"	" 28	44	8 52	" "
Onward	"	" 29	22	6 75	" "
Jno R. Arnoldi	Dredge	Not issued	116	14 28	Goderich Harbour.
Huron	Tug	Aug. 30	55	9 40	Screw, Lake Huron.
Evelyn	Fish'g Tug	" 30	32	7 56	" "
Sir Wilfrid	Dredge	Not issued	399	36 92	Foundered on Lake Ont.
W. M. Gorman	Fish'g Tug	Sept. 9	28	7 24	Screw, Lake Erie.
The Belle	"	" 9	31	7 48	" "
Belle	"	" 10	16	6 28	" "
Hazard	"	" 10	34	7 72	" "
Eleanor	"	" 11	26	7 10	" "
City of Ladysmith	"	" 11	35	7 80	" "
Wm. Wilson	"	" 11	12	5 96	" "
Lena	"	" 12	14	6 12	" "
Maxie	"	" 12	16	6 28	" "
Electric	Yacht	" 13	49	8 92	" Lake Ontario.
Lansdowne	210	" 22	1,571	133 68	Paddle, Windsor and Detroit.
Huron	245	" 22	1,052	92 16	Twin Screw "
Great Western	200	" 24	1,080	94 40	Paddle "
**Ranger	Tug	" 25	8	16 92	Screw, Detroit river.
City of Mt. Clemens	Freight	Oct. 7	102	13 16	" Lakes.
Eagle	40	" 7	12	5 96	" Point Edward and Pt. Huron.
Comfort	40	" 8	14	6 12	" Detroit and St. Clair river

\*Dues and fees for 1901 and 1902.

\*\*Dues and fees for 1900, 1901 and 1902.

STEAM Vessels Inspected, &c.—West Ontario Division—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
1903.				8 cts.	
Willie Scagel.....	Tug.....	Oct. 9..	22	6 76	Screw, Wallaceburg and vicinity.
Louisa.....	Yacht.....	Not issued	13	6 04	" " "
Harry Sewell.....	Tug.....	Oct. 10..	25	7 00	" " "
E. G. Ashley.....	".....	Not issued	10	5 80	" " "
Eima.....	Tug.....	Not issued	6	5 48	" Chatham and vicinity.
Gordon Brown.....	Fish'g Tug	Nov. 18..	33	7 64	" Lake Erie.
Enterprise.....	".....	" 19..	18	6 44	" " "
Uncle Tom.....	".....	" 17..	8	5 72	" " "
Jubilee.....	".....	" 20..	10	5 80	" " "
Swan.....	".....	" 20..	14	6 12	" " "
May B.....	".....	" 20..	10	5 80	" " "
1904.					
Lakeside.....	524	March 16.	348	35 84	" Lake Ontario.
Macassa.....	616	" 21..	459	44 72	" Twin screw, Hamilton and Toronto.
Ontario.....	500	" 25..	1,615	137 20	" Paddle, Windsor and Detroit.
Michigan.....	500	" 25..	1,730	146 40	" " "
Walter H. Stone.....	Fish'g Tug	" 26..	35	7 80	" Screw, Lake Erie.
Melbourne.....	125	April 2..	894		" Toledo and Montreal.
Erin.....	Freight.....	" 2..	651	57 08	" All lakes and rivers.
Seguin.....	20	" 3..	818	73 44	" Quebec and Duluth.
Iroquois.....	10	" 6..	2,359	196 72	" Prescott and Duluth.
Dan'l Lamb.....	Dredge.....	" 6..	253	25 24	" Toronto Harbor.
Acacia.....	Freight.....	" 9..	107	16 54	" Screw, Lake Ontario.
Arabian.....	12	" 9..	1,073	93 84	" Quebec and Duluth.
Lillie Smith.....	Freight.....	Not issued	275	27 00	" " "
Monarch.....	345	April 11..	2,017	169 36	" Windsor "
Huronic.....	563	" 11..	3,330	274 40	" " "
United Empire.....	357	" 13..	1,961	164 88	" " "
Manitou.....	254	" 15..	470	45 60	" Lake Huron and Georgian Bay.
Persia.....	150	" 17..	757	68 56	" Montreal and Hamilton.
Ocean.....	125	" 17..	684	62 72	" " and Sarnia.
Cuba.....	125	" 17..	931	82 48	" " "
Orion.....	Freight.....	" 20..	846	72 68	" All lakes and rivers.
Myles.....	".....	" 20..	1,199		" " "
Tecumseh.....	".....	" 21..	840	72 20	" " "
Winona.....	230	" 22..	231	26 48	" Lake Erie and vicinity.
Spartan.....	400	" 27..	946		" Paddle, Montreal and Hamilton.
Corsican.....	400	" 27..	946		" " "
Clark Bros.....	200	" 27..	92	12 36	" Screw, Hamilton and Whitby.
Lake Michigan.....	Freight.....	May 2..	573		" All lakes and rivers.
Chicora.....	872	" 4..	931		" Paddle, Lake Ontario.
Chippewa.....	2,000	" 4..	1,514		" " "
Corona.....	1,000	" 4..	1,274		" " "
Ongiara.....	214	" 5..	98		" Screw, Niagara River.
Mazepa.....	Pass.....	Not issued	146		" Port Arthur and vicinity.
Norseman.....	Freight.....	May 11..	620		" Duluth and Prescott.
Balize.....	Tug.....	" 14..	250		" Lakes.
City of Chatham.....	627	" 14..	341	35 28	" Chatham and Detroit.
Primrose.....	900	" 15..	189		" Paddle, Toronto Bay.
Luella.....	110	" 15..	38		" Screw "
Mayflower.....	900	" 15..	189		" Paddle " "
Shamrock.....	412	" 15..	154		" " "
Ada Alice.....	125	" 15..	60		" Screw "
Modjeska.....	801	" 16..	678	62 24	" Twin screw, Toronto and Hamilton.
Island Queen.....	140	" 18..	23		" Screw, Toronto Bay.
Toronto.....	1,000	" 18..	2,779		" Paddle, Toronto and Prescott.
Ojibway.....	460	" 18..	194		" Screw, Point Iroquois and Killarney.
Kingston.....	1,000	" 18..	2,925		" Paddle, Toronto and Prescott.
White Star.....	Pass.....	Not issued	451		" Lake Ontario.
Garden City.....	Coasting Lake... 760 514	May 20..	637		" " "

SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.—West Ontario Division—*Concluded.*

BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1904.		§ cts.	
Cleopatra.....	Yacht...	May 23..	164	.....	Screw, Lake Huron.
Pappoose.....	168	" 29..	57	.....	" Detroit River.
Lincoln	} Coasting { Lake...	496	" 29..	337	" Sarnia and lake Erie ports.
		354			
Simla.....	Freight...	June 1..	1,490	.....	" Lakes and rivers.
Kathleen.....	220	" 9..	110	.....	" Toronto Bay.
Boscobel.....	Tug...	Not issued	617	.....	" Lakes.
Tepiakam.....	Fish'g Tug	June 13..	29	.....	" Lake Huron.
Sarnia.....	Tug...	" 15..	85	.....	" "
Argyle.....	"	Not issued	41	.....	" "
Florence.....	Tug...	June 15..	113	.....	" "
Ariadne.....	Fish'g tug	" 16..	38	.....	" "
B. W. Aldrich.....	Tug...	" 16..	41	.....	" "
Hiawatha.....	300	" 17..	163	.....	" St. Clair and Detroit Rivers.
Juno.....	Freight...	Not issued	288	.....	" Lakes and Rivers.
Hiawatha.....	Yacht...	June 19..	46	.....	" Toronto Bay.
Sagman.....	Tug...	" 25..	357	.....	" Lakes.
Pittsburg.....	500	" 26..	1,349	.....	Paddle, Buffalo and Soo.
Lurline.....	Yacht...	" 26..	66	.....	Screw, Detroit Rivers.
Lansdowne.....	Car ferry.	Not issued	1,571	.....	Paddle, Windsor and Detroit.
Arlington.....	Pass.....	"	23	.....	Screw, Toronto Bay.
Total.....			55,672	3,030 95	

JOHN DODDS,  
*Steamboat Inspector.*

STEAM Vessels Inspected in Canada but Registered elsewhere for the Year ended  
June 30, 1903.

## WEST ONTARIO DIVISION.

## BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
1903.			\$ cts.		
Grace Donner.....	200	July 10..	66	.....	Screw, Sarnia and Port Huron.
Harley.....	25	" 11..	24	.....	" Marysville and Stag Island.
Luna.....	450	" 22..	143	.....	" Detroit River.
Hattie.....	200	" 22..	67	.....	" "
Fortune.....	502	Aug. 4..	200	.....	" Point Iroquois and Thessalon.
Louise.....	.....	Not issued	84	.....	" Lake Erie.
Victoria.....	250	Sept. 16..	192	.....	" Windsor and Detroit.
Michigan Central.....	281	" 16..	1,522	.....	Paddle "
Transfer.....	233	" 17..	1,511	.....	" "
Transport.....	256	" 19..	1,595	.....	" "
Welcome.....	266	Oct. 8..	213	.....	Screw, Detroit River.
Niagara.....	349	Dec. 3..	213	.....	" Buffalo and Fort Erie.
Ariel.....	226	" 9..	202	.....	" Walkerville and Detroit.
Omar D. Conger.....	375	" 30..	196	.....	" Detroit River.
1904.					
Shenango No. 1.....	950	Mar. 6..	1,942	163 36 (3)	Screws, Lakes and Rivers.
City of Toledo.....	.....	Not issued	1,004	88 32	Paddle, Detroit River.
Garland.....	.....	"	248	27 84	Screw "
Sappho.....	.....	"	224	25 92	" "
Promise.....	.....	"	473	45 84	" "
Excelsior.....	.....	"	229	26 32	" "
Pleasure.....	.....	"	490	47 20	" "
Grace Donner.....	.....	"	66	.....	" Sarnia and Port Huron.
Wyandotte.....	904	May 12..	320	33 60	" Detroit River.
Frank E. Kirby.....	975	" 13..	533	59 64	Paddle, Lake Erie and Detroit River.
Arundell.....	.....	Not issued	339	35 12	Screw, Lakes and Rivers.
Darius Cole.....	1,088	May 27..	538	51 96	Paddle, Buffalo and Crystal Beach.
Tashmoo.....	.....	Not issued	1,345	115 52	" Detroit River.
Greyhound.....	.....	"	1,392	119 36	" "
Columbia.....	.....	"	969	85 44	Screw "
Idlewild.....	800	May 28..	363	37 07	Paddle, Buffalo and Crystal Beach.
Owana.....	1,066	" 29..	747	67 76	" Detroit River.
James Beard.....	.....	Not issued	87	.....	Screw, Sarnia and Port Huron.
Hattie.....	200	June 25..	67	10 36	" " Detroit.
Total.....	.....	.....	17,664	1,030 73	.....

JOHN DODDS,  
*Steamboat Inspector.*

SESSIONAL PAPER No. 21

STEAM Vessels Inspected for the Year ended June 30, 1903.

WEST ONTARIO DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.		Class of Vessel and where employed.
				\$	cts.	
1903.						
Hackett.....	Dredge	Not issued	96	12	68	Dredge, Penetang Harbour.
Maud.....	40	July 1..	40	8	20	Screw, Penetang and Point aux Baril.
W. J. Strong.....	Tug	" 1..	41	8	28	" " Harbour.
Shawanaga.....	"	" 2..	96	12	68	" Georgian Bay.
Topsy yacht.....	"	" 2..	9	5	72	" " "
Torpedo.....	"	Not issued	8	5	64	" " "
Odessa yacht.....	"	July 2..	12	5	96	" " "
Mayflower.....	35	" 2..	26	7	68	" Waubauskene and Point aux Baril.
J. C. Else.....	Tug	" 3..	33	7	64	Paddle " vicinity.
Eagle.....	"	Not issued	10	5	80	Screw, Georgian Bay.
Waubauskene.....	"	July 3..	97	12	76	" " "
Stilletto.....	20	" 3..	14	6	12	" Waubauskene and Moose Point.
Lillian.....	Tug	" 4..	5	5	40	" Georgian Bay.
Conqueror.....	"	" 4..	25	7	00	" " "
Sea Gull.....	"	" 4..	9	5	72	" " "
Bruce.....	"	" 4..	16	6	28	" " "
Lady of the Lake.....	Freight	Not issued	47	8	76	" " "
Venetta.....	Yacht	July 11..	31	7	48	" " "
Viola.....	"	" 11..	68	10	44	" " "
Canada.....	512	" 12..	312	32	96	" " and vicinity.
J. H. Jones.....	250	" 12..	152	20	24	" " Lake Huron.
Myron B.....	Yacht	Not issued				" Little Current and vicinity.
R. C. Britton.....	Freight	July 17..	213	44	68	" Duluth and Prescott.
United Lumbermen.....	"	" 17..	399	36	92	" " Quebec.
Edna.....	110	" 18..	55	9	40	" Penetang and Point aux Baril.
Bertha.....	36	" 18..	18	6	44	" " "
Bobs.....	40	" 18..	38	8	04	" " "
Lorna Doone.....	26	" 19..	26	7	68	" Point aux Baril and Moon River.
Geraldine.....	40	" 19..	65	10	28	" Penetang and Point aux Baril.
Marie.....	Tug	" 19..	12	5	96	" Parry Sound and vicinity.
Pearl.....	21	" 19..	6	5	48	" Mill Lake.
Emma.....	250	" 21..	146	19	68	" Penetang and Point aux Baril.
Pilot.....	Tug	" 21..	70	10	60	" Georgian Bay.
Carlton.....	"	" 21..	8	5	64	" " "
†Albani.....	Yacht	" 21..	5	16	20	" " "
Maggie May.....	Fish'g tug.	" 22..	46	8	68	" " "
Herold Gauthier.....	"	Not issued	9	5	72	" " "
Jas. Playfair.....	"	"	26	7	08	" " "
Primrose.....	"	July 23..	23	6	84	" " "
W. S. Oldfield.....	Tug	Not issued	15	6	20	" " "
Ophir.....	Yacht	July 24..	11	5	88	" " "
Halero.....	"	" 24..	8	5	64	" " "
Dorothe.....	"	" 24..	8	5	64	" " "
Onagonah.....	"	" 26..	19	6	52	" Muskoka Lakes.
Charlie M.....	32	" 28..	50	9	00	" " "
Jennie Wilson.....	Tug	" 28..	7	5	56	" " "
Ontario.....	"	" 28..	11	5	88	" " "
Llano.....	Yacht	Not issued	14	6	12	" " "
Rosseau.....	Tug	"	53	9	24	" " "
Kestrel.....	Yacht	July 29..	7	5	56	" " "
Queen of the Isles.....	Tug	" 29..	40	8	20	" " "
Wapenao.....	Yacht	" 29..	5	5	40	" " "
Fidelia.....	"	" 29..	9	5	72	" " "
Theresa.....	Tug	" 30..	26	7	08	" " "
Iagara.....	Yacht	" 30..	7	5	56	" " "
Secret.....	"	" 30..	9	5	72	" " "
Kacymo.....	"	" 30..	9	5	72	" " "
Ethel May.....	Tug	" 30..	13	6	04	" " "
Devensh.....	Yacht	" 31..	3	5	24	" " "
Islander.....	107	" 31..	165	21	20	" " "

\* Dues and fees for 1901 and 1902.

† Dues and fees for 1900, 1901 and 1902.

STEAM Vessels Inspected, &c.—West Ontario Division—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.		Class of Vessel and where employed.
				\$	cts.	
1903.						
Florence Main.....	100	July 31..	79	11 32		Screw, Muskoka Lakes.
Ina.....	Yacht	" 31..	14	6 12	"	" " "
Manolia.....	"	" 31..	6	5 48	"	" " "
Flyer.....	18	Aug. 1..	4	5 32	"	" " "
Allena May.....	Tug	" 1..	16	6 28	"	" " "
Puritan.....	Yacht	" 1..	6	5 48	"	" " "
Niska.....	"	" 2..	9	5 72	"	" " "
C. W. Chamberlain.....	Freight	" 7..	385	35 80	"	all Lakes and Rivers.
Maggie McLean.....	Tug	" 13..	37	7 96	"	French River.
S. R. Norcross.....	"	" 13..	20	6 60	"	" " "
Evelyn.....	"	" 14..	85	11 80	"	Georgian Bay.
Coponaming.....	"	" 14..	18	6 44	"	French River.
Ottawa.....	8	" 18..	2431	202 48	"	Quebec, Duluth and Chicago.
Mimette.....	Yacht	Not issued	4	5 32	"	Lake of Bays.
Equal Rights.....	"	Aug. 22..	6	5 48	"	" " "
Dolly Gray.....	"	Not issued	5	5 40	"	" " "
Phoenix.....	Tug	Aug. 23..	29	7 32	"	Huntsville and vicinity.
Empress Victoria.....	100	" 23..	106	16 48	"	" " "
Joe.....	40	" 23..	57	9 56	"	" " "
Lady of the Lake.....	Tug	" 25..	10	5 80	"	Lake of Bays.
Mary Louise.....	40	" 25..	64	10 12	"	" " "
Gem.....	40	" 25..	9	5 72	"	Huntsville and vicinity.
Wanda.....	Yacht	" 26..	12	5 96	"	Muskoka Lakes.
Ossó.....	"	" 27..	6	5 45	"	" " "
Algoma.....	"	" 27..	5	5 40	"	" " "
Lady of the Lake.....	"	" 28..	7	5 56	"	" " "
Bella Vista.....	"	" 28..	5	5 40	"	" " "
Sky Pilot.....	"	Not issued	5	5 40	"	" " "
Anchora.....	"	Aug. 28..	6	5 48	"	" " "
Glad Tidings.....	10	" 30..	10	5 80	"	Sparrow Lake
Lady Franklin.....	20	" 30..	5	5 40	"	" " "
Ella.....	40	" 30..	15	6 20	"	Simcoe and Couchiching Lakes.
Agnes.....	Pass.	Not issued	14	6 12	"	Roaches Point and Belle Ewart.
Minota.....	Yacht	Sept. 2..	29	7 32	"	Simcoe and Couchiching Lakes.
Annie C. Hill.....	"	" 2..	14	6 12	"	" " "
City of Windsor.....	207	" 2..	511	48 88	"	Collingwood and Sault Ste. Marie.
City of Owen Sound.....	250	" 20..	754	68 32	"	Paddle, Collingwood and Sault Ste. Marie.
J. V. O'Brien.....	Pass.	Not issued	59	9 72	"	Screw, Killarney and Collingwood.
Gertie C.....	Tug	Sept. 24..	15	6 20	"	Georgian Bay.
Lizzie May.....	Fish'g tug	Oct. 8..	18	6 44	"	Lake Huron.
Osprey.....	"	" 9..	42	8 36	"	" " "
Edna Ivan.....	"	" 9..	54	9 32	"	Little Current & Cockburn Island.
John McKay.....	Fish'g tug	Not issued	34	7 72	"	Lake Huron.
Elite.....	"	" " "	22	6 76	"	" " "
Vixen.....	"	Oct. 10..	68	10 44	"	" " "
Algoma.....	650	" 13..	157	20 56	"	Pointe-Iroquois and Bruce Mines.
W. A. Rooth.....	Tug	" 13..	52	9 16	"	Sault Ste. Marie and vicinity.
Glyn.....	"	" 14..	20	6 60	"	Sault Ste. Marie River.
J. L. Beckwith.....	"	Not issued	61	9 88	"	" " "
Iota.....	"	Oct. 15..	6	5 48	"	" " "
W. J. Smith.....	"	" 17..	26	7 08	"	" " "
E. P. Sawyer.....	"	" 17..	52	9 16	"	" " "
Bertha Endress.....	"	" 18..	32	7 56	"	" " "
Killarney Belle.....	"	Not issued	28	7 24	"	North Channel.
N. Dymont.....	"	" " "	59	9 72	"	Twin screw, North Channel.
Viper.....	"	" " "	34	7 72	"	Screw, North Channel.
Annie Moiles.....	25	Oct. 21..	71	10 68	"	Killarney and Sault Ste. Marie.
Jas. McKeon.....	Tug	Not issued	36	7 88	"	Blind River and vicinity.
Espanola.....	21	Oct. 22..	7	5 56	"	Spanish River and vicinity.
Fanny Arnold.....	31	" 23..	73	10 84	"	Killarney and Sault Ste. Marie.
P. S. Heid-sordt.....	Tug	" 23..	45	8 60	"	North Channel
Stella.....	Fish'g tug	" 23..	16	6 28	"	" " "
Albert Wright.....	12	" 23..	29	7 32	"	Thessalon and Little Current.



SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.—West Ontario Division—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
1903.					
Surprise	Fish'g tug	Oct. 24	19	6 52	Screw, North Channel.
Scotch Thistle	"	" 25	17	6 36	" Killarney and Blind River
Myron B	Yacht	Not issued			" Little Current and vicinity.
E. Blake	Tug	Oct. 27	22	6 76	" North Channel
Fred Davidson	"	" 27	43	8 44	" Killarney and Sault Ste. Marie.
* Ethel	Fish'g tug	Not issued	13	12 08	" North Channel.
Everard	"	Oct. 28	25	7 00	" "
J. G. Gidley	"	" 28	57	9 56	" Killarney and Sault Ste. Marie.
Lillie	Tug	" 28	50	9 00	" North Channel.
Welcome	"	Not issued	21	6 68	" "
Gypsy	"	10 Oct. 31	11	5 88	" Killarney and Sault Ste. Marie.
Cynthia	Fish'g tug	Nov. 1	35	7 80	" Georgian Bay.
Molly S	"	" 1	45	8 60	" Killarney and Sault Ste. Marie.
Magnolia	Tug	Dec. 2	367	34 36	" Georgian Bay.
Metamora	"	" 2	239	24 12	" "
Margherita	Yacht	" 2	31	7 48	" "
Menodora	Tug	Not issued	73	10 84	" "
Mimitaga	"	Dec. 3	73	10 84	" "
Reginald	"	" 5	186	19 88	" "
1904.					
Rosedale	"	8 Mar. 21	1,507	128 56	" Duluth and Prescott
Algonquin	"	13 " 21	1,806	152 48	" " " "
Annie M	Fish'g tug	" 26	33	7 64	" Georgian Bay.
Orcadia	"	" 26	26	7 08	" "
Alice G.	"	" 26	36	7 88	" "
Dalton McCarthy	"	" 26	54	9 32	" "
Beatrice M.	"	" 26	36	7 88	" "
Seyern	Tug	No sued	44	8 52	" Collingwood Harbour.
Midland Queen	"	18 Mar. 28	1,993	167 44	" Duluth and Prescott.
Minnie M	(468 L. / 1598 R.)	April 1	613	57 94	" Toledo and Sault Ste. Marie.
King Edward	337	" 1	571	53 68	Paddle, " "
H. R. Dixon	300	" 1	483	46 64	Screw, Peninsular Harbour & Collingwood
Ossifrage	(447 L. / 1550 R.)	" 2	632	58 56	" Michipicoten and Sault Ste. Marie
Harold B. Phillips	Tug	" 2	66	10 28	" Sault Ste. Marie and vicinity.
Philadelphia	40	" 3	148	19 84	" Montreal and Duluth.
C. E. Ainsworth	Fish'g tug	" 3	76	11 08	" Lake Superior.
Captain Jim	"	" 3	58	9 64	" "
General Weitzel	Tug	" 4	32	7 56	" Sault Ste. Marie and vicinity.
Commodore	"	April 4	49	8 20	" " "
W. J. Emerson	Fish'g tug	" 4	28	7 24	" Lake Superior.
Imperial	Tug	" 4	36	7 88	" Sault Ste. Marie and vicinity.
Gordon Gauthier	Fish'g tug	" 4	26	7 08	" Lake Superior.
R. A. McLean	Tug	" 4	30	7 40	" Sault Ste. Marie and vicinity.
Telegram	200	" 6	198	23 84	" Collingwood and Sault Ste. Marie
Majestic	631	" 8	1,578	134 24	" Fort William and Windsor.
Germanic	502	" 8	1,014	89 12	" Collingwood and Duluth.
City of Collingwood	364	" 8	1,387	118 96	" " "
City of Midland	385	" 8	974	85 92	" Collingwood and Sault Ste. Marie.
Athabasca	500	" 9	2,269	189 52	" Owen Sound and Fort William.
Manitoba	500	" 9	2,616	217 28	" " "
Atlantic	300	" 9	683	62 64	" Collingwood and Sault Ste. Marie.
Harrison	Tug	" 9	150	17 00	" Georgian Bay.
Thomas Maitland	"	" 9	107	13 56	" " "
Agnes	"	" 10	23	6 84	" " "
Alberta	500	" 11	2,282	190 56	" Owen Sound and Fort William.
Arbutus	Tug	Not issued	49	8 92	" Georgian Bay.
R. J. Morrell	Fish'g tug	April 13	40	8 20	" " "

\* Dues and fees for 1901 and 1902.

## STEAM Vessels Inspected, &amp;c.—West Ontario Division—Continued.

## BOILERS AND MACHINERY—Continued.

Name of vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and inspection Fees Paid.	Class of Vessel and where employed.
		1904.		\$ cts.	
Primrose	Fish'g tug	April 13..	23	6 84	Screw, Georgian Bay.
Jas. Playfair	"	Not issued	26	7 08	" " "
Maggie May	"	April 13..	46	8 68	" " "
Laura M.	"	Not issued	18	6 44	" " "
Onaping	Tug	April 14..	256	25 48	" " "
City of Toronto	394	" 14..	782	70 56	Paddle, Pen-taug and Sault Ste. Marie.
Britannic	273	" 14..	428	42 24	" Collingwood and Sault Ste. Marie.
B. M. Fraser	Tug	" 14..	50	9 00	Screw, Georgian Bay.
D. R. Van Allen	Freight	" 15..	318	30 44	" Duluth and Montreal.
Traveler	Tug	Not issued	438	40 04	" Georgian Bay.
Dredge No. 9	Dredge	April 23..	187	19 96	Dredge, Midland Harbour.
Rover	Tug	" 23..	51	9 08	Screw, " "
Caroline	"	Not issued	12	"	" Georgian Bay.
Lilly	"	Apr. 24	22	6 76	" Victoria Harbour.
Charlton	"	May 4..	389	36 12	" Georgian Bay.
J. V. O'Brien	25	Apr. 28..	59	9 72	" " "
Heather Belle	Fish'g tug	" 28..	20	6 60	" " "
James Norris	Tug	" 28..	50	9 00	" " "
W. H. Seymour	"	May 7..	85	"	" " "
Shamrock	Fish'g tug	Not issued	14	"	" Lake Superior.
Teemusch	Tug	"	10	"	" North Channel.
Dolphin	"	May 14..	24	"	" Lake Huron.
Saucy Jim	"	" 21..	93	"	" Georgian Bay.
Dredge Frank	Dredge	" 22..	185	"	Dredge, Owen Sound.
Port Elgin Queen	Tug	" 22..	37	"	Screw, " "
Ripple	"	Not issued	15	"	" Georgian Bay.
Sandford	"	May 26..	56	"	" " "
W. E. Gladstone	"	" 26..	59	"	" " "
Annie Siemon	"	" 27..	19	"	" " "
Mills	Fish'g tug	Not issued	11	"	" Manitou Lake.
J. H. Jones	Pass.	"	152	"	" Georgian Bay and Lake Huron.
Clucas	Fish'g tug	June 4..	28	"	" Lake Huron.
John Haggart	235	" 8..	202	"	" Bruce Mines and Sault Ste. Marie.
Ripple	Tug	Not issued	5	"	" Sault Ste. Marie River.
Islander	"	"	6	"	" " " "
Ahmic	40	June 17..	43	"	" Muskoka Lakes.
Priscilla	Yacht	" 17..	20	"	" " "
Comet	Tug	" 17..	20	"	" " "
Charlie M	32	" 17..	50	"	" " "
Medora	360	" 18..	377	"	" " "
Islander	107	" 18..	165	"	" " "
Queen of the Isles	Tug	" 18..	40	"	" " "
Constance	40	" 18..	52	"	" " "
City of Bala	Tug	" 18..	74	"	" " "
Bertha May	"	" 18..	20	"	" " "
Muskoka	301	" 18..	197	"	" " "
Nipissing	Pass.	Not issued	275	"	Paddle, " "
Niska	Yacht	June 19..	9	"	Screw, " "
Mink	40	" 19..	56	"	" " "
Gravenhurst	Tug	" 19..	29	"	" " "
Nymph	40	" 19..	29	"	" " "
Kenozha	289	" 19..	225	"	" " "
Nymoca	Tug	" 19..	25	"	" " "
Wanita	109	" 20..	44	"	" Burks Falls and Ahmic Harbour.
Emulator	Tug	Not issued	25	"	" " and vicinity.
Glenrosa	"	June 20..	63	"	" Maganetawan River.
Wenonah	102	" 20..	161	"	Pad. and scr., Burks Falls and Ahmic Harb
Lorna Doone	Yacht	" 22..	5	"	Screw, Orillia and vicinity.
Soncil	"	" 22..	14	"	" " "
Islay	348	" 22..	175	"	" Lake Simcoe and Tributaries.
Longford	150	" 22..	53	"	" " "
Ella	40	" 22..	15	"	" " "
Dredge Simcoe	Dredge	Not issued	"	"	Dredge, " "

SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.—West Ontario Division—*Concluded.*

BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
1904.					
Lake.....	Tug.....	Dredge.....	13		Screw, Lake Simcoe and Tributaries.
J. C. Else.....	".....	June 23.....	33		Paddle, Waubauskene and vicinity.
Eagle.....	".....	" 23.....	10		Screw, Georgian Bay.
City Queen.....	40	" 24.....	69		" Penetang and Point aux Baril.
Stiletto.....	Pass.....	Not issued	14		" Midland Harbour and vicinity.
Creole.....	Tug.....	June 24.....	21		" Georgian Bay.
Clipper.....	".....	Not issued	46		" " "
United Lumbermen.....	Freight.....	"	399		" Duluth and Quebec.
Voyageur.....	Yacht.....	June 25.....	44		" Georgian Bay.
Mayflower.....	Pass.....	Not issued	26		" Waubauskene and Point aux Baril.
D. L. White.....	Tug.....	June 26.....	56		" Georgian Bay.
Masonic.....	38	" 26.....	39		" Penetang and Point aux Baril.
Mabel, G.....	Yacht.....	" 27.....	10		" Georgian Bay.
Torpedo.....	Tug.....	" 27.....	8		" " "
Penetang.....	15	" 27.....	102		" Penetang and Byng Inlet.
John Lee, sr.....	{ 200 Lake.....	" 27.....	88		" Collingwood and Penetang.
	{ 291 Coast g.....	" 27.....	3		" Georgian Bay.
Home Rule.....	Yacht.....	" 27.....	3		" Georgian Bay.
Dredge Hackett.....	Dredge.....	" 29.....	96		Dredge, Penetang Harbour.
W. J. Strong.....	Tug.....	" 29.....	41		Screw " "
Waubauskene.....	".....	" 29.....	97		" Georgian Bay.
Mimicog.....	40	" 29.....	35		" Penetang and Pointe aux Baril.
Sweet Mary.....	Tug.....	" 29.....	13		" Georgian Bay.
Odessa Yacht.....	Pass.....	Not issued	12		" Honey Harbour and vicinity.
Beaver.....	Tug.....	June 29.....	29		" Georgian Bay.
Maud.....	28	" 29.....	40		" Penetang and Pointe aux Baril.
Topsy Yacht.....	Pass.....	Not issued	9		" Penetang and vicinity.
Lilly May.....	Tug.....	" ".....	10		" Georgian Bay.
Lillian.....	".....	June 30.....	5		" " "
C. W. Chamberlain.....	Freight.....	Not issued	385		" All Lakes and Rivers.
Shawanaga.....	Tug.....	June 30.....	96		" Georgian Bay.
Total.....			400 72	83,883 56	

STEAM Vessels Inspected in Canada but registered elsewhere for the year ended June 30, 1903.—West Ontario Division.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
1903.					
International.....	300	Oct. 15.....	144		Screw, Bay Mills & Thessalon.
1904.					
Benton.....	20	May 9.....	304	32 32	" Buffalo & Fort William.
Total.....			448	832 32	

E. W. McKEAN,  
*Steamboat Inspector.*  
 Toronto, Ont.

## STEAM Vessels not Inspected for the Year ended June 30, 1903.

## WEST ONTARIO.

## BOILERS AND MACHINERY.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	REMARKS.	
			Why not Inspected and Class of Vessel.	
St. George .....	21	14	Screw, tug.	
John Hanlan .....	37	25	" passenger.	
Gordon Jerry .....	124	84	" freight.	
Oriole .....	75	48	" passenger.	
Rambler .....	6	4	" tug.	
Sea King .....	26	17	" fishing tug.	
W. H. Siebold .....	22	15	" "	Inspected since June 30, 1903.
Helen S. ....	86	58	" "	
James Storey .....	49	33	" "	
Hugh S. ....	24	16	" "	
Southwood .....	19	13	" "	
Enterprise .....	148	99	Twin screw, passenger.	
Naiad .....	29	20	Screw, yacht.	
Sarah E. Day .....	5	4	" tug.	
T. J. Collop .....	63	42	" freight.	
Reliance .....	311	182	" tug.	
Home Rule .....	81	45	" "	No application.
Florence M. ....	8	6	" "	
Kate Murray .....	3	2	" "	
G. P. McIntosh .....	58	41	" fishing tug.	
Juno .....	28	19	" "	
Sea Gull .....	19	13	" tug.	
Pauline Hickler .....	50	34	" "	
Dispatch .....	33	22	" "	
W. L. Davis .....	46	37	" "	
S. Kneeland .....	46	29	" "	
Signal .....	94	64	" "	
J. H. McDonald .....	41	28	" "	
F. A. Hodgson .....	46	29	" "	
A. Seamen .....	76	52	" "	
Joe Milton .....	93	63	" passenger.	
John J. Noble .....	33	23	" fishing tug.	
C. M. Bowman .....	88	60	" tug.	
Roy .....	6	4	" yacht.	
Vick .....	13	9	" tug.	
M. G. McDonald .....	29	20	" fishing tug.	
Glenora .....	17	10	" "	
John William .....	14	10	" tug.	
Cecebe .....	11	8	" "	
Clara Hickler .....	42	32	" "	
Sonntag .....	7	5	" yacht.	
Agnes C. ....	20	10	" tug.	
Yacht Maida .....	2	2	" "	
Ida Bell .....	6	3	" "	
Nina .....	11	9	" "	
Adrelexa .....	15	10	" passenger.	
Advance .....	72	49	" tug.	
Tempest .....	21	14	" "	
Thistle .....	78	70	Paddle, passenger.	
Cruiser .....	55	24	Screw, yacht.	
Urania .....	898	424	Paddle, passenger.	
Morning Star .....	5	3	Screw, tug.	
Sea Queen .....	18	12	" fishing tug.	
Mizpah .....	18	12	" yacht.	
Una .....	22	15	" "	
Herbert M. ....	26	18	" tug.	Not running.
Ella Taylor .....	34	23	" "	
Island Belle .....	31	21	" "	
Siesta .....	3	2	" "	
Ida .....	21	6	" yacht.	
Ocean Lily .....	3	2	" tug.	
J. C. Clark .....	145	99	" passenger.	
Camilla .....	54	37	" "	
Harvey Neelon .....	65	47	" tug.	
L. Shickluna .....	16	11	" "	

SESSIONAL PAPER No. 21

STEAM Vessels not Inspected, &c.—West Ontario Division—*Concluded.*

BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	REMARKS.	
			Why not Inspected and Class of Vessel	
Uncle Jim.....	11	8	Screw, fishing tug.	} Not running.
A. M. Petrie.....	20	13	" yacht.	
Total ..	3,697	2,283		

JNO. DODDS,  
E. W. McKEAN,  
*Steamboat Inspectors.*

TORONTO, Ont.

STEAM Vessel Inspected for the year ended June 30, 1903.

WEST ONTARIO DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
			8 cts.		
Monarch .....	330	July 1..	2017	169 36	Screw, Windsor and Duluth.
International .....	Freight..	" 2..	851	Remitted.	Twin screw, Pt. Huron and Sarnia.
Lake Michigan .....	" .....	" 8..	573	50 84	Screw, Duluth and Quebec.
Erin .....	" .....	" 15..	651	57 08	" All lakes and rivers.
Arlington .....	100	" 16..	23	6 84	" Toronto Bay.
Scow No. 1..	100	" 16..		10 00	Scow.
Clark Brothers.....	200	" 16..	92	12 36	Screw. " " and coasting.
R. C. Brittain .....	Freight..	" 17..	213	44 08	" Kingston and Duluth.
Edna .....	110	" 18..	55	9 40	" Pt. aux Baril and Penetang.
Bertha .....	36	" 18..	18	6 44	" " " Moon River.
Bobs .....	40	" 19..	38	8 04	" " " Penetang.
Emma .....	250	" 19..	146	19 68	" " " "
Lorna Doone.....	26	" 19..	26	7 08	" " " Moose Point.
Geraldine.....	40	" 19..	65	10 28	" " " Penetang.
Stiletto .....	20	" 21..	14	6 12	Waubausene and Moose Point.
Minnicog .....	40	" 21..	23	7 80	Penetang and Pt. aux Baril.
City Queen.....	180	" 21..	69	10 52	" " " "
Masonic .....	38	" 22..	39	8 12	" " " "
John Lee, sr.....	291R 260L	" 22..	88	12 04	" " Collingwood.
Mayflower.....	35	" 23..	26	7 08	Waubausene and Pt. aux Baril.
Pearl .....	21	" 18..	6	5 48	Mill Lake.
Maud .....	40	" 22..	40	8 20	Penetang and Pt. aux Baril.
C. W. Chamberlain..	Freight..	Aug. 7..	385	35 80	All lakes and rivers.
Myrtle .....		Not issued.			
Islay .....	348	Aug. 8..	175	22 00	" Lake Simcoe.
Ella .....	40	" 8..	15	6 20	" " "
Enterprise.....	305	" 9..	148	19 84	" " "
Longford .....	150	" 9..	53	9 24	" " "
Glad Tidings.....	10	" 9..	10	5 80	" Severn River.
Lady Franklin .....	20	" 9..	5	5 40	" Sparrow Lake.

STEAM Vessels Inspected, &c.—West Ontario Division—Continued.

HULL INSPECTION—Continued.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where Employed.
		1903.		8 cts.	
Winona .....	230	Aug. 12..	231	26 48	Screw, Sarnia and Pt. Burwell.
Urania .....	500	" 12..	898	79 84	Paddle, Pt. Stanley and Lake Erie.
Acacia .....	200	" 13..	107	16 54	Screw, Hamilton and Burlington.
Joe Milton .....	200	" 14..	93	12 44	" Georgian Bay and Lake Huron.
Canada .....	512	" 15..	312	32 96	" " "
J. H. Jones .....	250	" 15..	152	20 16	" Lake Huron and Georgian Bay.
Ottawa .....	8	" 18..	2431	202 48	" Duluth and Prescott.
Wanita .....	109	" 20..	44	8 52	" Magnetawan River.
Wenonah .....	102	" 21..	161	20 88	Paddle and Scr-w, Magnetawan River.
Empress Victoria .....	100	" 22..	106	16 48	Screw, Huntsville and Portage.
Joe .....	40	" 22..	57	9 56	" " "
Gen. ....	40	" 23..	9	5 72	" Pt. Sydney and Portage.
May Louise .....	40	Jany. 1..	64	10 12	" Lake of Bays.
Nippissing .....	310	Aug. 23..	275	30 00	Paddle, Muskoka Lakes.
Medora .....	360	" 23..	377	38 16	Screw, " "
Muskoka .....	301	" 23..	197	23 76	" " "
Mink .....	40	" 23..	56	9 48	" " "
Nymph .....	40	" 25..	29	7 32	" " "
Nymoca .....	40	" 25..	25	7 00	" " "
Islander .....	107	" 25..	165	21 20	" " "
Florence Main .....	100	" 26..	79	11 32	" " "
Ahmic .....	40	" 26..	43	8 44	" " "
Constance .....	40	" 26..	52	9 16	" " "
Flyer .....	18	" 27..	4	5 32	" " "
Charlie M. ....	32	" 28..	50	9 00	" " "
City of Bala .....	40	" 29..	74	10 92	" " "
Oriole .....	100	" 28..	75	11 00	" " "
Kenozhu .....	289	" 27..	225	26 00	" " "
Advance .....	10	Sept. 3..	1031	90 48	" Duluth and Montreal.
City of Dresden .....	100	" 15..	194	23 52	" Windsor and Lake Erie.
Great Western .....	200	" 20..	1080	94 40	Paddle, Windsor and Detroit.
Lansdowne .....	200	" 20..	1571	133 68	" " "
Huron .....	245	" 20..	1052	92 16	Screw, " "
Eagle .....	40	" 23..	12	5 96	" Pt. Edward and Pt. Huron.
Comfort .....	40	" 24..	14	6 12	" Anherstburg and Sarnia.
Myles .....	Freight.	Oct. 2..	1,199	100 92	" All lakes and rivers.
Ossifrage .....	(447 L. / 550 R.)	" 17..	632	58 56	" Michipicoten and Soo.
Philadelphia .....	40	" 17..	148	19 84	" Montreal and Duluth.
Algona .....	650	" 20..	157	20 56	" Pt. Iroquois and Bruce Mines.
Hiram R. Dixon .....	340	" 21..	482	.....	" Peninsular Harbour & Collingw'd.
Minnie M. ....	(468 L. / 598 R.)	" 22..	613	57 04	" Toledo and Soo.
Espanola .....	21	" 24..	7	5 56	" Spanish River.
Telegram .....	200	" 24..	198	23 84	" Collingwood and Soo.
Fanny Arnold .....	31	" 25..	73	10 84	" Killarney and Soo.
Aibert Wright .....	12	" 25..	29	7 32	" Thessalon and Little Current.
Annie Moiles .....		Not issued			
I. G. Gidley .....	20	Oct. 27..	57	9 56	" Killarney and Soo.
Scotch Thistle .....	27	" 28..	17	6 36	" " and Blind River.
Fred Davidson .....	40	" 28..	43	8 44	" " and Soo.
Gypsy .....		Not issued			
Molly S. ....	29	Nov. 1..	45	8 60	" " "
Edna Ivan .....	10	" 21..	53	9 32	" Little Current and Cockburn.
		1904.			
Lakeside .....	524	Mar. 24..	348	38 84	Screw, Toronto and Lake Ontario.
Macassa .....	616	" 24..	459	44 72	" " and Hamilton.
Winona .....	230	" 26..	231	26 48	" Sarnia and Pt. Burwell.
Ontario .....	500	" 27..	1,615	137 20	Paddle, Windsor and Detroit.
Michigan .....	500	" 27..	1,730	146 40	" " "
Algonquin .....	13	" 30..	1,896	152 48	Screw, Duluth and Prescott.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.—West Ontario Division—Continued.

HULL INSPECTION—Continued.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where Employed.
		1904.		\$ cts.	
Rosedale.....	8	Mar. 30..	1,507	128 56	Screw, Duluth and Prescott.
Midland Queen.....	15	" 31..	1,983	167 44	" " "
Seguin.....	20	April 4..	818	73 44	" " and Quebec.
Irquois.....	10	" 4..	2,359	196 72	" " and Prescott.
Majestic.....	631	" 6..	1,578	134 24	" Ft. William and Windsor.
City of Toronto.....	335	" 6..	782	70 56	Paddle, Penetang and Soo.
Germanic.....	502	" 7..	1,014	89 12	Screw, Collingwood and Duluth.
City of Collingwood.....	364	" 7..	1,387	118 96	" " "
City of Midland.....	385	" 7..	974	85 92	" " and Soo.
Manitoba.....	500	" 8..	2,616	217 28	" Owen Sound and Ft. William.
Athasca.....	500	" 8..	2,269	189 52	" " "
Arabian.....	12	" 10..	1,073	93 84	" Duluth and Quebec.
Orion.....	Freight..	" 10..	846	72 68	" All lakes and rivers.
Melbourne.....	125	" 10..	894	.....	" Toledo and Montreal.
Erin.....	Freight..	" 10..	651	57 08	" All lakes and rivers.
Manitou.....	254	" 15..	470	45 60	" Lake Huron and Georgian Bay.
Huronic.....	563	" 16..	3,330	274 40	" Duluth and Windsor.
Monarch.....	345	" 16..	2,017	169 36	" " "
United Empire.....	357	" 16..	1,961	164 88	" " "
Alberta.....	500	" 17..	2,282	190 56	" Ft. William and Owen Sound.
City of Windsor.....	207	" 18..	511	48 88	" Collingwood and Soo.
City of Owen Sound.....	250	" 18..	754	68 32	Paddle " "
Cuba.....	125	" 21..	931	82 48	Screw, Montreal and Sarnia.
Persia.....	150	" 21..	737	68 06	" " and Hamilton.
Ocean.....	125	" 25..	684	62 72	" " and Sarnia.
D. R. Vanallan.....	Freight..	" 25..	318	30 44	" Duluth and Montreal.
Atlantic.....	350	" 27..	683	62 64	" Collingwood and Soo.
Julian V. O'Brien.....	25	" 28..	59	9 72	" Georgian Bay.
Myles.....	Freight..	" 30..	1119	.....	" All lakes and rivers.
Annie Moiles.....	25	May 4..	71	.....	" Killarney and Soo.
King Edward.....	337	" 5..	571	53 68	Paddle, Toledo and Soo.
Chicora.....	872	" 11..	931	.....	" Toronto and Lake Ontario.
Island Queen.....	140	" 11..	23	.....	Screw, Toronto Bay.
Ongiara.....	244	" 11..	98	.....	" Niagara and Lewiston.
Nonseman.....	Freight..	" 12..	620	.....	" Duluth and Prescott.
City of Chatham.....	627	" 14..	362	.....	" Chatham and Detroit.
Hiawatha.....	300	" 15..	163	.....	" Amherstburg and Port Huron.
Eagle.....	40	" 16..	12	.....	" Pt. Edward and Pt. Huron.
Lincoln.....	{ 496 R. } { 354 L. }	" 19..	337	.....	" Sarnia and Lake Erie.
Garden City.....	{ 760 R. } { 514 L. }	" 21..	637	.....	Paddle, Toronto and Lake Ontario.
Shamrock.....	412	" 22..	154	.....	" Toronto Bay
Mayflower.....	900	" 22..	189	.....	" " "
Primrose.....	900	" 22..	189	.....	" " "
Kathleen.....	220	" 22..	110	.....	Screw " "
Corona.....	1456	" 23..	1274	.....	Paddle, Toronto and Lake Ontario.
White Star.....	{ 702 R. } { 468 L. }	" 25..	451	.....	" " "
Ojibway.....	400	" 26..	194	.....	Screw, Pt. Iroquois and Killarney.
Toronto.....	1000	" 27..	2779	.....	Paddle, Toronto and Prescott.
Ada Alice.....	125	" 27..	60	.....	Screw, Toronto Bay.
Hope.....	300	" 28..	170	.....	" Buffalo and Ft. Erie.
Ma'd of the Mist.....	80	" 28..	62	.....	" Niagara Falls, N.Y., and Ont.
Luella.....	110	" 29..	38	.....	" Toronto Bay.
Modjeska.....	801	June 4..	678	62 24	" Toronto and Hamilton.
Tecumseh.....	Freight..	" 4..	840	72 20	" All lakes and rivers.
Chippewa.....	2000	" 6..	1514	.....	Paddle, Toronto and Lake Ontario.
Brittanic.....	273	" 12..	428	42 24	" Collingwood and Soo.
John Haggart.....	235	" 15..	184	.....	Screw, Soo and Bruce Mines.
Albert Wright.....	20	" 16..	29	.....	" Thessalon and Little Current.

STEAM Vessels Inspected, &c.—West Ontario Division—*Concluded.*HULL INSPECTION—*Concluded.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Class of Vessel and Where employed.
		1903.		§ cts.	
Gypsy.....	10	Nov. 1	11	.....	Screw, Killarney and Soo.
		1904.			
Kingston.....	1000	June 22.	2925	.....	Paddle, Toronto and Prescott.
Wapita.....	20	Not issued	.....	.....	.....
Pappoose.....	168	June 25.	57	.....	Screw, Amherstburg and Detroit.
Pittsburg.....	500	" 26.	1349	.....	Paddle, Buffalo and Soo.

## STEAM Vessels inspected in Canada but registered elsewhere for the Year ended June 30, 1903.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Class of Vessel and Where employed.
		1903.		§ cts.	
Luna.....	450	July 3.	143	.....	Screw, Detroit River.
Hattie.....	200	" 4.	67	.....	" Detroit and Sarnia.
Frank E. Kirby.....	975	" 4.	532	.....	Paddle, Lake Erie and Detroit River.
Fortune.....	502	Aug. 4	200	.....	Screw, Pt. Iroquois and Thessalon.
		1902.			
Harley.....	40	Sept. 4.	23	.....	" Marysville and Stag Island.
		1903			
Columbian.....	1500	Sept. 16.	969	.....	" Amherstburg and Port Huron.
Victoria.....	250	" 16.	192	.....	" Detroit and Windsor.
Sappho.....	550	" 17.	224	.....	" Amherstburg and Sarnia.
Excelsior.....	250	" 17.	229	.....	" Detroit and Windsor.
Pleasure.....	1088	" 17.	490	.....	" Amherstburg and Port Huron.
Garland.....	517	" 18.	248	.....	" " "
Promise.....	1000	" 18.	473	.....	" " "
Tashmoo.....	1887	" 14.	1344	.....	Paddle " " "
Greyhound.....	1748	" 19.	1392	.....	" " " "
Michigan Central.....	281	" 18.	1522	.....	" Windsor and Detroit.
Transfer.....	233	" 22.	1511	.....	" " " "
Transport.....	256	" 22.	1595	.....	" " " "
City of Toledo.....	1120	" 22.	1004	.....	" Toledo and Sarnia.
Grace Dornier.....	200	" 23.	66	.....	Screw, Sarnia and Port Huron.
James Beard.....	150	" 23.	87	.....	" " " "
Welcome.....	266	" 24.	213	.....	" Port Huron and Windsor.
International.....	360	Oct. 16.	144	.....	" Bay Mills and Thessalon.
Niagara.....	349	Dec. 3.	214	.....	" Buffalo and Ft. Erie.
Ariel.....	226	" 8.	202	.....	" Walkerville and Detroit.
		1904.			
Shenango.....	950	Mar. 26.	1942	163 36	" All lakes and rivers.
		1903.			
Owana.....	1066	Mar. 28.	747	67 76	Paddle, Toledo and Goderich.
		1904.			
Benton.....	20	May 5.	304	32 32	Screw, Buffalo and Ft. William.
Wyandotte.....	904	" 13.	320	33 60	" Amherstburg and Pt. Huron.
Frank E. Kirby.....	975	" 14.	533	59 64	Paddle, Lake Erie and Detroit.
Hattie.....	200	June 25.	67	10 36	Screw, Sarnia and Detroit.



STEAM Vessels Inspected for the Year ended June 30, 1903.

EAST ONTARIO DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed
		1903.		\$ cts.	
Alert.....	150	July 7.	56 38	9 48	Screw. Cos. Vict. and Peterboro.
Victoria.....		" 7.	3 90	5 32	" tug " "
Empress.....	224	" 7.	84 48	11 72	" " " "
Idle Hour.....		" 7.	2 40	5 16	" " " "
Lorlei.....		July 8.	5 88	5 48	" pleasure yacht.
Hazlitt.....		" 8.	23 70	6 92	Paddle, alligator tug Cos. Vict.
Mollie.....		" 8.	10 72	5 88	Screw, pleasure yacht.
Estelle.....		" 9.	8 24	5 64	" " " "
Majestic.....	180	" 9.	67 77	10 44	" Cos. Vict. and Peterboro.
White Star.....		" 9.	8 88	5 72	" tug " "
Flash.....		" 9.	4 74	5 40	" " " "
Muskoka.....		" 9.	22 05	6 76	Paddle, alligator tug
Lady of the Lake.....	38	July 11.	32 95	7 64	Screw, Cos. Vict. and "
Pearl.....	18	" 11.	6 39	5 48	" " " "
Stranger.....		" 11.	53 41	9 24	" tug " "
Maple Leafs.....	25	" 12.	26 08	7 08	" " " "
Calumet.....	30	" 12.	21 87	6 76	" " " "
Baptiste.....		" 12.	7 51	5 64	Paddle, tug " "
Ogemah.....	175	July 12.	71 75	10 76	" " " "
Esturion.....	300	" 14.	139 39	19 12	" " " "
McClintock.....		" 9.	20 72	6 68	" tug " "
Cora.....	40	" 14.	22 61	6 81	Screw " " "
Dauntless.....	10	" 15.	3 38	5 24	" Fenelon Falls & Kawartha L.
Kawartha.....	25	" 15.	16 69	6 36	" " " "
Beaver.....		" 15.	91 50	12 36	Paddle " " "
Rockaway.....		" 15.	6 80	5 56	" " " "
Waterwitch.....		July 16.	17 70	6 44	Screw " " "
Sunbeam.....		" 16.	104 92	16 40	" " " "
Marie Louise.....		July 16.	32 19	7 56	" tug " "
Kenosha.....	350	" 17.	266 20	29 28	Paddle, Cos. Vict. and Peterboro.
Rambler.....		" 17.	8 75	5 72	" " " "
Greyhound.....		" 17.	37 35	7 96	Screw " " "
Minnie May.....		July 18.	10 20	5 80	Paddler tug, Cobocoak and Fenelon.
Caboconk.....		" 18.	9 11	5 72	" tug " "
Manita.....	150	July 18.	34 10	7 72	Screw, Cos. Vict. & Peterboro.
Stanley.....		" 18.	6 80	5 56	Paddle, tug " "
Hiawatha.....		" 18.	22 25	6 76	" " " "
Comet.....	32	July 19.	7 60	5 64	Screw " " "
Dredge " Alfred".....		" 19.	89 19	12 12	No Propelling Power " "
Ajax.....		July 22.	32 97	7 64	Screw, tug Cos. Vict. & Peterboro.
Maida Vals.....		" 9.	18 74	6 52	Screw, pleasure yacht " "
Ruby.....		" 9.	7 47	5 64	" " " "
City of Peterboro.....	310	July 25.	230 31	26 40	Twin screw, Rice Lake and tributaries
Water Lily.....	125	" 25.	53 93	9 32	Screw " " "
Myrtle.....		" 25.	5 26	5 40	" " " "
Bob Roy.....		" 25.	4 52	5 40	" pleasure yacht " "
North Star.....	80	July 26.	39 60	8 20	" Rice Lake and tributaries.
Beaver.....	40	" 26.	18 00	6 44	" " " "
Rainbow.....	100	" 26.	50 69	9 08	" " " "
Mermaid.....		" 26.	10 95	5 88	" pleasure yacht " "
Aberdeen.....		July 28.	12 65	6 04	" " " "
Wanda.....	30	June 20.	38 61	8 12	" Trenton and Prescott.
Kinirving.....		Aug. 1.	145 40	16 60	" freight, Rideau Canal.
Prince Edward.....	5	" 11.	18 22	6 44	Paddle, Tyendinaga and Sophiasburg
Florence.....		" 1.	6 70	5 56	Screw, fish tug, Bay of Quinte.
Vesta.....		" 1.	7 80	5 64	" pleasure yacht " "
Tren.....		" 1.	19 51	6 60	Paddle, alligator tug " "
Kilbirnie.....		" 14.	15 23	6 20	Screw, pleasure yacht, Rideau Canal.
Swan.....	32	" 1.	12 06	5 96	" Kingston and Ottawa.
Nellie.....	20	" 1.	6 82	5 56	" " " "
Lillian B.....	20	" 15.	3 76	5 32	" Carleton Place and Innesville.
Geraldine.....		" 18.	17 90	6 44	" pleasure yacht.

STEAM Vessels Inspected, &c.—East Ontario Division—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where employed.
		1903.		\$ cts.	
Wenonah.....		Aug. 18..	5 59	5 48	Screw, pleasure yacht.
Tropic.....	30	" 19..	8 86	5 72	" Kingston and Ottawa.
Dorothy.....	10	June 16..	10 09	5 80	" Napanee and Trenton
Beaver.....		Sept. 1..	40 88	8 28	" tug, Cornwall Canal.
Annie Barrett.....		" 1..	41 89	8 36	" " "
Gracie.....	40	" 9..	10 50	5 88	Paddle, Cornwall and Dundee.
Mary Ellen.....		" 1..	20 22	6 60	Screw, tug, Cornwall Canal.
Grenada.....	175	" 10..	57 00	9 56	" Kingston and Montreal.
Princess Louise.....	100	" 10..	26 36	7 08	" " "
Dredge Central City.....		" 1..	223 62	22 89	Farrans Pt. Canal.
D. P. Dey.....		" 1..	11 26	5 88	Screw, tug, Canal and River.
Alaska.....	40	" 1..	48 74	8 92	" Kingston and Cornwall.
Jubilee.....	40	" 1..	53 94	9 32	" Morrisburg and Waddington.
Dredge Ottomac.....		" 1..	195 65	20 68	Flaggs Bay, Canal.
A. B. Cooke.....		" 1..	34 17	7 72	Screw, tug, Canal and River.
Mary.....		" 1..	53 49	9 32	" " " "
Torpedo.....		" 1..	197 69	20 84	Drill Boat, Canal.
Dredge " Iroquois ".....		" 1..	287 18	27 96	Boulton Island, Canal.
Frank.....		" 1..	15 97	6 28	T.S., tug, Canal and River.
Gilbert.....		" 1..	40 83	8 28	Screw, tug " "
Dredge "St. Lawrence".....		" 1..	258 10	25 64	Cardinal Canal.
Ruth.....		" 1..	36 45	7 96	Screw, tug, Canal and River.
Dredge " Ottawa ".....		" 1..	219 95	22 60	Cardinal Canal.
Wm. Davis.....		" 1..	40 23	8 20	Screw, tug, Canal and River.
Mona.....		" 1..	24 87	7 00	Screw, tug " "
Cleveland.....		" 1..			Drill Scow, Canal.
Dredge " D. Stewart ".....		" 1..	295 21	28 60	North Channel, Canal.
John Hunter.....		" 1..	32 14	7 56	Screw, tug, Canal and River.
Umbria.....		" 1..	42 98	8 44	" " "
Myra.....		" 1..	73 21	10 84	" " "
Jopl.....	40	Aug. 18..	10 54	5 88	Screw, Kingston and Prescott.
Frontenac.....		Sept. 1..	110 76	13 88	" tug, River St. Lawrence.
Alberta.....		Oct. 4..	122 43	14 76	" Freight " "
M & W.....		" 1..	8 48	5 64	" " " "
Dredge " No. 5 ".....		Sept. 1..	100 00	13 00	Gananogue.
Amy.....		" 1..	39 50	8 20	Screw, tug, River St. Lawrence.
Iona.....		Nov. 6..	231 53	5 00	" freight, all lakes and rivers.
Petrel.....		" 7..	345 76	32 68	T.S., tug " "
		1904.			
Pierrepoint.....	415	Mar. 12..	251 98	28 16	Paddle, Trenton and Prescott.
Resolute.....	25	" 21..	371 86	37 76	T.S., Chicago and Montreal.
Rescue.....	25	" 24..	52 29	9 16	Screw, Trenton and Prescott.
Reliance.....	25	" 24..	239 14	27 12	T.S., Chicago and Montreal.
Nile.....		" 24..	96 30	12 68	Screw, freight, River St. Lawrence.
Desoronto.....	85	" 24..	54 57	9 40	" Trenton and Prynors Cove
Ella Ross.....	300	" 25..	324 88	34 00	Paddle, Trenton and Prescott.
Ranger.....	15	" 25..	13 83	6 12	Screw, Trenton and Picton.
Armenia.....	250	" 25..	109 99	16 80	" " Prescott.
King Ben.....		" 26..	145 36	16 60	" freight, River St. Lawrence.
Glengarry.....		" 26..	732 41	63 56	" " " "
Aletha.....	350	" 30..	171 27	21 68	" Brighton and Montreal.
D. D. Calvin.....		" 31..	749 53	65 00	" freight, all lakes and river.
India.....		" 31..	976 49	83 08	" " " "
David G. Thompson.....		April 4..	185 05	19 80	" tug, lake and river.
Rosemount.....		" 4..	1,580 37	131 40	" freight, all lakes.
Skylark.....		June 19..	43 29	8 44	" pleasure yacht.
Lloyd S. Porter.....		April 11..	488 63	44 12	" freight, Great Lakes.
Bothnia.....		" 13..	833 36	71 64	" " " "
Alexandria.....	600	" 14..	863 15	77 04	Paddle, Charlotte and Quebec.
Aberdeen.....		" 15..	141 86	16 36	Screw, freight, River St. Lawrence.
Chieftain.....		" 16..	434 68	39 80	Paddle, tug " "

SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.—East Ontario Division—*Concluded.*

BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.		Class of Vessel and Where employed.
				\$	cts.	
		1904.				
Parthia.....		April 20.	198.13	20	84	Paddle, tug, River St. Lawrence.
Valeria.....	40	" 21.	51.55	9	16	Screw, Kingston and Prescott.
Chance.....		" 22.	5.02	5	40	" pleasure yacht.
H. F. Bronson.....		" 22.	137.12	15	96	T.S. tug, River St. Lawrence.
Jessie Hall.....		" 24.	56.54	9	56	Screw, tug " "
Glide.....		" 28.	77.90			Screw, tug, River St. Lawrence.
John Milne.....		May 1.	108.53			" freight " "
Rideau King.....	300	" 2.	265.92			" Kingston and Ottawa.
Rideau Queen.....	300	" 4.	359.75			" " "
Kate.....		" 6.	22.41			" pleasure yacht.
America.....	600	" 8.	520.53			Paddle, Trenton and Montreal.
Jessie Forward.....		" 18.	5.64			Screw, pleasure yacht.
Dorothy.....			10.09			" Napanee and Trenton.
Reindeer.....	150	May 18.	58.29			" Napanee and Priners Cove.
Annie Lake.....	40	" 19.	18.52			" Brighton and Prescott.
Madge.....		" 19.	9.49			" pleasure yacht.
Kismet.....		" 19.	5.42			" " "
Ullacallula.....						" " "
Mildred.....			4.50			" " "
Niagara.....	450	May 20.	396.43			" Toronto and Montreal.
North King.....	525	" 26.	872.95			Paddle, Lake Ont. and R. St. Law'r.
Varuna.....	275	" 27.	134.04			Screw, Trenton and Prescott.
Kimirving.....		" 28.	145.40			" freight, Rideau Canal.
Brockville.....	338	" 29.	190.75			" Kingston and Cornwall.
Argyle.....	800	June 3.	700.29			Paddle, Lake Ont. and R. St. Law'r.
Where Now.....			47.78			Screw, River St. Lawrence.
Aberdeen.....		June 11.	12.65			" pleasure yacht.
Caspian.....	500	" 12.	957.44			Paddle, Charlotte and 1000 Islands.
Antelope.....	40	" 16.	24.98			Screw, Trenton and Prescott.
Illecilwaet.....		" 16.	15.69			" pleasure yacht.
Lee.....	35	" 17.	8.73			" Kingston and Prescott.
Albani.....		" 17.	57.83			" pleasure yacht.
Leone.....	25	" 17.	4.26			" Kingston and Prescott.
Zeila.....			3.40			" " "
Dortha.....		June 18.	50.98			" pleasure yacht.
Ellen.....	40	" 18.	25.10			" Kingston and Prescott.
Victoria.....	186	" 18.	58.10			" Trenton and Prescott.
International.....		" 20.	395.31			Twin S., freight, Presc. & Ogdensburg.
City of Belleville.....	40	" 20.	101.17			Screw, Prescott and Morristown.
David S. Walker.....						" tug, River St. Lawrence.
Dredge Central City.....			223.62			Farrans Point Canal.
D. P. Dey.....		June 27.	11.26			Screw, tug, River St. Lawrence.
Dredge No. 4.....		" 27.	175.41			Farrans Point Canal.
Donnelly.....			318.91			Paddle, River St. Lawrence.
Wanda.....	30	June 30.	38.61			Screw, Trenton and Montreal.
Total.....			21,357.45	1,839	13	

THOS. P. THOMPSON,  
*Steamboat Inspector.*

STEAM Vessels Inspected in Canada but Registered elsewhere, for the Year ended  
June 30, 1903.

## EAST ONTARIO DIVISION.

## BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessels and Where employed.
		1903.		S cts.	
Thyra .....	40	July 5..	36 00		Screw, Trenton and Montreal.
Columbia .....			26 00		
Grand View .....			17 00		
Nightingale .....	40	Sept. 22..	56 76		Screw, Trenton and Ogdensburg.
		1904.			
New Island Wanderer.	400	Mc'h. 26..	123 00	17 84	Screw, Kingston and Ogdensburg.
St. Lawrence .....	645	May 7..	312 90	33 04	Paddle, " "
Islander .....	468	" 7..	118 61	17 52	" Trenton "
Ramona .....	150	June 8..	57 07	9 56	Screw, " "
New York .....	730	" 8..	294 87	31 52	Paddle, Kingston "
Niagara .....	40	" 11..	36 00	7 88	Screw, Lake Ont. and Quebec.
Wm. Armstrong .....			181 24	22 48	" Brockville and Ogdensburg.
Island Belle .....	325	" 19..	89 77	12 20	" Kingston "
Henry Plumb .....	225	" 20..	92 78	12 44	" Cape Vincent and Cornwall.
Dean .....	27	" 20..	11 19	5 88	" Kingston and Montreal.
Milton .....	40	" 20..	19 42	6 52	" " "
Outing .....	25	" 20..	15 87	6 28	" " Ft. Covington.
Massena .....			89 67	12 20	" " "
Mary .....	300	" 20..	174 64	21 94	" Kingston and Ft. Covington.
Algona .....	275	" 20..	92 06	12 36	" Cape Vincent and Cornwall.
Sophia .....	25	" 20..	16 36	6 28	" Trenton and Montreal.
H. P. Bigelow .....	100	" 20..	46 67	8 76	" Kingston and Prescott.
Sirius .....	46	" 20..	22 78	6 84	" Trenton and Montreal.
Capt. Visgar .....	110	" 20..	29 23	7 32	" Kingston and Ogdensburg.
Spry .....	25	" 20..	4 39	5 32	" " "
Idler .....	150	" 20..	57 00	9 56	" Trenton and Quebec.
Valetta .....	38	" 20..	27 84	7 24	" " Ogdensburg.
Gen. W. B. Franklin..	20	" 20..	11 35	5 88	" Kingston and "
Virginia .....	35	" 20..	21 00	6 68	" " "
I. Wonder .....	32	" 20..	16 11	6 28	" " "
Total .....			2,097 58	\$299 80	

## STEAM Vessels not Inspected for the Year ended June 30, 1903.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. Why not Inspected and Class of Vessel.
Dolce .....	4 74	3 22	Screw, no application.
Mary Ethel .....	98 61	56 13	Paddle " "
Startled Fawn .....	25 49	17 34	Screw " "
Marmora .....	12 96	8 82	" " "
Mabel C. .....	4 48	3 36	" " "
Maud L. .....	14 05	9 56	" " "
Dawn .....	20 20	15 90	" not in commission.
Total .....	180 53	114 33	

THOS. P. THOMPSON,  
Steam' oat Inspector.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected for the Year ended June 30, 1903.

EAST ONTARIO DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where employed.
				1903.	
Ellen	40	July 7	25	7 00	Screw, Kingston and Prescott.
Leone	25	" 7	4	5 32	" " "
Where Now	No.	Not issued	48	8 84	" " "
Rival	100 P. 250 Fer.	July 11	125	18 00	Paddle " "
City of Peterboro	310	" 17	224	26 40	T. Screw, Rice Lake and tributaries.
Waterlily	125	" 17	54	9 32	" " "
				1902.	
Beaver	40	Dec. 31	18	6 44	" " "
				1903.	
North Star	80	July 18	40	8 20	" " "
Rainbow	100	" 18	51	9 08	" " "
Rob Roy	10	" 18	5	5 40	" " "
Myrtle	20	" 18	5	5 40	" " "
Empress	224	" 19	84	11 72	" Cos. Victoria and Peterboro.
Majestic	180	" 19	68	10 44	" " "
Alert	150	" 19	56	9 48	" " "
Sunbeam	175	Not issued	105	16 40	" " "
Esturian	300	July 21	139	19 12	Paddle " "
Manita	150	" 21	34	7 72	Screw " "
Comet	32	" 21	8	5 64	" " "
Calumet	30	" 22	22	6 76	" " "
Ogemah	175	" 22	72	10 76	Paddle " "
Pearl	18	" 23	6	5 48	Screw " "
Dauntless	10	" 23	3	5 24	" Kawartha Lakes.
Kawartha	25	" 23	17	6 36	" " "
Lady of the Lakes	38	" 24	33	7 64	" Cos. Victoria and Peterboro.
Maple Leaf	25	" 24	26	7 08	" " "
Ivy	30	" 28	7	5 56	" Cornwall and Stanley Isle.
Stranger	No.	Not issued	70	10 20	" Kingston and Montreal.
				1902.	
Jessie Bain	150	Nov. 15	67	10 36	" Ottawa and Thurso.
				1903.	
Wanda	30	July 5	39	8 12	" Trenton and Prescott.
Swan	32	Aug. 12	12	5 96	" Kingston and Ottawa.
Nellie	20	" 12	7	5 56	" " "
Tropic	No.	Not issued	9	5 72	" " "
Lillian B.	"	"	4	5 32	" Carleton Place and Innisville.
D. A. Martin	"	"	78	11 24	" Turtle Portage and North River.
				1903.	
R. Hurdman	40	Sept. 3	93	12 44	" Lake Kippewa and tributaries.
Alice	40	" 3	26	7 08	" " "
Meteor	200	" 4	209	31 92	" Lake Temiskamingue and trib.
Clyde	15	" 5	29	7 32	" " "
Ville Marie	No.	Not issued	32	7 56	" " "
Hudson	40	Sept. 8	45	8 60	Paddle, Barry's Bay and Havergal.
Pontiac	230	" 9	116	17 28	" Chats Lake.
Grenada	175 P. 125 M.	" 11	57	9 56	Screw, Kingston and Montreal.
Princess Louise	65 M. 100 P.	" 11	26	7 08	" " "
Gracie	No.	Not issued	11	5 88	Paddle, Cornwall and Dundee.

STEAM Vessels Inspected—East Ontario Division—*Concluded.*HULL INSPECTION—*Concluded.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Class of Vessel and Where employed.
1903.					\$ cts.
Dorothy	10	Sept. 22	10	5 80	Screw, Napanee and Trenton.
Jopl	40	" 26	11	5 88	" Kingston and Prescott.
Iona, (2nd Insp.)*	Freight	Oct. 28	232	5 00	" lakes and rivers.
Prince Edward	No.	Not issued	18	6 44	Ctr. paddle, Tyendinaga and Sophiaburg.
Clinton	Freight	"	430	39 40	Screw, lakes and rivers.
Alaska	40	Dec. 15	49	8 92	" Kingston and Cornwall.
1904.					
Resolute	25	Mar. 25	372	37 76	T. Screw, Chicago and Montreal.
Pierrepont	415	April 3	252	28 16	Paddle, Trenton and Prescott.
Rosemount	Freight	" 4	1,580	131 40	Screw, lakes and rivers.
Rescue	25	" 6	52	9 16	" Trenton and Prescott.
Ranger	15	" 7	14	6 12	" " Picton.
Reliance	25	" 7	239	27 12	T. Screw, Chicago and Montreal.
Ella Ross	300	" 7	325	34 00	Paddle Trenton and Prescott.
Deseronto	85	" 7	55	9 40	Screw " Prinyer Cove.
Armenia	250	" 7	110	16 80	" " Prescott.
Lloyd S. Porter	Freight	" 11	489	44 12	" lakes and rivers.
D. D. Calvin	"	" 17	750	65 00	" " "
India	"	" 17	976	83 08	" " "
Clinton	Freight	Not issued	430	39 40	" " "
Bothnia	"	April 22	833	71 64	" " "
Alexandria	L. 400 R. 600	" 24	863	77 04	Paddle, Charlotte and Quebec.
Valeria	40	" 27	52	9 16	Screw, Kingston and Prescott.
Rideau King	300	May 2	266	No.	" " and Ottawa.
America	M. 400 P. 600	" 7	521	"	Paddle, Trenton and Montreal.
Aletha	M. 240 P. 350	" 18	171	21 68	Screw, Brighton and "
Niagara	L. 300 R. 450	" 20	396	No.	" Toronto and "
Reindeer	150	" 20	58	"	" Napanee and Prinyer Cove.
Annie Lake	40	" 20	19	"	" Brighton and Prescott.
1903.					
Tropic	30	Aug. 12	9	"	" Kingston and Ottawa.
Gracie	40	Sept. 12	11	"	Paddle, Cornwall and Dundee.
Lillian B.	20	Aug. 12	4	"	Screw, Carleton Place and Innisville.
1904.					
North King	525	May 29	873	"	Paddle, Lake Ontario and St. L. River.
Rideau Queen	K. & M. 150 K. & O. 300	" 30	251	"	Screw, Kingston, Montreal and Ottawa.
Argyle	L. 535 R. 800	June 4	700	"	Paddle, Lake Ontario and St. L. River.
Prince Edward	5	" 5	18	"	Ctr. paddle, Tyendinaga and Sophiasburg.
Varuna	275	" 5	134	"	Screw, Trenton and Prescott.
Simla	Freight	" 13	1490	"	" lakes and rivers.
Antelope	40	" 16	25	"	" Trenton and Prescott.
Lee	35	" 16	9	"	" Kingston and "
Victoria	P. 186 C. 125	" 16	58	"	" " and Cornwall.
Leone	25	" 16	4	"	" " and Prescott.
Brockville	P. 358 C. 240	" 17	191	"	" " and Cornwall.
Zeilia	No.	Not issued	3	"	" " and Prescott.
City of Belleville	40	June 18	101	"	" B. P. and O. ferries.
International	Freight	" 18	395	"	T. Screw, Prescott and Ogd. ferry.
Caspian	500	" 27	957	"	Paddle, Charlotte and Thousand Islands.

SESSIONAL PAPER No. 21

STEAM Vessels inspected in Canada but Registered elsewhere for the Year ended June 30, 1903.

EAST ONTARIO DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessels and Where employed.
1903					
Little Mac.....	40	July 30	25	"	Screw, Kingston and Ogdensburg.
Island Belle.....	330	June 25	90	"	" " " "
Valetta.....	38	Aug. 29	28	"	" Trenton " "
Arondell.....	250	Not issued	3 39	"	" Charlotte " "
	500				
	40	Sept. 22	57	"	" Trenton " "
1904.					
Nightingale.....				s	ets.
New Island Wanderer.	400	May 27	1 23	17 84	" Kingston " "
St. Lawrence.....	645	" 7	3 13	33 04	Paddle, " " "
Islander.....	468	" 13	1 19	17 52	" Trenton " "
Ramona.....	150	June 8	57	9 56	Screw, " " "
New York.....	730	" 8	2 94	31 52	Paddle, Kingston " "
Niagara.....	15	" 11	36	7 88	Screw, L. O. C. and St. L. River.
	40				
Wm. Armstrong.....	25	" 17	1 81	22 48	" B. P. and Ogds. Ferry.
Island Belle.....	325	" 17	90	12 20	" Kingston and Ogdensburg.
Mary.....	209	" 17	1 74	21 93	" " Ft. Covington.
	300				
Dean.....	27	" 17	11	5 88	" " Montreal.
	18				
Milton.....	40	" 17	19	6 52	" " "
	20				
Algoma.....	275	" 18	92	12 36	" Cape Vincent and Cornwall.
	175				
Outing.....	25	" 18	16	6 28	" Kingston and Ft. Covington.
Henry Plumb.....	225	" 18	93	12 44	" Cape Vincent and Cornwall.
	150				
Massena.....	250	Not issued	90	12 20	" " "
	175				
Idler.....	100	June 19	57	9 56	" Trenton and Quebec.
	150				
Sirius.....	30	" 19	23	6 84	" " Montreal.
	46				
H. P. Biglow.....	100	" 19	47	8 76	" Kingston and Prescott.
Spry.....	25	" 19	4	5 32	" " Ogdensburg.
Virginia.....	35	" 19	21	6 68	" " "
I Wonder.....	32	" 19	16	6 28	" " "
Gen. W. B. Franklin.	20	" 20	11	5 88	" " "
Castanet.....	175	" 20	55	9 40	" " "
Capt. Visgar.....	110	" 20	29	7 32	" " "
Capt. Dave Wagoner.	30	" 20	19	6 52	" " "

M. R. DAVIS,  
Hull Inspector.

3-4 EDWARD VII. A. 1904

## STATEMENT of Tow Barges inspected, and of Certificates of Inspection issued to Tow Barges for the Year ended June 30, 1903.

## EAST ONTARIO DIVISION.

Name of Vessel.	Number of Passengers.	Port of Inspection.	Date of Inspection.	Date Certificate Expires.	Gross Tonnage.	Inspection Fees.
				1903.		\$ cts.
Otonabee .....	200	Peterboro.....	July 17..	July 17..	49	10 00
Lady Smith.....	265	Lakefield.....	" 19..	" 19..	76	10 00
Eclipse.....	150	" .....	" 19..	" 19..	38	10 00
Lindsay.....	400	Bobcaygeon.....	" 22..	" 22..	75	10 00
Hastings.....	150	Hastings.....	" 25..	" 25..	36	10 00
Sultana.....	150	" .....	" 25..	" 25..	40	10 00
	1,315				314	60 00

M. R. DAVIS,  
Steamboat Inspector.

## STEAM Vessels Inspected for the Year ended June 30, 1903.

## MONTREAL DIVISION.

## BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where employed.
		1903.		\$ cts.	
Bella Ritchie.....	125	July 2... ..	69	10 52	Paddle, pass., Montreal & Beauharnois.
Valleyfield.....	450	" 7... ..	417	41 36	Twin screw pass., Montreal & Valleyfield
Jessie.....	Tug	" 9... ..	19	6 52	Screw tug, St. Lawrence River.
Mathilda.....	"	" 14... ..	114	14 12	" " "
Alice.....	"	" 14... ..	57	10 36	" " "
St. Michael.....	"	" 15... ..	16	6 28	Paddle tug, Ottawa River.
		1902.			
British Lion.....	Tug	Dec 1... ..	25	7 00	Screw " " "
Stranger.....	Unfit	Not issued	65	10 20	" pass., St. Lawrence River.
		1903.			
Ivy.....	30	July 30... ..	7	5 56	Screw, pass., Cornwall & Stanley Island.
Speed.....	Tug	Aug. 5... ..	16	6 28	" tug, St. Lawrence River.
Tak-it-Easy.....	"	" 12... ..	5	5 40	" " " "
Bonenfant.....	25	" 13... ..	31	7 48	Twin screw, ferry, Bout de l'Île and Charlemagne.
John.....	40	" 14... ..	34	7 72	Centre wheel ferry, Carillon and Point Fortune.
Beatrice B.....		Not issued	59	9 72	Screw, pass., Deschesne Lake.
C. E. Read.....	Tug	Sept. 2... ..	13	6 04	Paddle tug, Lake Kippewa.
F. W. Avery.....	"	" 2... ..	14	6 12	" " " "
D. A. Martin.....	"	" 2... ..	78	11 24	Screw, pass., North River.
R. Hundman.....	40	" 3... ..	93	12 44	" " Lake Kippewa.
Alice.....	40	" 3... ..	26	7 08	" " " "



SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.—Montreal Division—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where employed.
1903.					
Otter	Tug.	Sept. 3	21	6 68	Paddle tug, lake Kippewa.
North River	"	" 3	22	6 76	" " "
Beaver	"	" 4	13	6 04	" " Lake Temiscamingue.
Mink	"	" 4	14	6 12	" " "
Dora	"	" 4	48	8 84	Screw tug, " "
Argo	"	" 4	154	20 32	Paddle " " "
Meteor	"	" 5	299	31 92	Screw, pass., " "
Ville Marie	Tug.	Not issued	32	7 56	" tug, " "
Clyde	"	15 Sept. 5	29	7 32	" pass., Lake Temiscamingue.
Little Roxy	Tug.	" 6	12	5 96	" tug, " "
Hudson	"	40 " 8	45	8 60	Paddle, pass. Barry's Bay & Combermere
Pontiac	"	250 " 10	116	17 28	" " Chats Lake.
Chaffey	"	40 " 19	42	8 36	Screw, pass., Lancaster & Valleyfield.
Scout	B. service.				Dept. of Marine and Fisheries.
Wild Rose	P. yacht	Nov. 10	10	5 80	Screw, pleasure yacht St. Lawrence Riv.
1904.					
Longueuil	"	300 Mar. 28	365		Paddle, ferry, Montreal & Longueuil.
Boucherville	"	600 " 28	419		" " Boucherville
St. Laurent	"	267 April 6	546		Paddle, pass., Montreal & Berthier.
Derrick No. 2	"	" 8	100		Derrick, Montreal.
Hubert Larkin	Tug.	" 9	49		Screw, tug, St. Lawrence River.
Montmorency	"	" 10	18		" " "
Tak-it-Easy	"	" 10	5		" " "
Dredge Pontiac	"	" 10	221		Dredge " "
Dolphin	Tug.	" 20	70	10 60	Screw, tug, Ottawa River.
Florence	"	" 20	62	9 96	" " "
Archie Stewart	"	" 20	80	11 49	" " "
G. H. Harris	"	" 20	87	11 96	" " "
Sir Hector	"	" 20	40	8 20	" " "
D. B. Mulligan	"	40 " 21	77		Screw, ferry, Pembroke & Desjardins.
Victoria	"	400 " 21	188	23 04	Paddle, pass., Pembroke & Des Joachim
E. H. Bronson	Tug.	" 21	285	27 80	" tug, Upper Ottawa River.
C. B. Powell	"	" 21	272	26 76	" " "
Alex Fraser	"	" 22	320	30 60	" " "
Hercules	"	" 22	21	5 68	" " "
Pembroke	"	" 22	194	20 52	" " "
Tit Willow	P. yacht	" 22	17		Screw yacht " "
G. H. Notter	Tug.	" 23	14	6 12	" tug, Ottawa River.
Rockland	"	" 23	78	11 24	" " "
Alva	Tug.	" 23	27		" " "
Hall	"	50 " 23	247		" frt., pass., Ottawa and Montreal.
Welshman	"	25 " 23	156		" " "
Cacoua	Freight	" 28	1,451		" freight, Canadian and foreign.
Scotsman	"	40 " 29	265		" frt., pass., Ottawa and Montreal.
Olive	"	60 " 29	151		" " Portland " "
Ida	"	40 " 29	247		" " Ottawa " "
British Lion	Tug.	" 29	25		" tug, Ottawa river.
Harry Bate	Freight	" 29	254		" freight, Ottawa and Montreal.
Hebron	"	May 4	149		" " " Oswego.
Dredge No. 4	"	" 4	100		Dredge, Montreal.
Cape Breton	Freight	" 11	1,764		Screw, freight, Canadian and foreign.
Seaborn	P. yacht	" 11	30		" yacht, St. Lawrence river.
Charlemagne	Tug.	" 13	76	11 08	" tug " "
Surveyor	Freight	" 13	50		" freight " "
Sovereign	"	700 " 15	637		Paddle, pass., Montreal and Carillon.
Empress	"	800 " 20	678		" " Ottawa and Grenville.
Victoria	"	300 " 20	181		Screw " " Thurso.
Russell	Tug.	" 20	76		" tug " " river.
Ada	"	" 20	29		" " " "
G. B. Greene	"	600 " 21	255	28 40	Paddle, pass., Deschene Lake.
Albert	Tug.	" 21	269	26 52	" tug " "

STEAM Vessels Inspected, &c.—Montreal Division—*Concluded.*BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where employed.
		1904.		\$ cts.	
G. B. Pattee.....	Tug.....	May 21..	30	7 40	Screw tug, Deschene Lake.
Beatrice B.....	40	" 21..	59		" pass. " "
Pontiac.....	250	" 22..	116		Paddle " Chats Lake.
Madawaska.....	Tug.....	" 22..	15		" warp tug "
Anable du Fond.....	"	" 22..	17		" " "
Coulonge.....	"	" 22..	18		" " "
Hamilton.....	"	" 23..	320	30 60	" tug " "
J. L. Murphy.....	"	" 23..	173	18 84	Screw, warp " "
Sampson.....	"	" 23..	15	6 20	Paddle, warp tug "
Mausfield.....	15	" 23..	169		Screw, ferry, Ottawa and Gatineau Pt.
Agnes.....	40	" 23..	29		" pass., Buckingham & High Rock.
Mildred.....	25	" 25..	15		" " " "
Leon.....	15	" 25..	15		" " High Rock & N. D. de Laus
Dredge Otto.....		June 2..	100		Dredge, St. Lawrence River.
" King Edward..		" 2..	100		" " "
May.....	P. yacht..	" 3..	21		Screw, yacht " "
Laurier.....	Tug.....	" 6..	19		" tug " "
Alexandria.....	P. yacht..	" 8..	53		" yacht, Richelieu River.
Duchess of York.....	700	" 8..	490		Paddle, pass., Montreal and Cavillon.
Princess.....	200	" 9..	527		" " " "
Maude.....	200	" 9..	269		" " " Ottawa.
Filgate.....	400	" 9..	425		" " " Cornwall.
Salabery.....	40	" 9..	222		Screw " " Valleyfield
Chuminy.....	Tug.....	" 10..	5		" tug, Ottawa River.
Bonito.....	30	" 11..	17		" ferry, Calumet and L'Original.
Leo.....	20	" 11..	2		" " Hawkesby and Grenville.
T. Osborne.....	Tug.....	" 11..	25		" tug, Ottawa River.
Sandy.....	"	" 12..	30		" " "
Glide.....	40	" 12..	80		" ferry, Hawkesbury and Calumet.
Annie Laurie.....	P. yacht..	" 16..	3		" yacht, Lake Nipissing.
Queen.....	40	" 16..	15		" pass. " "
Carmita.....	P. yacht..	" 16..	9		" yacht " "
Sparrow.....	40	" 16..	38		" pass. " "
Vanwoodland.....	100	" 16..	37		" " " "
Booth.....	40	" 17..	347		Paddle " " "
Ladas.....	Tug.....	" 17..	54		Screw, tug " "
Zephyr.....	"	" 17..	3		" " " "
Nosbonsing.....	"	" 17..	25		" " Lake Nosbonsing.
Empress.....	40	" 18..	36		" pass., Lake Nipissing.
Osprey.....	Tug.....	" 18..	6		" fishing boat " "
Sea Flower.....	Tug.....	" 18..	6		" tug, Lake Nipissing.
Shoofly.....	"	" 18..	10		" " " "
Madoc.....	"	" 18..	8		Paddle, warp tug " "
Monarch.....	"	" 19..	37		" " " "
Fleur de Mal.....	"	" 19..	7		Screw, tug " " "
Turtle.....	"	" 19..	38		Paddle, warp tug " "
Dorothy.....	P. Yacht..	" 19..	10		Screw, yacht " " "
Verva.....	40	" 20..	54		Screw, pas., Lake Wahnapiatae.
Mahigama.....	10	" 22..	20		" " Pembroke & Fort William.
Tiger.....	P. Yacht..	" 22..	4		" yacht, Madawaska river.
Hudson.....	40	" 23..	45		Paddle, pass., Barry's bay & Havergal.
Honore.....	Tug.....	" 24..	22		Screw, tug, St. Lawrence river.
Valleyfield.....	450	" 26..	417		Twin screw, pass., Montreal & Valleyfield
Total.....			17,297	\$672 92	

WM. LAURIE,  
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected in Canada but Registered elsewhere, for the Year ended June 30, 1903.

MONTREAL DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where employed.
Farmand.....	Freight...	1904. May 12..	13'87	8 cts. 115 96	Screw, Montreal and Sydney.

WM. LAURIE,  
*Steamboat Inspector.*

## STEAM Vessels Inspected for the year ended June 30, 1903.

## MONTREAL DIVISION.

## BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Class of Vessel and Where employed.
1903.					
Windermere		July 9	31	7 48	Screw yacht, rivers.
Kate		" 12	61	9 88	" tug, St. Lawrence river.
Lucia		" 19	41	8 28	" tug, Montreal harbour.
Dredge No. 4		Aug. 9	100	13 00	Dipper dredge, rivers.
Mary A. Laughlin		" 9	23	6 84	Screw tug, St. Lawrence river.
Maggie May		" 18	29	7 32	" " " " "
Maggie R. King		Sept. 3	27	7 16	" " Lachine canal.
Quebec		" 11	108	13 64	" freight, St. Lawrence river.
1904					
Robert McKay	150	Mar. 21	129	15 32	" pass. and tug, Montreal harbour.
Derrick No. 5		" 21	100	13 00	Derrick, Montreal harbour.
Derrick No. 4		" 23	100	13 00	" " " "
Derrick No. 3		" 23	100	13 00	" " " "
Aberdeen	150	" 27	87	11 96	Screw, pass. and tug, Montreal harbour.
Derrick No. 1		" 27	100	13 00	Derrick, Montreal harbour.
Dredge No. 2		" 28	100	13 00	Dipper dredge, Montreal harbour.
Dredge No. 4		" 28	461	41 83	" " " "
Derrick No. 6		" 28	100	13 00	Derrick " " "
Dredge No. 1		April 6	100	13 00	Dipper dredge " " "
Dredge No. 3		" 6	100	13 00	" " " "
St. Louis		" 7	34	7 72	Screw tug " " "
Courier	25	" 7	12	5 96	" pass. and tug, Montreal harbour.
H. Larosée		" 21	13	6 04	" tug, Lachine canal.
Drill Boat		" 23	100	13 00	Drill boat, Montreal harbour.
T. H. Naismith		May 1	49	8 92	Screw tug " " "
Ida		" 4	26		" " canals.
Dauntless		" 4	81		" " Lake Ontario.
Pile Driver		" 6	100		Pile driver, Montreal harbour.
Derrick Assistance		" 7	100		Derrick " " "
Frank Per-w.		" 20	43		Screw tug, St. Lawrence river.
Nellie Reid		" 27	56		" " " "
Tim Doyle		" 29	15		" " Lachine canal.
Grain Elevator No. 8		June 2	80		" grain elevator, Montreal harbour.
Armenia		" 5	467		frght, Lake Ont. and St. Lawr. riv.
Plover		" 5	40		" tug, Lachine canal.
Grain Elevator No. 5		" 10	80		" grain elevator, Montreal harbour.
Grain Elevator No. 18		" 10	214		" " " " "
Grain Elevator No. 12		" 13	183		" " " " "
Grain Elevator No. 13		" 13	178		" " " " "
Grain Elevator No. 2		" 13	170		" " " " "
Grain Elevator No. 4		" 15	188		" " " " "
Grain Elevator No. 16		" 16	210		" " " " "
Grain Elevator No. 14		" 17	181		" " " " "
Grain Elevator No. 7		" 18	170		" " " " "
*St. George		Not issued	68		tug, not running.
Grain Elevator No. 1		June 19	165		grain elevator, Montreal harbour.
Grain Elevator No. 10		" 19	173		" " " " "
Grain Elevator No. 15		" 22	213		" " " " "
Grain Elevator No. 9		" 22	172		" " " " "
Grain Elevator No. 11		" 23	169		" " " " "
Grain Elevator No. 6		" 24	170		" " " " "
Agnes McMahon		" 24	54		" tug, Ottawa river.
Total			5,871	\$288 40	

\* Inspection not completed.

LOUIS ARPIN,  
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM Vessels not Inspected for the Year ended June 30, 1903.

MONTREAL DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	REMARKS.	
			Why not Inspected and Class of Vessel.	
Hector.....	21	14	Screw tug.	
Antelope.....	83	57	" "	
C. W. Dennis.....	17	8	" "	
H. M. Mixer.....	30	9	" "	
West Arm.....	27	12	" "	
White Squall.....	7	5	" yacht.	
Monaco.....	10	6	" "	
Nora.....	28	19	" tug.	
Richelieu.....	167	87	Paddle Passenger.	Not in commission.
Jessie.....	19	13	Screw tug.	
Ballantyne.....	14	6	Paddle tug.	
Quinze.....	32	26	Twin screw tug.	
John Thompson.....	5	4	Screw yacht.	
H. Trudel.....	13	5	Paddle tug.	
Maid of the Mill.....	8	6	Screw "	
Owl.....	4	3	" yacht.	
Union.....	75	66	" passenger.	
Juno.....	17	7	" yacht.	
Nama.....	41	36	" "	
Lyon, C.....	19	13	" tug.	No application.
Willie, C.....	8	6	" "	
Annie, C.....	6	4	" passenger.	
St. Louis.....	29	20	" yacht.	
Lady of the Lake.....	607	369	Paddle passenger.	
Massawippi.....	4	3	Screw "	
John A.....	20	13	" tug.	
Dandy.....	46	31	" "	
E. G. Laverdure.....	54	49	" "	
Florida.....	201	128	Twin screw frt.	
Chateauguay.....	222	119	Paddle passenger.	
R. Anglin.....	97	52	Screw freight.	
Robert Stoker.....	14	2	" tug.	Not vet inspected.
Gertie.....	21	14	" "	
Nokomis.....	25	17	" yacht.	
Aid.....	25	15	" tug.	
Total.....	2,916	1,244		

WM. LAURIE,  
LOUIS ARPIN.

## STEAM Vessels inspected for the Year ended June 30, 1903.

## QUEBEC DIVISION.

## BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where Employed.
		1902.		8 cts.	
Dolley .....		Nov. 1..	5	5 24	Pleasure yacht, Quebec.
		1903.			
Spray .....		May 15..	107	13 56	Screw, tug, Montreal and Quebec.
Batiscan .....		" 15..	40	8 20	Paddle, Batiscan and Quebec.
		1902.			
Kathleen .....	40	Nov. 1..	280	30 40	" Pass, Grosse Ile and Quebec.
		1903.			
Fabiola .....		May 15..	81	11 48	Steam Wrecking Sch'r Quebec & Gulf.
Spray of Quebec .....		" 15..	21	6 68	Screw, tug, Quebec.
Queen .....	450	July 15..	367	37 36	" winter ferry, Quebec and Lévis
Maud .....		Aug. 15..	59	9 00	Paddle, tug, St. Maurice.
St. Pierre (dredge) .....		" 15..		5 00	" " "
Mabel McDonald .....		May 15..	42	8 30	Screw, tug, Three Rivers.
No. 6 dredge .....		" 15..	100	13 00	Paddle, pass. " "
Roberval .....		June 15..	123	18 08	" " Roberval and Paribonca.
Marie Louise (Public Works Dept.) .....					Screw, tug.
		1902.			
Admiral .....		Nov. 15..	682	62 56	Paddle, pass., Gaspé and Dalhousie.
		1903.			
Fearless .....		July 1..	10	5 80	Screw, tug, Pabos.
Bella .....		" 1..	43	8 44	Paddle, ferry, Cross Pt. & Campbellton
Christiana .....		" 1..	57	9 56	" tug, Restigouche.
Oak Bay .....		" 1..	27	7 16	" " "
Le Brochu .....		" 6..	19	6 52	Screw " Lake Metapedia.
Maria .....		" 8..	31	7 48	" " Quebec and Portneuf.
Randolph .....		" 8..	17	6 36	" " Batiscan River.
Duke of York (dredge) .....		" 8..	100	13 00	" " " "
J. Paul .....		" 1..	20	6 60	" " Sorel and Montreal.
Carmelia .....		" 1..	63	10 02	" " " "
Aleyon .....		" 1..	44	8 52	" ferry, Ste. Anne & Chicoutimi.
Marie Louise .....		" 1..	99	12 92	Paddle, tug, Saguenay River.
Forest .....		" 1..	26	7 08	Screw " " "
Nord .....		" 1..	56	19 48	" pass., Roberval & Paribonca.
St. Louis de Matbat- chouan .....		" 1..	17	6 36	" tug, Lake St. John.
Kenogami .....		Aug. 1..	21	6 68	" " Saguenay.
Thor .....		" 1..	323	30 84	Paddle, tug, Saguenay River.
Alpha .....		" 1..	16	6 28	Screw " Quebec.
Muriel .....		Sept. 1..	64	10 12	" " Saguenay River.
Activity .....		May 1..	22	6 76	" " Berthier River.
Nithsdale (dredge) .....		" 1..		5 00	Dredging in Berthier.
Macamanac .....		Aug. 1..	4	5 30	Screw, yacht, Spider lake.
Jubilee .....	30	" 1..	25	7 00	" pass., Mégantic & Three Rivers
Campania .....		" 1..	23	6 84	" tug, Lake Mégantic.
L'Ami .....		" 1..	16	6 28	" " Aylmer.
Houkedore .....		" 1..	6	5 44	" " " St. Francis.
Dot .....		" 1..	10	5 80	" " " "
Amanda .....		" 21..	11	5 88	" " Quebec Harbour.
Jack .....		Sept. 1..	31	7 48	" " St. Thomas and Quebec.
Manicouagan .....		" 1..			" " Manicouagan.
Polaris .....	450	" 1..	533	50 64	" winter ferry, Quebec and Lévis

SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.—Quebec Division—Continued.

BOILERS AND MACHINERY—Continued.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where employed.
1904.					
Pilot.....	450	Sept. 1..	426	42 08	Screw, winter ferry Quebec and Levis
St. Henry.....		Aug. 1..	101	13 08	" tug, Lake St. John.
1904.					
Savoy.....	25	May 1..	348	35 84	" pass., freight, Anticosti & Que.
Greenland.....	40	" 1..	1,091	95 28	" " Mont. & St. John, N.B.
Florence (schooner).....		" 1..	133	15 64	" wrecking sch'r, Mont. & Gulf.
King Edward.....	150	" 1..	355		" pass., Mont. & lower ports.
Terrebonne.....	450	May 1..	636		Paddle, pass., Mont. & Contrecoeur.
Fire Fly.....	40	" 1..	214		" " " Berthier.
Berthier.....	600	" 1..	937		" " " Three Rivers.
Sorel.....	250	" 1..	158		" " " Beauharnois.
Carmelia.....		" 1..	63	10 04	Screw, tug, Montreal Harbour.
Chambly.....	600	" 1..	538		Paddle, pass., Montreal and Chambly.
Spray.....		" 1..	107	13 56	Screw tug, St. Lawrence river.
Laprairie.....	350	" 1..	600		Pad. pass., Mont. & Laprairie.
Gov't Spoon Dredge.....		" 1..			St. Lawrence River.
Cartier.....		" 1..			Gov't. str. attending dredge.
St. Jean Iberville.....		" 1..			" " " "
St. Francis.....		" 1..	59		" " " "
Frontenac.....		" 1..			" " " "
Jessie Hume.....		" 1..			" " " "
Champlain.....		" 1..			" " " "
Lac St. Pierre.....		" 1..			" " " "
de Lévis.....		" 1..			" " " "
Saguenay.....	453	" 15..	992		Pad. pass., Quebec and Chicoutimi.
Canada.....	600	" 1..	2,010		" " " Montreal.
Emelia.....		" 1..			Str. attending dredge and survey.
Nithsdale, (dredge).....		" 15..			Dredging in Berthier river.
Activity.....		" 15..			Screw tug, " "
Julia.....		" 1..	91	12 28	" " St. Lawrence river.
Ethel.....		" 1..	72	10 76	" " " "
Chipmunk.....		" 1..	20	6 60	Screw pleasure yacht.
Beaupré.....	800	" 1..	2,068		Pad. pass., Montreal and St. Anne.
J. Paul.....		" 1..	20	6 60	Screw tug, St. Lawrence river.
W. O. Francis.....		" 1..	37	7 96	" " " "
South.....	450	" 1..	349		Pad. ferry, Quebec and Levis.
Gaspesien.....		" 14..	490	47 20	Screw pass., Montreal and Gulf
Mary.....	15	" 16..	108	16 64	" " Quebec " "
Contest.....		" 10..	274	29 92	Pad. " " " "
City of London.....	250	" 14..	516	49 28	Screw ferry, P. E. Island.
North.....	450	" 17..	289		Pad. ferry, Quebec and Levis.
Douro.....	200	" 17..	432	42 56	Screw pass., Quebec and Gulf.
Queen.....	200	" 17..	532	34 56	Screw ferry, St. John, N. B.
Alpha.....		" 18..	20	6 60	Screw tug, St. Lawrence river.
Victoria.....		" 18..	48		" " " "
Frank Jackman.....		" 21..	39	8 12	" " " "
M. E. Hackett.....		" 2..	78		" " " "
Two Brothers.....		" 1..	23		" " " "
Lord Strathcona.....	25	" 1..	496		Twin ser. tug and 25 pass. Mont. & foreign
Carolina.....	600	" 1..	968		Pad. pass., Mont. and Chicoutimi.
Rodolphe.....		" 1..	116		Pad. tug, Sorel and Three Rivers.
Quebec.....	800	" 1..	3,056		Pad. pass., Quebec and Montreal.
Algerian.....	400	" 1..	914		" " Montreal and Toronto.
Trois Rivières.....	600	" 1..	1,352		" " " Three Rivers.
Hudson.....		" 1..	158	17 64	" tug, Quebec and Montreal.
Fred, (ex Asilda).....		" 1..	24		Screw tug, Montreal and Lakes.
May, (ex W. C. Loggie).....		" 1..	21		" " " Harbour.
McNaughton.....		" 1..	137		" " " and Lakes.
Rival.....		" 15..	125		Pad. " " and Quebec.
Sincennes.....		" 16..	228		" " " "
Alice.....		" 16..	67	10 36	Screw " " Harbour.

## STEAM Vessels Inspected, &amp;c.—Quebec Division.—Continued.

## BOILERS AND MACHINERY.—Continued.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage	Class of Vessel and Where Employed.
				Dues and Inspection Fees Paid.	
		1904.		\$ cts.	
Prefontaine.....	40	May 18.	889		Screw pass., Montreal and Quebec.
St. Croix.....	550	" 15.	505	48 48	Pad. " " " " "
Virginia.....	600	June 1.	1,701		" " " " Chicoutimi.
Fabiola.....		May 1.	81		Wrecking schr., Gulf and Montreal.
Etoile.....	591	" 1.	360		Pad. pass., Mont. and Quebec.
Victoria.....		June 1.	343		Screw " " and Chambly.
Cultivateur.....	751	May 1.	687		Pad. ferry, " and St. Hélène Is.
Matilda.....		" 1.	113		Screw tug, " Harbour.
Virginia (tug).....		" 1.	146		" " St. Lawrence river.
Belle.....		" 18.	51	9 08	" " " " "
Hamilton.....		" 22.	938		P. frgt., Montreal and Hamilton.
Columbian.....	500	" 22.	884		T. S. pass. " and Toronto.
Bohemian.....	400	" 23.	1,107		Pad. pass. " " "
C. W. Jones.....		" 23.	48		S. tug, Sorel Harbour.
Trenton (Dredge).....		" 24.	100		Dredging in Sorel.
I. L. X.....		" 24.	100		" " " " "
Polaris.....	450	June 1.	553		S. Winter ferry Quebec and Levis.
Diver.....		" 4.	86		S. wrecking schr. Quebec and Gulf.
St. Louis.....	555	" 17.	428		P. pass. Montreal, Quebec and Gulf.
E. B. Eddy.....		" 18.	78	11 24	S. tug, Quebec and Lakes.
Francis H.....		" 13.	17		" " Harbour.
St. Roch.....		" 15.	18		" " " " "
Spray.....		" 17.	24	6 92	" St. Lawrence River.
Foam.....		" 20.	16	6 28	" Quebec Harbour.
Hope.....		" 20.	19	6 52	" " " " "
Ripple.....		" 20.	13	6 04	" " " " "
Leifley H.....		" 24	19		" " and River du Loup.
Wobun.....		" 25.	1551		" frgt. Montreal and foreign ports.
Samson.....		" 5.	94		S. s. pass. Grande Piles and Latuque.
St. Maurice.....		" 6.	45		S. pass. " " " "
High Rock.....		" 6.	8		S. tug " " " "
Florence.....		" 8.	18		" " " " "
Dream.....		" 8.	27		S. pass. " " " "
St. Louis.....		" 8.	17		S. tug " " " "
Beatrice.....		" 6.	40		" Trois Rivières.
Dredge No. 5.....		" 1.	100		Dredging in Three Rivers.
Mabel McDonald.....		" 1.	42		S. tug, St. Lawrence River.
Como.....	40	" 8.	75		Pad. pass. Three Rivers and Nicolet.
Blandford.....		" 8.	65		P. tug, St. Maurice River.
Bourgeois.....		" 8.	94		Pad., ferry, Nicolet and Three Rivers.
Glacial.....		" 8.	109		S. " Sr. Angele & Three Riv.
Mary A. Laughline.....		" 8.	23		S. tug attending dredge.
Dredge No. 4.....		" 9.	100		" " " " "
Corine.....		" 1.	23		S. tug, Quebec Harbour.
St. Charles.....		" 1.	23	6 84	" " " " "
Alma.....		" 25.	43		Excursion boat.
Marie Josephine.....		April 13.	117		S. wrecking schr. Montreal and Gulf.
Polino.....	30	May 1.	807	72 56	S. pass., Montreal and Newfoundland.
Frontenac.....	400	" 1.	304	32 32	T. S. ferry, Quebec and St. Romuald.
Champion.....	612	" 1.	482	46 56	P. pass. " Berthier.
Orleans.....	530	" 1.	269	29 52	S. " " Orleans Island.
Campana.....	400	April 11.	1697	143 76	T. S., pass., Mont. & Picton N. S.
Rhoda.....	150	" 13.	182	22 56	Pad. mail tender, Rimonski.
Shamrock.....		May 1.	237		S. attending Buoys.
Total.....			41,486	\$1,511 84	

JOS. SAMSON,  
Boiler and Machinery Inspector.



SESSIONAL PAPER No. 21

STEAM Vessels not inspected for the Year ended June 30, 1903.

QUEBEC DIVISION.

BOILERS AND MACHINERY

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. Why not Inspected and Class of Vessel.
Adriatic	156	87	Laid up for want of employment.
Atlantic	564	283	" " "
Victor	35	18	Inspected since.
Mersey	56	34	Ins. since & sunk off Manicouagan shoal.
Marie Alma	52	36	Laid up for want of employment.
Beaver	273	104	" " "
Ivan R	18	12	" repairs.
Dama	54	37	Inspected since.
Charlevoix	212	144	Laid up for want of employment
Albatros	21	14	Not running.
Total	1,441	769	

JOS. SAMSON,  
*Boiler and Machinery Inspector.*

STEAM Vessels inspected for the Year ended June 30, 1903.

QUEBEC AND MONTREAL DIVISION.

BULL INSPECTION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where employed.
		1903.		\$ cts.	
Bella Ritchie	125	July 1.	69	10 52	Paddle, Montreal & Beauharnois.
Bonenfant	25	" 1	31	"	Screw, Charlemagne & Bout de L'Isle.
*Charlevoix			212	24 96	"
Lady of the Lake	700	July 11	607	56 56	Paddle, Newport & Georgeville.
Anny C.	10	" 11	6	5 48	Screw, on Lake Magog.
Mississippi	10	" 11.	4	5 32	" " Mississippi.
Maud	350	" 12	269	29 52	Paddle, Montreal & Ottawa.
*Ida			247	27 76	"
Spray	15	July 15	21	6 68	Screw, Quebec Harbour.
Belle	40	" 16	51	9 08	" " "
J. H. Hackett	25	" 16	117	17 36	" " "
M. E. Hackett	40	" 16	78	11 24	" " "
Admiral	250	Aug. 8	682	62 56	Paddle, Dalhousie & Gaspé.
Bella	10	" 9	43	8 41	" Campbellton & Cross Point.
Salaberry	40	" 20	222	25 76	Screw, Montreal & Valleyfield.
*Chaffey					Paddle, laid up.
Marie Louise	30	Aug. 26	99	12 92	" Chicoutimi & St. Anne.
Aleyone	20	" 26	41	8 52	Screw " " "
Mistassini	40	" 27.	495	47 60	Paddle, Roberval & Gr. Décharge.
Peribonca	40	" 27.	179	22 32	" " on Lake St. John.
Le Colon	40	" 27.	173	21 84	" " "

\* Unfit to carry passengers.

STEAM Vessels Inspected, &c.—Quebec and Montreal Division—*Continued.*HULL INSPECTION—*Continued.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where employed.
1903.				\$ cts.	
Nord.....	30	Aug. 27..	56	9 48	Screw, Roberval & Peribonca.
Roberval.....	50	" 27..	126	18 08	Paddle " "
Lord Strathcona .....	50	" 30..	495	47 60	Screw, Montreal & Foreign Ports.
Kathleen.....	40	Sept. 2..	280	30 40	Paddle, Quebec & Grosse Ile.
Jubilee.....	30	" 16..	25	7 00	Screw, Lake Mégantic & Wobun.
Polaris.....	450	Oct. 6..	533	50 64	" Quebec & Lévis.
Pilot.....	450	" 8..	426	42 08	" "
Queen.....	450	" 9..	367	37 36	" "
1904.					
Savoy.....	25	April 11..	348	34 84	Screw, Montreal & Foreign Ports.
Campana.....	400	" 15..	1,697	113 76	" " Pictou.
Rhoda.....	159	" 13..	182	22 56	Paddle, Quebec & Rimouski.
Greetlands.....	40	" 16..	1,091	95 28	Screw, Montreal & St. Johns, N.F.L.
Douro.....	200	" 17..	432	42 57	" Quebec & Sydney.
Queen.....	200	" 18..	332	34 56	" St. John & tributaries.
City of London.....	250	" 17..	516	49 28	" Charlottetown & Crapaud.
Mary.....	18	" 21..	108	16 64	" Quebec & Gaspé.
Polino.....	30	" 27..	807	72 56	" Montr., Sydney & St. J., N.F.L.
Berthier.....	600	" 28..	934	.....	Paddle " & Three Rivers.
Mouche a feu.....	40	" 29..	214	.....	" Sorel & Berthier.
Sorel.....	250	" 29..	158	.....	" Montreal & Beauharnois.
Chambly.....	600	" 10..	535	.....	" " Chambly.
Canada.....	600	" 10..	1,768	.....	" " Quebec.
Laprairie.....	350	" 10..	600	.....	" " Laprairie.
Orlean.....	530	" 14..	269	29 52	Screw, Quebec & Orleans Island.
Gaspesian.....	40	" 14..	490	47 20	" Montreal & Gaspé.
Frontenac.....	555	" 17..	304	32 32	" Quebec & St. Romuald.
Beaupre (ex Montreal)	800	" 20..	2,068	.....	Paddle, Montreal & Ste. Anne.
Saguenay.....	443	" 20..	992	.....	" " Chicoutimi.
South.....	450	" 20..	349	.....	" Quebec & Lévis.
North.....	450	" 21..	289	.....	" "
Champion.....	612	" 22..	482	46 56	" Quebec & Berthier.
Terrebonne.....	450	" 24..	316	.....	" Montreal & Sorel.
Longueuil.....	300	" 25..	365	.....	" " Longueuil.
Hochelaga.....	600	" 25..	419	.....	" Hochelaga & Boucherville.
St. Laurent.....	257	" 25..	548	.....	" Montreal & Berthier.
Lord Strathcona .....	30	" 29..	495	.....	Screw, " & Foreign Ports.
St. Croix.....	550	May 2..	506	48 48	Paddle, Quebec, Ste. Croix.
Etoile.....	591	" 2..	560	.....	" " & Montreal.
Contest.....	150	" 6..	274	29 92	" " & Grosse Isle.
Prefontaine.....	40	" 7..	889	.....	Screw, Montreal & Quebec.
Quebec.....	800	" 15..	2,656	.....	Paddle " "
Carolina.....	600	" 15..	969	.....	Pad., Montreal and Chicoutimi.
Cultivateur.....	751	" 15..	362	.....	" " and St. Helen Island.
Trois Rivières.....	600	" 15..	1,552	.....	" " and Trois Rivières.
Victoria.....	30	" 15..	343	.....	Screw, Montreal and St. John, P.Q.
Corsican.....	400	" 17..	946	.....	Pad., Montreal and Hamilton.
Welchman.....	25	" 17..	156	.....	Screw, Montreal and Ottawa.
Chateauguay.....	440	" 17..	222	.....	Pad., Montreal and Chateauguay.
Valleyfield.....	450	" 17..	417	.....	" Montreal and Valleyfield.
Duchess of York.....	700	" 18..	490	.....	" Montreal and Carillon.
Salaberry.....	40	" 18..	222	.....	Screw, Montreal and Valleyfield.
Princess.....	200	" 18..	527	.....	Pad., Montreal and Carillon.
Bonenfant.....	25	" 18..	31	.....	Screw, Charlemagne and Bout d'Isle.
Victoria.....	300	" 19..	181	.....	Screw, Ottawa and Thurso.
Empress.....	800	" 19..	678	.....	Pad., Ottawa and Grenville.
Mansfield.....	15	" 20..	169	.....	Screw, Ottawa and Hull.
G. B. Greene.....	600	" 20..	255	.....	Pad., Ottawa and Deschenes Lake.
Beatrice B.....	40	" 20..	40	.....	Screw, Aylmer and Britannia.
Pontiac.....	230	" 21..	116	.....	Pad., on Chats Lake.
Leon.....	15	" 22..	15	.....	Screw, High Rock & N. Dame de Laus.

SESSIONAL PAPER No. 21

Steam Vessels Inspected, &c.—Quebec and Montreal Division—*Concluded.*

HULL INSPECTION—*Concluded.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessels and Where employed.
		1904.		\$ cts.	
Mildred .....	25	May 22	15	.....	Screw, Buckingham and High Rock.
Agnes .....	40	" 22	29	.....	" " "
Leo .....	20	" 24	2	.....	" Hawkesbury and Grenville.
Bonito .....	30	" 24	17	.....	" Calumet and L'Original.
Glide .....	40	" 24	80	.....	" Calumet and Hawkesbury.
John .....	40	" 25	35	.....	Pad., Carillon and Point Fortune.
Sovereign .....	700	" 25	636	.....	" " Montreal.
Hosanna .....	40	" 26	89	.....	Screw, Montreal and Longueuil.
Olive .....	60	" 26	151	.....	" " Ottawa.
Bohemian .....	375	" 30	628	.....	Pad., Montreal and Prescott.
Armenian .....	* .....	" 30	467	.....	Screw, Montreal and Lake Ontario.
Garnet .....	200	" 29	385	.....	Pad., Montreal and Cornwall.
Belle .....	40	June 8	59	.....	Screw, Quebec Harbour.
Spray .....	15	" 8	21	.....	" " "
King Edward .....	150	" 8	355	.....	" Mont., Matasquan and Gaspé.
M. E. Hackett .....	40	" 8	78	.....	" Quebec Harbour.
Columbian .....	500	" 8	884	.....	" Montreal and Toronto.
Algerian .....	400	" 8	914	.....	Pad., Montreal and Hamilton.
Virginia .....	600	" 8	1,701	.....	" " Chicoutimi.
Queen .....	40	" 20	15	.....	Screw, on Lake Nipissing.
Sparrow .....	40	" 20	38	.....	" " "
Van Woodland .....	100	" 20	37	.....	" " "
Booth .....	40	" 20	347	.....	Pad., " "
Empress .....	25	" 20	36	.....	Screw, Sturgeon Falls and Rivers.
Fleur de Mai .....	† .....	" 20	7	.....	" " "
Dorothy .....	10	June 26	10	.....	" Lake Nipissing and Rivers.
Verva .....	40	" 22	55	.....	" Wahnapiatae.
D. B. Mulligan .....	40	" 22	77	.....	" Pembroke and Calumet.
Mahigama .....	40	" 22	20	.....	" " Fort William.
Victoria .....	400	" 22	188	.....	Pad., " St. Joachim.
Hudson .....	40	" 23	45	.....	" Barry's Bay and Palmers.
Hall .....	50	" 23	247	.....	Screw, Montreal and Ottawa.
Robert McKay .....	150	" 24	129	.....	" Montreal Harbour.
Aberdeen .....	150	" 24	87	.....	" " "
Filgate .....	400	" 20	425	.....	Pad., Montreal Harbour & Cornwall.
Ida .....	40	" 24	247	.....	Screw, " Ottawa.
Spartan .....	400	" 24	946	.....	Pad., " Hamilton.
Chaffey .....	40	" 25	42	.....	Screw, Valleyfield and Lancaster.
Maud .....	200	" 15	269	.....	Pad., Montreal and Ottawa.
Hamilton .....	375	" 15	938	.....	" " Toronto.
Wobun .....	* .....	" 20	1,352	.....	Screw, Montreal and foreign ports.

\* Freight. † Unfit to carry passengers.

PHILIPPE DUCLOS,  
*Hull Inspector.*

3-4 EDWARD VII. A. 1904

## STEAM Vessels not Inspected for the Year ended June 30, 1903.

## QUEBEC AND MONTREAL DIVISION.

## HULL INSPECTION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	REMARKS.	
			Why not inspected and	Class of Vessel.
Richelieu .....	113 38	71 43	Paddle passenger, not running.	
Kathleen .....	230 38	176 64	" " unfit for running.	
St. Louis .....	427 57	269 55	" " inspected since.	
Samson .....	95 55	63 61	Screw passenger	"
St. Maurice .....	44 72	30 41	" "	"
Coma .....	75 11	47 32	Paddle passenger	"
Glacial .....	109 00	74 00	Screw "	"
Bourgeois .....	94 34	59 44	Paddle "	"
Maria Louise .....	5 66	5 01	Screw "	"
Ivan R. ....	18 29	12 44	" " in construction.	
Arthur .....	14 98	12 24	" " unfit for running.	
Adriatic .....	156 03	87 29	" " not running.	
Atlantic .....	565 03	282 80	" " unfit for running.	
Charlevoix .....	212 38	67 96	" freight, not running.	

PHILIPPE DUCLOS,

*Hull Inspector.*

SESSIONAL PAPER No. 21

STEAM Vessels Inspected for the year ended June 30, 1903.

NOVA SCOTIA DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
1903.					
Highland Mary		July 3	73.73	10 92	Screw, lighter, coasting.
L. Boyer	100	" 4	60.00	9 80	" passenger, Halifax Harbour.
Robbie Burns		" 5	88.95	12 12	" lighter "
Commodore	30	" 8	12.84	6 04	" passenger "
I. C. U.		10 June 6	3.58	5 32	" " Annapolis Basin.
Millie R.		May 14	19.85	6 60	" tug, coasting.
Star	15	July 18	6.07	5 48	" passenger, Wallace Harbour.
Malcolm Cann	100	" 21	211.81	24 96	" " coasting.
Iona	22	" 22	54.27	9 32	" " Sydney and Canso
Marion	400	" 22	478.49	46 24	Paddle " Bras d'Or Lakes.
Alameda	40	" 23	62.59	10 04	Screw " Mira River.
Marietta	19	" 23	7.04	5 56	" " "
Vesta		" 23	9.21	5 72	" tug " "
Zulieka		" 23	12.38	5 96	" " "
Elenor M. Cates		" 24	58.81	9 72	" " coasting.
Eldon		" 25	37.81	8 04	" " "
Clayton	40	May 14	42.62	8 44	" passenger, Avon River & Bay.
Susie	40	" 14	26.83	7 16	" " "
Rescue		Aug. 14	124.09	14 92	" freight, coasting.
Bessie & Harry		" 15	22.49	6 76	" water boat, Halifax Harbour.
Aid		" 22	98.55	12 84	" freight, coasting.
St. Michael	15	" 26	39.20	8 12	" pass., Liverpool and Shore.
Arbutus		" 26	46.76	8 76	" tug, coasting.
Maggie	38	" 27	19.26	6 52	" pass., Lunenburg and South.
Carrie	40	" 27	14.83	6 20	" " Chester and Mahone.
Mascotte	25	" 27	35.40	7 80	" " Lunenburg & Shore Ports
Collector	40	" 30	52.02	9 16	" " Halifax and Bedford.
Cygnat		Sept. 2	11.23	5 88	" fish boat, coasting.
Yuba	25	Aug. 1	12.04	5 96	" pass., Barrington Harbour.
Henry Hoover		Sept. 2	54.64	9 40	" tug, coasting.
Anticosti		" 3	19.00	6 52	" fish boat, coasting.
Gambinus		" 3	28.36	7 24	" lighter, Halifax Harbour.
rlsie		" 6	22.14	6 76	" tug, coasting.
Albion		" 8	9.14	5 72	" " Moser's River.
Salvor		" 10	44.93	8 60	" lighter, Halifax Harbour.
Lady Glover	25	" 12	137.51	19 04	" passenger, coasting.
Lunenburg	175	" 20	265.55	29 28	" " "
Ralph E. S.		Oct. 10	27.82	7 24	" fish boat "
Annie		" 21	42.12	8 36	" water boat, Halifax Harbour.
Bridgewater	225	" 28	207.79	24 64	" passenger, coasting.
Wilfred C.	6	" 30	99.26	12 92	" " "
La Have		Nov. 13	49.27	8 92	" tug " "
Wanda		" 18	38.48	8 04	" " "
Harbinger	39	" 19	108.56	13 72	" passenger "
Westport	125	" 19	80.09	11 40	" " "
Edna R.		" 20	49.66	8 92	" tug " "
Nereid		" 20	12.24	5 96	" fishing boat "
Ida Lue		" 20	44.51	8 60	" tug " "
Yankee		" 20	7.31	5 56	" fishing boat "
Loretta		" 20	12.02	5 96	" tug, Tusket River.
Goliath	17	" 22	146.83	19 76	" passenger, coasting.
Halifax	250	" 25	338.42	35 04	Paddle, ferry, Halifax Harbour.
Alpha		Dec. 8	61.20	9 88	Screw, freight, coasting.
Pekin		" 1	84.91	11 80	" " "
Messenger		" 22	111.53	16 96	" " "
1904.					
Dolphin		Jan. 15	8.07	5 64	" fish boat "
Newfoundland		Feb. 14	918.75	78 52	" freight, foreign.
Harlaw	60	" 25	451.36	44 08	" passenger, coasting.
J. L. Nelson	20	Mar. 11	37.84	8 04	" " "

STEAM Vessels Inspected, &c.—Nova Scotia Division—*Concluded.*BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1904.		s. cts.	
Lenore		Mar. 18	15 23	6 30	Screw, fish boat, coasting.
Island Gem	40	" 19	15 62	6 28	" passenger, Yarmouth Harbour
Edna R.		" 19	49 66	8 92	" tug, coasting.
Florence C.		" 24	38 98	8 12	" freight "
Mable R.		" 27	15 20	6 20	" fish boat "
Victor		April 8	26 86	7 08	" freight, coasting.
Flash	15	" 11	7 79	5 64	" passenger, Halifax harbour.
City of Ghent	60	" 17	198 64	23 92	" " coasting.
Amita		" 6	26 50	7 16	" fish boat "
Coban	37	" 17	1,063 30	93 04	" passenger, foreign.
Louisburg		" 15	1,815 60	150 28	" freight "
Halifax	500	" 21	1,874 88	158 00	" passenger "
Helen May Butler		" 23	66 98	10 56	" freight, coasting.
Percy Cann	140	" 28	80 06		" passenger "
La Tour	60	" 29	154 43		" " "
Gertrude M.	35	" 29	47 58		" " "
Amphitrite		May 2	149 45		" freight "
Richard		" 5	463 60		" " "
Bonavista	50	" 5	1,306 33		" passenger, foreign.
E. W. Roebbing	35	" 5	161 97		" " coasting.
Trusty	100	" 11	57 60		" " La Have river
Mikado	17	" 12	43 94		" " Halifax harbour.
Rescue		" 13	124 09		" freight, coasting.
Marion	37	" 18	10 30		" passenger, Pictou harbour.
Arcadia	37	" 18	61 64		" " coasting.
May Queen	25	" 19	35 92		" " Pictou harbour.
Gladiator		" 20	70 40		" tug, coasting.
Diamond		" 20	22 65		" " Sydney harbour.
Fairy		" 20	16 06		" water boat, Sydney harbour.
Peerless	300	" 30	94 27		" passenger " "
Douglas H. Thomas	18	" 21	211 91		" " coasting.
Weymouth	100	" 22	153 93		" " " "
Merrimac	22	" 22	85 80		" " " "
Sea Bird		" 22	41 28		" fish boat " "
Pawnee	150	" 22	106 80		" passenger, Bras d'Or lakes.
Blue Hill	140	" 23	195 83		" " " "
Fred. L. M. Pant	37	" 23	88 18		" " Strait of Canso.
Nelson	100	" 23	64 34		" " Bras d'Or lakes.
Vulcan		" 23	18 40		" tug, coasting.
Meadow Flower		" 23	6 56		" water boat, Canso harbour.
John L. Cann	125	" 24	165 55		" passenger, coasting.
Zaidee		" 25	18 63		" water boat, Sydney harbour.
Daisy		" 25	10 74		" " " "
Gipsy		" 25	16 70		" tug " "
Dartmouth	435	June 1	311 23		" Paddle, ferry, Halifax harbour.
Bruce		" 1	55 70		" Screw, lighter " "
A. C. Whitney		May 15	62 67		" tug, coasting.
Falmouth		June 8	43 03		" " Avon river.
Evangeline	150	" 8	69 18		" passenger, Avon river
Chester		" 8	79 50		" tug " "
Rona		" 10	79 05		" " coasting.
Albatros		" 10	31 38		" yacht " "
Freddie V		" 10	26 69		" tug " "
I. B. Hambley	100	April 4	31 71		" passenger, Halifax harbour.
Acadia	100	" 21	74 21		" " " "
Petrel	20	June 29	6 36		" " " "
Pastime	175	" 17	67 71		" " " "
Totals			15,293 86	1,234 28	

J. P. ESDAILE,  
Steamboat Inspector, Halifax, N. S.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected in Canada but registered elsewhere, for the Year ended  
June 30, 1903.

NOVA SCOTIA DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
1903.				\$ cts.	
Dahome .....	70	Aug. 9.	2,469.74	295 60	Screw, passenger, foreign.
Chebucto .....	400	" 9	578.48	54 24	" " Halifax harbour.
Pro Patria .....	60	" 14	759.01	68 72	" " foreign.
Ocamo .....	75	" 22	1,826.64	154 16	" " "
Beta .....	75	Sept. 10.	1,086.67	94 96	" " "
Oruro .....	150	" 15	1,919.07	161 52	" " "
1904.					
Glencoe .....	100	Jan. 6.	767.09	69 36	Screw, passenger, foreign.
Britannic .....		Feb. 10.	2,302.45	189 16	" freight "
Terje Viken .....		" 27.	3,579.68	291 40	" " "
Universe .....		Mar. 25.	2,535.51	207 88	" " "
Amelia .....	230	April 6.	356.58	36 56	" passenger, coasting.
Silvia .....	115	" 21.	1,707.70	144 64	" " foreign.
Prince George .....	600	" 30.	2,040.14	171 20	" " "
Alert .....		May 20.	105.39	13 40	" tug, coasting.
Elaine .....	300	" 21.	272.08	29 76	" pass. "
C. M. Winch .....		" 21.	87.72	12 04	" tug "
Bruce .....	300	" 26.	1,154.59	100 40	" passenger, foreign.
Prince Arthur .....	600	June 11.	2,041.44	171 28	" " "
Olivette .....	450	" 15.	1,678.17	142 24	" " "
Total .....			27,268.05	2,318.52	

J. P. ESDAILE,  
Steamboat Inspector, Halifax, N. S.

3-4 EDWARD VII. A. 1904

## STEAM Vessels not Inspected for the Year ended June 30, 1903.

## NOVA SCOTIA DIVISION.

## BOILERS AND MACHINERY.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	REMARKS.
			Why not Inspected and Class of Vessel.
Tusket .....	3 04	2 00	Laid up, tug.
Alida .....	64 18	28 52	" "
Gen .....	4 67	2 12	" fishing boat.
Havana .....	470 18	245 86	" passenger.
Maple Leaf .....	129 06	81 31	" ferry boat.
Volunda .....	29 80	13 46	" yacht.
Jessie Grey .....	76 01	47 93	" lighter.
Bessie .....	10 45	5 74	" passenger.
Victor .....	9 62	6 41	" tug.
David Duncan .....	20 59	10 59	" "
Lennox .....	66 29	41 76	" ferry boat.
Lion .....	19 82	13 48	" tug.
Dolphin .....	12 78	8 69	" "
Oncita .....	14 96	10 18	" fishing boat for new boiler.
Yarmouth .....	1,451 92	724 66	" passenger.
Ayon .....	64 66	41 39	" " for new boiler.
W. M. Weatherspoon .....	59 29	34 41	Not yet inspected, tug.
Vega .....	132 22	82 82	Laid up, repairing hull, passenger.
Active .....	59 91	21 50	Not yet inspected, tug.
Hygeia .....	57 69	39 23	Laid up for new boiler, passenger.
Markland .....	21 92	14 91	Not yet inspected " "
Tourist .....	4 42	3 33	Laid up, repairing boiler " "
Juno .....	9 29	2 21	" " hull. " "
Boston .....	1,694 50	733 77	" passenger.
Marina .....	32 46	16 29	Not yet inspected, tug.
Centreville .....	59 71	32 48	" " " "
Glencoe .....	32 21	24 53	" " passenger.
Ulala .....	13 70	3 35	" " yacht.
Alexandra .....	33 67	22 90	" " " "
Shannon .....	75 11	51 07	" " tug.
Total .....	4,734 15	2,368 70	

J. P. ESDAILE,  
Steamboat Inspector, Halifax, N. S.



SESSIONAL PAPER No. 21

STEAM Vessels Inspected for the Year ended June 30, 1903.

NOVA SCOTIA DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
1903.					8 cts.
L. Boyer	100	July 3	60 00	9 80	Screw, passenger and tug, Halifax Harbour, Screw Ferry.
I. B. Hamblin	100	" 3	37 71	7 56	Screw, pass. and tug, Halifax Harbour
I. C. U.	10	" 10	3 56	5 32	" " Digby Basin
Commodore	30	" 11	12 84	6 04	" " Halifax Harbour.
Susie	40	" 15	26 83	7 16	" " Avon river.
Clayton	40	" 15	42 62	8 44	" " and freight, Parrsboro and Bay of Fundy.
Marion	400	" 22	478 49	43 28	Paddle, passenger and freight, Sydney and Bras d'Or Lakes.
Iona	400	" 22	54 27	9 32	Tug and pass., L'pool, N.S. and coast.
Marietta	29	" 23	7 04	5 56	Screw, excursion, Mira river.
Alameda	40	" 23	62 59	10 04	Minor waters, N.S. & P.E.I., scr. ferry
Malcom Cann	90	" 25	211 81	24 96	Mulgrave & coast, screw pass. & tug.
Yuba	25	Aug. 1	12 04	5 96	Barrington passage, tug & screw pass.
Messenger	100	" 22	111 53	13 96	Yarmouth & adjacent Islands, screw pass. & tug.
Evangeline	100	May 14	69 18	10 52	Screw, excursion & tug, Avon river & Bay of Fundy.
Susie	40	July 15	26 83	7 16	Screw, pass., Avon river.
Clayton	40	" 15	42 62	8 44	Screw, pass. and tug, Parrsboro and Bay of Fundy.
Yuba	25	Aug. 1	12 04	5 96	Screw, pass. and freight, Barrington Passage.
Messenger	100	" 22	111 53	13 96	Screw, excursion and Tug, Yarmouth.
Star	15	July 1	6 07	5 48	" pass. & tug, Wallace River.
St. Michael	15	Aug. 26	39 20	8 12	" " L'pool & shore pts.
Maggie	37	" 27	19 26	6 52	" " Lunenburg and South Shore.
Carrie	40	" 27	14 83	6 20	Screw, pass., Chester & Mahone Bay.
Mascott	25	" 27	35 40	7 80	Halifax Harbour.
Collector	40	" 30	52 02	9 16	" "
Lady Glover	25	Sept. 16	137 51	19 08	" "
Lunenburg	175	" 26	205 55	29 28	Screw, pass. & freight, Halifax & coast
Bridgewater	225	Oct. 28	207 78	24 64	" " " "
Wilfred C.	60	" 30	99 26	12 92	" pass., Halifax & coast.
Goliath	17	Nov. 14	146 83	19 76	" freight, Halifax & coast.
Westport	125	" 19	80 09	11 40	Twin ser-w & freight, Yarmouth & Coast.
Halifax	250	Dec. 6	338 42	35 04	Screw, pass. & tug, Hal'x & Dartmouth
1904.					
Newfoundland		Feb. 23	918 75	78 52	Screw, pass. & freight, Halifax & coast.
J. L. Nelson	20	March 18	37 84	8 04	" pass. & tug, Halifax & coastwise
Harbinger	39	April 13	108 56	13 72	Excursion & tug, Yarmouth & adjacent Island.
Louisburg		" 16	1815 60	150 28	Screw, pass. & freight, Can. & foreign.
Coban	37	" 18	1063 30	93 04	" " " "
City of Ghent	60	" 23	198 64	23 92	" " Halifax & coast
Flash	15	" 25	7 79	5 64	Halifax Harbour.
Halifax	500	" 27	1814 88	158 00	Screw, pass. & tug, Halifax & coast.
Percy Cann	140	" 28	86 64	11 40	Yarmouth & coast.
La Tour	60	" 29	154 43		" " " "
Gertrude M.	35	" 29	47 58		" " " "
Harlaw	60	Feb. 25	451 36	44 68	Screw, pass. & freight, Hal'x & coast.
Bonivesta	50	May 5	1306 33		Canadian & foreign, scr. pass. & freight.
Richard		" 8	465 60		Screw, freight, Halifax & coast.
F. W. Robling	35	" 9	161 97		" pass. & tug, Halifax & coast.
Trusty	100	" 11	57 60		" pass., Bridgewater & shore ports
Mikado	17	" 12	43 94		tug & pass., Halifax Harbour.
Arcadia	37	" 18	61 64		" freight, Pictou & coast.

STEAM Vessels Inspected, &c.—Nova Scotia Division—*Concluded.*HULL INSPECTION—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Class of Vessel and Where employed.
		1904.		s. cts.	
May Queen.....	25	May 18..	35 92	.....	Pictou Harbour & river.
Marion.....	37	" 19..	10 30	.....	" " "
Merrimac.....	22	" 20..	85 80	.....	Screw ferry, Strait of Canso.
D. H. Thomas.....	18	" 21..	211 91	.....	" pass. & freight, Halifax & coast
Weymouth.....	100	" 22..	153 93	.....	" " N. Sydney & c.
Pawnee.....	250	" 22..	106 80	.....	" " Can. & foreign.
Peerless.....	300	" 22..	94 27	.....	" " Sydney & N. S.
Cape Breton.....		" 23..	1761 19	.....	" " Can. & foreign.
Cacouna.....		" 23..	1450 78	.....	" " "
Blue Hill.....	140	" 25..	195 83	.....	" " Baddeck & Gr. L.
John L. Cann.....	125	" 26..	165 55	.....	" " Mulgrave & coast
Fred. L. M. Paint.....	36	" 26..	88 18	.....	" ferry, Strait of Canso.
Nelson.....	70	" 26..	64 34	.....	" " Sydney & N. Sydney.
Dartmouth.....	435	June 5..	311 23	.....	" pas. & frgt., Hal'x & Dartmouth
Evangeline.....	150	" 8..	69 18	.....	" excursion & freight, Avon river.
Tourist.....	30	" 10..	4 04	.....	" pass, Yarmouth Harb.
Island Gem.....	40	" 10..	15 06	.....	" " "
Markland.....	50	" 19..	21 92	.....	" freight, St. Marys Bay.
Petrel.....	20	" 23..	6 36	.....	" " Halifax Harb.
L. B. Handlin.....	100	" 30..	31 71	.....	" excursion, "
Pastime.....	175	" 29..	67 71	.....	Excursion, Halifax Harb.
Acadia.....	100	" 30..	74 21	.....	Screw, pass. & freight, Sydney & N. Sydney.

## STEAM Vessels Inspected in Canada but Registered Elsewhere, for the Year ended June 30, 1903.

		1903.			
Dahome.....	70	Aug. 8..	2,469 74	205 60	Screw, pass. & freight, Can. & foreign
Pro Patria.....	60	" 13..	759 01	68 72	" " " "
Chebucto.....	400	" 13..	578 48	54 24	Twin screw ferry, Halifax & Dartmouth
Ocamo.....	75	" 20..	1,826 54	154 16	Screw pass. & freight, Can. & foreign.
Beta.....	75	Sept. 11..	1,086 67	94 96	" " " "
Oruro.....	150	" 17..	1,919 07	161 52	" " " "
		1904.			
Glencoe.....	100	Jan. 7..	767 09	69 36	" " " "
Amelia.....	200	April 8..	356 54	36 56	" pass. & freight, Halifax & Coast
Silvia.....	115	" 21..	1,707 70	144 64	" " Can. & foreign.
Prince George.....	600	" 29..	2,040 14	171 20	" " " "
Elaine.....	300	May 21..	272 28	29 76	" " " "
Bruce.....	300	" 23..	1,154 69	100 40	" " " "
Prince Arthur.....	600	June 12..	2,041 44	171 28	" " " "
Olivette.....	450	" 13..	1,678 19	142 24	" " " "
Rosalind.....	150	" 13..	2,567 70	213 44	" " " "

S. R. HILL,

*Inspector of Halls and Equipment, Halifax, N.S.*

SESSIONAL PAPER No. 21

STEAM Vessels Inspected for the year ended June 30, 1903.  
NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
1903.				\$ cts.	
Waring.....		July 3.	28 74	7 32	Screw, tug, St. John River.
Borrioboola Gha.....		" 8.	95 77	12 68	Paddle " Restigouche River.
Atlas.....		" 8.	15 79	6 28	Screw " coasting.
Nellie H.....		" 8.	7 52	5 64	" fish boat, Dalhousie.
Henrietta.....		" 8.	19 12	6 52	" tug " coasting.
Victor.....		" 9.	45 51	8 68	" " Restigouche River.
Squirrel.....		" 9.	13 11	6 04	" " " "
Florence.....		" 9.	19 33	6 52	" yacht, coasting. "
St. Lawrence.....		" 10.	50 82	9 08	" tug " "
Nyanza.....	122	" 10.	83 21	11 64	" passenger, Bathurst Harbour.
Loyalist.....		June 17.	17 57	6 44	Paddle, tug, Miramichi River.
Lord Roberts.....		July 28.	55 98	9 48	Screw " coasting.
Gracie Belle.....			10 52	5 88	" yacht, St. John River.
Dirigo.....	40	Aug. 4.	70 13	10 60	" freight and pass., St. John R.
Viking.....	150	" 4.	127 70	18 24	" pass., St. Croix River.
Bessie Ardella.....		" 4.	17 42	6 36	" fish tug, St. Andrews.
Marguerite.....	40	" 5.	19 66	6 60	" pass. "
Scout.....		" 13.	9 26	5 72	" tug, coasting. "
Dream.....		" 21.	44 51	8 60	" yacht, St. John River.
Carrie Knight.....		Sept. 2.	5 88	5 48	" tug " "
Neptune.....	40	" 2.	71 15	10 68	" " and pass., St. John R.
Calluna.....		July 20.	22 26	6 76	" " Richibucto.
Powerful.....		" 20.	29 34	7 32	Paddle " " "
Comet.....			20 85	6 68	" " " "
Alice.....		July 21.	15 77	6 28	Screw " Buetoche.
Amanda Green.....		" 11.	19 63	6 60	" " St. John River.
Jubilee.....		June 25.	16 52	11 24	" fish boat " "
Wenola.....		Sept. 23.	25 10	7 00	" tug, coasting.
Beryl Essie.....		" 23.	23 83	6 92	" " " "
Delta.....			19 93	6 60	" " " "
Aberdeen.....	393	Oct. 7.	243 86	27 52	Stern wheel, pass., St. John River.
Aurora.....	200	" 2.	364 24	37 12	Screw, pass., St. John, Grand Manan.
Vacuna.....		" 14.	9 52	5 80	" tug, freight, Vanceboro.
Springhill, (B.of Minas (B.of Fundy)	100 60	Sept. 22.	189 05	23 12	" " St. John, coasting.
Latona.....		May 27.	22 68	6 84	" " " " "
Kingsville.....		Nov. 3.	36 59	7 96	" " St. John River.
Western Extension.....	440	Sept. 12.	424 89	42 00	Paddle, ferry " "
1904.					
Leader.....		Feb. 20.	29 32	7 32	Screw, tug, St. John River.
Hercules.....		Mar. 2.	87 11	11 96	" " " "
E. Ross.....	40	" 12.	29 63	7 40	" " ferry " "
Maggie M.....		" 18.	66 78	10 28	" tug " "
G. K. King.....		" 20.	45 48	8 60	" " " "
Serena E.....		" 20.	24 94	7 00	" " Apple River, N.S.
Springfield.....	254	" 21.	232 73	26 64	Stern wheel, pass., St. John River.
Admiral.....		" 24.	158 20	17 64	Paddle, tug, St. John River.
Hero.....		" 24.	127 63	15 24	" " " "
Fred Glasier.....		" 24.	10 39	5 80	Screw " " "
Winnie.....		" 24.	12 46	5 96	" " " "
Nereid.....		" 24.	30 03	7 40	" " " "
Fannie.....		" 24.	33 44	7 64	" " " "
Princess.....	350	" 27.	541 79	51 36	" pass., N.S. and P.E.I.
Northumberland.....	350	" 27.	1,255 46	108 40	Twin screw, pass., N.S. and P.E.I.
Hampstead.....	150	April 1.	234 52	26 80	Screw, pass., St. John River.
Captain.....		" 1.	68 43	10 44	" tug " "
David Western.....	450	" 1.	756 15	69 20	Paddle, pass. " "
Majestic.....	400	" 1.	274 63	39 00	Screw " " "
Champion.....		" 1.	190 14	20 20	Paddle, tug " "
May Queen.....	370	" 2.	539 40	51 12	" pass. " "

STEAM Vessels Inspected, &c.—New Brunswick and P. E. Island Division—*Concluded.*

BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
1904.				\$ cts.	
Maggie Miller	150	April 4	104 66	16 40	Paddle, ferry, Kenebecasis River.
Clifton	200	" 4	138 21	19 04	Stern wheel, pass., St. John river.
Quaddy	"	" 4	30 39	7 48	Paddle, tug, St. John river.
Bismark	40	" 4	49 04	8 92	" pass., " "
Helen Glazier	"	" 6	12 00	5 96	Screw, tug, " "
Victoria	700	" 6	1001 93	88 16	Paddle, pass., " "
W. H. Murray	"	" 6	72 55	10 84	Screw, tug, " "
Sea King	"	" 14	128 63	15 32	" " " "
Martello	"	" 14	33 65	7 72	" " " "
Wee Laddie	"	" 14	16 60	6 36	" " " "
Crystal Stream	493	" 15	482 05	46 56	Paddle, pass., " "
Joseph	"	" 18	53 78	9 32	Screw, tug, " "
Ld. Kitchener (B. of E. M. W.)	40 176	" 22	161 24	20 88	" pass., coasting.
Clymeric	"	" 21	10 39	5 80	" yacht, St. John river
Hope	"	" 22	305 77	29 48	" tug, " "
G. D. Hunter	"	" 25	67 97	10 44	" " " "
Clayton	"	" 29	42 62	"	" " " "
Montague	75	May 4	129 55	"	Paddle, ferry, Georgetown.
Electra	40	" 4	106 96	"	Screw, pass., Charlottetown.
T. A. Stewart	"	" 4	35 94	"	Twin-screw, tug " "
Elliot	"	" 5	367 50	"	Screw, freight, foreign, Charlottetown.
Fred M. Batt	30	" 5	59 60	"	" tug, " "
Wm. Aitken	25	" 5	74 87	"	" pass., " "
Scout	"	" 5	9 26	"	" tug, coasting.
J. H. Hackett	"	" 5	117 07	"	" " " "
Nelson	"	" 6	32 80	"	" " Charlottetown.
Elfin	70	" 6	122 42	"	Paddle, ferry " "
W. F. McRae	"	" 6	45 73	"	" " " "
Peri	"	" 8	11 77	"	Screw, tug, St. John river.
Hudson	"	" 29	33 59	"	" " " "
Beaver	20	" 29	84 73	"	" pass., " "
James Holly	"	" 16	31 21	"	" tug, " "
Tangent	"	June 5	35 74	"	Twin-screw, tug, " "
Neptune	40	" 19	71 15	"	Screw, tug and pass., St. John river.
Lillie	65	" 2	71 64	"	" " " "
Ada	"	" 23	3 66	"	" Yacht, " "
Annie Currier	"	" 23	10 56	"	" tug, " "
Latona	"	" 23	22 68	"	" " " "
Fanchon	40	" 23	110 61	"	Paddle, pass., " "
Carrie Knight	"	" 23	5 88	"	Screw, tug, Fredericton.
Ernest	"	" 23	12 58	"	" " St. John river.
Eva Johnson	"	" 23	15 77	"	" " " "
Randolph	"	" 24	8 71	"	Twin-screw, " "
Zuleika	"	" 26	15 87	"	Screw, Yacht, " "
Frederick A.	"	" 26	31 11	"	" tug, " "
Brunswick (B. of Minas B. of Fundy)	300 40	May 23	184 27	"	" pass., " "
			11,635 13	1,205 32	

SESSIONAL PAPER No. 21

STEAM Vessels Inspected in Canada but registered elsewhere, for the year ended June 30, 1903.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
1903.					
Penobscot .....	600	July 14.	1414.02	121 12	Paddle, pass., St. John to Boston.
Campobello.....	100	Aug. 4	39.81	8 12	Screw, ferry, Lubec.
Lubec .....	125	" 5.	50.94	9 08	" pass., Calais.
Eastport .....	146	" 5.	64.29	10 12	" ferry, Lubec.
Henry F. Eaton .....	300	" 6.	240.04	27 20	" pass., Calais.
St. Croix .....	500	Dec. 15.	1993.58	167 52	" " St. John to Boston.
1904.					
Prince Rupert.....	850	May 29	1158.44	100 64	Paddle, pass., St. John to Digby.
State of Maine.....	750	June 11.	1409.99	120 80	" " " to Boston.
Penobscot.....	800	" 12.	1414.02	121 12	" " " "
Total.....			7785.43	685 72	

STEAM Vessels not Inspected for the Year ended June 30, 1903.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. Why not Inspected and Class of Vessel.
Flushing .....	177.65	120.80	Laid up, screw passenger.
St. Kilda .....	55.64	35.96	Inspected in July 1903, tug.
Alexandra.....	200.72	136.49	" " " passenger
Mascott.....	70.50	47.56	" " " tug.
St. Andrew.....	76.64	52.11	" " " "
Miramichi.....	75.18	51.12	" " " passenger.
St. George.....	277.78	175.01	" " " "
Wenonah .....	9.02	6.13	" " " yacht.
Mary Odell.....	28.92	19.67	" " " passenger.
Edith.....	21.55	14.65	" " " tug.
Arthur .....	4.99	3.40	" " " yacht.
Sarscelle.....	21.86	14.93	" " " tug.
Wm. M.....	29.11	19.80	" " " "
St. Nicholas.....	62.20	42.30	" " " passenger
Sybella H.....	70.68	47.78	" " " ferry.
Bridgetown.....	14.66	9.97	" " " tug.
Laura.....	13.55	8.15	" " " "
Eva.....	18.01	12.25	" " " "
Rustler.....	101.54	63.97	" " " passenger
Lady Dufferin.....	47.48	28.83	" " " ferry.
Bessie.....	5.18	3.52	" " " tug.
Irene.....	10.29	7.02	" " " "
Zulu.....	17.60	10.25	" " " "
St. Isidore.....	141.75	89.30	" " " "
Grey Loggie.....	99.20	67.46	Out of district
Mildred.....	40.11	27.24	Repairing boiler
Storm King.....	107.87	73.55	Laid up
	1,799.68	1,188.32	

STEAM Vessels Inspected for the year ended June 30, 1903.  
NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage-Dues and Inspection Fees Paid.	Class of Vessel and where employed.
1903.					
" Alexandra "	397	June 16..	200 72	24 08	Screw, pass., Miramichi River.
J. K. Parker.	200	July 23..	230 85	10 00	Barge in tow, St. John River.
Dirigo	40	Aug. 2..	70 13	10 60	Screw, pass. and tug.
Viking	150	" 4..	127 70	18 24	" " Passamaquoddy Bay.
Marguerite.	40	" 4..	19 66	6 60	" " " "
Vivian C.	125	" 6..	58 00	10 00	Barge in tow, St. John River.
Neptune	40	Sept. 2..	71 15	10 68	Screw, pass. and tug, " "
Aberdeen.	393	Oct. 7..	243 86	27 52	Stern wheel, pass., " "
Aurora	200	" 2..	364 24	37 12	Screw, pass., St. John and coasting.
Springhill	100	Sept. 22..	189 08	23 12	" " " "
Western Extension	440	" 12..	424 89	41 92	Paddle, ferry, St. John.
1904.					
No. 3	300	Jan. 1..	145 00	10 00	Scow in tow, pass., St. John.
E. Ross.	40	Mar. 12..	29 63	7 40	Ferry, screw, St. John River.
Springfield.	254	" 21..	232 73	26 64	Stern wheel, pass., " "
Hampstead	150	" 28..	234 52	26 80	Screw, pass., " "
Majestic	400	April 1..	279 63	30 00	" " " "
Clifton.	200	" 4..	138 21	19 04	Stern wheel, pass., " "
Maggie Miller.	150	" 4..	104 66	16 40	Paddle, ferry, Millidgeville.
David Weston.	450	" 1..	765 15	69 20	" pass., St. John River.
Northumberland	350	Mar. 27..	1255 46	108 40	Twin screw, pass., Northumberland Straits.
Princess	350	" 27..	541 79	51 36	Screw, pass., " "
Crystal Stream	493	April 15..	482 05	46 56	Paddle " St. John River.
May Queen	420	" 2..	539 40	51 12	" " " "
Victoria	885	" 6..	1001 33	88 16	" " " "
Electra	40	May 4..	106 96	.....	Screw " Northumberland Straits.
Wm. Aitken	25	" 5..	74 87	.....	" " " "
Fred M. Batt	30	" 5..	59 90	.....	" " " "
Elfin	70	" 6..	122 42	.....	Paddle, ferry Charlottetown.
Montague	75	" 4..	129 55	.....	" " Georgetown.
Lord Kitchener.	176	" 14..	161 24	.....	Screw, pass. and tug, St. John River.
Elliot	Freight	" 5..	367 50	.....	" freight, coasting and foreign.
Prince Rupert	850	" 29..	1158 44	100 64	Paddle, pass., St. John and Digby.
Beaver	20	" 29..	84 73	.....	Screw, pass., coasting.
Lillie	65	June 2..	71 64	.....	" " St. John River.
Neptune	40	" 19..	71 15	.....	" " " "
Faucher	40	May 27..	110 61	.....	Paddle " " "
Serena E.	40	Mar. 20..	24 94	.....	Screw " " "
Brunswick	350	May 23..	184 27	.....	" " Minas Basin.

I. J. OLIVE,  
Hull Inspector, &c.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected in Canada but registered elsewhere, for the Year ended June 30, 1903.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.	
			1903.	\$	cts.	
" Penobscott "	600	July 14..	1414 02	121 12	Paddle, pass.,	Boston and St. John.
Lubec	125	Aug. 5	50 94	9 68	Screw "	Passamaquoddy Bay.
Campobello	100	" 4..	39 81	8 12	" "	" "
Eastport	146	" 5..	64 29	10 12	" "	" "
Henry F. Eaton	300	" 5..	240 04	27 20	" "	" "
St. Croix	500	Dec. 15	1993 58	159 52	" "	Boston and St. John.
			1904.			
Penobscot	600	June 12	1414 02	121 12	Paddle, pass.,	Boston and St. John.
State of Maine	750	" 11	1409 99	129 80	" "	" "

I. J. OLIVE,  
Hull Inspector, &c.

## STEAM Vessels Inspected for the Year ended June 30, 1903.

## BRITISH COLUMBIA DIVISION.

## BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1903.		\$ cts.	
Delta		July 7	14 90	6 20	Fishing tug, Fraser river.
Wellington		" 7	16 30	6 28	" " " "
Winnifred		" 7	12 96	6 04	" " " "
Albert Lea		" 7	18 67	6 52	" " " "
Burt		" 7	50 41	9 00	" " " "
Britannia	300	" 8	325 94	34 08	Freight and pass., coast B. C.
International	300	" 10	525 55	50 08	" " " Kootenay lake.
Kokanee	200	" 11	347 50	35 84	" " " "
Moyie	250	" 11	834 81	74 80	" " " "
Nelson	125	" 11	496 01	47 68	" " " "
Proctor		" 11	43 12	8 44	Tug " " "
Ymir		" 12	69 74	10 60	" " " "
Hercules	50	" 12	64 68	10 20	Freight and pass., " " "
Surprise		" 12	14 80	6 20	Tug " " "
Haylis		" 12	43 81	8 52	" " " "
Flirt		" 12	3 58	5 32	Yacht " " "
Valhalla	30	" 12	153 23	20 24	Freight and pass., " " "
Kaslo	500	" 13	764 77	69 20	" " " "
Alberta	200	" 13	508 15	48 64	" " " "
Argenta	40	" 13	206 32	24 48	" " " "
Sandon	50	" 15	96 22	12 68	" " " Slooan lake.
Sloean	300	" 15	578 03	54 24	" " " "
Olicill-waet	29	" 16	97 92	12 84	" " " Columbia river.
Lytton	25	" 16	451 66	41 16	" " " "
Minto	250	" 16	828 91	74 32	" " " "
Kootenay	300	" 16	117 09	97 36	" " " "
Archer	40	" 17	15 32	6 20	" " " "
Lordeau	17	" 17	9 60	5 80	" " " "
Roseland	300	" 18	883 55	78 72	" " " "
Columbia		" 18	49 84	9 00	Tug " " "
Hyak	20	" 21	39 04	8 12	Freight & pass., Upper Columbia riv.
Pert		" 21	6 44	5 48	" " " "
Sol Kirk		" 21	58 49	9 64	Yacht " " "
Victoria	30	" 23	106 60	16 56	Freight and pass., Trout lake.
Idler		" 23	3 88	5 32	Cruising " " "
Denver		" 25	8 51	8 51	" " " Shuswap lake.
Aberdeen	250	" 27	554 04	52 32	Freight and pass., Okanagan lake.
Mermaid	40	Aug. 16	128 55	18 32	" " " coast B. C.
Ruth	12	" 12	70 65	10 68	" " " "
Superior	25	" 7	44 18	8 52	" " " "
Hollybank	7	" 15	3 33	5 24	Pass., Alberni canal.
Flyer		" 19	47 64	8 84	Tug, coast B. C.
Courser	30	" 20	160 79	20 88	Frt. and pass., Harrison river.
Joan	500	" 8	821 21	73 68	" " " coast B. C.
Danube	300	" 16	886 89	78 96	" " " B. C. & foreign ports
Cascade		Sept. 16	118 76	14 52	Freight, coast B. C.
Mist		" 10	28 68	7 32	Yacht " " "
Queen City	100	" 8	391 21	39 28	Freight and pass., coast B. C.
Ethel Ross		Oct. 8	82 05	11 56	" " " Shuswap lake.
Thompson		" 9	149 80	20 00	" " " "
Rifle		" 9	36 62	7 96	" " " North Thompson river.
Willapa	100	Sept. 19	373 09	37 84	" " " and pass., coast B. C.
Toos	125	Oct. 3	679 15	62 32	" " " "
Albion	30	Jan. 27	88 11	5 00	Freight and pass., coast B. C. Special inspection for passengers.
Charmer	500	Nov. 3	144 41	91 52	Freight and pass., coast B. C.
Mane	12	Aug. 24	89 60	12 20	" " " "
Princess Louise	98	Nov. 6	931 76	82 56	" " " "
Maud		Dec. 5	174 99	19 00	" " " coast B. C.
Mystery	20	" 10	64 80	10 20	" " " and pass., coast B. C.
Delta		" 9	25 20	7 00	" " " coast B. C.



SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.,—British Columbia Division—*Concluded.*

BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Class of Vessel and Where Employed.
1903.					
Venture.....	12	May 26..	654.52	\$ 8 00	Freight, coast B. C. Special after stranding and extensive repairs.
Mabel.....		Dec. 13..	5 28	5 40	Tug, coast B. C.
Water Lily.....		Dec. 18..	73.81	10 92	Water boat, Esquimalt Harbour.
1904.					
Thistle.....	50	Jan. 2..	222.36	25 76	Freight & pass., coast, B.C.
Czar.....	17	" 8..	152.18	20 16	" " "
Sadie.....	12	" 9..	49.30	8 92	" " "
Albion.....	30	" 20..	88.11	12 04	" " "
Otter.....	70	" 21..	365.97	37 28	" " "
Hope.....	12	" 15..	78.59	11 32	" " "
Barbara Boscowitz.....	133	Feb. 10..	337.92	35 04	" " "
Elith.....		" 11..	41.87	8 36	Fishing tug, Rivers Inlet.
J. L. Card.....		" 11..	141.06	16 28	Freight coast, B.C.
Wyefield.....		" 14..	2,334.59	266 80	" " B.C. and foreign ports.
Alert.....		" 17..	43.81	8 52	Tug, coast, B.C.
Pilot.....	22	" 16..	279.05	30 32	Freight and pass., coast, B.C.
Princess May.....	350	" 26..	1,393.76	119 52	" " B.C. & foreign por.
Florence.....		" 21..	30.41	7 40	Fishing tug, Skeena River.
Nell.....	25	Mar. 11..	297.97	24 64	Freight and pass., coast, B.C.
Iroquois.....	65	" 16..	195.49	23 60	" " "
Daisy.....		" 21..	69.10	9 80	Tug, coast, B.C.
Selkirk.....	35	" 23..	141.63	19 36	Freight and pass., coast, B.C.
Oscar.....		" 24..	95.42	12 60	" coast, B.C.
Lorne.....	20	April 6..	287.96	31 04	" and pass., coast, B.C.
Mount Royal.....	130	" 11..	471.03	45 68	" " Skeena River.
Arab.....	51	" 16..	4,216.00	345 28	" " B.C. & foreign por.
Victorian.....	459	" 23..	1,503.64	138 32	" " coast, B.C.
Yosemite.....	409	May 7..	1,525.03		" " "
Amur.....	228	" 11..	907.17		" " B.C. & foreign por.
Athens.....		" 20..	23.21		Halibut fishing coast, B.C.
Venture.....		" 26..	654.52		Freight, B.C. & foreign ports.
Willie.....	27	June 3..	82.60		" and pass., Alberni canal.
Kootenay.....	36	" 10..	7.74		Pass., Victoria Harbour.
City of Naniamo.....	590	" 8..	761.37		Freight and pass., coast, B.C.
Trader.....	20	" 9..	167.18		" " "
Alarm.....		" 12..	33.91		Tug, coast, B.C.
Don.....		" 25..	4.19		" Victoria Harbour.
Edna Grace.....		" 26..	42.00		" coast, B.C.
Total.....			34,442.51	3,912.60	

J. A. THOMSON,  
Steamboat Inspector, Victoria, B.C.

STEAM Vessels Inspected in Canada but Registered elsewhere for the year ended  
June 30, 1903.

## BRITISH COLUMBIA DIVISION.

## BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where Employed.
			\$ cts.		
North Star .....	120	July 21..	379 88	38 40	Fre't & pass., Upper Columbia River.
Majestic.....	200	" 9..	659 00	60 72	" " B.C. & foreign ports.
Cottage City.....	273	Aug. 7 ..	1,885 11	158 80	" " "
Queen.....	336	" 19..	2,727 80	226 24	" " "
Rosalie.....	127	Oct. 1..	318 51	33 52	" " "
City of Puebla.....	590	Sept. 2..	2,623 88	217 92	" " "
City of Topeka.....	150	Oct. 23..	1,057 29	92 56	" " "
Garland.....	50	Nov. 4 ..	166 61	21 28	" " "
Senator.....	430	Jan. 19..	2,409 60	200 72	" " "
Dolphin.....	235	Mar. 24..	824 26	73 92	" " "
Valentia.....	286	May 5..	1,598 49	185 84	" " "
Humboldt.....	311	" 13..	1,075 00	94 00	" " "
City of Seattle.....	456	" 13..	1,411 05	120 88	" " "
Spokane.....	297	June 23..	2,036 20	170 88	" " "
Umatilla.....	424	" 24..	3,069 76	253 60	" " "
Total.....			22,242 44	81,899 28	

## STEAM Vessels not Inspected for the year ended June 30, 1903.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. Why not Inspected and Class of Vessel.
Alert .....	3 11	2 12	Laid up, screw passenger.
Arrow.....	4 50	3 06	" " tug, stern wheel.
R. P. Rithet .....	816 69	686 16	" freight and passengers.
Strathcona.....	596 28	375 66	" machinery out of repair.
Revelstoke.....	308 55	178 59	" to be inspected later.
	1729 13	1245 59	

J. A. THOMSON,  
Steamboat Inspector, Victoria, B.C.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected for the year ended June 30, 1903.

BRITISH COLUMBIA AND YUKON DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where Employed.
1903.				\$ cts.	
Columbian.....	150	July 2..	716	65 28	Stern wheel, P. & F., Yukon river.
Wilbur Crimmin.....	71	" 2..	168	21 44	" " "
White Horse.....	150	" 3..	987	86 96	" " "
Clifford Sifton.....	150	" 3..	291	31 28	" " "
Mary F. Graff.....		" 7..	864	77 12	" freight
Marjorie.....	25	" 8..	20	6 60	" ferry
Prospector.....	120	" 9..	263	29 04	" P. & F.
Tyrrell.....	150	" 9..	678	62 24	" " "
Bonanza King.....	60	" 1..	466	45 28	" " "
Seikirk.....	150	" 13..	777	70 16	" " "
Yukoner.....	150	" 15..	781	70 48	" " "
Casca.....	150	" 16..	590	55 20	" " "
Thistle.....	140	" 27..	225	26 00	" " "
Lorelie.....		June 7..	32	7 56	" yacht
Victorian.....	150	July 26..	716	65 28	" P. & F.
Zealandian.....	70	" 28..	180	22 40	" " "
Lafrance.....	140	" 26..	201	24 08	" " "
Quick.....	25	Aug. 6..	67	5 36	" " "
Olive May.....		" 27..	85	11 80	" freight
Scotia.....	100	" 22..	214	25 12	" P. & F., Atlin Lake.
Gleaner.....	150	" 23..	242	27 36	" " Bennet Lake.
Bailey.....	100	" 27..	193	23 44	" " Yukon river.
Joseph Closset.....	50	" 28..	147	19 76	" " "
Golden Crown No. 1.....		" 28..	114	17 12	Dredge, Stewart river.
Mystery.....	20	Sept. 20..	65	10 20	Screw, P. & tag, B. C. coast.
Fingall.....		" 22..	91	12 28	" freight
Clansman.....		" 22..	72	10 76	" " "
Staffa.....		" 22..	57	9 08	" " "
*Emma Nott.....		Oct. 16..	73	27 68	Steam wheel, freight, Yukon river.
Monarch.....		" 1..	284	30 72	" " "
Lightning.....	100	" 1..	557	52 56	" " P. & F.
Favourite.....	100	" 25..	257	28 56	" " Fraser river.
Leonora.....		" 15..	33	7 64	Screw, tug, B. C. coast.
Kildonan.....		Nov. 4..	51	9 08	" " "
Belle.....		" 6..	67	10 56	" " "
Stampede.....		" 9..	12	5 96	" " "
Etta White.....	15	" 11..	97	12 76	" P. & T.
Hong Kong.....		" 18..	36	7 88	" " "
Lottie.....		" 25..	29	7 32	" " "
Cassair.....	300	" 20..	597	55 76	" P. & F.
Blonde.....		" 11..	33	7 64	" tug
Vancouver.....		May 7..	50	5 00	" " "
Comet.....		June 23..	85	5 00	" " "
Sea Lion.....		Dec. 16..	6	5 48	" " "
Psyche.....		Nov. 1..	3	5 24	" yacht
Eva.....		" 11..	35	7 80	" tug
1904.					
Muriel.....	14	Jan. 9..	44	8 52	Screw, P. & T., B. C. coast.
Transfer.....	120	" 19..	264	29 12	Stern wheel, P. & F., Fraser river.
*Donney.....		" 5..	15	12 40	Screw, tug, B. C. coast.
Ruth.....		" 24..	71	10 68	" " "
Comox.....	60	" 27..	101	16 08	" P. & F.
Active.....	20	" 2..	172	21 76	" P. & T.
Defiance.....	39	Feb. 9..	90	12 20	" P. & F.
*Thistle.....		" 18..	2	10 32	" tug
Capilona.....	25	" 17..	231	26 48	" P. & F.
Albert Lea.....		" 24..	19	6 52	" tug
Senator.....		Oct. 28..	28	7 24	" " "

\* Dues and fees for 1902 and 1903.

STEAM Vessels Inspected, &c.—British Columbia and Yukon Division—*Continued.*BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
1904.				\$ cts.	
Superior.....	25	Mar. 13..	44	8 52	Screw, P. & T., B.C. coast.
Robert Dunsmuir.....	40	Feb. 17..	232	26 56	Twin screw, P. & F., B. C. coast.
Orillia.....		Mar. 7..	12	5 96	Screw, tug, B. C. coast.
Coquitlam.....	75	Feb. 7..	256	28 48	" P. & F. "
Tyce.....		Mar. 1..	32	7 56	" tug " "
*May Queen.....		" 3..	14	12 24	" " " "
Hamlin.....	100	" 1..	515	49 20	Stern wheel, P. & F., Skeena river.
Esperanza.....		Feb. 20..	37	7 48	Screw, tug, Fraser river.
Stranger.....		" 20..	21	6 68	" " B. C. coast.
Fire Fly.....		March 9..	46	8 68	Stern wheel, tug, Fraser river.
North Star.....		" 9..	8	5 64	Screw, tug " "
Ramona.....	75	Feb. 12..	251	28 08	Stern wheel, passengers and freight.
Fearless.....		" 20..	53	9 24	Screw, tug, British Columbia coast.
Magnet.....		" 19..	24	6 92	" " " "
1903.					
Vigilant.....		Aug. 31..	29	7 32	" " "
1904.					
Reliance.....		March 1..	36	7 88	" " "
Vulcan.....		" 1..	77	11 16	" " "
Cleeve.....		" 1..	36	7 88	" " "
Tepic.....	13	" 16..	71	10 68	" pass. and tug "
Native.....	10	" 16..	52	9 16	" " " "
Nagasaki.....		" 17..	15	6 20	" tug, British Columbia coast.
Alice.....		" 18..	35	7 80	" " " "
Cascade.....	12	" 18..	119	17 52	" pass. and freight "
Nora.....		" 23..	20	6 60	" tug, Skeena river.
Champion.....		" 24..	100	103 00	" freight, B. C. coast.
Eagle.....	12	" 25..	35	7 80	" pass. and tug, B. C. coast.
Lois.....	10	" 26..	25	7 00	" " " "
Surrey.....	50	April 27..	163	29 04	Paddle, ferry, Fraser river. "
Edna, W.....		" 4..	15	6 20	Screw, tug, Rivers inlet.
Water Lily.....		" 1..	4		" yacht, B. C. coast.
Britannia.....	300	" 1..	326	34 08	" pass. and freight, B. C. coast.
Dauntless.....		" 6..	128	15 24	" tug, British Columbia coast.
Stella.....		" 15..	16	6 28	" " " "
Comet.....		" 17..	85		" " " "
Evangeline.....		" 20..	14	24 48	" yacht, Alert bay.
Swan.....		" 22..	36	7 88	" tug, British Columbia coast.
Westminster.....		" 24..	18	6 44	" " Skeena river.
Olive.....		" 24..	35	7 80	" " " "
Glen Rosa.....		" 24..	18	6 44	" " " "
Lottie, N.....		" 24..	34	7 72	" " " "
*Maine.....		" 24..	9	11 44	" " " "
Chiefian.....		" 24..	65	10 20	" " " "
Hazelton.....	150	" 24..	379	38 24	Stern wheel, pass. and fr., Skeena riv.
Bermuda.....	25	May 1..	72		Screw, pass. and tug, B. C. coast.
Chebalis.....	15	" 1..	54		" " " "
Unican.....	40	" 1..	131		" pass. and freight, B. C. coast.
St. Clair.....	25	" 5..	68		" " tug "
Phoenix.....	30	" 6..	87		" " " "
Delta.....		" 1..	15		" tug, British Columbia coast.
Starling.....		" 1..	8		" " " "
Terra Nova.....		" 1..	47		" " " "
Wellington.....		" 1..	16		" " Fraser river.
North Vancouver.....	200	April 18..	104		" ferry, Burrard inlet.
Minto.....	20	May 9..	36		Stern wheel, P. and F., Harrison riv.
Defender.....	30	" 9..	160		" " " "
Courser.....	30	" 10..	161		" " " lake.

\*Dues and fees for year 1902 and 1903.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.—British Columbia and Yukon Division—*Concluded.*

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where employed.
		1904.		\$ cts.	
Dreadnought.....		May 11..	33		Screw, tug, British Columbia coast.
Autolyceus.....		" 1..	25		" " " " "
Comet.....	12	April 2..	85		" pass. and tug, B. C. coast.
Surprise.....		May 12..	75		" tug, British Columbia coast.
Beaver.....	150	" 1..	545		Stern wheel, pass. and fr., Fraser riv.
Hong Kong.....		" 1..	36		Screw, tug, British Columbia coast.
City of Tipella.....	10	" 1..	19		" pass. and tug " "
Mou Ping.....		" 14..	20		" yacht, British Columbia coast.
Fern.....		April 16..	24		" tug " " "
Clara Young.....		May 1..	31		" " " " "
Erie.....		" 1..	27		" " " " "
Brunette.....		" 20..	37		" " " " "
Iris.....		" 20..	38		" " " " "
Dorothy.....		" 20..	20		" " " " "
Raven.....		" 1..	24		" " " " "
Constance.....		" 21..	50		" " " " "
Stampede.....	12	" 22..	12		" Pass. and tug, B.C. Coast.
Surprise.....		" 27..	20		" " " " "
Vancouver.....	12	" 2..	50		" " " " "
Enterprise.....		June 1..	12		" " " " "
Evolvo.....		" 1..	13		" Yacht " " "
Defiance.....	39	" 9..	90		" Pass. and tug " " "
Uno.....		" 1..	12		" Tug. " " "
Escort No. 2.....		" 1..	192		" " " " "
Dolphin.....		" 1..	20		" " " " "
Burt.....		" 1..	50		" " " " "
Hubert.....		" 1..	6		" Yacht. " " "
Greenwood.....		" 1..	23		" Tug. " " "
Troubadour.....		" 1..	18		" " " " "
Halifax.....		" 1..	28		" " " " "
Fraser.....		" 1..	36		" Freight. " " "
Total.....			18,808	81,935 37	

STEAM Vessels Inspected in Canada but registered elsewhere for the year ended June 30, 1903.

BOILERS, MACHINERY AND HULL.

Leah.....	135	July 9..	478	46 24	Stern wheel, P. and F., Yukon River.
Sarah.....	250	" 14..	1211	104 88	" " " " "
Susie.....	250	" 19..	1211	104 88	" " " " "
Leon.....	150	" 23..	692	63 36	" " " " "
Robert Kerr.....	60	" 26..	719	65 52	" " " " "
Louise.....	150	" 27..	718	65 14	" " " " "
Will. H. Ison.....	250	" 28..	983	86 64	" " " " "
T. C. Powers.....	125	Aug. 3..	820	73 60	" " " " "
Rock Island.....	160	" 1..	534	50 72	" " " " "
F. K. Gustin.....	50	" 8..	445	43 60	" " " " "
Lavelle Young.....	50	" 8..	506	48 48	" " " " "
Mainlander.....	200	Jan. 27..	565	48 40	" Screw " Puget Sound.
North Pacific.....	200	June 1..	489	47 12	" Paddle " " "
Total.....			9,311	8848 88	

F. M. RICHARDSON, R.N.R.,  
Steamboat Inspector, Vancouver, B.C.

3-4 EDWARD VII. A. 1904

Steam Vessels not inspected for the year ended June 30, 1903.

## BRITISH COLUMBIA AND YUKON DIVISION.

## BOILERS AND MACHINERY.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. Why not inspected and Class of Vessel.
Rothsay.....	553	348	Stern Wheel, Pass. and Freight. Laid up.
Olive.....	51	26	" " " "
Majorie.....	20	12	" " Ferry " "
Welcome.....	32	20	" " Tug " "
Kilbourne.....	87	55	" " " "
Saga.....	252	177	Screw, Freight " "
On Time.....	11	4	" Tug, No application.
New Era.....	56	37	" Freight " "
Milkmaid.....	7	5	" Tug " "
Winetta.....	24	16	" " " "
Gipsy.....	10	7	" " " "
	1,103	707	

F. M. RICHARDSON, R.N.R.,  
*Steamboat Inspector, Vancouver, B.C.*

STATEMENT of Tow Barges inspected, and of Certificates of Inspection issued to Tow Barges in the British Columbia and Yukon Division, for the Year ended June 30, 1903.

Name of Vessel.	No. of Passengers.	Port of Inspection.	Date Certificate Expires.	Inspection Fees.
			1902.	\$
Louise.....	200	Dawson.....	August 3...	10
Scow.....	150	".....	" 3...	10
Total.....				20

F. M. RICHARDSON,  
*Steamboat Inspector.*

SESSIONAL PAPER No. 21

STEAM Vessels Inspected for the year ended June 30, 1903.

BRITISH COLUMBIA DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Class of Vessel and Where employed.
1903.					
Britannia	300	July 8	325.94	34.08	Screw, passengers B.C. waters.
Superior	25	Aug. 7	44.18	8.52	" " " "
Joan	500	" 8	821.21	73.68	Twin screw " " "
Ruth	12	" 12	70.65	10.68	Screw " " "
Mermaid	40	" 16	128.55	18.32	Twin screw " " "
Hollybank	7	" 15	3.33	5.24	Screw " " "
Lapwing	None.	" 21	150.73	17.08	" freight.
Iroquois	65	April 1	195.49	88 special	" passenger " "
Courser	30	Aug. 20	160.79	20.88	Stern wheel, passenger, Fraser river.
Welcome	16	June 3	32.43	7.56	" " " "
Danube	300	Aug. 16	886.89	78.96	Screw, passenger, B.C. waters.
Queen City	100	Sept. 8	391.21	39.08	" " " "
Willapa	100	" 19	373.09	37.84	" " " "
Mystery	20	" 20	64.80	10.20	" " " "
Tees	125	Oct. 3	679.15	62.32	" " " "
Albion	30	Jan. 27	88.11	85 special	" " " "
Favourite	100	Oct. 25	256.58	25.56	Stern wheel, passenger, Fraser river.
Charmar	500	Nov. 3	1044.41	91.52	Screw, passenger, B.C. waters.
Maine	12	Aug. 24	89.60	12.20	" " " "
Princess Louise	98	Nov. 6	931.76	82.56	Paddle " " "
Ella White	15	" 11	97.35	12.76	Screw " " "
Cassiar	300	" 20	397.18	55.76	" " " "
Maudie	None.	Dec. 5	174.99	19.00	" freight
Vancouver	12	May 7	49.96	85 special	" passenger
Mystery	20	Dec. 10	61.80	10.20	" " " "
1904.					
Thistle	50	Jan. 2	222.36	25.76	" " " "
Czar	17	" 8	152.18	20.16	" " " "
Sadie	12	" 9	49.30	8.92	" " " "
Hope	12	" 15	78.49	11.32	" " " "
Transfer	120	" 19	264.16	29.12	Stern wheel, passenger, Fraser river.
Conox	140	" 20	101.17	16.08	Screw, passenger, B.C. waters.
Otter	70	" 21	365.97	37.28	" " " "
Albion	30	" 22	88.11	12.04	" " " "
Active	20	Feb. 2	171.74	21.76	" " " "
Coquitlam	75	" 7	256.33	28.48	" " " "
Muriel	14	" 13	44.13	8.52	" " " "
Wyfield	None.	" 14	3234.59	266.80	" freight, B.C. and foreign ports.
Pilot	22	" 16	259.05	30.32	" passenger, B.C. waters.
Robert Dunsmuir	40	" 17	231.75	26.56	Twin screw " " "
Defiance	39	" 9	89.88	12.20	" " " "
Barbara Boscowitz	133	" 10	337.92	35.04	" " " "
Princess May	350	" 26	1393.76	119.52	" " " "
Nell	25	M'ch. 11	207.97	24.64	" " " "
Iroquois	65	" 16	195.49	23.60	" " " "
Tepic	15	" 16	70.87	10.68	" " " "
Superior	25	" 17	44.18	8.52	" " " "
Cascade	12	" 18	118.76	17.52	" " " "
Ruth	12	Jan. 24	70.65	10.68	" " " "
Native	10	M'ch. 19	51.51	9.16	" " " "
Selkirk	35	" 23	141.63	19.36	" " " "
Lois	10	April 1	25.15	5.00	" " " "
Eagle	12	" 2	34.74	7.80	" " " "
Lorne	20	" 6	287.96	31.04	" " " "
Capilano	25	Feb. 17	231.14	26.48	" " " "
Mouut Royal	130	April 11	471.00	45.68	Stern wheel, passenger, Skeena river.
Arab	51	" 16	4216.00	345.28	Screw, B.C. and foreign ports.
Survey	50	M'ch. 21	263.26	29.04	Paddle, passengers, Fraser river.
Hamlin	100	April 2	514.91	49.20	Stern wheel, " " "
Comet	12	" 21	85.56	11.80	Screw, passengers, B.C. waters.

3-4 EDWARD VII., A. 1904

STEAM Vessels Inspected, &c.—British Columbia Division—*Concluded.*HULL INSPECTION—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where employed.
			1904.	8 cts.	
Victorian.....	150	April 23..	1503.64	128 32	Screw, passenger, B.C. waters.
Bermuda.....	25	May 1..	72.03	.....	" " "
Vancouver.....	12	" 2..	49.96	.....	" " "
Yosemite.....	400	May 7..	1,525.03	.....	Paddle, " "
Phoenix.....	30	" 8..	87.18	.....	Screw, " "
Unican.....	40	" 8..	130.92	.....	" " "
Amur.....	228	" 11..	907.17	.....	" " "
Chehalis.....	15	" 14..	53.75	.....	" " "
North Vancouver.....	200	April 25..	103.53	.....	" " Burrard inlet.
Venture.....	None	May 26..	654.52	.....	Twin screw, frgt., B.C. & foreign ports.
Beaver.....	150	April 12..	545.44	.....	Stern wheel, passenger, Fraser river.
Stampede.....	12	June 5..	11.97	.....	Screw, passenger, B.C. waters.
Trader.....	20	" 9..	167.18	.....	" " "
City of Nanaimo.....	500	" 8..	761.37	.....	Twin screw, passenger, B.C. waters.
Kootenay.....	36	" 10..	7.74	.....	Screw passenger, Victoria Harbour.
Minto.....	20	May 22..	36.19	.....	Stern wheel, passenger, Fraser river.
Courser.....	30	" 11..	160.79	.....	" " "
Defender.....	30	" 9..	216.10	.....	" " "
Ramona.....	75	Feb. 12..	259.79	.....	" " "
Ping Pong.....	30	June 22..	7.00	10 00	Barge, passenger, Victoria Harbour.

## STEAM Vessels Inspected in Canada but registered elsewhere for the year ended June 30, 1903.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where employed.
			1903.		
Majestic.....	200	July 9..	659.00	60 72	Screw, B.C. & foreign ports.
Queen.....	336	Aug. 19..	2,725.80	226 24	" " "
Cottage City.....	273	" 7..	1,883.11	158 80	" " "
City of Pueblo.....	511	Sept. 2..	2,233.88	217 92	" " "
Rosalie.....	127	Oct. 1..	318.51	33 52	" " "
City of Topeka.....	150	" 23..	1,057.29	92 56	" " "
Garland.....	50	Nov. 4..	166.61	21 28	" " "
			1904.		
Mainlander.....	200	Jan. 26..	505.19	48 40	" " "
Senator.....	430	" 19..	2,409.60	200 72	" " "
Dolphin.....	235	Mar. 24..	824.26	73 92	Twin screw, B.C. & foreign ports.
Valencia.....	286	May 5..	1,598.49	135 84	Screw, B.C. & foreign ports.
Humboldt.....	321	" 12..	1,075.00	94 00	" " "
City of Seattle.....	456	" 13..	1,411.05	120 88	" " "
North Pacific.....	200	June 6..	488.73	47 12	Paddle " "
Spokane.....	297	" 23..	2,036.20	172 88	Screw " "

R. COLLISTER,  
Hull Inspector.



SESSIONAL PAPER No. 21

STEAM Vessels Inspected for the Year ended June 30, 1903.

KEEWATIN, MANITOBA AND NORTH-WEST TERRITORIES DIVISION.

BOILERS, MACHINERY AND HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where employed.
1903.					
Mikado.....		July 3..	24 92	7 00	Screw, tug, Lakes of the Woods.
W. C. Van Horne.....		" 4..	59 91	9 80	" " " "
Widgeon.....		" 9..	2 21	5 16	" " " "
Inez.....	20	" 9..	59 10	9 72	" " Thunder bay.
Laura Grace.....	140	" 10..	85 56	11 88	" " & tug "
Circe.....		" 10..	2 83	5 24	yacht " "
Georgina.....		" 12..	43 78	8 52	tug " "
Brothers.....		" 12..	17 50	6 44	fish tug " "
Orcadia.....		" 15..	23 16	6 84	" " Port Caldwell.
Rosey May.....		" 16..	3 60	5 32	" " Rossport.
Viking.....		" 16..	15 25	6 20	" " " "
Zena.....		" 16..	3 69	5 32	" " " "
Maud C.....		" 17..	5 16	5 40	" " " "
Swan.....		" 17..	7 76	5 64	" " " "
Bertha.....		" 17..	10 59	5 88	" " " "
Maple Leaf.....		" 17..	5 21	5 40	" " " "
Inza.....		" 19..	8 79	5 72	tug, Thunder bay.
Herbert.....		" 19..	21 13	6 68	" " " "
Mary Hatch.....		Aug. 11..	121 18	14 78	" " Lake of the Woods.
Alexandra.....	250	" 16..	163 37	21 12	Pass., Red river.
Ogema.....		" 30..	29 84	7 40	Fish tug Lake Winnipeg.
Roddy.....		Sept. 1..	14 10	6 12	" " " "
Iland.....		" 1..	30 49	7 40	" " " "
Fern.....		Not issued	12 61	" "	" " " "
Lulu M. Ray.....		Sept. 7..	32 64	7 64	tug, Thunder bay.
Isabel.....		" 15..	60 90	9 88	" " Winnipegosis.
Iona.....		" 15..	39 15	8 12	" " " "
Manitou.....		" 15..	107 97	13 64	" " " "
Lady Ellen.....		" 15..	18 56	6 52	" " " "
Lottie S.....		" 15..	48 03	8 84	" " " "
Ospray.....		" 29..	21 02	6 68	" " Lake Manitoba.
Pioneer.....		" 30..	16 41	6 28	frt. and pass., Pelican Lake.
James Adams.....		" 23..	59 97	9 08	tug, Thunder bay.
Petrel.....		" 30..	167 68	21 44	frt., Lake Manitoba.
Chieftain.....		Oct. 7..	36 26	7 88	tug Lake of the Woods.
Minnetonka.....		" 7..	68 24	10 44	" " " "
Princess.....		" 25..	7 83	5 64	fish tug, " "
1904.					
Argyle.....	150	April 7..	77 70	11 24	" ferry, Rat Portage & Keewatin
Josie.....		" 24..	12 42	" "	tug, Lake of the Woods.
Keenora.....	500	" 25..	486 34	46 88	" pass., " "
Maple Leaf.....	40	" 25..	81 84	11 56	" " " "
Agwinda.....	125	" 25..	307 41	23 56	Strn. pad. pass. Rainy river.
Georgina.....		" 27..	43 78	8 52	Screw fish tug, Port Arthur.
A. W. Crawford.....		" 28..	51 40	9 08	" " Thunder bay.
Superior.....	150	" 28..	88 54	" "	pass. & frt. " "
Brothers.....		" 28..	17 50	6 44	fish tug, Lake Superior.
Herbert.....		" 28..	21 13	" "	tug, Thunder bay.
St. Joe.....		" 29..	117 64	" "	frt. North Shore, L. Superior.
Shamrock.....		May 2..	79 84	" "	tug, Lake of the Woods.
Keewatin.....		" 2..	41 25	" "	" " " "
D. L. Mather.....		" 2..	103 32	" "	" " " "
Daisy Moore.....		" 2..	38 21	" "	fish tug, " "
Daisy.....		" 4..	26 33	" "	" " Lake Winnipeg.
Chieftain.....		" 4..	60 85	" "	" " " "
Fisherman.....		" 4..	44 22	" "	" " " "
Rocket.....		" 5..	55 61	" "	" " " "
Premier.....	75	" 5..	413 99	" "	pass. & frt., " "
Angler.....		" 5..	16 16	" "	fish tug " "
City of Selkirk.....	75	" 5..	437 82	" "	pass. & frt. " "

3-4 EDWARD VII. A. 1904

STEAM Vessels Inspected &c.—Keewatin, Manitoba and North west Territories Division—*Concluded.*

BOILERS, MACHINERY AND HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid	Class of Vessel and Where employed.
1904.			\$ cts.		
Lady of the Lake.....	20	May 6..	201.43	.....	Screw, pass. & frt., Lake Winnipeg.
Frank Burton.....		" 6..	93.74	.....	" tug " " "
Viking.....	50	" 6..	17.60	.....	" pass. and frt. " "
Highlander.....		" 6..	59.24	.....	" frt. and tug, " "
Bahnoral.....		" 6..	36.93	.....	" fish " " "
Idell.....		" 7..	53.92	.....	" " " " "
Princess.....	20	" 8..	405.44	.....	" pass. and frt., " "
Alexandra.....	250	" 8..	163.57	.....	Str. pde. pass., Red river.
Gertie H.....		" 8..	90.95	.....	Screw freight " "
Clipper.....	40	" 11..	52.95	.....	" pass., Lake of the Woods.
Rambler.....	25	" 11..	25.83	.....	" " " " "
Gen.....	21	" 11..	11.08	.....	" fish tug " "
Primrose.....		June 18..	8.40	.....	" tug, Slave and Athabaska riv.
Graham.....	40	" 23..	260.39	.....	Str. pdl. pass., " "
Alpha.....	40	" 30..	7.50	.....	Screw tug, " " "
Total.....			5579.27	\$428.24	

STEAM Vessels Inspected in Canada but Registered Elsewhere &c.—Keewatin, Manitoba and North west Territories Division.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessels and Where employed.
1903.					
Iroquois.....	500	July 22..	1169.89	.....	Ser. pas. & frt., Port Arthur & Duluth.
Mable Bradshaw.....		" 23..	331.00	.....	" " " " "

GEO. P. PHILLIPS,  
*Steamboat Inspector.*

SESSIONAL PAPER No. 21

STEAM Vessels not Inspected for the Year ended June 30, 1903.

KEEWATIN, MANITOBA AND NORTH-WEST TERRITORIES DIVISION.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks.
			Why not Inspected and Class of Vessel.
Pastime.....	4.00	2.82	Screw. Not in commission.
Carry L.....	14.56	7.99	Paddle. To be inspected.
Undine.....	9.46	6.44	Screw. " "
James Mayhew.....	16.94	11.64	" " " "
Kate Marks.....	54.15	34.09	" " " "
Geo. Ward.....	2.39	1.69	" " " "
Minnehaha.....	9.20	5.90	" " " "
Minota.....	34.95	23.77	" Not in commission.
Ida.....	19.37	13.37	" " " "
Minnewahau.....	4.61	3.71	" " " "
Dolly.....	2.57	2.00	" To be inspected.
John Glenn.....	14.07	6.00	" " " "
Klondike.....	8.05	4.00	" " " "
Annie Mc.....	13.42	11.10	" Not in commission.
Beaver.....	34.51	22.21	" To be inspected.
Gale.....	2.62	0.97	" " " "
Circe.....	2.83	1.93	" " " "
Siskewett.....	41.52	12.90	" " " "
Rambler.....	6.14	2.94	" " " "
Mohican.....	34.20	24.08	" " " "
Moose.....	38.30	13.86	" Not in commission.
City of Alberton.....	67.54	45.86	" To be inspected.
Grace B.....	21.18	13.79	" " " "
Silver Spray.....	1.56	.....	" " " "
Princess.....	6.56	5.55	" " " "
Queen.....	31.65	18.71	" " " "
Ethel Banning.....	37.54	25.53	" " " "
Little Bobbs.....	13.19	8.97	" " " "
Miles.....	63.04	42.89	" " " "
Empress.....	129.28	73.43	" " " "
Ville-neuve.....	27.58	18.64	" " " "
Cruiser.....	26.92	15.56	" " " "
Gordon M.....	3.01	2.01	" " " "
Sport.....	16.26	11.64	" " " "
Sultana.....	3.35	2.74	" " " "
Energy.....	116.45	70.00	" " " "
Dolphin.....	12.63	8.58	" " " "
Wm. White.....	17.81	12.36	" " " "
Wm. Cross.....	21.66	16.31	" " " "
Galatea.....	46.10	30.26	" " " "
Minneola.....	9.20	5.90	" " " "
Irine.....	9.71	6.20	" " " "
Nord.....	20.23	13.76	" " " "
Widgeon.....	7.95	1.09	" Not in commission.
Edith.....	42.95	29.94	" " " "
Heather Bell.....	21.18	14.40	" To be inspected.
Total.....	1,142.39	707.51	

GEO. P. PHILLIPS,  
Steamboat Inspector.

STATEMENT of the Number of Steam Vessels added to the Dominion during the Year ended June 30, 1903, their Class and Horse power, whether of Wood or Iron; their Gross and Registered Tonnage; where built; and where and how employed.

## WESTERN ONTARIO DIVISION.

Name of Vessel.	Horse power.	Class.	Wood or Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and how employed.
Winona	24 00	Screw	Wood	231	149	Port Stanley, O.	Lake Erie, passenger.
Delila	0 67	"	"	4	3	Algonac, Mich.	Detroit River, yacht.
Winslow	69 46	"	"	353	193	Cleveland, Ohio	Lakes, tug.
Meteor	10 80	"	"	47	32	P. Robinson, O.	Welland canal, tug.
Nellie H.	2 13	"	"	25	17	Detroit, Mich.	Detroit River "
Inewen	12 93	"	Composite	109	46	Toronto, Ont.	Hudson Bay, freight.
D. W. Crow	5 00	"	Wood	27	17	Chatham "	Chatham & vicinity, tug.
R. H. Dobson	13 50	"	"	44	30	Goderich "	Lake Huron, fishing tug.
Onward	3 33	"	"	22	15	Kincardie "	" "
Sir Wilfrid	17 06	"	Composite	399		Toronto "	Rivers & Harbour, dredge.
Louisa	5 60	Screw	Wood	13	9	Wallaceburg, O.	Wallaceburg & vic., yacht.
E. G. Ashley	3 33	"	"	10	7	Toledo, Ohio.	" tug.
Walter H. Stone	2 70	"	"	35	17	Sandusky "	Lake Erie, fishing tug.
Troquois	106 30	"	Steel	2,359	1,452	Toronto, Ont.	Prescott & D'lt's, pas. & freight
Manitou	42 67	"	Wood	470	297	Goderich "	L. Huron & Geo. bay "
Norseman	99 46	"	"	620	400	S. Catharin's, O.	Duluth & Prescott, freight.
Simla	106 30	"	"	1,490	973	Garden Isl., O.	Lakes & Rivers "
Boscobel	97 08	"	"	617	420	Chicago, Illin.	Lakes, tug.
Argyle	10 80	"	"	41	28	Buffalo, N. Y.	" "
B. W. Aldrich	17 06	"	"	41	28	Milwaukee, W.	" "
Total	650 18			6,957	4,133		

JOHN DODDS,  
Steamboat Inspector, Toronto.

## WEST ONTARIO DIVISION.

Eagle	83	Screw	Wood	10	7	Pt Severn, Ont.	Georgian Bay, tug.
Lady of the Lake	6 00	"	"	47	25	Thornbury "	" " freight.
Kestrel	2 66	"	"	7	5	Toronto "	Muskoka Lakes, yacht.
Puritan	4 22	"	"	6	4	Holland, Mich.	" " "
Minnette	1 83	"	"	4	3	Owen Sound, O.	Lake of Bays "
Dolly Gray	83	"	"	5	3	Dorset, Ont.	" " "
Osso	2 66	"	"	6	4	Kingston, Ont.	Muskoka Lakes "
Algoma	2 40	"	"	5	3	" "	" " "
Lady of t. Lake	5 00	"	"	7	4	" "	" " "
Bella Vista	5 00	"	"	5	3	" "	" " "
Sky Pilot	2 66	"	"	5	3	" "	" " "
Anchora	5 00	"	"	6	3	" "	" " "
Glad Tidings	1 63	"	"	10	7	Orillia "	Sparrow Lake, passenger.
Osprey	16 66	"	"	42	28	Goderich "	Lake Huron, fishing tug.
W. J. Smith	10 66	"	"	26	17	Rich. L'ding, O.	Sault Ste. Marie river, tug
Gypsy	2 66	"	"	11	8	Toronto, Ont.	Killarney & S't S. Marie, pas
Midland Queen	124 13	"	"	1,993	1,349	Dundee, S'tand	Duluth & Prescott, f.t. & pas.
Harold, B. Phil's	13 06	"	"	66	31	Lorraine, Wis.	" "
Captain Jim	22 43	"	"	58	39	U. S. "	S't S. Marie & vicinity, tug
Caroline	1 20	"	"	12	8	Goderich, Ont.	Lake Superior, fishing tug.
W. H. Seymour	36 53	"	"	85	42	Moon river "	Georgian bay, tug.
Milis	2 20	"	"	11	7	Erie, Pa. U.S.A	North Channel "
Lake	8 16	"	"	13	5	Owen Sound, O.	Manitou Lake, fishing tug.
Clipper	16 66	"	"	46	29	Kingston, Ont.	Lake Simcoe, dredge tug.
						Midland "	Georgian bay, tug.
Total	295 07			2,486	1,637		

E. W. McKEAN.

SESSIONAL PAPER No. 21

STATEMENT of the Number of Steam Vessels added to the Dominion during the Year ended June 30, 1903; their Class and Horse power; whether of Wood or Iron; their Gross and Registered Tonnage; where built; and where and how employed.

EAST ONTARIO.

Name of Vessel.	Horse power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and How Employed.
Baptiste.....	783	Paddle....	Wood.....	7 51	4 74	Lindsay, Ont..	Kawartha lakes, tug.
McClintock....	2 70	Alligator Paddle..	".....	20 72	13 06	Simcoe, Ont..	" " "
Cora.....	1 20	Se'w, pass.	".....	22 61	15 76	Port Perry, O.	Cos. Vict. & Peterboro, pass.
Rockway....	83	Pad., punt	".....	6 80	4 62	Lindsay, Ont.	Lindsay waters, tug.
Cobocank.....	1 20	".....	".....	9 11	6 24	Cobocank, Ont	Balsam lake, tug.
Stanley.....	83	".....	".....	6 80	4 62	Lindsay, Ont.	Lindsay waters, tug.
Dredge Alfred.	2 70	No propelling P.	".....	89 19	60 65	Kirkfield, Ont.	Lindsay waters.
Hiawatha.....	1 20	Paddle....	".....	22 25	17 85	Lindsay, Ont.	" " tug.
Maida-Vale....	1 63	Screw....	".....	18 74	12 75	Hastings, Ont.	Stoney lake, yacht.
Mermaid.....	67	".....	".....	10 95	7 45	Millbrook, Ont	Otonabee river, yacht.
M. & W.....	1 20	".....	".....	8 48	5 77	Kingston, Ont.	St. Lawrence river, yacht.
David S. Walker	29 00	".....	".....	55 55	22 02	Farrans Pt., O.	" " tug.
Ajax.....	4 03	".....	".....	32 97	23 42	Bobcaygeon, O	Kawartha lakes, tug.
Total.....	48 02			311 68	198 95		

THOS. P. THOMPSON,  
*Steamboat Inspector.*

MONTREAL DIVISION.

Grain Elevator No. 18.	16 0	Screw....	Steel....	214	132	Montreal....	Montreal harbour, Grain Elevating.
Dorothy.....	5 2	".....	Wood....	19	10	Cache Bay....	Lake Nipissing, passenger.
Seaborn.....	2 6	".....	".....	30	20	Seabury, U.S.	River, yacht.
Scotsman.....	17 3	".....	".....	265	114	Ottawa.....	Ottawa river, freight & pass
Total.....	41 1			528	276		

WM. LAURIE,  
LOUIS ARPIN.

QUEBEC DIVISION.

Virginia.....	12 0	Paddle....	Iron....	1,701 13	1,052 04	Wilmington..	Pass., Mont. & Chicoutimi.
Restigouche (ex Rathlin).	11 2	Screw....	".....	945 00	463 00	Glasgow, 1899.	" Dalhousie & Gaspé..
Dream.....	2 4	".....	Wood....	27 44	18 66	Gr. Piles, 1903	" Grs. Piles & Latuque
Frankie.....	3 3	".....	".....	16 99	7 88	Quebec, "	Tug, Quebec Harbour.
Alma.....	5 3	".....	".....	42 75	29 07	Sorel "	Excursion Boat.
Missisquois...	6 5	".....	".....	159 98	107 24	Noyan "	Pass., Mont. & Burlington.
George Winfield Smith.	3 3	".....	Composite	23 80	16 18	Levis "	Tug, Lake Metapedia.
Corine.....	4 8	".....	Wood....	23 24	9 26	St. Joseph "	" Quebec Harbour.
Shearly.....	10 6	".....	".....	37 17	25 28	Bic "	" Matane & the coast.
Total.....	268 2			2,977 50	1,728 61		

PHILIPPE DUCLOS,  
*Hull Inspector.*

JOS. SAMSON,  
*Engine and Boiler Inspector.*

STATEMENT of the Number of Steam Vessels added to the Dominion during the Year ended June 30, 1903, their Class and Horse power, whether of Wood or Iron, their Gross and Registered Tonnage, where built, and where and how employed.

NOVA SCOTIA DIVISION.

Name of vessel.	Horse power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and How employed.
I. C. U. ....	53	Screw	Wood	3 58	3 58	Not known	Screw, pass., Annapo. Bas.
Clayton. ....	4 26	"	"	42 62	23 84	Parrsboro, N.S.	" " Pars. & Bay of F.
Cygnat. ....	1 20	"	"	11 23	7 64	Yarmouth, "	" fishing, coasting.
Loretta. ....	1 63	"	"	12 02	8 18	Tus. Wed., "	" tug, Tusket river.
Albion. ....	1 20	"	"	9 14	6 22	Moser's riv., "	" tug, Moser's river.
Parrsboro. ....	"	"	"	"	"	Parrsboro, "	" pas. Wind & Parrsb.
Victor. ....	6 00	"	"	26 86	18 27	Yarmouth, "	" freight coasting.
Ampitrite. ....	24 00	"	"	149 45	83 60	Mahan bay, "	" " "
F. W. Roebling	42 66	"	"	161 97	77 77	Wilfad, U.S.A.	" tug and pas. coast g.
Bruce. ....	3 30	"	"	55 70	37 88	Halifax, N.S.	" light., Halif. Harb.
Rona. ....	16 60	"	"	70 05	42 47	Liverpl., "	" tug coasting.
Total. ....	101 38			542 62	309 45		

HALIFAX, N.S.

J. P. ESDAILE,

*Steamboat Inspector.*

NEW BRUNSWICK AND PRINCE EDWARD DIVISION

Hudson. ....	7 26	Screw	Wood	33 59	22 84	St. John, N.B.	Pleas. yacht, St. John riv.
Crystal Stream.	43 00	Paddle	"	482 05	363 69	Br. Fr., U.S.A.	Passenger, St. John river.
Lord Kitchener	47 00	Screw	"	161 24	109 64	St. John, N.B.	Pas. & tug, St. John riv. & est.
Total. ....	97 26			676 88	436 17		

NEW BRUNSWICK AND P.E.I.

J. P. ESDAILE,

*Steamboat Inspector.*

BRITISH COLUMBIA DIVISION.

Rifle. ....	2	Stern whl.	Wood	36 62	23 08	Kamloops	North Thompson riv, freig.
M. S. Dollar. ...	276 2	Screw	Steel	4216 64	2674	N.-Cst. on-Ty.	Pac. Oc. freig. and passen.
Victorian. ....	233	"	Wood	1503 64	809 17	Portland, Ore.	Coast, B.C., "
Athens. ....	1	"	"	23 21	8 02	Victoria, B.C.	" Halibut fish'g.
Don. ....	1 9	"	"	4 19	2 85	"	Victoria harbour tug.
Edna Grace. ....	9	"	"	42	22	"	Coast, B.C., towing.
Total. ....	523 1			5944 42	3539 12		

VICTORIA, B.C.

J. A. THOMSON,

*Steamboat Inspector.*

SESSIONAL PAPER No. 21

STATEMENT of the Number of Steam Vessels added to the Dominion during the Year ended June 30, 1903, their Class and Horse power, whether of Wood or Iron, their Gross and Registered Tonnage, where built, and where and how employed.

VANCOUVER AND YUKON DIVISION.

Name of Vessel.	Horse power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Reg. Tonnage.	Where Built.	Where and How employed.
Thistle.....	6.6	S. wheel...	Wood....	225	153	Dawson....	Yukon River, pass. and frt.
Golden Crown No. 1.....			".....	114	64	White Horse,	Stewart " dredging.
Favorite.....	9	S. wheel...	".....	237	162	N. Westmin'sr	Fraser " pass. and frt.
Cascade.....	16	Screw.....	".....	119	81	Vancouver...	B. C. Coast " "
Edna W.....	2.6	".....	".....	15	10	".....	Rivers inlet, tug.
Water Lily... Raven.....	2.9 6.8	"..... ".....	"..... ".....	4 25	3 17	"..... Friday Harb.,	Fraser river, yacht. B. C. Coast, tug.
Evolve.....	7	".....	".....	13	9	Vancouver....	" yacht.
Total.....	44.9			772	499		

F. M. RICHARDSON, R.N.R.,  
*Steamboat Inspector.*

KEEWATIN, MANITOBA AND NORTH WEST TERRITORIES.

Alexandra....	4.2	S. paddle.	Wood....	163.57	37.53	Winnipeg, M.	Passenger, Red river.
Roddy.....	0.53	Screw.....	".....	14.10	9.59	Selkirk, Man.	Fish tug, Lake Winnipeg.
Firm.....	1.5	".....	".....	12.61	6.00	Winnipeg " "	" " " "
Lulu M. Ray..	5.00	".....	".....	32.64	25.40	Lundington,	" " " "
James Adams..	9.6	".....	".....	50.97	34.60	Duluth, Mich.,	Mich. U.S. Tug. Thunder bay.
St. Joe.....	9.6	".....	".....	117.64	89.01	Port Arthur, Fret., N.	Shov Lake Sup.
Pioneer.....	3.3	".....	".....	16.44	8.44	Pelecan Lake,	Manitoba, " and pass. Pelecan, L.M.
St. Charles....	6.0	".....	".....	28.79	19.50	Peace river,	N.W.T., Private freight, Peace riv.
Caraboo.....	6.0	".....	".....	28.65	19.49	Fort Smith, N.	W.T. " Tug and freight, McKenzie and Slave rivers.
Eva.....	8	".....	Composite	49.28	27.90	Atlabasca	Landing, " Tug and freight, McKenzie and Slave rivers.
Primrose.....	1.2	".....	Wood....	8.40	5.72	Ft. Chipewagan	Tug and freight, Slave and Athabasca rivers.
Total.....	54.93			523.69	274.18		

GEO. P. PHILLIPS,  
*Steamboat Inspector.*

3-4 EDWARD VII. A. 1904

STATEMENT of Steam Vessels lost, broken up or laid up, as unfit for service, in the Dominion during the year ending June 30, 1903, and where and how employed.

## WEST ONTARIO DIVISION.

Name of Vessel.	Where and how last employed.	Gross Tonnage.	Class of Vessel and reason of Unfitness.
Cambria.....	Lake Ontario, pass.....	937	Paddle, dismantled.
Union.....	Buffalo and Fort Erie, pass.....	207	" " "
Luther Westover.....	Georgian bay, tug.....	127	" " "
C. H. Merritt.....	Sault river, pass.....	122	Screw, " "
Maud S.....	Georgian bay, tug.....	14	" " "
Conqueror.....	" " ".....	25	" " "
Sea Gull.....	Sault river " ".....	41	" " "
Florence.....	Muskoka lakes, tug.....	27	" " "
Hector.....	Welland canal ".....	43	" " "
Walter Scott.....	Georgian bay, Fish'g, tug.....	26	" " "
Geo. Swarrn.....	Lake Huron, " ".....	18	" " "
Frankie.....	Sydenham river, yacht.....	24	" " "
Viola.....	Georgian bay, ".....	68	" " "
		1739	

JOHN DODDS,  
E. W. McKEAN,  
*Toronto, Ont.*

## EAST ONTARIO DIVISION.

Alberta.....	R. St. Lawrence, freight.....	122.43	Screw, destroyed by fire.
Owen.....	R. St. Lawrence, ".....	102.84	" Wrecked and went to pieces.
Undine.....	Cos. Vict. and Peterboro, tug.....	13.81	" Hull used up.
Beaubocage.....	" " ".....	129.00	Paddle, " " "
Carmana.....	Bay of Quinte, yacht.....	56.08	Screw, destroyed by fire.
Bannockburn.....	Great Lakes, freight.....	1619.56	" Unheard from; last heard of on Lake Superior Nov. 21, 1902.
		2043.72	

THOS. P. THOMPSON.

## MONTREAL DIVISION.

St. Peter.....	Montreal, Harbour tug.....	43	Screw, dismantled.
Comet.....	Lake Temiskamingue, frt. & pass.....	144	" burnt.
		187	

WM. LAURIE.  
LOUIS ARPIN.



SESSIONAL PAPER No. 21

STATEMENT of Steam Vessels lost, broken up or laid up, &c.—*Continued.*

QUEBEC DIVISION.

Name of Vessel.	Where and how last employed.	Gross Tonnage.	Class of Vessel and reason of Unfitness.
John Pratt	Tug, attending dredge.	70	Twin screw hull unfit for repair engine taken out.
Conqueror	Paddle, tug, Montreal and Gulf.	233	Iron hull engines taken out want of work.
Aurelia	Screw, tug, attending dredge.	32	Wood hull unfit for repair; engine taken out.
Dream	attending customs.	12	Hull decay unfit for repair, sold and broken up.
Kathleen	Paddle, attending quarantine.	280	Sunk last spring and now floated up but unfit for service.
		627	

PHILIPPE DUCLOS,  
*Hull Inspector.*

JOS. SAMSON,  
*Boiler and Machinery Inspector.*

NOVA SCOTIA DIVISION.

Nil

HALIFAX, N.S., Oct 12, 1903.

J. E. ESDAILE,  
*Steamboat Inspector.*

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

Jacques Cartier	Charlottetown and Orwell, pass.	379.96	Paddle, lost on north shore of Nova Scotia, near Pugwash. Total loss.
Star	St. John River, pass.	461.03	Burned at north end St. John, Sept. 25, 1902. Total loss. Cause of fire unknown.
Total		840.99	

I. J. OLIVE,  
*Hull Inspector, &c.*

BRITISH COLUMBIA DIVISION.

Fawn	Columbia river, towing	32	Screw.
Victoria	B. C. and foreign ports, freight.	2374	" stranded in a fog and became total wreck.
Total		2406	

J. A. THOMPSON,  
*Steamboat Inspector.*

STATEMENT of Steam Vessels lost, broken or laid up, &c.—*Concluded.*

## BRITISH COLUMBIA AND YUKON DIVISION.

Name of Vessel.	Where and how last employed.	Gross Tonnage.	Class of Vessel and reason of Unfitness.
Ina.....	B. C. coast, tug.....	8	Screw, broken up.
Star.....	" " " ".....	14	" " " ".....
Eldorado.....	Yukon river, pass. and freight.	466	Stern wheel, dismantled.
	Total.....	488	

F. M. RICHARDSON, R.N.R.,

*Steamboat Inspector.*

Vancouver

## KEEWATIN, MANITOBA AND NORTH-WEST TERRITORIES DIVISION.

Phantom.....	Lake of the Woods, pass. and fgt	55.68	Screw, burnt.
Kennina.....	" " fish tug.....	41.86	" " " "
Pearl.....	" " " ".....	10.00	" " " "
Midge.....	" " " ".....	11.08	" " " "
Day Star.....	" " " ".....	12.52	" " " "
Princess.....	" " " ".....	7.83	" " " "
Spray.....	" " " ".....	8.99	" " " "
Cairo.....	Eagle lake " ".....	14.47	" " hull condemned.
Athabasca.....	Athabasca river, pass and fgt.	166.73	Stern paddle " "
Minnetonka.....	Lake of the Woods. tug.....	88.34	Screw " " "
Simbeam.....	" " " ".....	2.86	" " " "
Thistle.....	Rainy river, pass. and freight.	9.00	" " machinery taken out.
W. J. Aikins.....	Lake Superior, tug.....	41.82	" " hull condemned.
	Total.....	471.18	

GEO. P. PHILLIPS,

*Steamboat Inspector.*

SESSIONAL PAPER No. 21

LIST of Certificates of Competency and Temporary Certificates granted to Engineers of Steamboats, during the year ended June 30, 1903.

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1902					8 cts.
3183	July 2.	Frederick Windsor.....	Temporary	Callender, Ont.....	Callendar.....	2 00
3184	" 2.	Xavier Beaudry.....	"	Pembroke, Ont.....	Pembroke.....	2 00
3185	" 2.	Pierre Marchidon.....	"	Sturgeon Falls, Ont.....	Montreal.....	2 00
3186	" 2.	John Anderson Camber.....	"	Georgetown, Que.....	Georgetown.....	2 00
3187	" 2.	Charles Livingston.....	"	Sturgeon Falls, Ont.....	Sturgeon Falls.....	2 00
3188	" 2.	John McCaw.....	"	Dorset, Ont.....	North Bay.....	2 00
3189	" 2.	John C. Fitzpatrick.....	4th Class	Morrisburg, Ont.....	Montreal.....	5 00
3190	" 2.	Alfred Samson.....	4th "	Village Bienville, Que.....	Quebec.....	5 00
3191	" 2.	Joseph Nadeau.....	Temporary	Lake St. John, Que.....	St. Gedeon.....	2 00
3192	" 5.	John McGraw.....	"	Brockville, Ont.....	Brockville.....	2 00
3193	" 12.	Wm. R. Rogers.....	"	Webbwood, Ont.....	St. Ste Marie.....	2 00
3194	" 12.	Herbert R. Stevens.....	"	Huntsville, Ont.....	Huntsville.....	2 00
3195	" 12.	George W. McDonald.....	"	Penetanguishene.....	Penetanguishene.....	2 00
3196	" 12.	Joseph Reynolds.....	"	".....	Toronto.....	2 00
3197	" 12.	George Moreau.....	"	Waubushene, Ont.....	Waubushene.....	2 00
3198	" 12.	Thomas C. Young.....	"	Rat Portage, Ont.....	Rat Portage.....	2 00
3199	" 12.	George Woodward.....	"	Melbourne, Que.....	North Hatley.....	2 00
3200	" 12.	Richard White-man.....	"	Vermilion Bay, Ont.....	Vermilion B'y.....	2 00
3201	" 12.	Roy G. Skene.....	"	Drayden, Ont.....	Gold Rock.....	2 00
3202	" 12.	Andrew Leitch.....	1st Class	Halifax, N.S.....	Halifax.....	5 00
3203	" 16.	Chas. E. Taylor.....	Temporary	Corama, Ont.....	Sarnia.....	2 00
3204	" 16.	Peter Brown.....	"	Lake Megantic, Ont.....	Quebec.....	2 00
3205	" 17.	Eldridge Phillips.....	"	Mira Gut, C.B.....	Mira.....	2 00
3206	" 29.	George Willis.....	"	Carleton Place, Ont.....	Carleton Place.....	2 00
3207	Aug. 8.	Joseph Fournier dit Allard	"	Levis, Que.....	Quebec.....	2 00
3208	" 8.	George Edward Hull.....	"	Larima, Ont.....	Lakefield.....	2 00
3209	" 8.	M. L. Crandell.....	"	Port Perry, Ont.....	Kingston.....	2 00
3210	" 8.	James H. Spencer.....	"	Parry Sound, Ont.....	Parry Sound.....	2 00
3211	" 8.	Albert E. Stephenson.....	"	".....	".....	2 00
3212	" 8.	Herbert R. Adam.....	"	Hawtson, Ont.....	Port Cockburn.....	2 00
3213	" 8.	Joseph Bark.....	"	Cornwall, Ont.....	Kingston.....	2 00
3214	" 8.	Geo. Thomas Leach.....	"	Montreal, Que.....	Montreal.....	2 00
3215	" 8.	Timothy Whitred.....	"	Gore's Landing, Ont.....	Hastings.....	2 00
3216	" 7.	George Emond.....	4th Class	Montreal, Que.....	Montreal.....	5 00
3217	" 7.	Theodore Breton.....	4th "	Levis, Que.....	".....	5 00
3218	" 13.	Aldore Gagnon.....	Temporary	Rat Portage, Ont.....	Rat Portage.....	2 00
3219	" 13.	Geo. Rene Cotrel.....	3rd Class	Montreal, Que.....	Montreal.....	5 00
3220	" 14.	Lewis Goodchild.....	Temporary	Amherstburg, Ont.....	Amherstburg.....	2 00
3221	" 25.	Gabriel Bellefeuille.....	"	Winnipeg, Man.....	Winnipeg.....	2 00
3222	" 25.	William Powles.....	"	Tyendinago, Ont.....	Kingston.....	2 00
3223	Sept. 10.	Thos. Naas.....	"	Lunenburg, N.S.....	Halifax.....	2 00
3224	" 10.	Walker Langille.....	"	Pictou, N.S.....	Pictou.....	2 00
3225	" 10.	Isaac R. Brigham.....	"	Ottawa, Ont.....	Aylmer.....	2 00
3226	" 12.	Joseph Gagnon.....	"	Ste Anne de Chicoutimi, Q	Ste. Anne de Chicoutimi.....	2 00
3227	" 12.	Frank Stanton.....	"	Severn Bridge, Ont.....	Sparrow Lake.....	2 00
3228	" 13.	Wm. Sharp Wallace.....	"	Orillia, Ont.....	".....	2 00
3229	" 23.	Howard Wm. Feoster.....	4th Class	Vancouver, B.C.....	Vancouver.....	5 00
3230	" 23.	Wm. Bandy.....	4th "	".....	".....	5 00
3231	" 23.	Christian M. Christian.....	3rd "	".....	".....	+
3232	" 27.	Robert Daniel Webster.....	2nd "	Halifax, N.S.....	Halifax.....	5 00
3233	" 29.	Alexander McLeod.....	Temporary	Pictou, N.S.....	".....	2 00
3234	Oct. 4.	John Chas. Hudson.....	"	Barry's Bay, Ont.....	Barry's Bay.....	2 00
3235	" 4.	Arthur Thomas Willette.....	"	Dawson, Y.T.....	Dawson.....	2 00
3236	" 4.	Joseph Dumulon.....	"	Ville-Marie, Que.....	Ville-Marie.....	2 00
3237	Sept. 4.	John Thomas Henley.....	4th Class	Dawson, Y.T.....	Dawson, Y.T.....	5 00
3238	" 7.	John Scott.....	4th "	Halifax, N.S.....	Halifax, N.S.....	5 00
3239	" 7.	Henri Trotter.....	3rd "	Roberval Lac St. John, Q	Quebec, Que.....	5 00
3240	Oct. 11.	John Wary.....	4th "	Halifax, N.S.....	Halifax, N.S.....	5 00
3241	" 11.	John Underwood Lilly.....	4th "	".....	".....	5 00
3242	" 11.	Edward B. Fraser.....	4th "	Pictou, N.S.....	".....	5 00
3243	" 11.	Alexander Anderson.....	3rd "	Halifax, N.S.....	".....	5 00
3244	" 14.	Wesford H. Tully.....	3rd "	Dawson, Y.T.....	Dawson, Y.T.....	5 00
3245	" 17.	Frk. Duncan McDonald.....	4th "	Sydney, N.S.....	Halifax, N.S.....	5 00
3246	" 20.	L. R. Boulianger.....	2nd "	Jeune Lorette, Que.....	Quebec, Que.....	5 00
3247	" 21.	Thos. Wilbert Whitelaw.....	Temporary	Sombra, Ont.....	Sombra, Ont.....	2 00

## LIST of Certificates of Competency granted to Engineers of Steamboats, &amp;c.—Continued

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1903.					8 cts.
3248	Oct. 27	Albert Desrochers	3rd Class.	Ste. Croix, Que.	Montreal, Que.	5 00
3249	" 27	Alex. Guildford	4th "	Halifax, N.S.	Halifax, N.S.	5 00
3250	" 30	Selby Alex. Stevenson	4th "	Dartmouth, N.S.	"	5 00
3251	Nov. 3	Levy McMillan	4th "	Sherbrooke, N.S.	"	5 00
3252	" 7	Joseph Lepage	2nd "	Village Bienville, Que.	Quebec, Que.	5 00
3253	" 7	Zephyrin Desrochers	3rd "	Ste. Croix, Que.	"	5 00
3254	" 7	Alphonse Toutant	3rd "	Champlain, Que.	"	5 00
3255	" 17	Donald McQuarrie Fraser	3rd "	French River, Ont.	French Riv'r, O	5 00
3256	" 17	Albert James Hamilton	4th "	Spanish Station, Ont.	Little Curr't, O	5 00
3257	" 20	Henri Brisson	4th "	Chicoutimi, Que.	Quebec, Que.	5 00
3258	" 20	Scott Wilson Clark	3rd "	Little Current, Ont.	Little Curr't, O	5 00
3259	" 20	Edwin Braniff	4th "	Richard's Landing, Ont.	Sault Ste. Marie, Ont.	5 00
3260	" 20	Jonas Johnson	3rd "	Vancouver, B.C.	Vancouver, BC	5 00
3261	" 20	John Wilson Shephard	4th "	"	"	5 00
3262	" 27	Alexander Rondeau	2nd "	Sorel, Que.	Sorel, Que.	5 00
3263	Dec 3	Wm. Arthur Gamble	4th "	St. Mary's York, Co., N.B.	St. John, N.B.	*
3264	Jan 3	Wm. G. Allan	2nd "	Victoria, B.C.	Victoria, B.C.	5 00
3265	" 5	John Leonard	Temporary	St. John, N.B.	St. John, N.B.	2 00
3266	" 5	Wm. H. Way	4th Class.	Kingston, Ont.	Kingston, Ont.	5 00
3267	" 5	Geo. Green Shields	3rd "	Nelson, B.C.	Victoria, B.C.	5 00
3268	" 5	August Pendola	1st "	Vancouver, B.C.	Vancouver, BC	*
3269	" 7	George W. Dixon	3rd "	"	"	*
3270	" 7	David Roberts	3rd "	"	"	*
3271	" 7	Archd. John Fisher	4th "	Toronto, Ont.	Toronto, Ont.	5 00
3272	" 7	Andrew Lees Black	4th "	"	"	5 00
3273	" 13	Wm. Turmie Rennie	4th "	Collingwood, Ont.	"	5 00
3274	" 13	Chas. Benj. Patterson	4th "	Pictou, Ont.	Kingston, Ont.	5 00
3275	" 13	Chas. L. Lavallée	2nd "	Toronto, Ont.	Toronto, Ont.	*
3276	" 13	Henry M. Sallaway	4th "	Victoria, B.C.	Victoria, B.C.	5 00
3277	" 13	James Aunsman	Temporary	Revelstoke, B.C.	"	2 00
3278	" 24	Samuel A. Barker	"	Harrison River, B.C.	Vancouver, BC	2 00
3279	" 26	Adolphe Derouin	2nd Class.	Toronto, Ont.	Toronto, Ont.	5 00
3280	" 26	Wm. John Buchanan	4th "	Moonstone, Ont.	"	5 00
3281	" 26	William Harding	4th "	Collingwood, Ont.	"	5 00
3282	" 27	Peter Ryan	2nd "	Hamilton, Ont.	"	5 00
3283	" 27	Archibald Ancom.	4th "	"	"	5 00
3284	" 27	Alfred W. Thompkins	4th "	"	"	5 00
3285	" 27	Thos. Joseph Hayden	4th "	Nicolston, Ont.	"	5 00
3286	" 30	Robt. Henry Veech	2nd "	Garden Island, Ont.	Kingston, Ont.	5 00
3287	" 30	Napoléon Lazure	4th "	Ste. Camégonde, Que.	Montreal, Que.	5 00
3288	" 30	Xavier Séguin	4th "	Rockland, Ont.	"	5 00
3289	" 30	Wm. A. Marshall	4th "	Kingston, Ont.	Kingston, Ont.	5 00
3290	" 30	John Charles Carr	4th "	Port Dalhousie, Ont.	Toronto, Ont.	5 00
3291	" 30	John A. McLachlan	4th "	Parkhill, Ont.	"	5 00
3292	Feb. 7	Frank Kraffe	Temporary	Barrington Passage, N.S.	Halifax, N.S.	2 00
3293	" 7	Richard J. Riley	"	Annapolis, N.S.	St. John	2 00
3294	" 7	Clowes Banks	"	St. Mary's, N.B.	"	2 00
3295	" 7	John Kelso	"	Huntsville, Ont.	Toronto	2 00
3296	" 7	William Wright	3rd Class.	Port Dalhousie, Ont.	"	5 00
3297	" 7	James M. Fardy	4th "	Charlottetown, P.E.I.	St. John	5 00
3298	" 7	Frank W. Morisey	4th "	St. John, N.B.	"	5 00
3299	" 7	Alexander G. Cameron	4th "	Chatham, N.B.	"	5 00
3300	" 7	John Edmunds	4th "	Charlottetown, P.E.I.	"	5 00
3301	" 7	Robert Patterson	4th "	"	"	5 00
3302	" 7	John Nicoll	4th "	Collingwood, Ont.	Toronto	5 00
3303	" 7	Robert Johnston	4th "	Gore Bay, Ont.	"	5 00
3304	" 7	Hugh Wm. Fletcher	4th "	Owen Sound, Ont.	"	5 00
3305	" 9	Wm. Burgoyne	Temporary	Fenelon Falls, Ont.	Kingston	2 00
3306	" 9	Chas. Edward Dalton	1st Class, U.K	Farville, N.B.	St. John	*
3307	" 9	Arthur Lee	3rd "	Vancouver, B.C.	Vancouver	5 00
3308	" 9	Orlando W. Roberts	3rd "	Dawson, Y.T.	Dawson	5 00
3309	" 9	Wm. Kirby	4th "	Toronto, Ont.	Toronto	5 00
3310	" 9	Wm. Ewart Gillman	4th "	"	"	5 00
3311	" 9	Wm. James Kennedy	4th "	Garden Island, Ont.	Kingston	5 00

\* Second examination.

SESSIONAL PAPER No. 21

LIST of Certificates of Competency granted to Engineers of Steamboats, &c.—*Con.*

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
1903.						8 cts.
3312	Feb. 9.	Harry Donald McDonald.	4th Class	Chatsworth, Ont.	Toronto	5 00
3313	" 9.	Alex. James Scobie.	4th "	Collingwood, Ont.	"	5 00
3314	" 9.	John Alex. Gunn.	4th "	Owen Sound, Ont.	"	5 00
3315	" 9.	Andrew Russell	4th "	Vancouver, B.C.	Vancouver	5 00
3316	" 9.	George L. Lamb.	4th "	Pen-tanguishene, Ont.	Toronto	5 00
3317	" 9.	John Robert Brown.	4th "	"	"	5 00
3318	" 9.	Henry Hill.	4th "	Collingwood, Ont.	"	5 00
3319	" 17.	William Jacobs.	4th "	Nelson, B.C.	Victoria	5 00
3320	" 17.	Walter Henry Harlock.	4th "	Victoria, B.C.	"	5 00
3321	" 17.	Archibald McGregor.	4th "	"	"	5 00
3322	" 17.	James T. Thurston.	4th "	Pictou, Ont.	Kingston	5 00
3323	" 17.	James McD. Demy.	3rd "	Victoria, B.C.	Victoria	5 00
3324	" 17.	David Pringle Wilson.	3rd "	"	"	5 00
3325	Mar. 4.	Walter Bryden.	3rd "	Steelton, Ont.	Sa'lt Ste. Marie	5 00
3326	" 4.	James McGray.	3rd "	Little River, N.S.	Halifax	5 00
3327	" 4.	George P. Fitzpatrick.	3rd "	Aylmer, Que.	Montreal	5 00
3328	" 4.	Eugene Hamelin.	3rd "	Montreal, Que.	"	5 00
3329	" 4.	Lloyd Ballard Gore.	3rd "	Vancouver, B.C.	Vancouver	5 00
3330	" 4.	William W. Roberts.	2nd "	St. John, N.B.	St. John	5 00
3331	" 4.	John Russell Perkins.	4th "	Toronto, Ont.	Toronto	5 00
3332	" 4.	William Webb.	4th "	Owen Sound, Ont.	"	5 00
3333	" 4.	Martin Jas. Rankin.	4th "	Kingston, Ont.	Kingston	5 00
3334	" 4.	James Leonard.	4th "	Goderich, Ont.	Toronto	5 00
3335	" 4.	Zaccheus White.	4th "	Toronto, Ont.	"	5 00
3336	" 4.	George Brander.	4th "	Halifax, N.S.	Halifax	5 00
3337	" 4.	George Langlois.	4th "	Montreal, Que.	Montreal	5 00
3338	" 4.	Auguste Leconte.	4th "	Valleyfield, Que.	"	5 00
3339	" 4.	Alphonse Hamelin.	2nd "	Montreal, Que.	"	5 00
3340	" 4.	Chas. F. Dobbie.	2nd "	U.K. Halifax, N.S.	Halifax	5 00
3341	" 4.	Daniel H. McQuarrie.	2nd "	St. John, N.B.	"	5 00
3342	" 4.	Daniel Edwin Read.	1st "	Pictou, N.S.	"	5 00
3343	" 11.	Charles John Crawford.	4th "	Sault Ste. Marie, Ont.	Sa'lt Ste. Marie	5 00
3344	" 11.	Fred. Perks.	4th "	Meaford, Ont.	Toronto	5 00
3345	" 11.	David Myler.	4th "	Collingwood, Ont.	"	5 00
3346	" 11.	Archibald C. McInnis.	4th "	Meaford, Ont.	"	5 00
3347	" 11.	Andrew Townsley.	3rd "	Victoria, B.C.	Victoria	5 00
3348	" 11.	Simon Boisvert.	4th "	Sorel, Que.	Sorel	5 00
3349	" 11.	Theodore Theriault.	4th "	Village Lauzon, Que.	Quebec	5 00
3350	" 17.	William Currie.	2nd "	U.K. Pictou, N.S.	Halifax	5 00
3351	" 17.	George Herbert Burpee.	2nd "	Bunton, N.B.	St. John	"
3352	" 17.	John Wm. Crowley.	2nd "	St. John, N.B.	"	5 00
3353	" 17.	Donald Kingston.	2nd "	U.K. Chatham, N.B.	St. John, N.B.	"
3354	" 18.	Ronald F. Link.	Temporary	Gravenhurst, Ont.	P. Carling, O.	2 00
3355	" 18.	Wm. P. Cowie.	"	Fairville, N.B.	St. John, N.B.	2 00
3356	April 6.	Alexander McLeod.	"	Pictou, N.S.	Halifax, N.S.	2 00
3357	" 6.	Albert Martin.	"	Gravenhurst, Ont.	Toronto, Ont.	2 00
3358	" 6.	George W. McDonald.	"	Pen-tanguishene, Ont.	Penetanguis- hene, Ont.	2 00
3359	" 6.	George Edwin Scott.	"	Guyshoro, N.S.	Halifax, N.S.	2 00
3360	" 6.	Isaac Jas. Boynton.	"	Bobcaygeon, Ont.	Kingston, Ont.	2 00
3361	" 6.	Arthur Seguin.	"	Hudson, Que.	Montreal, Que.	2 00
3362	" 6.	Elyah Y. Drinkwater.	3rd Class	Goderich, Ont.	Toronto, Ont.	5 00
3363	" 6.	Onesime Toupin.	3rd "	Sorel, Que.	Montreal, Que.	5 00
3364	" 6.	John Jamieson.	3rd "	Deseronto, Ont.	Kingston, Ont.	5 00
3365	" 6.	Wm. Henry Taylor.	4th "	Hamilton, Ont.	Toronto, Ont.	5 00
3366	" 6.	Stamslas Roy.	4th "	St. Henri, Que.	Montreal, Que.	5 00
3367	" 6.	Mathew G. Doyle.	4th "	Halifax, N.S.	Halifax, N.S.	5 00
3368	" 6.	George Allard.	4th "	St. Joseph de Sorel, Que.	Sorel, Que.	5 00
3369	" 6.	Wm. James Woffle.	4th "	Westport, Ont.	Kingston, Ont.	5 00
3370	" 6.	Geo. Charles Tizzard.	4th "	Owen Sound, Ont.	Toronto, Ont.	5 00
3371	" 6.	Fredk. Wm. Cope.	4th "	Muskoka, Ont.	"	5 00
3372	" 6.	John A. Wilson.	4th "	Collingwood, Ont.	"	5 00
3373	" 6.	James Lawrence.	4th "	Parry Sound, Ont.	"	5 00
3374	" 14.	Arthur Poole.	4th "	Selkirk, Man.	Rat Portage, O.	5 00
3375	" 14.	Walter Wells.	4th "	Balmoral, Man.	Selkirk, Man.	5 00

\* Second Examination.

LIST of Certificates of Competency granted to Engineers of Steamboats, &c—*Con.*

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fees.
1903.						8 cts.
3376	April 14.	Henry Stanley Dewar	3rd Class.	Selkirk, Man.	RatPortage,O.	5 00
3377	" 14.	James T. Eldridge	3rd "	Rat Portage, Ont.	"	5 00
3378	" 14.	William John Leaney	2nd "	West Selkirk, Man.	"	5 00
3379	" 14.	Walter D. Booker	Temporary.	Rat Portage, Ont.	"	2 00
3380	" 14.	C. G. Hanson	"	"	"	2 00
3381	" 14.	George Overend	"	Manitoba, Ont.	"	2 00
3382	" 14.	Wm. George Chilton	"	Rat Portage, Ont.	"	2 00
3383	" 14.	Isaie Poirier	"	Point Fortune, Ont.	Montreal, Que.	2 00
3384	" 22.	James W. Brown	"	Rat Portage, Ont.	RatPortage,O.	2 00
3385	" 22.	Gaster C. Stover	3rd Class	Vancouver, B.C.	Vancouver,BC	5 00
3386	" 22.	William J. Douglas	4th "	Selkirk, Man.	RatPortage,O.	5 00
3387	" 22.	Matthews Gray	4th "	Vancouver, B.C.	Vancouver,BC	5 00
3388	" 22.	Wm. Taylor Davie	4th "	Levis, Que.	Quebec, Que.	5 00
3389	" 22.	Gustav Oelkers	1st "	Quebec, Que.	"	5 00
3390	" 22.	Albert E. Stephenson	Temporary	P-netanguishene, Ont.	P. Sound, Ont	2 00
3391	" 22.	Arthur McCann	"	Wallace, N.S.	Halifax, N.S.	2 00
3392	" 22.	Hugh McMillan	4th Class.	Sault Ste. Marie, Ont.	S Ste.Marie,O	5 00
3393	" 25.	James Logan	Temporary	Peterboro, Ont.	Kingston, Ont	2 00
3394	May 16.	Arthur Davis	"	Poole's Resort, Ont.	"	2 00
3395	" 16.	Jas. Charles Barry	"	LeRoy, P.O., Ont.	Toronto, Ont	2 00
3396	" 16.	Andrew Jas. Reid	"	Rat Portage, Ont.	RatPortage,O.	2 00
3397	" 16.	Fredk. Wm. Coates	"	Fort Francis, Ont.	"	2 00
3398	" 16.	Victor Riel	4th Class.	Ottawa, Ont.	Ottawa, Ont.	5 00
3399	" 26.	George Hill	Temporary	Rat Portage, Ont.	RatPortage,O.	2 00
3400	" 26.	James H. Wilson	"	Fort Francis, Ont.	F. Francis, Ont	2 00
3401	" 26.	Gabriel Bellefeuille	"	Winnipeg, Man.	Winnipeg, M.	2 00
3402	" 26.	Chris. Watterson	"	West Selkirk, Man.	Selkirk, Man.	2 00
3403	" 26.	Andrew Lajeunesse	"	Peterboro, Ont.	Peterboro, Ont	2 00
3404	" 26.	Luke Whalen	"	Kingston, Ont.	Kingston, Ont.	2 00
3405	" 26.	Wm. John Poole	"	Poole's Resort, Ont.	"	2 00
3406	" 26.	George Willis	"	Carleton Place, Ont.	Carleton P., O.	2 00
3407	" 26.	Peter Geo. Cavanagh	"	Perth, Ont.	Montreal, Que	2 00
3408	" 26.	Wm. James McEntyre	"	Port Sydney, Ont.	Toronto, Ont.	2 00
3409	" 26.	Fred. W. Pamphlet	3rd Class.	Victoria, B.C.	Victoria, B.C.	5 00
3410	" 26.	Wm James Jento	3rd "	Brockville, Ont.	Kingston, Ont.	5 00
3411	May 29.	Sydney T. Hubbard	Temporary.	Edmonton, N.W.T.	Edmonton, N. W. T.	2 00
3412	" 29.	John Edward Ball	"	Caesarea, Ont.	Li. dsay, Ont.	2 00
3413	" 29.	Wm. Spicer	"	Newboro, Ont.	Kingston, Ont.	2 00
3414	" 29.	John Gonyea	"	Smith Falls, Ont.	"	2 00
3415	" 29.	Joseph Bark	"	Cornwall, Ont.	"	2 00
3416	June 1.	Adelard St. Martin	4th Class.	St. Joseph de Sorel, Que.	Quebec, Que.	5 00
3417	" 1.	Joseph Boulanger	4th "	Bienville, Que.	"	5 00
3418	" 1.	Alfred Laroque	3rd "	Killarney, Ont.	Cutler, Ont.	5 00
3419	" 1.	Zoel Lacroix	2nd "	Sorel, Que.	Sorel, Que.	5 00
3420	" 1.	Alonzo W. Daball	Temporary.	Parry Sound, Ont.	Parry Sound,O	2 00
3421	" 1.	Henry R. Amnett	"	Peninsula, Que.	Quebec, Que.	2 00
3422	" 1.	Daniel O'Donnell	"	Belleville, Ont.	Belleville, Ont	2 00
3423	" 1.	James Clark	"	Little Current, Ont.	French Riv.,O	2 00
3424	" 10.	Ludger Cyr	"	Val des Bois, Ont.	N.D.duLaus,Q	2 00
3425	" 10.	Frederick W. Calbick	"	Vancouver, B.C.	Vancouver,BC	2 00
3426	" 10.	Geo. Morris Beecher	"	Brockville, Ont.	Brockville, Ont	2 00
3427	" 10.	John James Coones	"	Bridge North, Ont.	Kingston, Ont.	2 00
3428	" 10.	Aleime Baudet	3rd Class.	St. Jean, Que.	Sorel, Que.	5 00
3429	" 10.	Wm. H. Carefoot	3rd "	Collingwood, Q.	Toronto, Ont.	5 00
3430	" 10.	Calixte C. Berlinguette	3rd "	Quyon, Que.	Quyon, Que.	5 00
3431	" 10.	Regis Cazier	3rd "	Bristol, Que.	Arnprior, Ont.	5 00
3432	" 10.	Walter Harris	4th "	Victoria, B.C.	Victoria, B.C.	5 00
3433	" 22.	George R. McDonald	3rd "	Owen Sound, Ont.	Toronto, Ont.	5 00
3434	" 22.	Donald Todd	3rd "	Vancouver, B.C.	Vancouver,BC	5 00
3435	" 22.	Victor A. Eckstein	4th "	Esquimault, B.C.	Victoria, B.C.	5 00
3436	" 22.	Froderic M. Young	Temporary.	Young's Point, Ont.	Kingston, Ont.	2 00
3437	" 22.	Henry D. Hornibrook	"	Victoria, B.C.	Victoria, B.C.	2 00
3438	" 22.	Robert Watson	"	St. Roch, Que.	Quebec, Que.	2 00

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APPENDIX No. 13.

RECORD of Live Stock Shipped from Port of Montreal during the following Months of the Year 1903.

MAY.

No	Date.	Steamer.	Destination.	Sheep.	Cattle, stockers.	Total cattle.	Horses.	Hay for Feed.	Grain for Feed.	Number Men.
								Lbs.	Lbs.	
1	May 4.	Lake Champlain.	Liverpool			530				21
2	" 8.	Corinthian.	"			738				30
3	" 10.	Salacia.	Glasgow			691	18			28
4	" 11.	Sarmatian	"			697				28
5	" 13.	Monarch	London.	317		875				36
6	" 14.	Ruthlin Head.	Belfast.				3			1
7	" 14.	Fremona.	London.			301				12
8	" 14.	Turcoman	Liverpool			633				25
9	" 15.	Aleides	Glasgow.			584	17			26
10	" 15.	Montrose.	Bristol and Liverpool	251 821		1,072				43
11	" 16.	Lake Erie	Liverpool			550				22
12	" 16.	Concordia.	Glasgow			540				22
13	" 16.	Oreadian.	London.			397				16
14	" 17.	Maun. Trader.	Manchester.			408				16
15	" 19.	Monterey	Liverpool & Bristol	709 349		1,058				43
16	" 20.	Manxman	Liverpool			503				20
17	" 20.	Devona	London.	131		523				22
18	" 22.	Sardinian	Glasgow			468				19
19	" 23.	Monte Videan	London.	148		388				16
20	" 24.	Maun. Commerce.	Manchester.			513				21
21	" 24.	Marina	Glasgow			892	19			27
22	" 24.	Mount Royal.	London.	160		1,094				44
23	" 24.	Hungarian.	Liverpool			588				24
24	" 28.	Cervona.	London.			568				23
25	" 28.	Toronto	"			620				24
26	" 29.	Kastalia	Glasgow			710	19			28
27	" 29.	Roman	Liverpool	576		892				38
28	" 30.	Mount Temple.	"			1,361				54
29	" 30.	Monteagle	Bristol and Liverpool			1,087				44
30	" 30.	Sicilian.	Liverpool			690	16			29
31	" 31.	Michigan	London.			660				26
32	" 31.	Manchester City.	Manchester.			873				35
33	" 31.	Ottoman	Liverpool	958		1,020				43
Total for May.				2,290		22,778	92	5,908,907	1,817,059	926

TOTAL Live Stock Shipments from the year 1903, were as follows:—

No.		Sheep.	Cattle.
29	Same date 1902.	536	10,090
36	" 1901.	8,454	11,332
31	" 1900.	2,314	11,426
36	" 1899.	3,365	12,983
46	" 1898.	309	15,563

MONTREAL, June 1, 1903.

POPE & DELORME, *Inspectors.*

3-4 EDWARD VII. A. 1904

RECORD of Live Stock shipped from Port of Montreal, &c.—*Continued.*

## JUNE.

No.	Date.	Steamer.	Destination.	Sheep.	Cattle.	Horses.	Hay for Feed.	Grain for Feed.	Number of Men.
1903.									
35	June 3.	Hurona	London		563				22
36	" 4.	Lake Champlain	Liverpool		530				21
37	" 4.	Birmingham	London	162	250				11
38	" 5.	Pomeranian	Glasgow		614				25
39	" 5.	Tritonia	Liverpool	485	863				37
40	" 5.	Bellona	New Castle		338				13
41	" 6.	Pretorian	Liverpool		389				15
42	" 6.	Livonian	London	276	769				32
43	" 7.	Yola	"	46	298				11
44	" 7.	Kildena	"		293				12
45	" 10.	Norwegian	Glasgow		650				26
46	" 11.	Lord Iveigh	Cardiff	320	326				14
47	" 11.	Tampican	Liverpool	265	648				27
48	" 11.	Manr. Importer	Manchester	584	507				23
49	" 12.	Lake Michigan	Liverpool		1,391				52
50	" 12.	Escalona	New Castle		393				13
51	" 13.	Lakonia	Glasgow	288	803	18			34
52	" 14.	Iona	London		572				23
53	" 16.	Indiana	"	172	250				17
54	" 17.	Iberian	Liverpool	216	539				22
55	" 17.	Corinthian	Glasgow		714	17			29
56	" 18.	Lake Erie	Liverpool		538				22
57	" 19.	Alcides	Glasgow		612				24
58	" 19.	Montrose	Liverpool		1,081				44
59	" 20.	Kensington	"		1				1
60	" 20.	Milwaukee	London	912	928				44
61	" 21.	Mexican	"		392				16
62	" 23.	Turcoman	Liverpool		642				25
63	" 23.	Concordia	Glasgow		542				21
64	" 24.	Fremona	London	142	508				21
65	" 24.	Buenos Ayrean	Glasgow		756				30
66	" 24.	Lord Lansdowne	Cardiff		223				9
67	" 25.	Orcahan	London		492				20
68	" 26.	Salacia	Glasgow		708	16			29
69	" 27.	Montcalm	Bristol		1,067				43
70	" 28.	Devona	London	171	553				23
71	" 28.	Manr. Trader	Manchester	448	405				18
72	" 28.	Indian	Liverpool		850				34
Shipped in June				4,487	21,817	52	5,690,750	1,757,162	903
Previously reported				2,290	22,778	92	5,968,907	1,817,059	926
Total to date				6,777	44,595	144	11,599,657	3,574,221	

TOTAL Live Stock Shipments from the year 1898, were as follows :—

No.		Sheep.	Cattle.	Horses.
59	Same date, 1902	8,277	20,243	237
67	" 1901	16,465	22,395	486
67	" 1900	7,131	25,377	1,399
75	" 1899	11,835	28,837	1,533
85	" 1898	2,682	28,899	2,894

POPE &amp; DELORME,

MONTREAL, June 30, 1903.

*Inspectors.*



SESSIONAL PAPER No. 21

RECORD of Live Stock shipped from Port of Montreal, &c.—Continued.

JULY.

No.	Date.	Steamer.	Destination.	Sheep.	Cattle.	Total.	Horses.	Hay for feed.	Grain for feed.	Number of men.
1903.										
73	July 1.	Sardinian	Glasgow			468				19
74	" 1.	Montreal	London	1,852		882				44
75	" 2.	Montevideo				406				16
76	" 3.	Marina	Liverpool			916				39
77	" 3.	Man. Commerce	Manchester	723		523				24
78	" 3.	Mount Temple	Liverpool	848		1,256				54
79	" 4.	Monteagle	Liverpool		358	940				38
			Bristol		591					
80	" 4.	Cervona	London			589				23
81	" 4.	Manxman	Liverpool			321				21
82	" 5.	Mount Royal	London	2,201		827				43
83	" 8.	Sicilian	Glasgow			680				28
84	" 9.	Lake Champlain	Liverpool			532				21
85	" 9.	Kastalia	Glasgow			726				29
86	" 10.	Man. City	Manchester	590		771	2			34
87	" 11.	Pretorian	Liverpool			386				15
88	" 11.	Monterey	Bristol		689	1,043				41
					354					
89	" 11.	Ottoman	Liverpool	800		1,002	1			42
90	" 11.	Jacona	New Castle			244				10
91	" 11.	Harona	London	282		529				22
92	" 14.	Monmouth	"	1,734		381				23
93	" 15.	Hungarian	Glasgow			579	10			24
94	" 16.	Tritonia	Liverpool	598		859				37
95	" 17.	Lake Michigan	"	599		876				38
96	" 18.	Killona	London	184		269				12
97	" 18.	Montfort	Liverpool	281	635	993				40
			Bristol		350					
98	" 21.	Livonian	London	720		555				26
99	" 22.	Corinthian	Glasgow			571				23
100	" 23.	Iberian	Liverpool	214		539	1			23
101	" 23.	Lake Erie	"			540				23
102	" 24.	Montezuma	London	1,924		959				51
103	" 25.	Montrose	Liverpool		545	985				36
			Bristol		359					
104	" 25.	Iona	London	444		520	2			23
105	" 29.	Pomeranian	Glasgow			616				25
106	" 29.	Lord Iveigh	Cardiff	157		360				15
107	" 30.	Alcides	Glasgow	160		592				24
108	" 23.	Escalona	New Castle			240				9
109	" 26.	Lakonia	Glasgow			793	29			34
110	" 31.	Bellona	New Castle			273				9
111	" 31.	M. Corporation	Liverpool		209	712				28
			Manchester		512					
112	" 31.	Concordia	Liverpool			538				21
Total for July				14,311		25,963	45	6,939,180	2,210,272	1,105
Previously reported				6,777		14,595	144	11,599,657	3,574,221	1,829
				21,088		70,498	189	18,538,837	5,784,493	2,934

TOTAL Live Stock Shipments from the year 1902, were as follows:—

No.		Sheep.	Cattle.	Horses.	No.	Sheep.	Cattle.	Horses.
90	Same date 1902	16,273	30,582	313	114	19,393	43,526	2,353
98	" 1901	25,781	32,742	718	132	" 1898	7,893	44,885
103	" 1900	13,259	39,812	1,651				

\* Rudder broken backing out from wharf; cattle transhipped to Pomeranian July 31.

MONTREAL, August 1, 1903.

POPE & DELORME, *Inspectors.*

RECORD of Live Stock shipped from Port of Montreal, &c.—Continued.

AUGUST.

No.	Date.	Steamer.	Destination.	Sheep.	Cattle, stockers.	Cattle Total.	Horses.	Hay for feed.	Grain for feed.	Number of men.
1904.										
113	Aug. 1.	Montcalm.....	Bristol.....			992				38
114	" 1.	Milwaukee.....	London.....	1449		781				37
115	" 1.	Fremona.....	".....			532				21
116	" 2.	Toronto.....	".....			599				24
117	" 3.	Turcoman.....	Liverpool.....	507		588				25
118	" 5.	Sardinian.....	".....			500				20
119	" 5.	Birmingham.....	London.....			278				11
120	" 6.	Salacia.....	Glasgow.....	12		719				29
121	" 7.	Mount Temple.....	Liverpool.....			1003				39
122	" 7.	Orcadian.....	London.....	500		498				22
123	" 7.	Manr. Trader.....	Manchester.....	446		391				17
124	" 8.	Devona.....	London.....			565				23
125	" 8.	Monteagle.....	Liverpool.....		635	885				33
			Bristol.....	250						
126	" 9.	Pomeranian.....	Liverpool.....			490				20
127	" 11.	Montevilean.....	London.....	181		385				16
128	" 12.	Sicilian.....	Glasgow.....			725				29
129	" 13.	Lake Champlain.....	Liverpool.....			522				21
130	" 13.	Marina.....	".....	152		776	16			32
131	" 14.	Indiana.....	London.....	400		250				12
132	" 15.	Cervona.....	".....			574				23
133	" 15.	Pretorian.....	Liverpool.....			373				15
134	" 15.	Manxman.....	".....	162		500				26
135	" 16.	Montreal.....	London.....	1291		871				41
136	" 29.	Lord Landsdowne.....	Cardiff.....	159		206				8
137	" 19.	Hungarian.....	Liverpool.....			570	17			24
138	" 20.	Kastalia.....	Glasgow.....			726				29
139	" 21.	Lake Michigan.....	Liverpool.....			896				36
140	" 21.	Manr. City.....	Manchester.....		444	871				40
			Liverpool.....	1061	427					
141	" 22.	Hibernian.....	London.....			633				25
142	" 22.	Mount Royal.....	".....	363		978				40
143	" 22.	Hurona.....	".....	285		536	1			23
144	" 23.	Montfort.....	Liverpool.....		372	823				33
			Bristol.....	251						
145	" 26.	Corinthian.....	Glasgow.....			738				29
146	" 26.	Aboukir.....	London.....			125				5
147	" 37.	Lake Erie.....	Liverpool.....			525				21
148	" 27.	Tritonia.....	".....	327		812				34
149	" 29.	Iberian.....	".....	235		541				23
150	" 29.	Kildona.....	London.....			296				11
151	" 30.	Monmouth.....	Liverpool.....		330	580				22
			Bristol.....	250						
Total for August.....				7,521	2274	23,653	34	6,341,150	1,721,694	971
Previously report.....				21,088		70,498	189	18,538,857	5,784,493	2,934
Total to date.....				28,609		94,151	223	24,879,987	7,506,187	3,905

TOTAL Live Stock Shipments from the year 1899, were as follows:—

No.	Season of	Sheep.	Cattle.	Horses.	
123	1902.....		21,256	43,340	354
131	" 1901.....		31,387	45,239	848
147	" 1900.....		16,395	56,498	2,242
152	" 1899.....		30,810	56,240	3,143

SESSIONAL PAPER No. 21

RECORD of Live Stock shipped from Port of Montreal, &c.—Continued.

SEPTEMBER.

No.	Date.	Steamer.	Destination.	Sheep.	Cattle, stockers.	Total Cattle.	Horses.	Hay for Feed.	Grain for Feed.	Number of M
152	Sept. 2.	Buenosayrean	Glasgow			749				30
153	" 3.	Lakonia	"			832	11			34
154	" 1.	Montrose	Liverpool Bristol		800 250	1,050				42
155	" 5.	Iona	London	316		532				21
156	" 9.	Sardinian	Glasgow			506				20
157	" 9.	Man. Importer	Manchester	397		512				22
158	" 10.	Concordia	Liverpool			540				22
159	" 10.	Alcides	"	286		550				23
160	" 10.	Orcadian	London			549				23
161	" 10.	Montezuma	"	1,394		1,027				47
162	" 11.	Mount Temple	Liverpool			1,220	7			48
163	" 12.	Turcoman	"			640				24
164	" 12.	Fremona	London	399		427				18
165	" 13.	Jacona	New Castle			255				9
166	" 13.	Montcalm	Liverpool Bristol	148	807 232	1,039				42
167	" 13.	Man. Corporation	Manchester			664				27
168	" 17.	Lake Champlain	Liverpool			519				21
169	" 17.	Salacia	Glasgow			597				24
170	" 17.	Stilian	Liverpool			723	2			29
171	" 18.	Milwaukee	London	953		834	1			37
172	" 19.	Pretorian	Liverpool			387				16
173	" 20.	Montevidean	London			485				19
174	" 20.	Devona	"			565				22
175	" 20.	Monteagle	Liverpool Bristol		751 252	1,003				40
176	" 24.	Hungarian	Glasgow			593				24
177	"	Man. Commerce	Manchester	1,085		547				26
178	"	Man. Engineer	London	900		192				12
179	Sept. 25.	Marina	Glasgow			671				27
180	"	Lake Michigan	Liverpool			891				36
181	Sept. 26.	Monarch	South Africa			199	1			8
182	" 27.	Cervona	London	440		521				23
183	"	Toronto	"			600				24
184	"	Montford	Liverpool Bristol		747 250	997				40
185	"	Manxman	Liverpool			521				20
186	Sept. 30.	Montreal	London	315		988				41
		Total for Sept.		6,633		22,916	22	6,624,865	1,379,350	940
		Prev. reported.		28,609		94,151	223	24,879,987	7,506,187	3,905
		Total to date.		35,242		117,067	245	31,504,852	8,885,537	4,845

TOTAL Live Stock Shipments from the year 1899. were as follows :—

No.		Sheep.	Cattle.	Horses.
156	Same date 1902	31,364	54,912	418
161	" 1901	35,688	57,754	959
184	" 1900.	23,686	70,216	2,421
185	" 1899.	43,758	65,496	3,695

MONTREAL, September 30, 1903.

POPE & DELORME,  
Inspectors

3-4 EDWARD VII. A. 1904

## RECORD of Live Stock shipped from Port of Montreal, &amp;c.—Continued.

## OCTOBER

No.	Date.	Steamer.	Destination.	Sheep.	Cattle.	Total.	Horses.	Hay for Feed.	Grain for Feed.	Number of Men.
1903.										
187	Oct. 1.	Pomeranian	Glasgow			489				23
188		Hibernian	London			596				24
189		Lake Erie	Liverpool			520				21
190		Manchester City	Manchester	899		607				28
191	Oct. 3.	Kastalia	Glasgow			465	16			19
192		Hurona	London	1,058		437				22
193	Oct. 4.	Lord Lansdowne	Cardiff	155		206				8
194		Monmouth	Bristol	230		180				8
195	Oct. 7.	Birmingham	London	150		270				12
196	" 8.	Corinthian	Glasgow			519				22
197		Tritonia	Liverpool			461				18
198	Oct. 10.	Mt. Royal	London	1,280		856				40
199		Kildona	"	708		211				11
200		Ottoman	Liverpool	718		821				36
201	Oct. 11.	Man. Shipper	Manchester			402				16
202		Montrose	Bristol and Liverpool		180 741	921				37
203	Oct. 14.	Sardinian	Glasgow			400				16
204	" 15.	Lakonia	"			457	13			18
205	" 16.	Mt. Temple	Liverpool			770				31
206		Montcalm	Bristol and Liverpool		189 321	501				20
207	Oct. 17.	Ontarian	Liverpool			459				19
208		Iona	London	1,369		308				19
209	Oct. 18.	Concordia	Liverpool			539				22
210	" 22.	Aleides	Glasgow			286				11
211	" 22.	Lake Champlain	Liverpool			319				13
212		Sicilian	Glasgow			535				21
213		Orcadian	London	1,216		116				10
214		Man. Corporation	Manchester			325				13
215	Oct. 24.	Turcoman	Liverpool			642				25
216		Pretorian	"			300				12
217	Oct. 25.	Montezuma	London	1,276		557				28
218		Fremona	"	1,500		298				18
219		Monteagle	Bristol and Liverpool		399 180	579				23
220	Oct. 28.	Aboukir	London			300				12
221	" 29.	Hungarian	Liverpool			360				14
222	" 30.	Salacia	Glasgow			366				14
223		Lake Michigan	Liverpool			465				19
224		Devona	London	1,267		411	3			22
225	Oct. 31.	Montevidean	"	1,350		252				16
226		Wyandotte	C. Town, S.A.			112	64			8
Total for October				13,376		17,598	96	5,540,170	1,096,523	769
Previously reported				35,242		117,067	245	31,504,852	8,885,537	4,855
Total to date				48,418		134,662	341	37,045,022	9,982,660	5,624

TOTAL Live Stock Shipments from the year 1899, were as follows:—

No.	—	Sheep.	Cattle.	Horses.
181	Same date, 1902	38,561	64,808	458
190	" 1901	41,415	67,704	1,160
217	" 1900	29,413	81,976	2,710
215	" 1899	52,605	75,373	4,452

MONTREAL, October 31, 1903.

POPE & DELORME, *Inspectors.*

SESSIONAL PAPER No. 21

RECORD of Live Stock shipped from Port of Montreal, &c.—Continued.

NOVEMBER.

No.	Date.	Steamer.	Destination.	Sheep.	Cattle stockers.	Total Cattle.	Horses.	Hay for feed.	Grain for feed.	Number Men.
1903.										
227	Nov. 4.	Milwaukee	London	2,351		595				34
228	" 5.	Pomeranian	Glasgow			492				20
229	" 5.	Man. Commerce	Manchester	451		326				16
230	" 5.	Lake Erie	Liverpool			200				8
231	" 5.	Montfort	Livpl. Brist.	444	355 180	535				23
232	" 6.	Marina	Liverpool			610				25
233	" 7.	Manxman	"			522				21
234	" 7.	Ceryona	London	1,425		394				23
235	" 12.	Hibernian	Liverpool			358				14
236	" 12.	Montreal	London	1,059		514				26
237	" 12.	Kastalia	Glasgow	13		426				17
238	" 13.	Lord Lansdowne	Cardiff	140		205				9
239	" 14.	Corinthian	Liverpool			513	17			21
240	" 14.	Roman	"	1,150		701				33
241	" 14.	Hurona	London	613		494				23
242	" 15.	Monmouth	"	733		292				15
243	" 17.	Montrose	Livpl. Brist.	756	301 137	438				21
244	" 18.	Sardinian	Glasgow			387				15
245	" 18.	Tritonia	Liverpool			449	12			19
246	" 19.	Bellona	"			278				11
247	" 19.	Man. City	Manchester	75		335				14
248	" 20.	Ottoman	Liverpool	930		384				20
249	" 21.	Brazilian	London	615		388				18
250	" 21.	Mount Temple	"	994		518				15
251	" 22.	Lakonia	Liverpool			452				18
252	" 22.	Man. Importer	Manchester			260				10
253	" 22.	Kildona	London	161		280				12
254	" 23.	Montcalm	Liverpool	689		548				25
255	" 23.	Milville	Cape Town			182	3			8
256	" 24.	Ontarian	Liverpool			460				19
Total for November				12,599		12,536	32	4,265,143	849,650	563
Previously reported				48,418		134,665	341	37,945,022	9,982,060	5,624
Total for season of 1903				61,017		147,201	373	41,310,165	10,831,710	6,187

Total Live Stock Shipments from the year 1892 were as follows:—

No.	Season of	Sheep.	Cattle.	Horses.
214	1902	45,830	77,156	549
214	1901	54,538	73,791	1,338
248	1900	34,838	92,180	2,833
239	1899	58,277	81,804	4,739
298	1898	34,991	99,189	5,283
304	1897	60,638	117,247	10,051
242	1896	76,520	96,448	10,421
224	1895	210,607	94,972	13,303
229	1894	137,780	88,635	5,623
235	1893	3,743	83,322	16,666
260	1892	15,914	98,731	1,739

\* Liverpool, sheep 141; Bristol, sheep 303.

3-4 EDWARD VII. A. 1904

## RECORD of Live Stock shipped from Port of Halifax, N.S., during month of December 1902.

No.	Date.	Steamer.	Destination.	Fat.	Total.	Hay for Feed.	Grain For Feed.	Number Men.
1902.								
20	Dec. 24.	Peruvian.....	Liverpool.....	260	260	64,100	20,800	10

GEO. MCKERROW, *Deputy Port Warden.*

## RECORD of Live Stock shipped from Port of Halifax, N.S., during the year 1903.

No.	Date 1903.	Steamer.	Destination.	Sheep	Cattle Fat.	Total Cattle	Cattle Lost.	Horses Shipped.	Hay for Feed.	Grain For Feed.	Number Men.
1903.											
1	Jan. 15.	Tritonia....	Liverpool & Glasgow.	426	611	611	.....	16	179,040	47,921	26
2	Feb. 6.	Peruvian....	Liverpool....	.....	211	211	.....	.....	68,800	9,000	8
3	" 10.	Florence....	London....	.....	.....	.....	.....	1	255	220	1
4	" 16.	Lake Erie....	Liverpool....	.....	147	147	.....	.....	38,661	11,025	6
5	Mar. 4.	Tritonia....	"	.....	331	331	1	.....	92,680	26,480	14
6	" 26.	Peruvian....	"	.....	277	277	.....	.....	77,325	22,200	11
7	April 10.	Kastalia....	Glasgow	.....	725	725	.....	.....	175,800	57,800	29
8	May 2.	Peruvian....	Liverpool.	.....	281	281	4	.....	67,825	28,000	11
9	June 10.	"	"	.....	305	305	.....	.....	75,865	24,000	12
10	July 22.	"	"	.....	305	305	3	.....	75,216	24,000	12
11	Sept. 5.	"	"	.....	305	305	.....	.....	76,285	24,400	13
12	Nov. 30.	Pretorian..	"	.....	*358	358	.....	.....	79,138	28,600	14
				426	3,856	3,856	8	17	1,006,880	303,646	157

\*88 were United States cattle.

DAVID HUNTER, *Port Warden.*

## RECORD of Live Stock shipped from Port of Charlottetown during the following Months, 1903.

## OCTOBER.

No.	Date.	Steamer.	Destination.	Sheep.	Cattle, Fat.	Hay for Feed.	Grain for Feed.	Number of Men.
1903.								
6	Oct. 16.	Manchester Shipper....	Manchester....	283	4	70 bails	5 bags.	3
6	" 16.	"	"	.....	.....	30 bus. Turnips.	Grain.	

## NOVEMBER.

6	Nov. 28.	Manchester Engineer....	Manchester..	1,645	6	12 tons.	18 bags.	4
6	" 28.	"	"	.....	.....	.....	Grain.	

H. P. WELSH, *Inspector.*

SESSIONAL PAPER No. 21

RECORD of Cattle Shipments from the Port of St. John, N.B., during Season of 1902 and 1903.

Date.	SHEEP.		CATTLE.				HORSES.		Hay. for Feed.	Grain for Feed.	Number Men.
	Shipped	Lost.	Fat.	Stock-ers.	Total.	Lost.	Ship-ped.	Lost.			
December 1902.	3,306	28	4,357	194	4,751	16	34	.....	1,351,665	325,806	204
January 1903..	3,846	65	4,975	155	5,130	28	1	.....	1,462,150	406,754	219
February 1903.	4,149	164	7,150	99	7,249	47	33	.....	2,024,460	626,696	316
March 1903....	1,861	76	6,795	140	6,935	58	31	.....	1,945,355	594,500	290
April 1903.....	124	3	6,225	55	6,280	49	.....	.....	1,626,145	504,020	252
July 1903.....	.....	.....	1,234	.....	1,234	2	.....	.....	365,735	90,190	49
November 1903	564	.....	482	.....	482	1	.....	.....	147,940	28,400	23
December 1903.	5,460	117	5,040	352	5,392	25	16	.....	1,753,070	532,976	247
	19,310	448	36,458	995	37,453	206	115	.....	10,676,520	3,109,252	1,600

F. J. HARDING,  
*Agent.*

RETURN of Cattle and Sheep shipped at Quebec during the year 1903, as follows :—

Months.	Steamers.	Cattle.	Sheep.
April 30...	Iberian.....	527	.....
May 10....	Manhattan.....	770	.....
" 20....	European.....	800	.....
" 26....	Austriana.....	197	.....
June 5....	Manchester Engineer.....	288	.....
" 5....	American.....	900	.....
July 18....	Manhattan.....	875	1,266
" 25....	Manchester Engineer.....	292	.....
" 30....	European.....	333	.....
Aug. 2....	Austriana.....	237	.....
" 8....	Tampican.....	574	608
" 16....	Manchester Engineer.....	533	355
" 22....	American.....	350	443
" 28....	Manchester Shipper.....	513	.....
Sept. 17....	Alexandrian.....	430	.....
Oct. 14....	Tampican.....	249	621
" 21....	Indiana.....	266	155
" 30....	Virginian.....	230	.....
Nov. 15....	Alexandrian.....	220	.....
" 21....	Ottoman.....	248	.....
Dec. 6....	Toronto.....	300	.....
		9,132	3,448

## APPENDIX No. 14.

STATEMENT giving Stations and names of Light Keepers, &amp;c., in the Dominion.

ABOVE MONTREAL.

Name.	Station.	Appointed.	Salary.	
			\$	cts.
Armstrong, John	Kaministiquia River	April 28, 1894	250	00
Alexander, Andrew	Lamb Island	" 26, 1897	*400	00
Allard, Michel	Lake St. Louis, Lightship No. 3	June 3, 1901	300	00
Baechler, F	South River	July 2, 1903	80	00
Baker, Henry F.	Clapperton Island	Dec. 2, 1895	350	00
Boyd, Robert P.	Cole Shoal	April 9, 1884	250	00
Royd, Wm. S.	Griffith Island	May 14, 1889	350	00
Butler, Silas L.	Port Dover	July 15, 1897	360	00
Baxter, Wm. I.	Be-beuf Island	Nov. 23, 1885	375	00
Beaulieu, Octave	Point à Cadieux	July 26, 1892	150	00
Boucher, François	Aylmer Island	Nov. 17, 1882	175	00
Bamford, Robert	Bamford Island	June 21, 1889	250	00
Bertrand, Felix	Coulonge Lake	Mar. 16, 1885	100	00
Boyd, Wm. M.	Kagawong	April 13, 1893	72	00
Boyter, A. B.	Narrow Island	Jan. 3, 1898	250	00
Boyter, David	Little Current	April 22, 1902	350	00
Brown, Adam	Red Rock, Parry Sound	May 25, 1899	450	00
Ball, J. H.	Manitoulin Island Light and Fog Alarm	" 7, 1900	600	00
Black, W. H.	Kingsville Range	July 27, 1902	150	00
Borrow, Mrs. E. B.	French river	Jan. 30, 1903	500	00
Campbell, Thos.	Burlington Beach	April 1, 1875	350	00
Collins, Allen	Christian Island	Mar. 25, 1891	435	00
Cross, Manly R.	Gananoque Narrow and Jack Straw Shoal	Aug. 25, 1896	480	00
Campbell, Robert	Goderich	June 9, 1886	400	00
Craig, Wm.	Thunder Cape	May 17, 1892	600	00
Cook, Seldon B.	Long Point East End Light and Fog Alarm	June 9, 1897	700	00
Campbell, John	McTavish Point	Nov. 18, 1896	100	00
Clark, Sarah	Nottawasaga Island	Jan. —, 1903	500	00
Crevier, Dolphis	Pointe Claire	May 11, 1888	200	00
Cartier, H. J.	River Thames	Oct. 19, 1884	425	00
Cooper, John	Port Arthur	" 14, 1882	300	00
Cosgrove, George	Victoria Island, Lake Superior	Nov. 14, 1889	350	00
Columbus, Christopher	Penetanguishene and Whiskey Island	Mar. 18, 1893	300	00
Conover, Forrest H. C.	Leamington	April 24, 1883	150	00
Cox, John	Morrison or Hawley Island	June 22, 1887	100	00
Chabot, Joseph	Papineauville Range Lights	" 17, 1897	100	00
Connors, Frank	Point Pleasant	Oct. 13, 1898	200	00
Chase, H. J.	Weller's Bay	Nov. 4, 1898	150	00
Crespin, Vital	Lake St. Louis, Lightship No. 2	June 3, 1901	300	00
Casgrain, Mrs. Kate	Stonchouse Point gas Light	May 29, 1903	36	00
Currie, Archibald	Tobermory	Oct. 12, 1903	250	00
Cowan, Thomas M.	Stag Island Shoal	Nov. 3, 1903	150	00
Chapman, Richard	Cape Croker Lt and Fog Alarm	" 13, 1902	650	00
Davian, Joseph	Corbay Point	May 27, 1890	350	00
Durnan, George	Gibraltar Point	" 31, 1854	625	00
Davian, Hyacinthe	Michipicoten Island	July 1, 1881	400	00
Doanst, Dosithee	McKie Point	Sept. 21, 1893	175	00
Davis, John H.	Pigeon Island	May 16, 1896	350	00
Dick, Andrew	Point Porphyry	Aug. 10, 1880	400	00
Dutcher, Samuel	Meaford	May 7, 1877	150	00
Darling, Thomas	Southeast Bay	July 1, 1890	60	00
Dixon, Joseph G.	Rosseau	" 21, 1890	100	00
Deault, Alphonse	Beauharnois Lights	April 14, 1903	‡200	00

\* Allowance \$10.

† Allowance \$100.

‡ Allowance \$60.



## SESSIONAL PAPER No. 21

## STATEMENT giving Names and Stations of Light-keepers, &amp;c.—Continued.

## ABOVE MONTREAL—Continued.

Name.	Station.	Appointed.	Salary.
			§ cts.
Demers, Wilbrod.....	Caribou Island Light and Fog Alarm.....	May 10, 1899..	800 00
Dulmage, Dorland.....	False Ducks.....	" 19, 1903..	350 00
Head, Mrs. C.....	Port Stanley.....	Aug. —, 1890..	300 00
Felan, Maurice.....	Oakville Pier.....	April 28, 1894..	150 00
Fortier, David H. A.....	Port Colborne Range Lights and Fog Alarm.....	" 11, 1865..	550 00
Fellowes, W. R.....	Rondeau Harbour.....	Dec. 18, 1888..	350 00
Filiatreault, Thomas.....	Coteau Landing.....	May 27, 1890..	140 00
Fraser, John.....	Wind Mill Point.....	Dec. 13, 1901..	180 00
Fortier, Theodore.....	Pelee Passage, Lake Erie, Light & Fog Siren.....	Sept. 31, 1902..	250 00
Gloude, Benjamin.....	Dorval.....	Sept. 7, 1872..	300 00
Gillespie, Wm.....	Wolf Island.....	Mar. 16, 1885..	250 00
Gauthier, Charles.....	St. Placide.....	May 6, 1874..	140 00
Gordon, Robert.....	Colouarg.....	" 16, 1883..	180 00
Griffith, Alfred H.....	Giant Tomb.....	Sept. 17, 1898..	250 00
Gourley, John, jr.....	Manitowaning.....	July 3, 1900..	150 00
Gilbert, Philip.....	Warton Pole Light.....	Sept. 5, 1902..	75 00
Hackett, Mrs. A.....	Bois Blanc.....	June 27, 1901..	435 00
Hamilton, John.....	Hamilton Island.....	Sept. 3, 1873..	130 00
Hill, Thomas H.....	Lancaster Pier.....	July 1, 1877..	325 00
Haitze, Jean.....	Lonely Island.....	May 11, 1885..	450 00
Hunter, David.....	Port Dalhousie.....	Oct. 29, 1879..	350 00
Hawkins, David B.....	Peninsula Harbour.....	Aug. 31, 1891..	500 00
Harvey, James.....	Thessalon.....	Nov. 22, 1897..	300 00
Hamilton, Thos.....	Pie Island.....	April 15, 1899..	75 00
Humes, David.....	Stribling Point Range Lights.....	Aug. 27, 1902..	180 00
Hendricksen, Mrs.....	Sulphur Island.....	June 18, 1901..	325 00
Johnson, Isaac S.....	Cherry Island.....	Nov. 5, 1883..	300 00
Jeffrey, Carson.....	Nigger Island Shoal.....	April 28, 1894..	200 00
Kingston City Clock.....	Corporation of Kingston.....	1844.....	100 00
King, Peter.....	Slate Island Light.....	Nov. 17, 1903..	400 00
Knapp, Charles.....	Lion's Head Whf. Lt.....	Oct. 28, 1903..	75 00
Kennedy, James.....	Lower Narrows, Ottawa River.....	May 23, 1887..	100 00
Lambert, Wm. McGregor.....	Chantry Island.....	Oct. 1, 1880..	500 00
Labelle, Louis.....	Deep River Island.....	May 5, 1897..	100 00
Lamorendière, Pierre Régis de.....	Killarney.....	Sept. 24, 1880..	400 00
Léger, Thomas.....	Lachine Pier.....	July 14, 1897..	250 00
Lamondin, Louis.....	Byng Inlet.....	30, 1901.....	375 00
Lee, John.....	Southampton.....	Oct. 7, 1882..	150 00
Lokerbie, Andrew.....	Collingwood Harbour.....	May 4, 1883..	300 00
Lowe, Robert.....	Thornbury.....	April 12, 1887..	80 00
Lowry, Robert M.....	Port Elgin.....	Mar. 14, 1896..	80 00
Lumsden, A. C.....	Lake Temiscamingue Lights.....	Oct. 6, 1890..	250 00
Lidwill, John R.....	Pelee Island.....	July 10, 1899..	300 00
Lawson, Colin P.....	Middle Island.....	Oct. 17, 1898..	240 00
Lacroix, H.....	Oka.....	Nov. 1898..	100 00
Labege, Albert.....	Green Shoal.....	May 20, 1902..	200 00
Manson, Wm. A.....	Pelee Passage, Lake Erie, Light & Steam Siren.....	Nov. 11, 1902..	300 00
Munroe, John Jacob.....	Lancaster Bar.....	June 8, 1892..	300 00
Masson, Lucas H.....	Pointe aux Anglais.....	Sept. 4, 1897..	200 00
Mongeon, Charles A.....	Way Shoal.....	May 23, 1887..	100 00
Matheson, Norman.....	Cape Robert, Algoma.....	Oct. 7, 1896..	350 00
Miller, John.....	Port Credit.....	Dec. 16, 1897..	150 00
Morrisseau, Jonathan.....	Ferris Island.....	Mar. 24, 1898..	150 00
Matheson, Angus.....	Gore Bay.....	July 10, 1903..	350 00
Manson, John.....	Colchester Reef.....	May 1, 1880..	606 00
Morrisseau, Michael.....	Rainy River, Algoma.....	June 9, 1886..	†250 00

\* Allowance of \$3.50 per 1,000 ft. for gas.

† Allowance \$30.

## STATEMENT giving Names and Stations of Light-keepers, &amp;c.—Continued.

## ABOVE MONTREAL—Continued.

Name.	Station.	Appointed.	Salary.	
			\$.	cts.
Martin, Wm. J.	Boyd Island	July 5, 1890.	250	00
Miron, Louis	Gargantua	Oct. 26, 1889.	450	00
Murray, William	Barrieffield Range Lights	May 17, 1900.	150	00
Montgomery, William	Toronto Harbour, Eastern Channel	Oct. 16, 1895.	300	00
Mallette, B.	Lake St. Louis Lightship No. 1.	April 30, 1901.	250	00
Mason, F. E.	Long Point, West End.	June 3, 1901.	400	00
Manders, Samuel	Lower Allumette Lake	July 26, 1901.	100	00
Martin, Edward	Michael Point	June 3, 1902.	120	00
Michigan Land & Lumber Co	Blind River	Sept. 8, 1900.	80	00
McKillop, John	Campbell Island	April 2, 1892.	150	00
McIntosh, John	Arnprior Island	" 2, 1892.	150	00
McKenzie, John	Presqu Isle, Owen Sound, Georgian Bay	July 14, 1873.	100	00
McDonald, Murdoch	Point Clark	Jan. 8, 1897.	375	00
McDonald, Amos	Salmon Point	July 12, 1897.	300	00
McKillop, Donald	St. Anicet	June 8, 1892.	250	00
McLaren, Allen J.	Brown or Knapp Point	Feb. 11, 1896.	180	00
McKay, Chas. S.	Battle Island	Aug. 27, 1877.	500	00
McKenzie, Wm	Strawberry Island	May 17, 1893.	300	00
McQuestion, Mrs. Maria	McQuestion Point	June 9, 1886.	100	00
McAulay, Donald	Saugen River	Mar. 16, 1899.	80	00
McDonald, Lauchlin, D.	Mississauga Island	May 16, 1896.	450	00
McCool, James	Fort William Beacon Light, Ottawa River.	" 23, 1887.	90	00
McDevitt, Chas.	Point au Baril	Mar. 1, 1897.	300	00
McKay, John	Lyal Island	Oct. 27, 1884.	450	00
McLean, Arch.	Owen Sound	Dec. 23, 1897.	125	00
McGaw, Thos.	Kincardine	June 13, 1899.	375	00
McDougall, Neil	Squaw Island	April 25, 1901.	200	00
McKinnon, R. F.	Point aux Pins	" 1, 1902.	400	00
McLeod, Kenneth	Isle of Coves	June 19, 1903.	750	00
McMenemy, Robt.	Otter Island	Nov. 17, 1903.	400	00
McLette, Godfrey	Buckom Point	May 1, 1884.	180	00
O'Brien, Matthew	Frenchman's Bay	Oct. 13, 1898.	125	00
O'Conner, P.	Bishops Bay, Algoma	April 13, 1899.	150	00
Purvis, John	Great Duck Island Light and Fog Alarm	Mar. 9, 1898.	*500	00
Pettypiece, Stephen	Line Kilm Crossing	May 11, 1888.	350	00
Prosser, John	Muskoka or Fox Island	Sept. 14, 1896.	250	00
Proudfoot, Thos.	East Neebish, Upper Range	Nov. 4, 1898.	100	00
Parker, John, jr.	Flower Pot Island	June 15, 1903.	300	00
Darlington Pier Lt.	Port Darlington Co		100	00
Root, Albert	Grenadier Island	Dec. 15, 1863.	250	00
Roddick, Robert	Gull Island	Mar. 1872.	500	00
Row, Geo. Albert	Telegraph Island	Oct. 25, 1895.	200	00
Robillard, Honoré	Isle Perrot	Jan. 25, 1897.	100	00
Redmond, William H.	Gravenhurst Narrows	June 18, 1894.	100	00
Rains, Evan	Shoal Point, Algoma	Nov. 24, 1884.	250	00
Rains, A. M.	Sailors' Encampment	Aug. 1892.	47	00
Rains, W. W.	Rains Wharf Range	" 1892.	47	00
Ritchie, John A.	South Bay Mouth	Sept. 10, 1903.	150	00
Rowan, James	Victoria Island, Galetta	Dec. 3, 1898.	100	00
Richardson, Wm. T.	Michipicoten Hr., Algoma	Sept. 27, 1900.	200	00
Richardson, Thos. J.	Western Islands Light and Fog Alarm	June 27, 1901.	750	00
Richmond, John A.	Suag Harbour	Oct. 7, 1902.	350	00
Sommers, Napoleon	Midland Range Lights	June 19, 1900.	150	00
Shannon, William	Grosse Point or Valleyfield	Sept. 27, 1866.	425	00
Shannon, George	" "	" 27, 1866.	175	00
Seguin, Grégoire	L'Original	May 8, 1894.	100	00
Shaw, Thos. K.	Point Edward Ranges	Aug. 29, 1903.	150	00
Smithers, R. O.	Mohawk Island	Mar. 31, 1896.	400	00
Sutherland, Jno.	Port Burwell	June 18, 1894.	225	00
Schofield, Fergus	Port Maitland	April 10, 1871.	350	00

\* Allowance \$200. | Per month while light in operation.

SESSIONAL PAPER No. 21

STATEMENT giving Names and Stations of Light-keepers, &amp;c.—Continued.

ABOVE MONTREAL.—Concluded.

Name.	Station.	Appointed.	Salary.
			\$ cts.
Simpson, Hedley V.	Brighton Range	May 11, 1888.	540 00
Smith, H. E.	Presq' Isle, Main Light	April 29, 1898.	350 00
Sullivan, Silas	Baskin Wharf	Dec. 22, 1896.	130 00
Sauvé, Honoré	Caron Point	Feb. 16, 1889.	60 00
Stoneburner, John A.	Cornwall Canal, upper entrance.	April 12, 1890.	100 00
Spencer, C. R.	Scotch Bonnet	April 27, 1903.	350 00
Scott, Guy J.	Point Peter, Light and Fog Alarm	June 6, 1901.	650 00
Scott, Wm. J.	Corunna, Range Lights.	April 23, 1901.	120 00
Stocker, Jos. L.	Ste. Anne de Bellevue.	May 20, 1902.	150 00
Sweeney, Thomas	Tomahawk Island	Sept. 19, 1902.	150 00
Taylor, Edward.	Parry Sound, Range Lights.	June 3, 1901.	350 00
Tébo, Joseph.	North Sister Rock	May 20, 1902.	350 00
Veech, Stannes.	Nine Mile Point: light-keeper and engineer of fog alarm	Mar. 7, 1894.	450 00
Valée, Charles	Hope Island	April 20, 1899.	450 00
Vorce, Marcellus.	South Bay Point	Dec. 22, 1902.	200 00
Wallace, John G.	Lindoe Island	July 1, 1881.	250 00
Winthrop, Robert W.	Britannia	April 13, 1891.	100 00
Wootton, Edward.	Niagara, Fog Bell.	July 11, 1887.	50 00
Webster, Chas.	Cabot Head, Light and Fog Alarm.	May 10, 1898.	650 00
Whitmarsh, John.	Snake Island	July 18, 1900.	350 00
Weir, John C.	Bellevue	April 4, 1901.	200 00
Wemp, Daniel.	Centre Brother Island.	Jan. 9, 1901.	200 00

BETWEEN MONTREAL AND QUEBEC AND BELOW QUEBEC.

Abel, Philias.	Barre à Boulard, Back Range.	June 23, 1903.	75 00
Arcand, Elzéar.	Cap de la Madeleine	May 17, 1892.	80 00
Arcand, Alfred.	Seven Island	" 30, 1898.	650 00
Asch, James	Fame Point, Gaspé Co.	Sept. 2, 1880.	700 00
Arseneau, Nectaire.	Étang du Nord.	July 21, 1891.	350 00
Bertrand, Louis	Champlain Pole Light	Sept. 12, 1902.	60 00
Beaudet, Mrs. Laurent.	Lotbinière Front Light.	" 3, 1903.	80 00
Beaudet, George.	Lotbinière Back Light.	Jan. 4, 1883.	80 00
Beaudet, Charles.	Platon.	Aug. 24, 1894.	†120 00
Bourque, Peter	Bird Rocks.	Nov. 27, 1896.	1,300 00
Bouillane, Pierre.	Lark Islet Light and Fog Alarm.	Sept. 1, 1872.	200 00
Bertrand, Auguste.	Macquereau Point.	Dec. 21, 1877.	300 00
Banville, Joseph	Matane.	Feb. 1, 1897.	300 00
Bourget, F.	Percé	Mar. 18, 1893.	200 00
Breton, Narcisse.	Point Rich	May 16, 1896.	500 00
Bourget, Charles.	Cape Despair.	Nov. 1, 1897.	‡400 00
Bisson, Wm.	Grand River.	Oct. 22, 1896.	‡150 00
Bouchard, Louis.	Cap au Saumon, Lighthouse and Fog Alarm.	May 16, 1896.	600 00
Boucher, Louis.	Isle aux Raisins	April 13, 1898.	240 00
Bou langer, H.	St. Thomas Wharf.	" 4, 1898.	80 00
Bujold, Louis	Carleton Point.	May 25, 1899.	300 00
Boisvert, Alcide.	Cape Charles.	July 23, 1901.	150 00
Baron, Amédée.	Cap Charles.	June 26, 1901.	70 00
Bouchard, Geo.	St. France.	Aug. 31, 1901.	40 00
Bonsquet, Félix.	Vercheres Village (Back)	April 21, 1902.	70 00
Bilodeau, Joseph O.	Bellechasse	June 15, 1903.	320 00
Bergeron, Nap.	St. Antoine, Lotbinière Front Light	Mar. 21, 1902.	80 00
Bardua, Philéas.	Île Deslauriers	April 21, 1902.	120 00
Bourdages, Pitre.	Point Eschourie	July 25, 1903.	60 00
Canguan, P. L.	Champlain Main Light.	Oct. 1, 1902.	80 00

\* Allowance \$200. † Has also charge of Back Rock Range Light at \$5 per month. ‡ Allowance \$30 for fuel and \$20 for blowing fog horn.

STATEMENT giving Names and Stations of Light-keepers, &c.—Continued.  
BETWEEN MONTREAL AND QUEBEC AND BELOW QUEBEC—Continued.

Name.	Station.	Appointed.	Salary.
			§ ets.
Cornier, Wm.	Amherst Island.	April 26, 1871.	*300 00
Colton, P. J.	Belleisle.	" 1, 1882.	1,100 00
Côté, Luc.	Cape Chatte.	Dec. 3, 1901.	†300 00
Campbell, John W.	Cape Norman, Lighthouse and Fog Alarm.	April 12, 1890.	720 00
Costin, Eugène.	Cape Rosier.	Nov. 4, 1890.	800 00
Chamberlain, H.	Oak Point, Range Lights.	April 19, 1900.	100 00
Collins, Geo. F.	Entry Island.	Feb. 28, 1901.	250 00
Chenele, John A.	Grand Entry, Mag. Island.	July 4, 1901.	50 00
Chabot, Edouard.	Point St. Laurent.	Aug. 1, 1880.	300 00
Chiasson, Edward.	Étang du Nord.	Oct. 22, 1896.	350 00
Croteau, Téléphore.	Ste. Croix, Front Range.	Mar. 28, 1901.	70 00
Chicoine, Alphonse.	Isle Bouchard, Back Light.	April 23, 1902.	80 00
Chicoine, F. Nav.	Verchères Traverse (front).	April 21, 1902.	80 00
Charbonneau, Philéas.	" " (back).	" 21, 1902.	70 00
Charest, Xavier.	Flower Island.	Oct. 10, 1903.	600 00
Courtois, Joseph.	Isle Ste. Thérèse.	Feb. 11, 1903.	80 00
Carrière, H.	Isle St. Joseph, Boucherville.	Aug. 25, 1903.	80 00
<b>Desmarais, Philéas</b>	River St. Francis.	July 2, 1897.	§200
Duperie, Alfred J.	Pointe aux Juncs.	May —, 1873.	40 00
Demers, Alphonse.	Pointe à Basil.	Feb. 6, 1901.	109 00
Danville, Elzéar.	" "	" 6, 1901.	100 00
Doré, François.	St. Antoine, Lotbinière Back Lights.	Mar. 21, 1902.	120 00
Dubois, Louis.	Isle à la Bague.	April 14, 1903.	150 00
Dubois, Octave.	Greenly Island.	Oct. 12, 1903.	800 00
<b>Electric Light Company</b>	Roberval Beacon Light (2).	June 21, 1898.	60 00
<b>Fournier, Alfred</b>	Upper Traverse.	April 14, 1900.	600 00
Fugère, Léandre.	Batiséan Front Light.	" 19, 1868.	80 00
Fugère, Napoléon.	" Back "	Jan. 10, 1887.	80 00
Fiset, Jean H.	Lake St. Peter Light-ship No. 2.	April 22, 1875.	500 00
Fontaine, Edouard.	Cape Bauld Lighthouse and Fog Alarm.	Nov. 1, 1892.	800 00
Faffard, Victor.	Pointe de Monts.	Aug. 1, 1889.	‡400 00
Fraser, Pierre T.	Red Island.	April 12, 1890.	*450 00
Ferland, Nap.	Ste. Petronille.	Sept. 3, 1901.	150 00
Filteau, E. Eugène.	Father Point.	1903.	600 00
<b>Gervais, Ovide</b>	Contre-cour (1).	Mar. 1, 1877.	100 00
Geoffrion, Azurie.	Pointe aux Trembles, Varennes.	May 1, 1903.	70 00
Giguère, Denis.	Lavatrie.	April 24, 1870.	300 00
Gauthier, Francis.	Poste St. Martin.	April —, 1872.	40 00
Greiner, Solomon.	Newport.	June 3, 1897.	150 00
Guyon, Joseph.	Verchères Village (front).	April 24, 1902.	80 00
Gilbert, F. E.	Rivière du Loup (wharf).	Sept. 22, 1902.	70 00
Gagné, François.	L'Ange Gardien Front Light, Island Orleans.	Nov. 10, 1902.	70 00
Granier, Henry.	Bersimis Range.	Aug. 8, 1903.	100 00
Gondreault, Wm.	Isle au Belier, Lake St. John.	Oct. 30, 1901.	75 00
Girard, Henry, dit.	Murray Bay.	July 13, 1903.	50 00
<b>Hébert, Moïse Manuel</b>	Cap de la Madeleine.	May 11, 1888.	80 00
Harvey, André.	Chicoutimi Wharf.	" 30, 1889.	40 00
<b>Irvine, John T. A.</b>	Red Island Light-ship.	Mar. 2, 1900.	500 00
<b>Kennedy, Thomas</b>	Gaspé Light-ship.	— 1871.	500 00
Kaëfche, Désiré.	Lake St. Peter Light-ship No. 1.	April 12, 1887.	450 00
Lachapelle, Jean B.	Repentigny Front Light.	Feb. 1, 1861.	75 00
Langlois, Antoine.	River du Chêne.	July 11, 1888.	100 00
Laliberté, Arthur.	Ste. Emelie, Front Range.	Sept. 24, 1880.	70 00
Lebel, Esdras.	Lower Traverse Light-ship.	April 21, 1900.	2,300 00
Lambert, Louis.	Lake St. Peter Lightship No. 3.	June 15, 1903.	400 00

\* Has allowance of \$50 for fuel, &c. † Allowance \$200 for assistant; \$25 for hauling supplies and water during season of navigation, and \$10 for fuel. ‡ \$200 for attending signal gun, &c. § Per month. Allowance, \$1,900.

## SESSIONAL PAPER No. 21

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*  
BETWEEN MONTREAL AND QUEBEC AND BELOW QUEBEC—*Continued.*

Name.	Station.	Appointed.	Salary.
			§ cts.
Lord, Joseph.....	North of Halfway Point.....	May 5, 1903.....	170 00
Laporte, Ivon.....	Isle Marie, Isle Bouchard.....	April 21, 1902.....	120 00
Lapointe, F. X.....	Isle à l'Aigle, Front Range.....	May 1, 1903.....	100 00
Leclerc, P. M.....	Ste. Emélie, Back Range.....	April 8, 1899.....	80 00
Lavoie, M.....	Rivière Valin Range.....	1893.....	70 00
LeHuguet, François.....	Gaspé Cape.....	Oct. 22, 1896.....	650 00
Lindsay, Wm.....	Gaspé Wharf.....	June 14, 1900.....	42 00
Lindsay, Irénée.....	Green Island.....	Sept. 25, 1888.....	650 00
Loisel, John.....	Paspébiac.....	Aug. 27, 1894.....	150 00
LeBlanc, Régis.....	White Island Reef Light-ship.....	Jan. 11, 1878.....	*500 00
Lemieux, Z.....	South-west Point, Anticosti.....	July 10, 1900.....	600 00
Lachance, Louis.....	St. Johns, Island of Orleans.....	Sept. 26, 1896.....	300 00
Leclerc, Geo.....	Pillars—Algernon Rock.....	July 31, 1901.....	650 00
Lavoie, F.....	Anse St. Jean Wharf.....	Mar. 13, 1889.....	40 00
Levesque, Arthur.....	Kanouraska.....	Feb. 19, 1901.....	400 00
Leclerc, Auguste.....	Martin River.....	Sept. 3, 1902.....	300 00
Lemieux, F. X.....	Barchois de Malbaie.....	Mar. 6, 1903.....	50 00
Levesque, Dom.....	Pointe aux Orignaux.....	Oct. 5, 1903.....	350 00
Lepage, Joseph.....	St. Francis, Island of Orleans.....	April 20, 1876.....	75 00
<b>M</b> anseau, François.....	Port St. Francis.....	Mar. 27, 1900.....	430 00
Montplaisir, Antoine B.....	Cap de la Madeleine.....	Aug. 6, 1877.....	175 00
Malo, Joseph.....	Isle Ste. Thérèse, Lower Range.....	Feb. 1, 1897.....	130 00
Marchand, Ferdinand.....	Point aux Citrouilles.....	April 27, 1896.....	200 00
Martin, Paul.....	St. Valentine.....	" 28, 1873.....	150 00
Molson, Mrs. Alexander.....	Molson's Island, Lake Memphremagog.....	From year to year.....	‡ 50
Malouin, Alfred.....	Anticosti, West Point.....	July 1, 1877.....	§450 00
Martin, Jules G.....	Little Metis.....	Dec. 23, 1879.....	300 00
Marcéau, Louis.....	St. Francis, Island of Orleans.....	April 1, 1884.....	75 00
Mayrand, Eugene.....	Grondines, Front Light.....	" 28, 1901.....	100 00
Morin, Hypolite.....	Pilgrims.....	April 29, 1898.....	340 00
Marcotte, Mrs. P. L.....	Point Bleue, Lake St. John.....	Nov. 28, 1898.....	40 00
Morin, Alex.....	Rivière à la Pipe.....	Oct. 3, 1901.....	50 00
McGee, Jas. A.....	Ash and Bloody Island.....	May 26, 1903.....	200 00
<b>Mc</b> Williams, John J.....	Father Point.....	June 1, 1876.....	200 00
McLaren, Donald.....	River du Moulin.....	Sept. 19, 1889.....	45 00
McInnis, George.....	Port Daniel.....	Oct. 7, 1902.....	60 00
Noel, Edouard.....	Barre à Boulard, Richelieu I-land.....	April 10, 1899.....	150 00
<b>Pa</b> ré, Olivier.....	L'Ange Gardien, Back Light, Island of Orleans.....	Nov. 10, 1902.....	70 00
Pelletier, Tancrède.....	Egg Island.....	July 1, 1901.....	500 00
Paquin, Sylva.....	Point du Lac.....	May 2, 1900.....	100 00
Paul, Edouard.....	Isle de Grace.....	Sept. 7, 1871.....	**30 00
Pagé, Célestin.....	L'Islet Richelieu.....	Jan. 9, 1895.....	150 00
Peters, D. E.....	Witch Rock, Lake Memphremagog.....	Oct. 31, 1901.....	‡ 40
Peters, J. H.....	Green Point.....	From year to year.....	‡ 50
Patterson, J. C.....	Wadleigh.....	".....	‡ 50
Painchaud, Joseph.....	Crane Island.....	July 1, 1861.....	‡20 00
Paquet, Pierre.....	Ste. Famille, Back Light, Island of Orleans.....	Oct. 19, 1885.....	70 00
Pédnault, Pierre.....	Isle aux Coudres Pole Light.....	April 6, 1896.....	40 00
Poulin, Alfred.....	Ste. Famille, Front Light, Island of Orleans.....	" 26, 1898.....	70 00
Pineault, Louis.....	Bicquet Lighthouse and Fog Alarm.....	Oct. 6, 1900.....	700 00
Perrault, Henri.....	St. Pierre les Becquets.....	May 26, 1901.....	70 00
Pilote, Auguste.....	Poste St. Martin, Back Light.....	".....	40 00
<b>R</b> eeves, Samuel.....	Isle Ste. Thérèse, Upper Range.....	Oct. 12, 1870.....	270 00
Rivet, Leon L.....	Repentigny, Back Light.....	April 28, 1894.....	75 00
Richard, Alphonse.....	Brandy Pots.....	Oct. 7, 1878.....	400 00
Rennie, E. H.....	Cape Ray Lighthouse and Fog Whistle.....	" 19, 1884.....	800 00
Roberge, C. Honoré.....	St. Pierre, Back Light, Island of Orleans.....	" 19, 1885.....	70 00
Rodrique, Josephine.....	Portneuf.....	May 16, 1903.....	250 00

\* Allowance, \$2,300,  
\$300 for assistance,  
navigation.† A month during season of navigation.  
Allowance, \$20 for fuel and \$20 for assistance.

‡ Per week.

§ Allowance  
\*\* Per month during season of

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*  
 BETWEEN MONTREAL AND QUEBEC AND BELOW QUEBEC—*Continued.*

Name.	Station.	Appointed.	Salary.
			\$ cts.
Racette, Widow Wm. D.	Ste. Croix Back Range Lights.	Dec. 10, 1900.	70 00
St. Onge, Thomas	Contrecoeur	June 14, 1886.	75 00
Salvail, Omer	Isle à la Pierre	May 6, 1897.	220 00
Savaria, En-ébe	Isle à l'Aigle, Back Range Light	" 1, 1903	100 00
Savard, Dorilas	Savard, Vadin Range.		70 00
Simard, Edward	Montée du Lac, and Cape Rouge Beacons	Oct. 28, 1879.	400 00
Sasseville, F. J.	Cape Magdalen, Lighthouse and Fog Whistle	June 9, 1886.	700 00
Ste. Croix, George	Plateau Rock	Oct. 22, 1896	400 00
Savard, Jno	River Caribon Front Light		40 00
Simard, H	" Back Light		40 00
Trottier, Widow I	Grondines Back Light	Aug. 1, 1872.	100 00
Thurber, Mrs. Wm.	Ste. Croix	March 28, 1901.	175 00
Tremblay, W. T.	Goose Cape	April 4, 1888.	250 00
Tremblay, Edmond	Poitneuf en bas	May 16, 1903.	300 00
Tremblay, George	River du Moulin	Sept. 9, 1889.	40 00
Tremblay, Pitre	St. Alphonse Wharf	June 19, 1895.	40 00
Tremblay, Henry	Cap à l'Aigle Pole Light	Feb. 6, 1896.	40 00
Tremblay, Thomas	Bay St. Paul	Oct. 25, 1898.	250 00
Tremblay, Alexis	Heath or East Point, Anticosti.	July 25, 1900.	600 00
Tremblay, Magloire	Les Etoulements Wharf Light	April 27, 1892.	40 00
Vigneau Placide	Perroquet Island	Sept. 19, 1892.	600 00
Vézina, Oliver	St. Pierre Front Light, Island Orleans	Oct. 28, 1897.	70 00
Whitman, Robert H	Lacolle	May 14, 1883.	150 00
Wheeler, W.	Lead Mines, Lake Memphremagog	From year to year	71 50
Wyatt, Thomas M.	Forteau Lighthouse and Fog Whistle	Oct. 18, 1889.	4800 00
Willett, B. V.	Duthia's Point, New Richmond	" 16, 1903.	60 00

## NEW BRUNSWICK.

Arseneau, James	Dalhousie	Jan. 18, 1894.	100 00
Archer, Wm	North Tracadie	Nov. 7, 1872.	275 00
Allain, Joseph	Hay Island Beacon Light	May 21, 1895.	150 00
Balmer, Matthew	Oak Point	April 27, 1900.	80 00
Barbour, Jas. G.	Cape Enrage Lighthouse and Fog Signal	May 11, 1888.	800 00
Bent, A. J. Percy	Journain	Jan. 25, 1901.	300 00
Blacklock, Fred. G.	Cape Spencer	Mar. 5, 1888.	400 00
Brown, Charles	Quaco West Head Light	Nov. 25, 1884.	400 00
Bracl-haw, L. B.	Quaco West Head Fog Alarm	Sept. 3, 1887.	400 00
Brune, John David	Goose Lake	May 11, 1888.	4250 00
Boudreau, Jos. B.	Petit Rocher	Feb. 26, 1896.	150 00
Blakley, Lawrence	Harper Point	Sept. 9, 1887.	75 00
Bellmore, Fredk	Dipper Harbour	Mar. 12, 1895.	100 00
Belliveau, Samuel Philip.	Fort Folly Point	April 8, 1893.	175 00
Breman, Robert	Oronocto	Mar. 18, 1903.	80 00
Cochran, Fredk. M.	Quaco Pier Light	Mar. 25, 1892.	100 00
Conley, John C.	Drews Head	April 2, 1892.	250 00
Cummings, Geo.	Campbellton Range Lights	Jan. 1, 1889.	100 00
Chapman, James	Baie du Vin Island Range Lights	July 24, 1882.	200 00
Craudall, D. H.	Grays Point Pole Light	April 13, 1900.	70 00
Carmy, John	Perry Point	Sept. 25, 1900.	80 00
Copp, A. B.	Anderson Hollow	Mar. 30, 1903.	100 00
Cornier, Julius P.	Buctouche Bar	July 26, 1902.	200 00
Corey, Chas. A.	Head Harbour Fog Alarm	June 15, 1903.	500 00
Chaffey, Harry V.	Cherry Island Fog Bell	Aug. 7, 1903.	50 00
Dickson, Elias C.	Pea Point	Nov. 16, 1898.	4250 00

- Per week.

+ Allowance, \$12.

‡ Allowance, \$20.

SESSIONAL PAPER No. 21

STATEMENT giving the Names and Stations of Light-keepers, &amp;c.—Continued.

NEW BRUNSWICK.—Continued.

Name.	Station	Appointed.	Salary.
			\$ cts.
Delaney, John	Grant Beach	Oct. 7, 1880	125 00
Drake, Jeremiah	St. John Signal Station	Mar. 24, 1881	750 00
Dalzell, Geo. Y.	Swallow Tail	" 18, 1893	400 00
Dismore, Samuel G.	Big Duck Island Fog Alarm	July 5, 1886	550 00
DeGrace, John	Indian Point	June 4, 1889	150 00
Day, W. A.	Belyea Point	Sept. 20, 1899	90 00
Daigle, U. D.	Black Lands Gully	July 13, 1903	100 00
Daigle, Victor	Pointe Sapin	May 28, 1903	15 00
Doucett, Fred. F.	Caraquet Front Range Light	Oct. 14, 1903	50 00
<b>Egan, Edward</b>	Belloni Point	May 17, 1892	100 00
<b>Frankland, Louis</b>	Gull Cove	Nov. 14, 1902	
Frawley, Frank	Lepreau Fog Alarm	June 15, 1898	450 00
Flewelling, M.	Flewelling Landing	April 12, 1890	80 00
Fanjoy, William	Fanjoy Point	Dec. 15, 1897	80 00
Ferguson, W. G.	South Tracadie Gully	Mar. 23, 1898	150 00
<b>Guptill, S. N.</b>	Grand Harbour	Oct. 24, 1900	400 00
Gillard, John	Shediac	June 13, 1888	40 00
Gould, Francis T.	Shediac	Jan. 13, 1889	40 00
Gregg, Wilson	St. John Harbour Beacon	April 3, 1900	350 00
<b>Hendry, A. M.</b>	Hendry Farm	April 28, 1899	80 00
Hayden, Michael	Pokemouche	Oct. 17, 1888	200 00
Henderson, Arthur	Midgie Bluff	" 4, 1894	200 00
Hann, Chas. P.	Musquash	Jan. 14, 1879	300 00
Helms, Geo.	Letite Passage Light and Fog Whistle	May 5, 1882	450 00
Hachev, Octave	Pokesudie Island	July 12, 1881	180 00
Harvey, W. L.	Gannet Rock	May 20, 1898	700 00
Hannah, Mrs. B.	Spruce Point	Sept. 15, 1892	120 00
<b>Ingalls, Turner</b>	Southwest Head, Grand Manan	Dec. 4, 1900	500 00
Ingersoll, Colin J.	Machais, Seal Isd. Lights and Fog Alarm	" 30, 1901	1,000 00
<b>Kilpatrick, Joseph</b>	St. Andrews	Feb. 3, 1898	350 00
<b>Lantaigne, Gervais</b>	Caraquet Island	June 16, 1888	200 00
Leblanc, Charles P.	Cassie Point	May 4, 1872	250 00
Looney, Thos. E.	Greenhead, St. John River	Oct. 14, 1886	200 00
Lord, Lindwood	Southwest Wolf Island	April 23, 1903	500 00
Lockhart, Edwin	Ward Point	Oct. 20, 1903	80 00
Logère, P. L.	Caraquet Back Range Light	Sept. 24, 1903	50 00
<b>Mills, George</b>	Swashway Range Lower	June 23, 1897	200 00
Morrison, Peter	Oak Point	July 24, 1882	100 00
Morrison, Peter, jr.	Portage Island	May 17, 1892	300 00
Morrison, Duncan	Sheldrake Island, Lights	Feb. 25, 1880	300 00
Maillet, D. O.	Buctouche Inner Range	July 7, 1883	150 00
Matheson, R. B.	Newcastle	April 18, 1898	100 00
Murray, Michael	Middle Island	" 10, 1902	200 00
Maloney, Wm.	Point Marks	Nov. 7, 1903	120 00
McLeod, J. H.	Bliss Island	Oct. 17, 1900	300 00
McLennan, Kenneth	Escuminac Lighthouse and Fog Alarm	Mar. 7, 1892	750 00
McIntosh, Chas.	Neguae Wharf Lights	Dec. 19, 1892	100 00
McBaine, Alex.	Cox Lower Point	May 6, 1898	80 00
Macdonald, R. P.	Musquash Island	Jan. 28, 1901	80 00
McMann, Robert Harvey	McMann Point	Nov. 2, 1901	80 00
McNeil, Henry H.	Dalhousie Beacon Lights and Douglas Island Light	Jan. 1, 1880	180 00
McCormell, Robert	Miscou Gully	Sept. 9, 1887	100 00
McLean, R.	Miramichi Bay Lt. Ship	April 12, 1902	400 00
<b>Newman, Simon W.</b>	Head Harbour Light	June 15, 1903	300 00

\* Allowance, \$45.

† Allowance, \$50.

‡ Allowance, \$300.

## STATEMENT giving Names and Stations of Light-keepers, &amp;c.—Continued.

## NEW BRUNSWICK—Concluded.

Name.	Station.	Appointed.		Salary.	
				§	cts.
Nevers, George F.	Jemseg	Nov.	24, 1884	80	00
Purvis, jr.	Gagetown	Aug.	8, 1903	80	00
Preston, S.	Preston Beach Lights	July	11, 1889	125	00
Pendlebury, Wm. J.	St. Andrews	April	10, 1889	250	00
Pickett, Robert E.	Palmer's Landing Wharf Light	May	11, 1897	80	00
Parker, Alvin	Mulholland Point	June	13, 1901	200	00
Palmer, E. B.	Hampstead Wharf	Nov.	6, 1900	80	00
Russell, James R.	Grindstone Island Light and Fog Alarm	Jan.	13, 1899	700	00
Robichaud, Joseph L.	Miscou Light-house and Fog Whistle	Nov.	11, 1902	800	00
Robinson, John	Neguae Main Light	June	30, 1896	150	00
Richard, Peter F.	Richibucton Head	May	30, 1895	185	00
Robertson, Charles M.	Robertson Point	June	30, 1897	80	00
Robertson, Meier	Suediac Island Range	Dec.	29, 1873	250	00
Ross, Elijah	Negro Point	Mar.	5, 1878	400	00
Robichaud, Jude	Richibucton Inner Range	June	16, 1902	225	00
Robichaud, Henri B.	Little Bucouche Range	June	1, 1881	150	00
Roberty, A.	Belledune	Feb.	5, 1895	100	00
Richards, D. L.	Partridge Isd. Lighthouse and Fog Whistle	July	19, 1900	800	00
Robertson, J. A. D.	Heron Island	April	1, 1902	200	00
Robichaud, Aug.	Shippegan	June	11, 1902	280	00
Richard, Jos. F.	Richibucton Bar Outer Range	"	16, 1902	150	00
Sutherland, Geo. C.	Bathurst Harbour Range	Mar.	20, 1882	*200	00
Scott, Chas. F.	Stonehaven	July	20, 1885	100	00
Spragg, T. W.	Hatfield Point Range	June	27, 1903		
Thomas, Geo. H.	Leqrean Light	Aug.	29, 1884	400	00
Tatton, Geo. T.	Long Eddy Point Fog Whistle	Oct.	16, 1886	350	00
True, John Howard	Wilnot Bluff	Sept.	12, 1899	80	00
Upton, Robert	Bridge Point	"	11, 1899	80	00
Williston, Seymour	Swashway Range Upper Lt.	June	4, 1902	300	00
Wagner, Richard	Sand Point	June	7, 1883	80	00
Williams, Forrest W.	William Landing	May	11, 1897	80	00

## NOVA SCOTIA.

Amero, Chas. A.	Whitehead Island	Nov.	9, 1897	350	00
Amero, Geo. D.	Pubnico	Feb.	6, 1893	240	00
Amirault, James	Sissiboo	July	11, 1899	200	00
Beamau, Edwin	Digby Pier	May	29, 1897	100	00
Bonner, John Charles	Point Aconi	Nov.	6, 1903	200	00
Burgess, Watson	Port l'Hébert	July	26, 1892	150	00
Boutillier, R. J., supt	Sable Island Humane Est.	Nov.	13, 1884	†700	00
Boutillier, Henry	Indian Harbour, Paddy's Head	June	6, 1901	100	00
Bollong, James	Pope Harbour	Aug.	6, 1877	300	00
Bourgeois, Philip	Cheticamp Range Lights	May	23, 1898	150	00
Boudrot, Thomas	Poullanion, Hawk Islet	June	19, 1901	250	00
Baker, Thomas	Peases Island	May	19, 1879	350	00
Brackett, Wm.	Herring Cove	Aug.	28, 1897	100	00
Belliveau, John H.	Belliveau Cove	Feb.	16, 1889	80	00
Brownell, Luther	Cold Spring Head	Mar.	27, 1901	120	00
Brown, James	Cranberry Head Fog Alarm	June	22, 1898	500	00
Buchanan, Angus A.	Neil Harbour	Aug.	14, 1899	150	00
Buckman, Chas.	Grand Passage	Jan.	7, 1901	200	00
Boudreau, W. C.	Port Felix	July	16, 1902	250	00
Buik, Henry	Country Harbour, Green Island	June	11, 1902	400	00
Burke, Marin	Rivière Bourgeoise	Dec.	1, 1902	60	00

\* Allowance, \$10.

† With board for self and family and assistants and allowance for salaries of staff.



SESSIONAL PAPER No. 21

## STATEMENT giving Names and Stations of Light-keepers, &amp;c.—Continued.

## NOVA SCOTIA—Continued.

Name.	Station.	Appointed.	Salary.	
			\$	cts.
Burns, Ronald H.	Wedge Island	April 18, 1903	400	00
Burgess, Lewis E.	Walton Harbour	July, 13, 1903	150	00
Chiasson, Germain	Caveau Point Range Lights	Aug. 20, 1897	120	00
Chiasson, Joseph P.	Grand Etang, Inverness	May 21, 1901	60	00
Crichton, H. H.	Creighton Head	" 6, 1874	200	00
Comington, Thomas	Louisburg Range Lights	Oct. 26, 1897	150	00
Crowell, John	Seal Island Lighthouse and Fog Whistle	" 14, 1899	800	00
Campbell, Samuel C., supt.	St. Paul's Island Humane Est.	July 17, 1897	*700	00
Campbell, John M., engineer	Fog Alarm, St. Paul's Island	Oct. 26, 1898	500	00
Campbell, J. O.	Port Mouton	April 29, 1898	300	00
Comeau, Louis C.	Meteghan River Wharf	Oct. 12, 1875	100	00
Campbell, John P.	Red Islands, C B	Nov. 30, 1901	120	00
Croucher, George A.	Croucher Island	Jan. 31, 1883	300	00
Clough, Daniel	Grand Dique Pole Light	July 4, 1884	70	00
Clory, Abraham	Glasgow Point	" 25, 1894	150	00
Coolen, Albert S.	Hubbard Cove	Oct. 31, 1903	250	00
Cameron, L. G.	Beaver Harbour	Feb. 13, 1902	150	00
Christian, John	Betty Island	Dec. 12, 1899	500	00
Creelhan, Samuel	Port au Pique	May 2, 1901	25	00
Campbell, D. A., engineer	Louisburg Fog Alarm	Mar. 20, 1902	500	00
Cunningham, A. H.	Cape Sable Light and Fog Alarm	July 16, 1902	800	00
Cohoon, Havelock	Cranberry Island Light and Fog Alarm	Sept. 7, 1903	800	00
<b>D</b> oody, James	McNab Island	July 8, 1903	300	00
Dunn, James M.	Port Williams	Oct. 26, 1859	260	00
Doane, John H.	Yarmouth or Cape Fourchu L. H. & F. W.	July 1, 1874	800	00
Doane, Joshua	Yarmouth Harbour	Feb. 23, 1874	†350	00
Doyle, Edward	Mabou Front Range Light	June 14, 1897	70	00
D'Entremont, W. H.	Abbot Harbour	May 22, 1888	90	00
Dewis, F. H. P., engineer	Cape d'Or Fog Whistle	April 13, 1898	‡500	00
Dunn, Wm. A.	Green Island, Richmond	May 20, 1902	500	00
Dunn, Miles A.	Margaree Harbour, Outer Range Light	" 12, 1903	50	00
<b>E</b> llis, Wm. E.	Point Prim or Digby Gut L. H. & F. W.	Mar. 8, 1875	800	00
Early, John	Margaretsville	Feb. 19, 1887	230	00
<b>F</b> raser, Alexr.	Great Bras d'Or, South-west Range	Jan. 13, 1903	100	00
Fowler, Ernest E.	Apple River Lighthouse and Fog Whistle	Oct. 9, 1902	700	00
Fisher, Joel W.	Baccaro or Barrington	Aug. 8, 1893	400	00
Fulker, Wm. G.	Devil's Island	May 3, 1886	420	00
Firth, Charles M.	Coffin Island, Liverpool	June 30, 1880	400	00
Foster, Israel C.	Port Medway	Oct. 13, 1892	260	00
Foster, Samuel T.	Port Medway Breakwater	Feb. 17, 1899	100	00
Foster, Geo. M.	Port George	Nov. 5, 1897	100	00
Fraser, John A.	Dover	Dec. 31, 1892	200	00
Faulkner, W. Y.	Burnt Coat	June 22, 1898	250	00
Findlay, John H.	Bull Point, Sambro Harbour	Dec. 7, 1899	100	00
Franklin, J. L.	Wolfville, N.S.	April 4, 1902	100	00
Falconer, David	Cariboo Island	Dec. 20, 1902	300	00
<b>G</b> ilkie, Henry A.	Sambro	Jan. 8, 1877	800	00
Giffin, Ira L.	Holly Point Isaac Harbour	April 28, 1894	200	00
Gardner, Frederick T.	Brooklyn Pier	Feb. 6, 1889	100	00
Gallant, Patrick	Little Lorraine	Jan. 19, 19 0.	80	00
Goodwin, Jas. E.	Wood Harbour	Aug. 27, 1900	200	00
Garrison, S. H.	Peggy Point	Dec. 22, 1902	350	00
Gray, Peter Angus	Pennant Harbour	June 30, 1903	100	00
<b>H</b> arpell, Jeremiah	Jeddore Harbour Range Lights	Jan. 21, 1901	200	00
Hopkins, Leslie	Bon Portage Island	Oct. 20, 1897	350	00
Huntley, Charles H.	Kingsport	June 30, 1890	100	00
Hawley, Mathew	South Bay, Ingonish	May 13, 1897	140	00
Hardy, John	Gabarus	Nov. 22, 1890	200	00
Hardy, Joseph W.	Guion Island	Jan. 30, 1903	400	00

\* Allowance, \$1,400 for assistants and board for self and family and assistants.

† Allowance, \$30 per annum for fog bell. ‡ Allowance of \$300.

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*NOVA SCOTIA—*Continued.*

Name.	Station.	Appointed.	Salary.	
			£	cts.
Hennesey, W. P.	Highland Village Pole Light	April 6, 1899	25	00
Hinds, James	Victoria Beach	Mar. 7, 1901	100	00
Hemlow, James S.	Liscomb	Jan. 2, 1903	300	00
Iceton, Wm	Mauger Beach Light and Fog Alarm	July 8, 1903	800	00
Johnson, Edward	Chelucto Head Lighthouse and Fog Whistle	May 14, 1872	800	00
Joyce, Simon	Seal Island, Lennox Passage	July 4, 1884	100	00
Jamieson, Chas.	Cape St. Lawrence	Sept. 21, 1893	400	00
Jameson, Geo. C.	Cole Harbour Range Lights	Oct. 21, 1898	150	00
Knowlan, Alfred	Queensport	Nov. 13, 1902	300	00
Long, Joseph	Canso Harbour	Dec. 31, 1896	270	00
Leblanc, Severin	Fish Island	July 1, 1889	250	00
Lowden, David	Pictou Harbour Range Lights	" 12, 1897	150	00
LeVashe, Wm	Arichat	Oct. 17, 1898	250	00
Lyons, John H.	Barrington East Bay Light-ship	June 18, 1897	500	00
Landry, Edward	Petit de Grat	Feb. 23, 1897	200	00
Larkin, Ephraim	Stoddart Island	Mar. 18, 1896	200	00
Livingstone, George S.	Advocate Harbour	May 8, 1884	250	00
LeBlanc, Benjamin	Candle Box Island	Nov. 1, 1892	300	00
Morrell, B. H.	Brier Island, Fog Whistle Engineer	June 6, 1901	400	00
Morrison, M. D.	Black Rock Point	" 8, 1892	250	00
Muise, Marcellin	Cheticamp	Nov. 27, 1896	300	00
Misner, John E.	Fort Point	May 16, 1896	150	00
Moser, Samuel	Moser Island	Nov. 6, 1885	350	00
Mullins, James	Mullins Point	June 8, 1892	250	00
Munro, William	Pictou	Nov. 22, 1890	460	00
Murphy, Michael	Pomquet Island	Dec. 18, 1890	350	00
Mundell, Edward	Eddy Point	July 28, 1903	400	00
Martell, John T.	Scatterie Lighthouse and Fog Whistle	July 30, 1897	800	00
Murray, John	Cape George, Great Bras d'Or Lake	Nov. 3, 1882	200	00
Munroe, William L.	Three Top Island	Oct. 28, 1879	300	00
Mitchell, John W.	Jeddore Rock	Sept. 29, 1882	400	00
Mitchell, Wm. A.	Quaker Island	Feb. 17, 1896	300	00
Matheson, Murdoch	Whycocomah Pole Light	Sept. 11, 1884	60	00
Morrison, Widow	Freestone Islet Pole Light	June 5, 1897	150	00
Mauger, John J.	Cape LaRonde	Nov. 16, 1898	300	00
Myrick, John	Cape Race, Newfoundland, L. H. & F. W.	Nov. 1, 1897	1,000	00
McDonald, Robert	Carter Island	Jan. —, 1885	275	00
McRae, Roderick	Margaree or Sea Wolf Island	Feb. 3, 1898	400	00
McLellan, Rod'k.	Margaree Harbour, Inner Range	June 8, 1901	50	00
McKay, R.	North Canso	Feb. 4, 1882	350	00
McFarlane, Andrew	Pictou Island	June 8, 1892	400	00
McDonald, John A.	Port Hood	May 19, 1880	280	00
McDonald, James	Point Tupper	Mar. 15, 1870	300	00
McAskell, Donald	St. Ann Harbour	June 26, 1889	140	00
McLean, H.	Gillis Point	Dec. 18, 1897	150	00
McRae, Hector	McKenzie Point, Great Bras d'Or	Aug. 20, 1890	160	00
McLeod, Norman	Cape North, Money Point	Oct. 14, 1899	400	00
McKay, Angus	Clarke Cove	June 3, 1902	50	00
McNeil, John C.	Iona	Nov. 16, 1901	120	00
McRae, Donald	Kidston Island	May 17, 1892	200	00
McLeod, Angus	St. Esprit Island	Oct. 27, 1880	400	00
McDonald, Norman	Strawberry Island Pole Light	July 4, 1884	100	00
McAskell, Kenneth	Jerome Point	" 30, 1901	250	00
McNeil, John C.	Piper Cove	Dec. 18, 1897	120	00
McNeil, Laughlin	McNeil Beach Pole Light	Aug. 6, 1884	60	00
McFadyen, Malcolm	Mahon Back Range Light	April 17, 1891	50	00
McNeil, Daniel Y.	Campbell Island, Victoria Co.	July 30, 1903	100	00
McEachern, A. L.	Cape St. George	Sept. 8, 1898	450	00
McLeod, Murdoch	Pugwash	Dec. 10, 1897	250	00
McKenna, John L.	Cape Roseway, L. H. & F. W.	Mar. 31, 1899	800	00
MacIntosh, James	Egg Island	July 28, 1899	500	00

## SESSIONAL PAPER No. 21

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*NOVA SCOTIA—*Continued.*

Name.	Station.	Appointed.	Salary.
			\$ cts.
McLellan, Ingersoll L.	Economy Pole Light	May 16, 1899	76 00
McAdam, Hugh R.	Arisaig	Nov 14, 1898	100 00
McKay, Hector	Bird Island	May 21, 1901	450 00
McKenzie, Daniel	Flint Island	Nov. 19, 1903	450 00
McLean, Malcolm	Great Bras d'Or, North-east Range	Jan. 13, 1902	100 00
McLennan, John Angus	Henry Island	July 21, 1903	495 00
Nass, Henry	Battery Point	Mar. 12, 1897	300 00
Nickerson, Byron	Negro Island	July 26, 1897	300 00
Nunn, George	Sydney Bar	June 20, 1872	300 00
O'Leary, Wm. E.	Beaver Island	Feb. 22, 1900	350 00
O'Hara, Theodore	Port Bickerton	Jan. 26, 1901	150 00
Orchard, L. D.	Gull Rock	" 1, 1877	400 00
Payzant, Jason	Little Hope Island	Oct. 22, 1901	500 00
Pearl, Albert	Green Island off Margarets Bay	Dec. 29, 1873	500 00
Price, Philip	Louisburg	Nov. 8, 1897	350 00
Peters, John G.	Low Point	Oct. 1, 1865	460 00
Pettis, William	Parrsboro'	Dec. 6, 1888	340 00
Palmer, Howard	Wolf Point	Oct. 14, 1899	250 00
Palmer, H. W.	Lahave, Fort Point	May 22, 1878	200 00
Perry, John	Sheet Rock	Dec. 17, 1878	500 00
Perry, Levi	North East Harbour Range Lights	June 17, 1899	200 00
Peters, John N.	Brier Island	" 6, 1901	400 00
Pope, John	Main-a-Dieu	Sept. 11, 1902	300 00
Patterson, Wm.	Dartmouth	June 3, 1903	100 00
Peters, Jr.	Low Point Fog Alarm Engineer	Dec. 29, 1903	500 00
Robinson, Charles	Black Rock	Mar. 16, 1885	330 00
Ruggles, Frank	Boar's Head	May 24, 1901	350 00
Robicheau, B. H.	Cape St. Mary	July 5, 1886	350 00
Rathburn, S. M.	Horton Bluff	" 1879	250 00
Reid, George J.	Isle Haute	Oct. 18, 1889	500 00
Ross, Robert	George Island	Jan. 18, 1876	250 00
Robblee, Jacob V.	Shafner Point	May 29, 1897	150 00
Riley, Simon W.	Annapolis Royal	Mar. 7, 1892	100 00
Richards, Stephen C.	Charlo Harbour Range	Nov. 4, 1901	120 00
Ross, Alex. W.	Little Narrows	May 23, 1902	120 00
Rogers, Lloyd	Amet Island	Nov. 11, 1902	450 00
Smith, Eph.	Sambro Inner Island, Pole Light	Jan. 3, 1900	40 00
Scott, M. C.	Guysborough	April 19, 1884	220 00
Spencer, Robert A.	Spencer Point	April 1, 1870	125 00
Sutherland, Edward W.	Westport	" 12, 1890	300 00
Sauhnier, John H.	Church Point, St. Mary Bay	Aug. 8, 1878	200 00
Sampson, C.	Quetique Island	Dec. 1, 1874	350 00
Strum, James A.	Westhaver Island	Sept. 25, 1888	200 00
Sollows, A. J.	Port Maitland or Green Cove Pole Light	Dec. 28, 1900	75 00
Sampson, Theodore	South Beaver Harbour Pole Light	Oct. 15, 1892	80 00
Smith, Caleb	Salter Head Beacon Light	June 21, 1888	60 00
Smith, William B.	Westhead, Cape Sable Island	April 12, 1890	200 00
Simpson, John	Pictou Custom House Light	Dec. 10, 1901	100 00
Smeltzer, John D.	Hobson Island	April 10, 1900	300 00
Smith, John Young	Page Island	Jan. 17, 1901	150 00
Stevens, James Gordon	Sand Spit, Shelburne Harbour	Mar. 11, 1903	280 00
Slaunwhite, S. P.	Terence Bay	Oct. 13, 1903	100 00
Vigneau, George	Jerseyman's Island	Mar. 23, 1883	300 00
Vance, George	Masstown	June 29, 1898	25 00
Walsh, Patrick	Lingan Head	Feb. 22, 1902	200 00
Wolfe, Howard M.	Ironbound	June 22, 1895	250 00
Wells, James	Whitehead	Oct. 20, 1897	310 00
Wambold, James	Sheet Harbour Passage	May 11, 1887	50 00

\* Per month during season of navigation.

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STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*NOVA SCOTIA—*Concluded.*

Name.	Station.	Appointed.	Salary.
			§ cts.
Webb, Patrick.....	Harbour au Bouche.....	Feb. 19, 1896..	250 00
Webber, James M.....	Torbay.....	May 10, 1898..	300 00
Wynacht, W. H.....	Cross Island Lighthouse and Fog Whistle.....	April 13, 1898..	800 00
Warren, R. V.....	Ingonish Island.....	Sept. 17, 1903..	360 00
Young, Uriah.....	Chester, Quaker Island.....	Feb. 15, 1884..	400 00
Yorke, Freeman.....	Cape Sharpe.....	June 30, 1902..	250 00

## PRINCE EDWARD ISLAND.

Anderson, Albert.....	St. Peter's Harbour.....	July 25, 1900..	130 00
Allen, Joel S.....	Indian Point Pier.....	May 18, 1898..	375 00
Beaton, Angus.....	Hazard Point, Inner Range Light.....	Nov. 21, 1902..	60 00
Clark, Jesse George.....	St. Andrew's Point, Inner Range.....	Aug. 14, 1901..	125 00
Champion, Wm.....	Cascumpec Harbour.....	Oct. 25, 1897..	100 00
Costain, Frederick.....	Miminegash, Inner Range.....	May 19, 1897..	40 00
Connors, George.....	Georgetown, St. Andrew's Point, Outer Range.....	June 3, 1901..	125 00
Fraser, John.....	Summerside Range Front Light.....	April 12, 1897..	100 00
Gaudet, Agape.....	Big Tignish.....	Aug. 30, 1897..	130 00
Gillis, Donald.....	Point Prim.....	Dec. 10, 1897..	300 00
Gallant, Jos. Jos.....	Cape Egmont.....	Oct. 21, 1902..	200 00
Hardy, Wm.....	Little Channel.....	July 26, 1875..	100 00
Howatt, Abner J.....	Leards Outer Range Light, Crapaud.....	" 22, 1893..	100 00
Harris, Wm.....	Cape Bear.....	Nov. 11, 1896..	350 00
Inman, James.....	Crapaud Inner Range.....	" 1901..	100 00
Kielly, John Andrew.....	Cove Head, Inner.....	Nov. 27, 1890..	99 00
Lewis, James.....	Brighton Beech Range.....	March 1, 1899..	100 00
Munn, Duncan.....	Little Sands.....	May 1, 1877..	30 00
Morrison, John D.....	Cardigan River.....	Aug. 15, 1901..	100 00
McDonald, John W.....	Tracadie.....	May 24, 1901..	100 00
McRae, Daniel.....	Hazard's Outer Range Light.....	April 6, 1900..	70 00
McDonald, Lauchlin.....	East Point Lighthouse and Fog Whistle.....	Feb. 23, 1897..	600 00
McDonald, John.....	Orwell.....	June 25, 1879..	80 00
McLeod, Jas. H.....	New London.....	Jan. 29, 1896..	125 00
McDonald, Wm.....	West Point.....	Aug. 22, 1876..	300 00
McKay, John.....	Wood Island.....	Sept. 12, 1898..	250 00
McDonald, Angus.....	Souris East.....	Nov. 13, 1880..	300 00
McDonald, Jas. A.....	Savage Harbour.....	July 11, 1889..	100 00
McLeod, Lemuel.....	Murray Harbour Inner.....	Dec. 21, 1897..	50 00
McPherson, Daniel W.....	Brush Wharf, Orwell, Range Lights.....	Jan. 13, 1899..	60 00
McNeil, Alex. S.....	Block House Point, Charlottetown.....	March 25, 1901..	340 00
O'Brien, Patrick.....	Miminegash Range.....	May 14, 1897..	60 00
Price, James.....	North Point.....	Sept. 4, 1897..	300 00
Penny, Robert.....	Murray Harbour, Outer.....	Nov. 11, 1897..	50 00
Pino, Joseph N.....	North Rustico.....	Feb. 6, 1897..	125 00
Ranaghan, Peter.....	Sea Cow Head.....	April 21, 1873..	250 00
Robertson, Alfred.....	Amandale Range Lights.....	Oct. 5, 1898..	100 00
Sinclair, Wm.....	Fish Island.....	March 8, 1897..	250 00
Stuart, Geo.....	Summerside Harbour Range Back Light.....	Sept. 8, 1895..	80 00
Steele, Colin.....	Pannure Head.....	June 3, 1901..	250 00

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STATEMENT giving Names and Stations of Light-keepers, &c.—*Concluded.*PRINCE EDWARD ISLAND—*Concluded.*

Name.	Station.	Appointed.	Salary.
			§ cts.
Tuplin, Jas. C.	Sandy Island, Cascumpee.	May 5, 1897.	300 00
Taylor, Chas.	Darnley Point Range Lights.	June 14, 1897.	60 00
Taylor, James W.	St. Peter Island.	May 1, 1897.	200 00
Wiggings, G. W. J.	Darnley Point Range.	Oct. 16, 1896.	100 00
Wright, Chas. L.	Wright's Range Light, Crapaud Harbour.	June 14, 1894.	100 00
Young, James.	Wood Island Harbour.	Oct. 27, 1892.	80 00

## BRITISH COLUMBIA.

Allison, Frank Fagan.	Portier Pass.	Nov. 12, 1902.	30 00
Brown, Wm. Henry	Ballinac Island.	Oct. 3, 1901.	200 00
Blanchard, B.	The Sisters.	Dec. 20, 1902.	500 00
Black, George M.	Fiddle Reef.	May 21, 1903.	25 00
Carpenter, C.	Dryad Point.	Nov. 7, 1899.	180 00
Crozier, James.	Bare Point Chemainus.	June 12, 1897.	168 00
Clarke, M. G.	Entrance Island Lighthouse and Fog Whistle.	Nov. 26, 1897.	900 00
Colville, James.	Pointer Island.	Dec. 26, 1899.	360 00
Croft, M. A.	Discovery Island Lighthouse and Fog Whistle.	April 1, 1902.	900 00
Daykin, William P.	Carmanah Point Lighthouse and Fog Whistle.	Nov. 4, 1890.	1,200 00
Davidson, John.	Cape Mudge.	June 27, 1898.	360 00
Eastwood, F. M.	Race Rocks.	Jan. 31, 1891.	1,200 00
Erwin, Walter.	Point Atkinson Lighthouse and Fog Whistle.	Oct. 5, 1880.	1,000 00
Forsythe, James.	Ivory Island.	Sept. 5, 1900.	500 00
Georgeson, Henry.	Active Pass Lighthouse and Fog Whistle.	July 21, 1884.	960 00
Georgeson, James.	Saturna Island, East Point.	Oct. 26, 1889.	550 00
Grove, John.	Prospect Point.	June 21, 1898.	300 00
Gallop, J. W.	Balfour.	Mar. —, 1900.	240 00
Gordon, Walter.	Yellow Island.	Sept. 27, 1901.	500 00
Greenway, H.	Fraser River.	Jan. 30, 1902.	900 00
Harrap, R.	Coffin Island and Miami Reef.	Apr. 15, 1903.	300 00
Harrison, S. G.	Berens Island.	Nov. 4, 1897.	300 00
Harvey, Thos. W.	Lawyer's Islands.	Oct. 22, 1901.	600 00
Jeffries, Alfred.	Sister's Rock, Vancouver.	April 30, 1901.	500 00
Jones, William D.	Brockton Point, Burrard Inlet.	Aug. 20, 1890.	300 00
Johnston, Capt. George.	Fisgard.	July 30, 1901.	500 00
Kootenay Electric Light Co.	Kaslo Spit.	Dec. 1, 1897.	240 00
Moore, Hugh.	Dock Island.	May 15, 1903.	20 00
McColl, T. Wm.	Garry Point.	July 24, 1898.	10 00
McColl, S. Wm.	Month Fraser River Lights.	March 1, 1903.	25 00
Patterson, Thomas.	Cape Beale.	Mar. 2, 1895.	500 00
Richardson, John.	Portlock Point Lighthouse and Fog Alarm.	Dec. 2, 1895.	460 00
Scarlett, Robert.	Egg Island.	Aug. 22, 1900.	600 00
Sparks, T.	Brocthy Ledge and other Beacons, Vict. Harb.	Jan. 29, 1903.	15 00

\* Per month. † Allowance, \$700 for assistant and provisions.

## APPENDIX

## STATEMENT of Expenditure by the Marine Department

	1868.	1869.	1870.	1871.
	§ cts.	§ cts.	§ cts.	§ cts.
Maintenance of lights—				
Above Montreal.....	40,561 28	42,306 69	46,289 05	44,054 01
Montreal District.....	23,053 56	25,762 54	21,669 49	22,453 52
Below Quebec.....	45,615 35	41,651 73	43,730 61	31,582 75
Nova Scotia.....	46,460 72	56,394 88	43,682 86	76,230 77
New Brunswick.....	20,488 00	23,893 00	27,485 14	20,542 29
Prince Edward Island.....				
British Columbia.....				
Construction—				
Above Montreal.....	3,136 15		2,976 83	8,770 55
Quebec.....	7,323 75	7,492 59	1,543 06	
Nova Scotia.....	22,041 42	6,905 80	18,967 23	10,948 31
New Brunswick.....			11,555 91	8,735 73
Prince Edward Island.....				
British Columbia.....				
Dominion steamers—				
Quebec.....	69,026 73	37,176 02	34,549 49	59,797 05
Nova Scotia.....	14,778 92	26,603 94	19,759 96	13,139 86
New Brunswick.....				
Prince Edward Island.....				
British Columbia.....				
Examination of masters and mates.....			908 12	1,407 66
Hudson's Bay expedition.....				140 00
Investigations into wrecks.....				
Marine Hospital, Quebec.....	19,977 36	19,221 45	21,618 73	19,823 18
Marine hospitals.....	1,070 86	15,615 71	15,652 62	15,728 93
Meteorological service.....	8,200 00	8,950 00	8,950 00	9,379 82
Registration of Canadian shipping.....				
Removal of obstructions.....			2,350 07	1,000 00
Rewards for saving life.....				
Signal service.....				
Steamboat inspection.....	7,106 93	7,999 00	7,396 96	8,321 00
Survey, Georgian Bay.....				
Water Police, Montreal.....	27,445 35	40,238 71	9,323 31	8,030 00
"  Quebec.....		12,633 59	9,038 62	9,370 73
Civil Government.....	15,083 88	18,064 25	19,401 05	20,220 96
Steam communication—				
Between Quebec and Maritime Provinces.....				
Between Prince Edward Island and Mainland.....				
Purchase of steamer to replace—				
Glendon.....				
Lady Head.....				
Winter mail service, Prince Edward Island.....				
Tidal observations.....				
Gratuities.....				
Survey, Burrard Inlet.....				
Export cattle trade.....				
	371,070 56	360,899 90	367,129 11	389,537 12

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from Confederation to June 30, 1903.

1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.
§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.
57,609 16	61,036 47	60,798 75	71,937 18	68,344 18	65,421 00	73,175 11	74,587 78	65,518 61
22,369 00	31,143 14	20,939 13	15,000 00	12,999 48	15,998 00	15,996 00	14,917 95	16,523 88
41,936 00	65,645 00	102,056 09	110,362 00	98,792 93	89,980 41	96,904 00	93,178 61	96,703 87
67,862 24	100,953 80	114,711 91	114,344 51	143,125 56	128,496 00	132,888 95	120,951 33	116,189 60
23,369 12	29,266 85	53,439 04	60,119 02	62,551 61	50,998 00	58,989 00	57,499 02	61,252 82
	13,207 09	3,357 71	12,584 64	13,730 53	11,817 00	16,986 66	12,158 72	15,288 17
		18,519 50	15,983 72	17,175 97	15,853 00	18,948 78	15,152 73	15,576 99
6,940 45	18,999 38	24,461 86	14,286 65	13,320 40	16,267 98	7,207 96	11,993 75	13,297 81
57,818 35	39,303 87	41,950 82	19,325 00	24,336 47	12,945 29	12,776 47	4,154 58	7,797 75
34,760 12	90,181 79	51,867 94	43,898 63	42,214 55	25,550 00	13,500 00	17,386 97	7,069 01
9,561 14	16,691 06	31,572 60	8,842 97	17,819 85	7,083 82	12,028 13	22,598 14	4,985 53
		4,353 93	8,799 07	8,477 67	29 66	2,504 47	2,560 88	6,074 50
47,500 00	51,758 05	64,490 00	79,043 70	62,971 49	49,987 66	42,683 00	44,972 79	49,318 93
20,999 63	24,999 57	30,008 99	22,992 62	133,826 08	38,739 39	43,927 00	42,016 53	49,458 93
				16,241 26	61,782 63	28,933 63	16,332 05	14,429 52
12,115 96	15,984 72	10,555 67	41,796 74	10,156 56	16,085 90	12,193 40	7,460 68	9,733 34
4,312 07	6,466 18	4,520 19	5,696 62	4,672 08	4,050 00	4,249 76	4,250 12	4,253 43
874 00	1,068 89	2,313 31	366 00	466 41	342 65	500 00	1,691 00	676 73
21,000 00	21,600 00	20,456 45	21,994 75	23,795 85	19,965 97	19,987 50	20,791 77	12,991 23
53,536 16	27,150 43	45,986 87	37,111 67	37,155 72	42,449 55	37,487 10	37,445 57	35,040 00
12,618 15	18,830 54	36,700 59	33,580 00	45,560 03	44,871 38	46,050 24	45,706 13	45,554 51
		272 30	1,096 46	412 06	842 14	1,435 10	239 26	257 75
		1,000 00	450 00	203 00	462 00	462 00	305 86	825 00
2,284 32	1,975 13	4,931 78	3,552 86	2,292 20	1,958 55	4,071 00	2,533 10	2,263 15
8,500 00	13,266 00	10,291 58	12,200 00	13,081 86	13,073 01	13,228 38	13,076 46	11,854 34
10,000 00	14,453 87	12,370 86	13,395 00	14,090 00	13,524 29	14,062 00	13,462 74	13,131 06
10,348 00	18,200 00	26,526 66	24,500 00	27,136 68	21,482 08	23,498 06	23,023 23	22,094 48
22,644 52	25,336 04	30,087 23	31,326 18	32,789 18	32,304 12	32,682 50	36,610 19	35,083 95
		15,000 00	10,000 00	10,000 00				
				750 00				
518,958 49	706,817 92	845,150 09	844,586 09	970,146 27	820,054 38	786,156 23	755,359 17	723,360 89

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## STATEMENT of Expenditure by the Marine Department

	1881.	1882.	1883.
	£ s. cts.	£ s. cts.	£ s. cts.
Maintenance of lights—			
Above Montreal.....	65,541 21	71,048 50	70,116 68
Montreal District.....	14,326 36	21,643 05	22,260 32
Below Quebec.....	89,781 29	91,098 66	102,784 99
Nova Scotia.....	128,918 59	137,845 15	150,793 17
New Brunswick.....	63,921 90	66,073 00	75,946 92
Prince Edward Island.....	12,997 36	16,985 72	17,907 27
British Columbia.....	17,570 72	17,893 00	18,349 00
Cape Race.....			
Construction—			
Above Montreal.....	14,180 02	13,581 00	9,782 27
Quebec.....	7,539 76	3,731 31	9,972 50
Nova Scotia.....	7,757 52	13,355 00	9,422 75
New Brunswick.....	4,578 52	2,253 80	1,022 57
Prince Edward Island.....	8,150 06	3,092 00	1,934 49
British Columbia.....	8,655 39	3,237 96	1,005 26
Queen's Printer.....			
Dominion steamers—			
Quebec.....	64,973 00	44,923 98	45,156 13
Nova Scotia.....	36,700 00	31,049 74	37,841 97
New Brunswick.....			
Prince Edward Island.....	15,139 95	23,911 97	19,680 00
British Columbia.....	11,788 09	8,504 61	25,484 00
Department.....			
Examinations of masters and mates.....	3,888 41	3,981 00	4,021 20
Hudson's Bay expedition.....			
Investigation into wrecks.....	310 48	863 19	875 64
Marine hospital, Quebec.....	19,964 33	19,938 12	19,998 53
Marine hospitals.....	32,218 94	33,162 45	29,880 78
Meteorological service.....	46,163 54	47,464 07	51,990 25
Registration of Canadian shipping.....	607 43	2,013 28	168 84
Removal of obstruction.....	150 00	1,116 51	35 80
Rewards for saving life.....	1,806 13	2,212 00	2,534 60
Signal service.....			3,365 33
Steamboat inspection.....	12,211 65	14,833 00	16,209 00
Hydrographic surveys.....			77 81
Water Police, Montreal.....	21,953 26	21,994 74	15,798 24
Quebec.....	13,497 81	20,221 82	22,520 41
Civil Government.....	36,447 50	36,789 46	37,988 39
Steam communication—			
Between Quebec and Maritime Provinces.....			
Between Prince Edward Island and Mainland.....			
Repairs to wharfs.....			
Purchase of steamers to replace—			395 55
Stanley.....			
Clendon.....			
Lady Head.....			
Winter mail service, Prince Edward Island.....			
Tidal observations.....			
Gratuities.....			
Survey, Burrard Inlet.....			
Export cattle trade.....			
Survey, Bay of Quinte.....			
Relief of distressed Canadians.....			
Manning-ships.....			
Widow of late A. Warner.....			
McDonald Bros.....			
Parliamentary Returns.....			
Investigating effect of Chicago drainage canal.....			
John McDonald.....			
Longitude, Montreal.....			
Marine biological station.....			
	761,730 62	774,831 53	825,010 82



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from Confederation to June 30, 1903---Continued.

1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
70,788 27	70,697 89	85,713 98	75,099 74	85,588 70	72,721 23	84,035 65	93,180 72
22,946 43	23,262 94	33,289 28	16,735 49	17,519 17	12,235 79		
101,302 35	118,856 94	131,095 29	131,540 80	133,278 67	112,630 20	118,759 70	122,471 89
142,909 72	137,439 40	143,153 24	117,798 53	133,009 92	110,197 15	139,459 56	139,916 83
86,670 70	92,130 28	76,046 63	96,425 28	73,165 49	78,235 79	61,608 91	61,089 31
19,059 62	20,213 83	22,282 52	17,852 13	14,796 62	19,118 51	16,968 80	19,000 46
18,107 54	15,497 76	14,783 75	16,250 43	19,604 63	16,877 12	16,411 49	19,595 22
			4,453 25	5,124 20	7,358 01		
18,432 63	27,977 42	36,678 16	18,383 20	6,341 97	8,623 76		9,796 28
3,168 48	4,354 87	5,877 84	1,260 00	2,287 86	12,203 06		3,723 14
12,489 35	4,352 42	5,905 17	5,330 89	5,533 48	6,039 91		1,596 94
2,868 70	7,667 42	2,421 66	5,280 75	1,542 61	2,966 36	23,863 09	208 16
2,158 60	879 40		384 60				410 00
2,830 38	5,223 11	4,942 70	321 84	5,918 00	1,890 90		14,417 25
			26 58		40 14		
43,019 13	51,092 98	51,485 03	50,714 52				
27,726 60	42,921 27	30,283 27	32,287 10				
		24,633 26	14,337 23				
19,539 52	33,962 54	20,927 58	19,987 67	150,659 19	126,629 33	114,956 20	111,437 03
16,111 83	12,485 07	13,430 69	10,809 07				
			13,288 83				
5,580 79	6,656 44	5,239 28	4,858 98	5,063 96	4,381 04	4,117 83	4,255 24
480 69	71,374 69	35,217 10	14,762 61	165 00			
830 12	385 15	592 63	529 14	513 91	516 67	888 94	1,172 77
19,990 34	19,996 68	16,047 95	19,706 96	18,777 62	18,643 14	10,279 08	751 75
31,491 30	45,371 29	32,229 02	32,545 35	30,667 67	33,089 29	31,450 03	33,303 37
56,418 16	56,625 40	56,898 33	57,140 74	59,986 10	58,577 07	58,452 10	62,457 10
189 27	237 88	157 13	233 43	897 02	179 21	647 52	1,207 07
342 76	2,259 21	1,237 34	4,190 83	2,500 94	3,603 65	5,737 26	3,633 65
2,614 91	5,221 15	8,147 22	7,363 94	6,825 48	5,503 44	8,150 92	4,952 20
6,704 17	3,881 05	4,622 00	5,082 17	4,441 59	5,092 54	4,976 80	4,700 79
21,893 28	23,235 04	21,775 57	22,847 80	21,430 45	22,213 03	20,989 52	22,183 76
26,745 51	20,454 68	17,759 36	21,592 55	19,424 14	17,898 46	17,969 23	17,677 51
19,021 93	17,683 59	20,933 75	17,413 47	18,725 95	16,948 82	13,164 00	573 80
22,958 79	20,399 33	22,922 82	22,935 65	18,553 57	14,698 68	8,620 61	7,279 85
38,775 00	29,900 83	30,453 57	37,193 62	32,728 78	43,501 96	42,835 78	43,253 67
					143,505 60		
56,164 71	47,238 03						
		5,985 42	6,312 93				
				7,740 25	1,842 47	2,752 67	7,012 70
						244 75	1,888 71
					200 00	80 00	1,025 00
							1,690 12
							520 85
927,241 61	1,129,901 14	980,120 59	917,557 31	883,250 85	1,023,801 34	807,417 53	885,410 11

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## STATEMENT of Expenditure by the Marine Department

	1892.	1893.	1894.	1895.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Maintenance of lights—				
Above Montreal.....	87,033 61	87,598 15	78,090 69	82,541 16
Montreal District.....				
Below Quebec.....	116,531 27	120,404 19	124,348 80	124,763 81
Nova Scotia.....	148,815 26	150,445 26	137,339 73	140,977 53
New Brunswick.....	66,886 69	71,079 46	59,917 96	69,654 46
Prince Edward Island.....	17,069 98	16,819 64	15,569 39	17,976 67
British Columbia.....	26,858 68	21,413 27	27,240 77	21,734 18
General account.....				
Construction—				
Above Montreal.....	21,704 05	8,766 62	12,581 15	2,699 40
Quebec.....	809 27	10,097 18	4,743 13	3,004 14
Nova Scotia.....	1,965 16	4,381 24	3,104 77	4,737 03
New Brunswick.....	1,845 35	1,271 15	115 45	1,597 80
Prince Edward Island.....	1 56		1,604 00	
British Columbia.....	9,478 81	2,958 61	6,356 43	180 83
General account.....				
Dominion steamers—				
Quebec.....				
Nova Scotia.....				
New Brunswick.....				
Prince Edward Island.....				
British Columbia.....	145,899 61	163,097 46	178,183 97	169,661 64
Department.....				
Examinations of masters and mates.....	6,363 88	4,116 99	3,745 33	2,757 29
Hudson's Bay expedition.....				
Investigation into wrecks.....	603 21	643 49	850 81	351 15
Marine hospital, Quebec.....				
Marine hospitals.....	34,106 83	35,757 07	38,403 94	38,589 05
Meteorological service.....	67,138 56	64,165 60	66,440 96	64,588 34
Registration of Canadian shipping.....	462 59	1,476 19	594 00	207 40
Removal of obstructions.....	2,878 68	1,554 53	202 02	2,217 36
Rewards for saving life.....	6,398 93	7,432 64	8,014 67	6,591 34
Signal service.....	5,014 42	5,040 58	4,668 93	5,311 74
Steamboat inspection.....	22,736 59	24,386 95	25,961 36	26,385 88
Hydrographic surveys.....	16,451 19	17,542 11	31,461 76	12,653 28
Water Police, Quebec.....	6,161 60	5,436 23		
Civil Government.....	43,195 31	56,477 23	54,988 88	71,373 82
Repairs to wharfs.....		84 90	1,007 67	824 88
Purchase of steamer Minto.....				
Winter mail service, Prince Edward Island.....	3,309 44	4,376 96	6,497 03	6,138 18
Tidal observations.....	711 59	5,099 17	10,172 61	11,507 24
Gratuities.....			3,261 32	
Survey, Burrard Inlet.....	2,580 45			
Export cattle trade.....	1,411 57	1,711 73	1,350 83	2,268 74
Survey, Bay of Quinté.....		2,085 45		
Relief of distressed Canadians.....				7 30
Manning ships.....				500 00
Widow of late A. Warner.....				160 00
Macdonald Bros.....				4,000 00
Parliamentary returns.....				
Investigating effect of Chicago drainage canal.....				
John Macdonald.....				
Unforeseen expenses.....				
Marine biological station.....				
New life-saving station, Long Point.....				
Salaries temporary clerks.....				
Steamer to replace Bayfield.....				
Observatory, Sulphur Mountain.....				
Charles Morrison.....				
W. H. Smith.....				
Montreal Pilotage Comr.....				
" Dry Dock.....				
	\$61,426 80	\$98,720 03	\$96,654 34	\$95,828 28

SESSIONAL PAPER No. 21

from Confederation to June 30, 1903—*Concluded.*

1893.	1897.	1898.	1899.	1900.	1901.	1902.	1903.
§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.
87,256 28	80,961 06	87,841 22	92,751 23	82,810 92	93,708 16	92,195 52	117,896 87
124,143 66	126,186 00	116,279 88	136,134 79	122,112 42	132,147 88	154,839 06	148,302 34
123,234 65	124,671 19	126,386 00	65,072 35	122,414 86	142,359 01	149,572 14	142,725 69
63,018 64	56,771 02	67,369 98	128,674 15	52,491 93	65,247 80	69,133 51	73,410 65
17,988 15	16,429 23	18,112 93	29,589 81	42,878 40	28,031 85	24,223 73	25,757 33
24,770 44	25,679 52	26,862 63	29,530 20	33,545 95	31,938 25	33,119 03	35,758 43
						46 75	
11,993 84	9,527 84	6,867 69	3,729 62	7,094 64	12,499 99		
3,300 00	296 26	3,649 90	37,838 80	49,319 03	17,060 03		
1,842 94	61 71	4,067 99	3,123 16	4,884 22	12,832 69		
206 00	1 60	1,423 34	91 49		266 34	158,714 09	399,487 73
	452 99	1,409 60	616 96	5,586 91	922 00		
225 50	569 99	6,414 19	19,305 60		4,160 74		
					660 03		
145,315 28	136,940 11	117,644 39	145,270 75	180,430 65	195,484 75	452,526 92	369,813 97
4,062 82	3,536 29	3,335 40	3,568 26	3,759 69	3,730 25	3,395 59	4,968 36
	19,091 32	27,050 66					
483 98	565 25	312 77	982 17	773 06	1,022 65	1,824 55	1,367 45
36,682 96	37,984 71	38,162 56	37,853 29	37,743 30	36,008 75	51,827 13	48,750 15
66,600 29	67,397 71	64,135 71	73,148 05	67,692 42	74,082 76	80,147 16	87,293 00
517 60	531 55	818 33	966 48	266 43	546 62	607 23	417 23
456 38	631 86	794 17	745 49	252 19	1,060 00	1,325 25	682 98
8,004 38	5,955 19	5,081 40	7,949 09	7,907 97	8,519 92	8,278 55	9,306 25
5,338 76	5,986 12	4,993 88	6,067 49	5,906 83	8,950 17	6,452 56	6,863 75
26,321 27	26,837 83	26,342 29	28,085 49	27,965 72	29,247 59	27,493 80	30,172 09
15,099 63	12,352 99	15,306 66	13,664 97	12,600 98	16,170 20	25,488 64	35,243 97
	74,801 37	74,644 05	72,833 97	63,331 61	68,776 95	70,246 32	84,442 53
2,644 69	1,795 56	1,618 97		697 87	1,261 06	2,824 28	1,721 91
			144,365 26	41,951 88			
7,779 69	21,931 05	9,575 31	8,439 70	1,503 70	2,093 93	8,835 86	6,211 28
9,627 45	13,166 20	3,081 45	5,186 35	4,372 18	7,060 20	8,925 33	14,529 00
						136 85	1,050 00
2,887 24		2,499 80	2,757 85	2,762 24	2,746 84	3,321 23	3,026 25
746 89							
201 08					133 32		95 19
2,500 00					1,659 14		
200 00							
				3,452 21	2,630 62	3,499 29	4,822 78
			5,799 10	739 61	1,990 58	1,998 85	2,000 00
						1,789 52	
						2,967 35	6,945 96
						59,000 00	
						55 00	3,167 62
						223 00	
						3,691 69	
							1,745 23
							3,528 25
793,634 49	867,772 90	856,192 50	1,102,601 90	982,561 97	1,029,925 32	1,561,618 88	1,671,494 77

## APPENDIX No. 16.

## REWARDS FOR SAVING LIFE

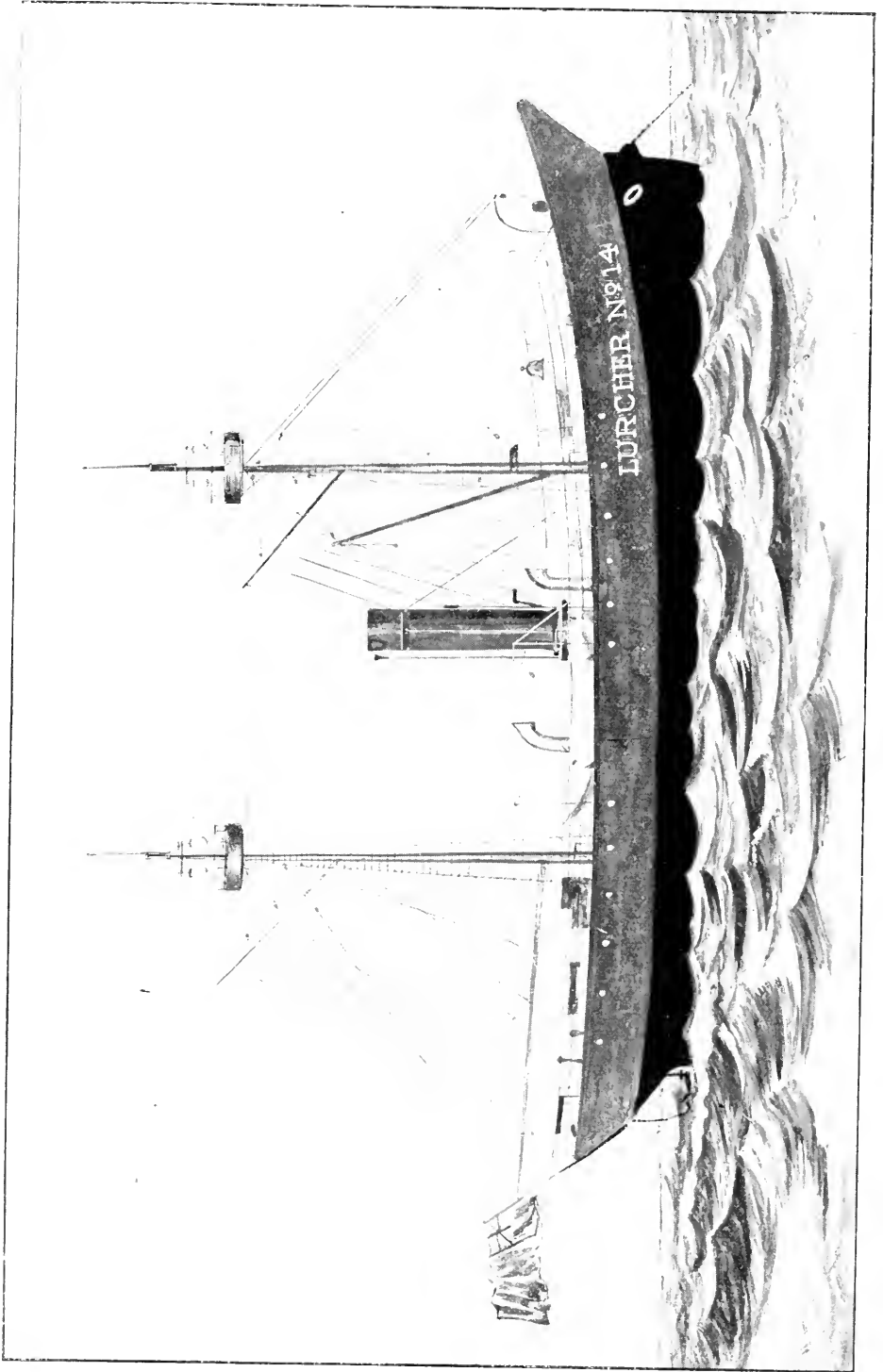
Names and Designations of Persons.	Nature of Services Rendered.	Date of Services Rendered.	Description of Reward.
John H. Bray, master of the barge <i>Kremlin</i> of Boston, U. S. A.	Rescuing the crew of the brig, <i>May</i> of Lunenburg, N.S.	Sept. 13, 1901.	A gold watch and chain from Dept. of Marine and Fisheries.
Alfred Mercier, master, John Mercier, mate, R. Mercier and Alfred Landry sailors, and M. Landry, boy, of the <i>Cala Lilly</i> of Quebec.	Rescuing the crew of the schooner <i>Oregon</i> of Halifax, wrecked on the Labrador Coast.	Oct. 18, 1901.	To the captain \$192, to the mate, \$25, and \$10 to each of the men.
Robert Saunders, Daniel Matheson, Robert Greenless, John McGaw, Thomas McGaw, Walter McGaw, Thomas McGaw, and W. H. Ferguson (drowned) members of a volunteer life-saving crew.	Services rescuing the crew of the American schooner <i>Anne Maria</i> wrecked off Kincardine, Ont.	" 2, 1902.	A gold watch to each of the rescuing party from the President of the United States. The medal for Mr. H. Ferguson, who was drowned in the rescue, was presented to his father.
George W. Nass, master, Jesse Tanner, engineer, and Henry M. Nass, deck-hand of the steam tug <i>Maggie</i> of Lunenburg.	Rescuing the master and crew of the American schooner <i>Dreadnought</i> of Gloucester, Mass., wrecked near Lunenburg, N.S.	Dec. 13, 1902.	A binocular glass to master and a gold medal each to the engineer and deck hand from the President of the United States.
W. H. Taylor, master, E. Griffith, 2nd officer, Thos. Clendenning, John Jones-Ramsay, Thos. Cooper, John Cosgrove and Lythgve, seamen of the British steamer <i>Lake Megantic</i>	Rescuing the crew of the schooner <i>Grounda</i> of Lunenburg, N.S., wrecked near Halifax.	" 15, 1902.	A binocular glass to the master, a gold watch to the 2nd officer and \$15 to each of the sailors mentioned.
Robert McKenzie and Bruce Haydon, fishermen.	Rescuing E. B. McCallum, fisherman whose boat was capsized in St. Peters Bay, P.E.I.	May 13, 1902.	A silver watch and chain to each of the rescuers.
Capt. Malcolm McDonald, Robert Craigie, engineer, Neil McIvor, James Craigie and Geo. Green, sailors, volunteer crew of the tug <i>Huron</i> .	Escorting the disabled vessel <i>Sau King</i> , into Goderich Harbour.	" 22, 1903.	Five dollars each to the captain and engineer and three dollars each to the sailors mentioned.
Abraham Cook, master, Henry Cook, Elzear Cook, James Fleet, Samuel Tanner, sailors of the schooner <i>Minnie M. Cook</i> of Lunenburg, N.S.	Rescuing the crew and one passenger from the wrecked schooner <i>Queen of the Fleet</i> , of Lunenburg.	Aug. 23, 1903.	A gold medal to the master and a silver medal to each of the sailors mentioned.

**SESSIONAL PAPER No. 21a.**

**ANNUAL REPORT OF THE GEOGRAPHIC BOARD OF CANADA.**

NOTE.—After the Index was printed, it was decided to postpone the issue of the above report until the following year.





LIGHTSHIP "LURCHEUR," ON LURCHEUR SHOALS, BAY OF FUNDY.

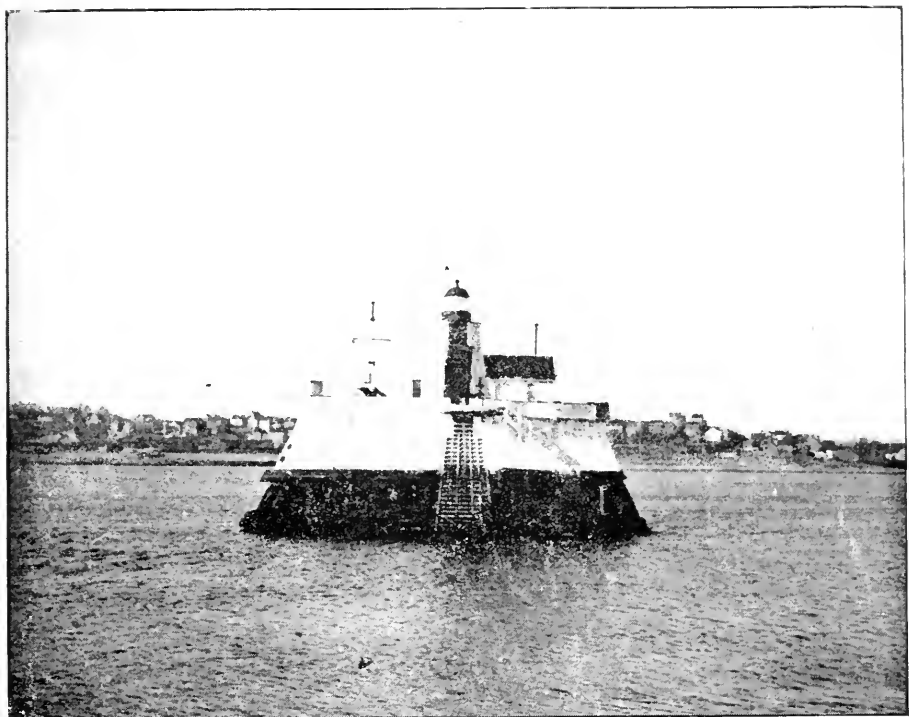






SAND SPIT LIGHTHOUSE. ST. ANDREW'S HARBOUR, N.B.





ST. JOHN, N. B., HARBOUR BEACON.

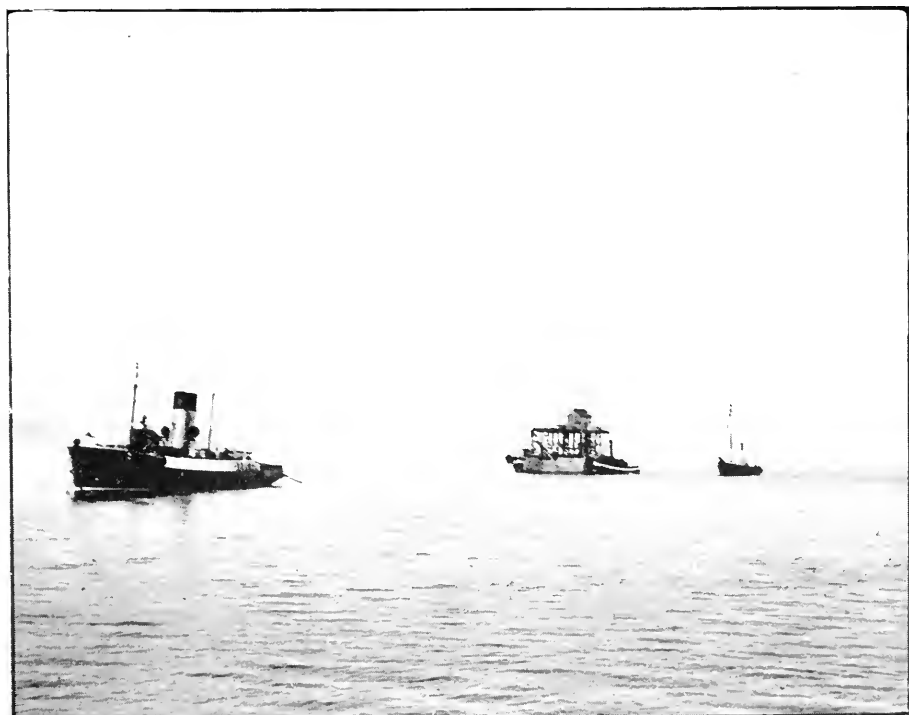


PARRSBORO', N. S., LIGHTHOUSE.



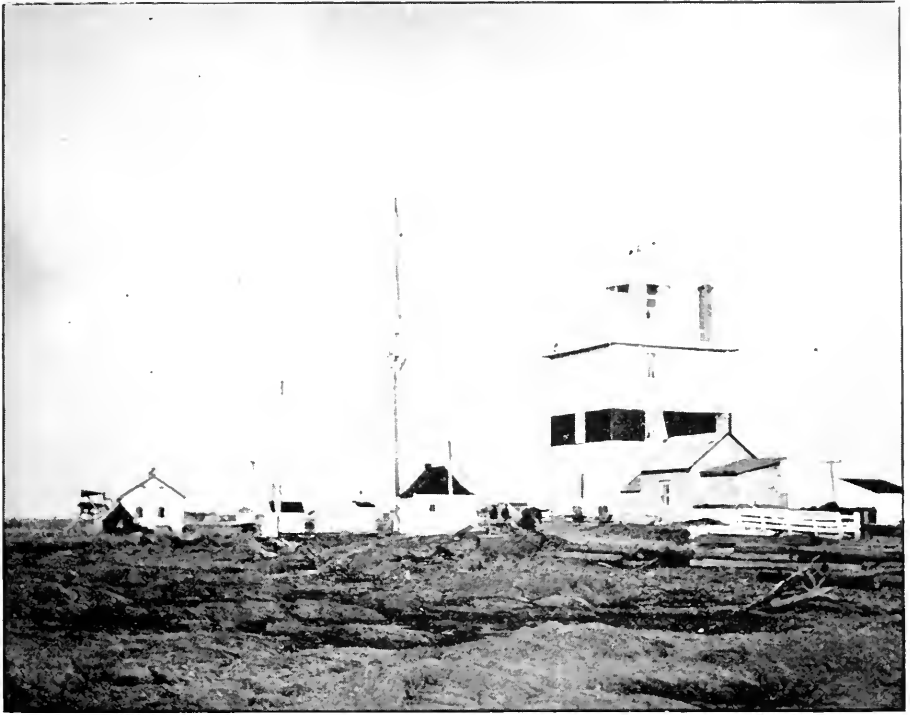


UPPER TRAVERSE, ST. LAWRENCE RIVER, LIGHT AND PIER.



LOWER TRAVERSE PIER, ST. LAWRENCE RIVER — STEAMERS HOLDING PIER AGAINST FALLING TIDE BEFORE SINKING IT.





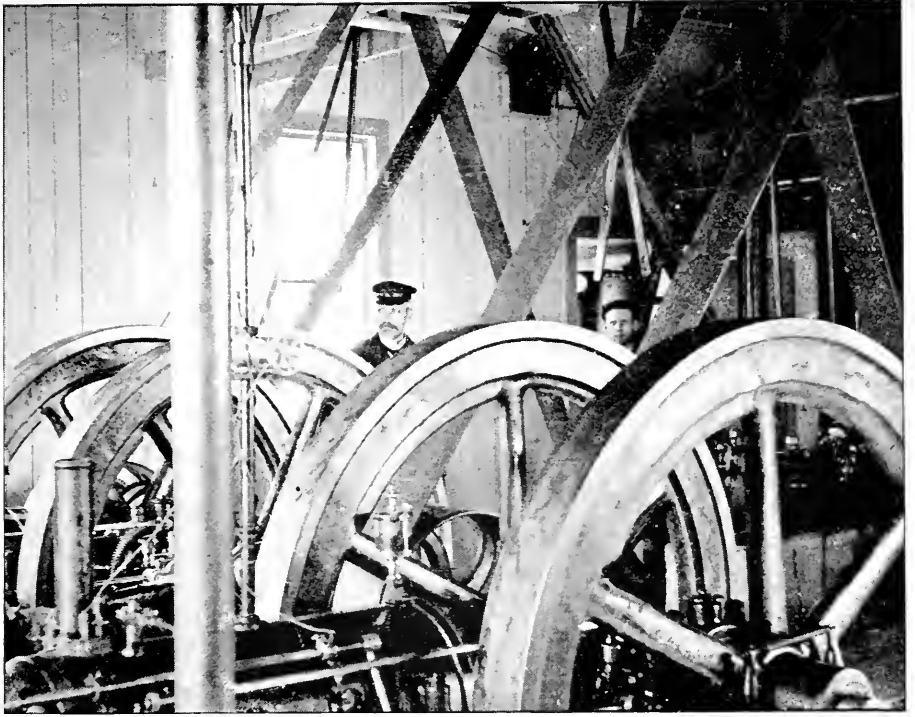
FATHER POINT, P. Q., LIGHT STATION.



FATHER POINT, P. Q., FOG-ALARM BUILDING. EXPERIMENTING WITH TRUMPETS.







FATHER POINT, P. Q., FOG-ALARM MACHINERY.



QUADRA'S LAUNCH WAITING FOR TIDE AT HOLE-IN-THE-WALL, B. C.



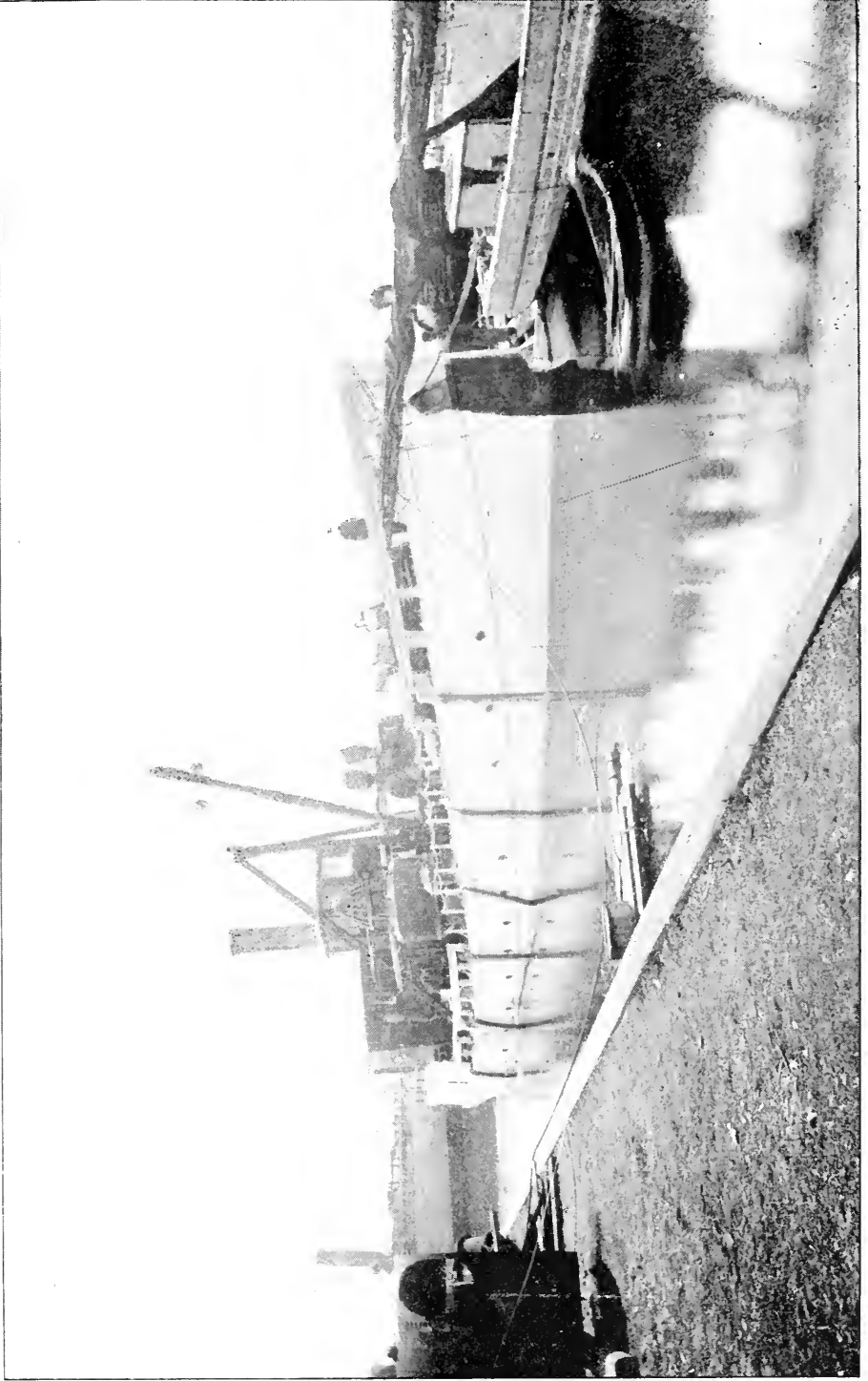


LACHINE, P.Q., BACK RANGE TOWER, GAS LIGHT.



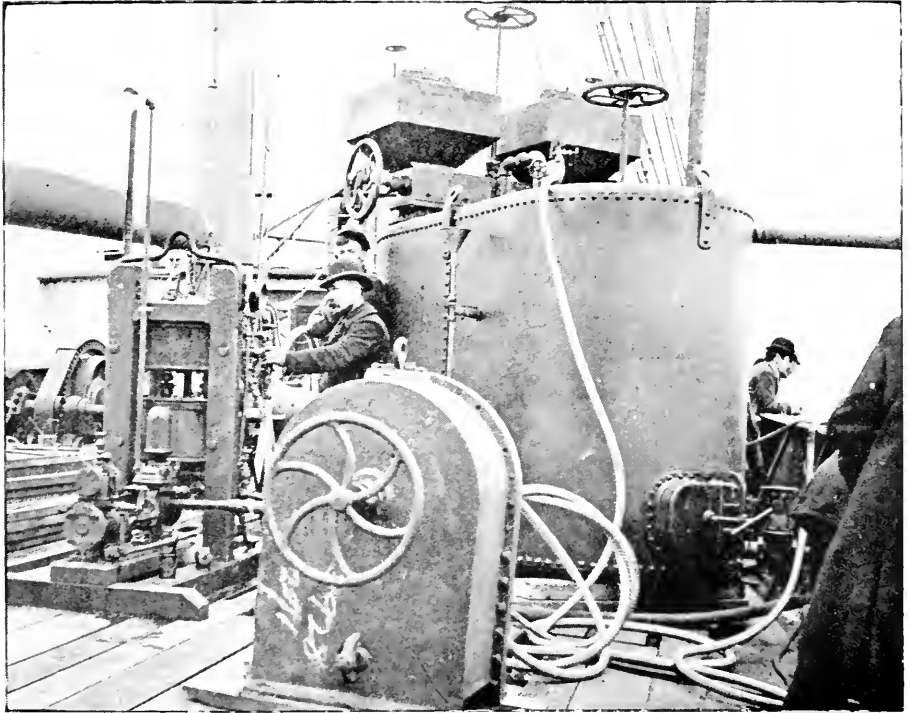
GAS BUOY BEING FILLED WITH ACETYLENE.





DOMINION GOVERNMENT STEAMER "SCOUT," EMPLOYED IN GAS BLOY SERVICE ON THE ST. LAWRENCE RIVER.





PORTABLE ACETYLENE GAS PLANT OPERATING ON STEAMER'S DECK.

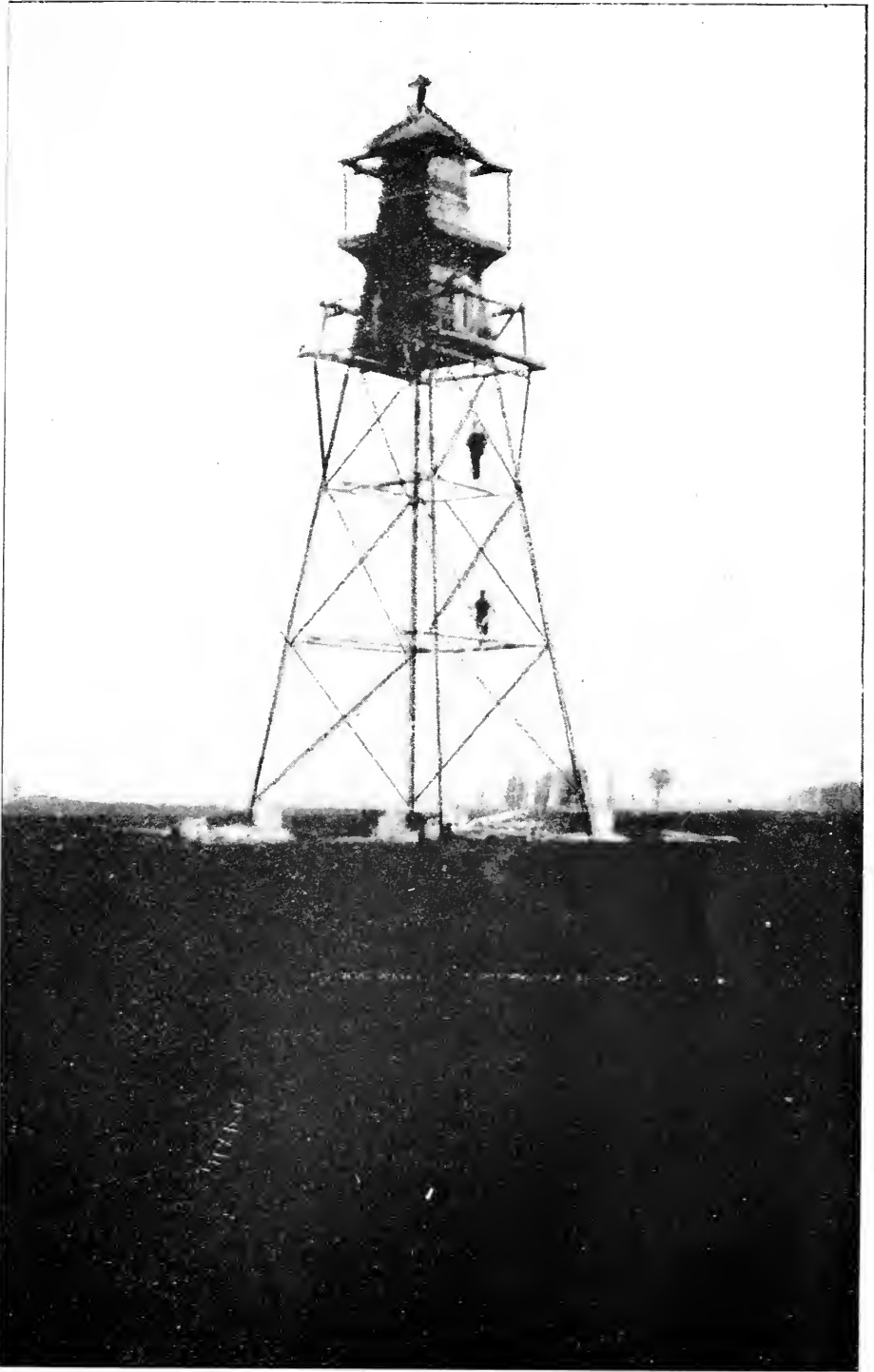






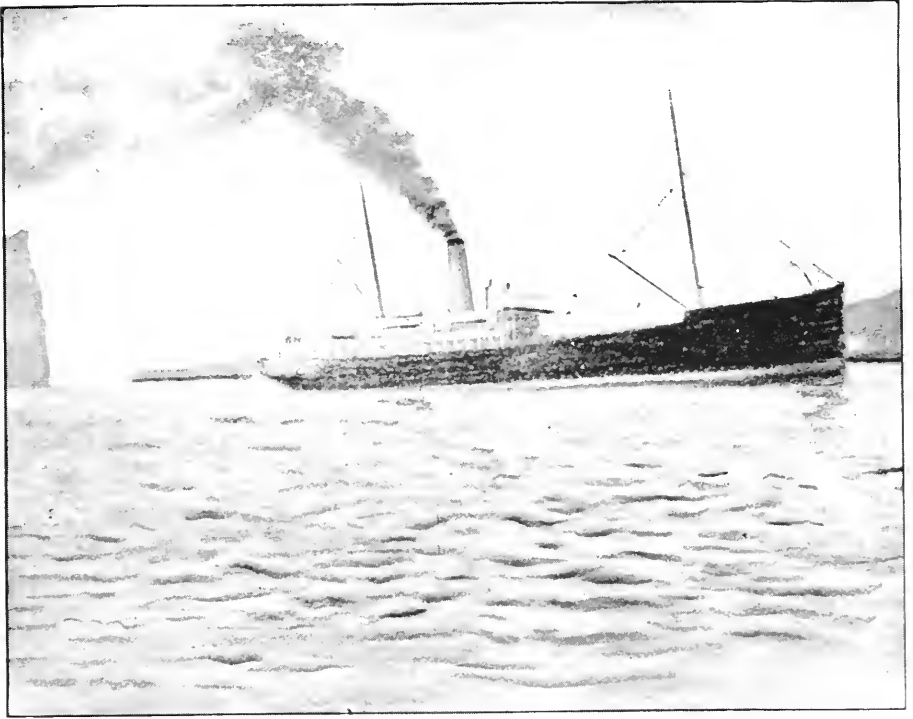
THE PERROT GAS BUOY, LAKE ST. LOUIS.



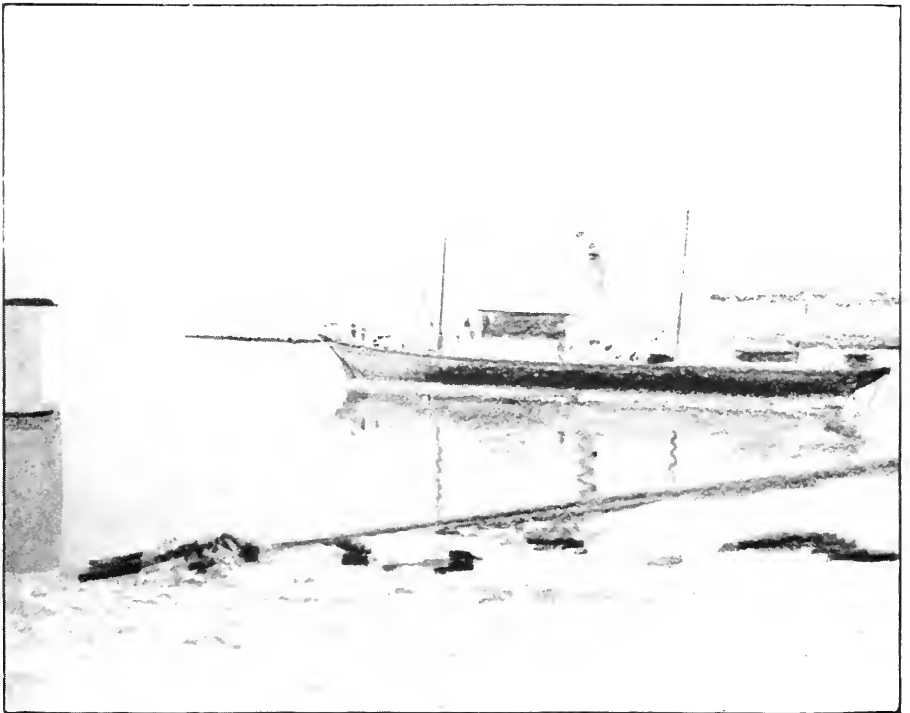


ILE BOUCHARD LIGHTHOUSE DURING ERECTION.





DOMINION GOVERNMENT STEAMER "ABERDEEN," LIGHT FORWARD.

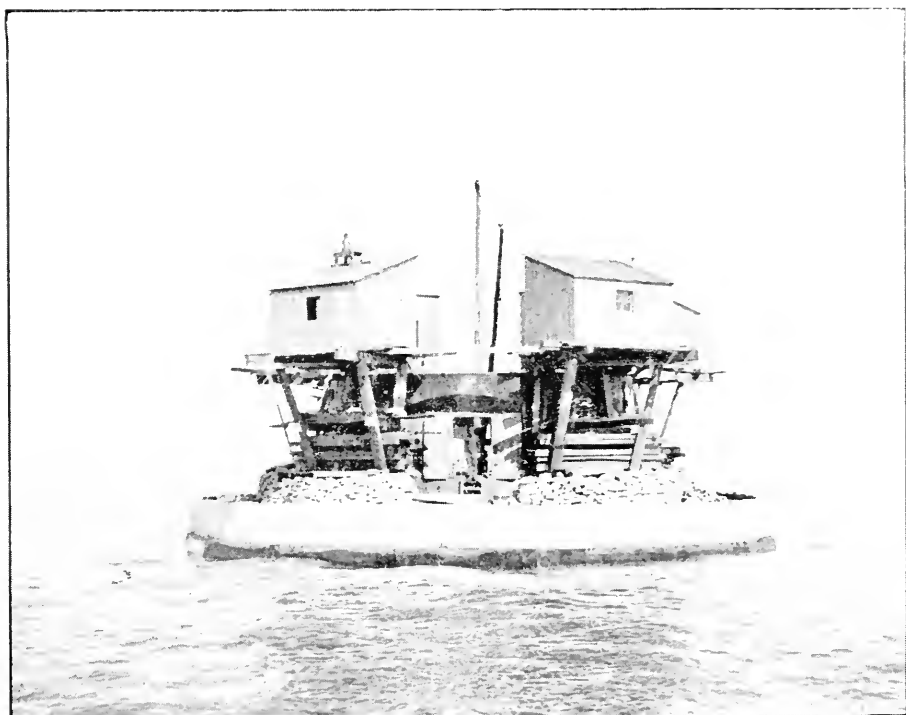


DOMINION GOVERNMENT STEAMER "DRUID," PROCEEDING TO WINTER QUARTERS.





RIVER THAMES, ONT., BACK RANGE LIGHT.



PELEE PASSAGE LIGHTHOUSE, FOUNDATION PIER.







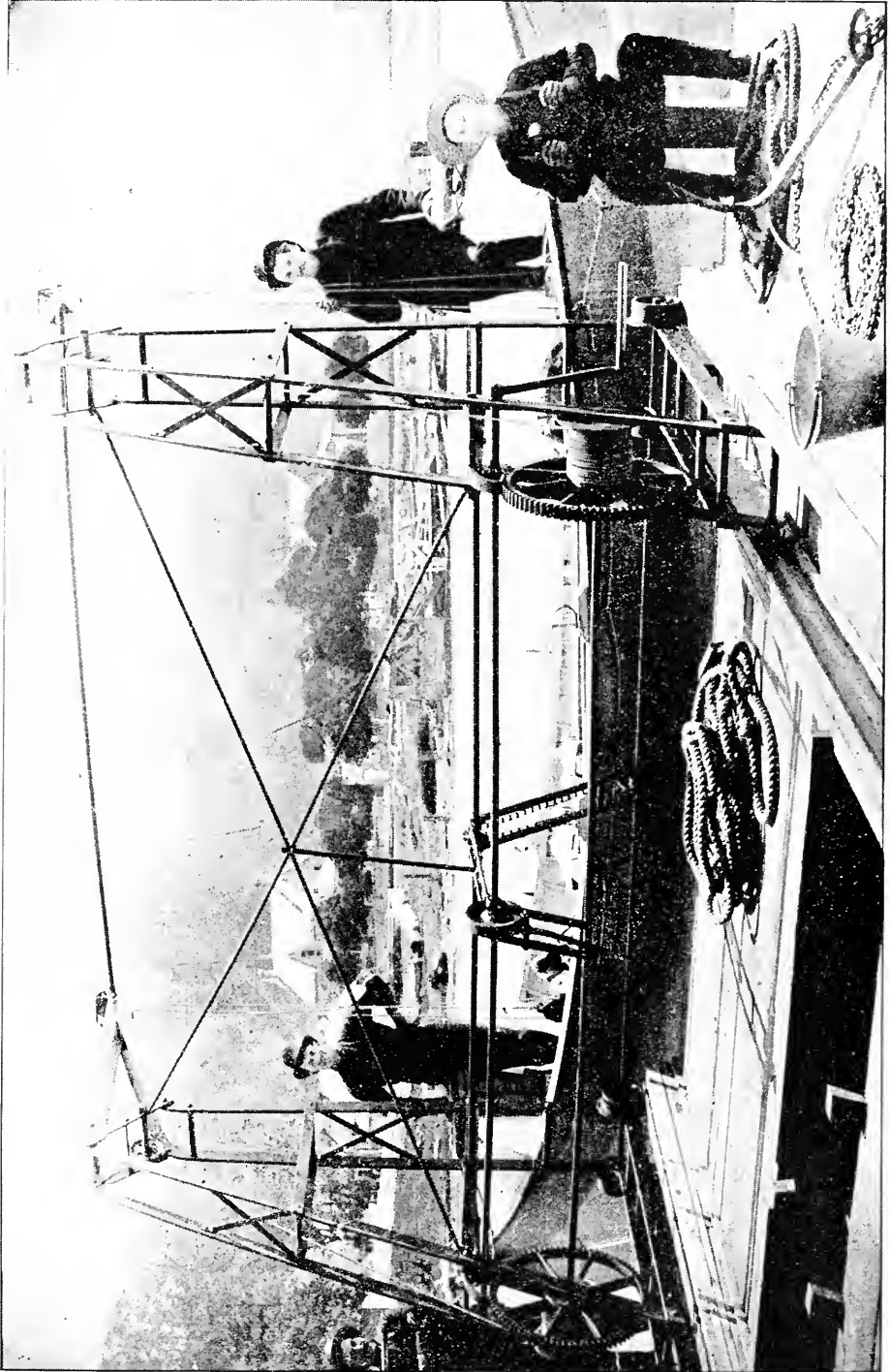
NIGGER SHOAL LIGHTHOUSE, BAY OF QUINTÉ.





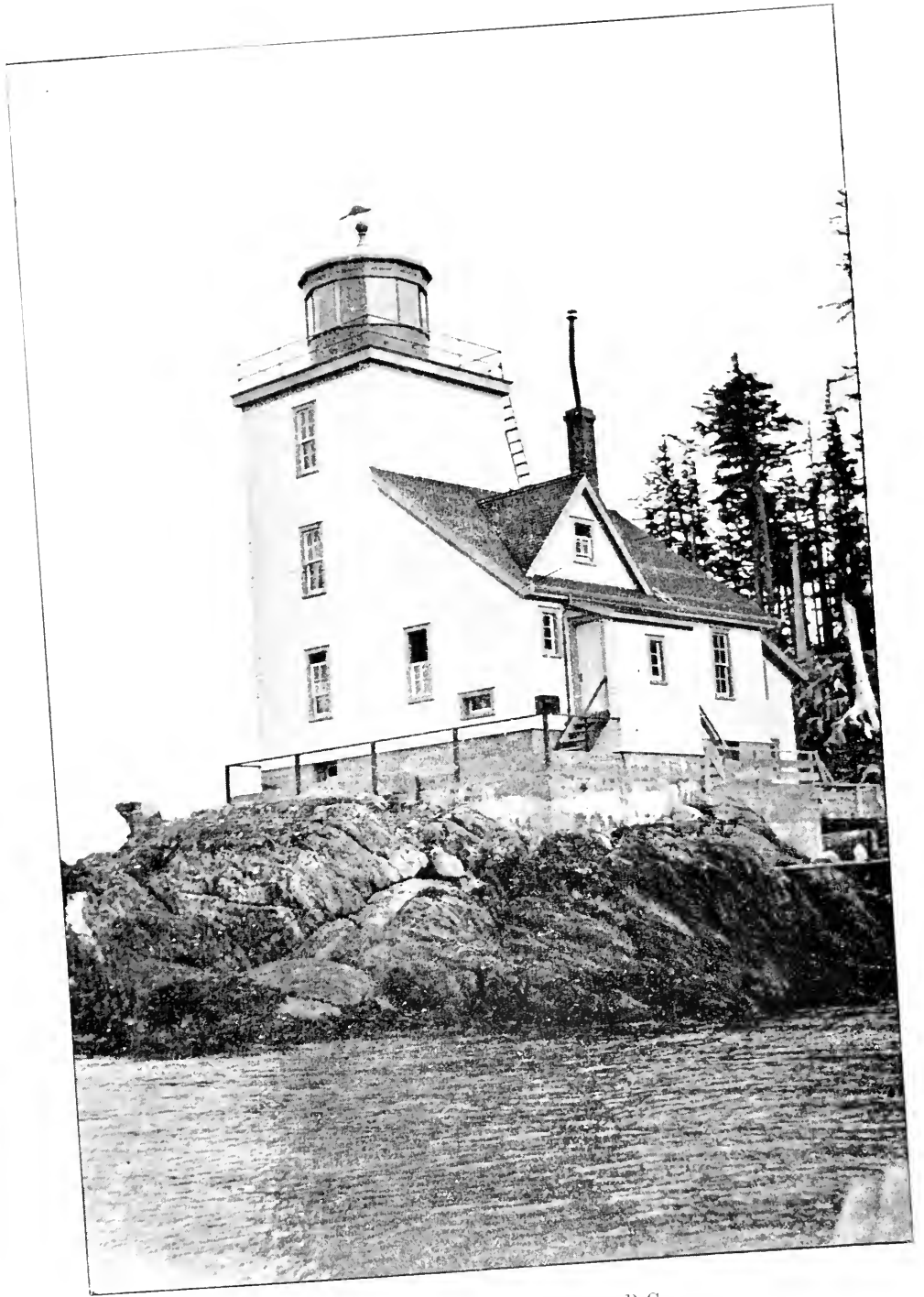
RED HORSE ROCK LIGHTHOUSE, THOUSAND ISLANDS, ONT.





PORT STANLEY, ONT., LIFE-BOAT HOISTING GEAR.





LAWYER ISLAND LIGHTHOUSE, B.C.





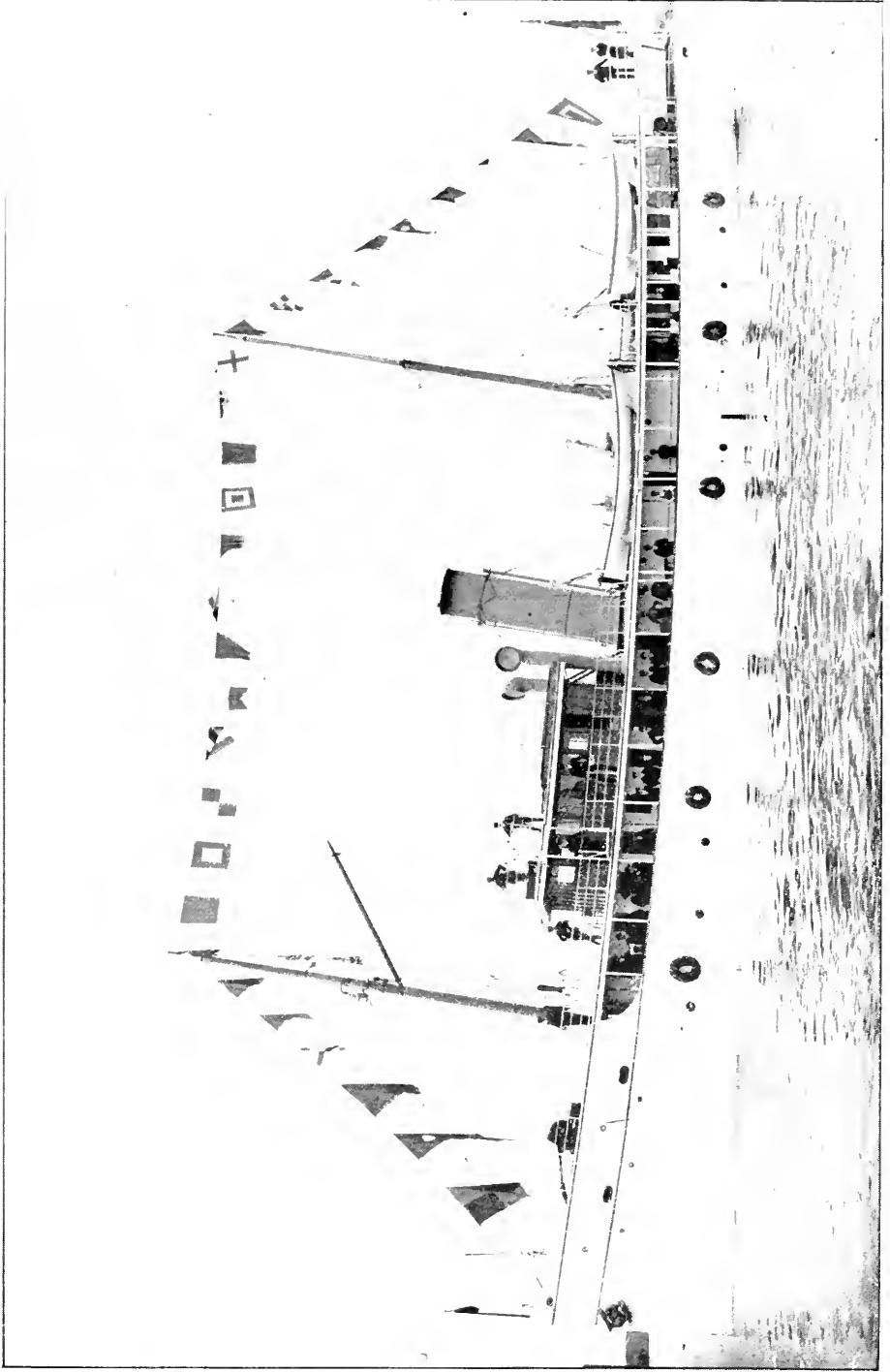


POINTER POINT LIGHTHOUSE, B.C.



CAPE MUDGE LIGHTHOUSE, B.C.





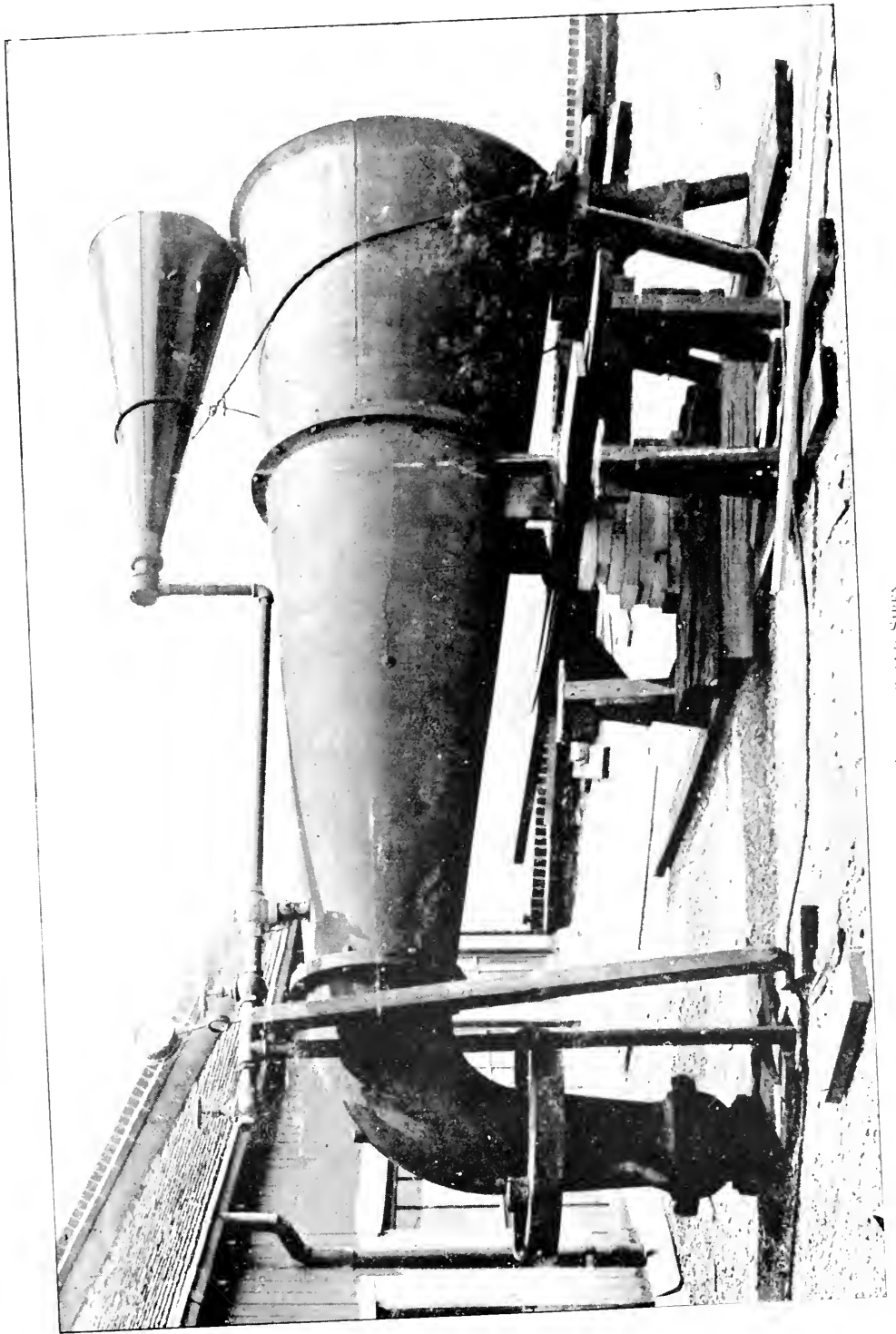
HYDROGRAPHIC SURVEYING STEAMER "BAYFIELD."





RAISING FOUL BUOY IN BRITISH COLUMBIA.

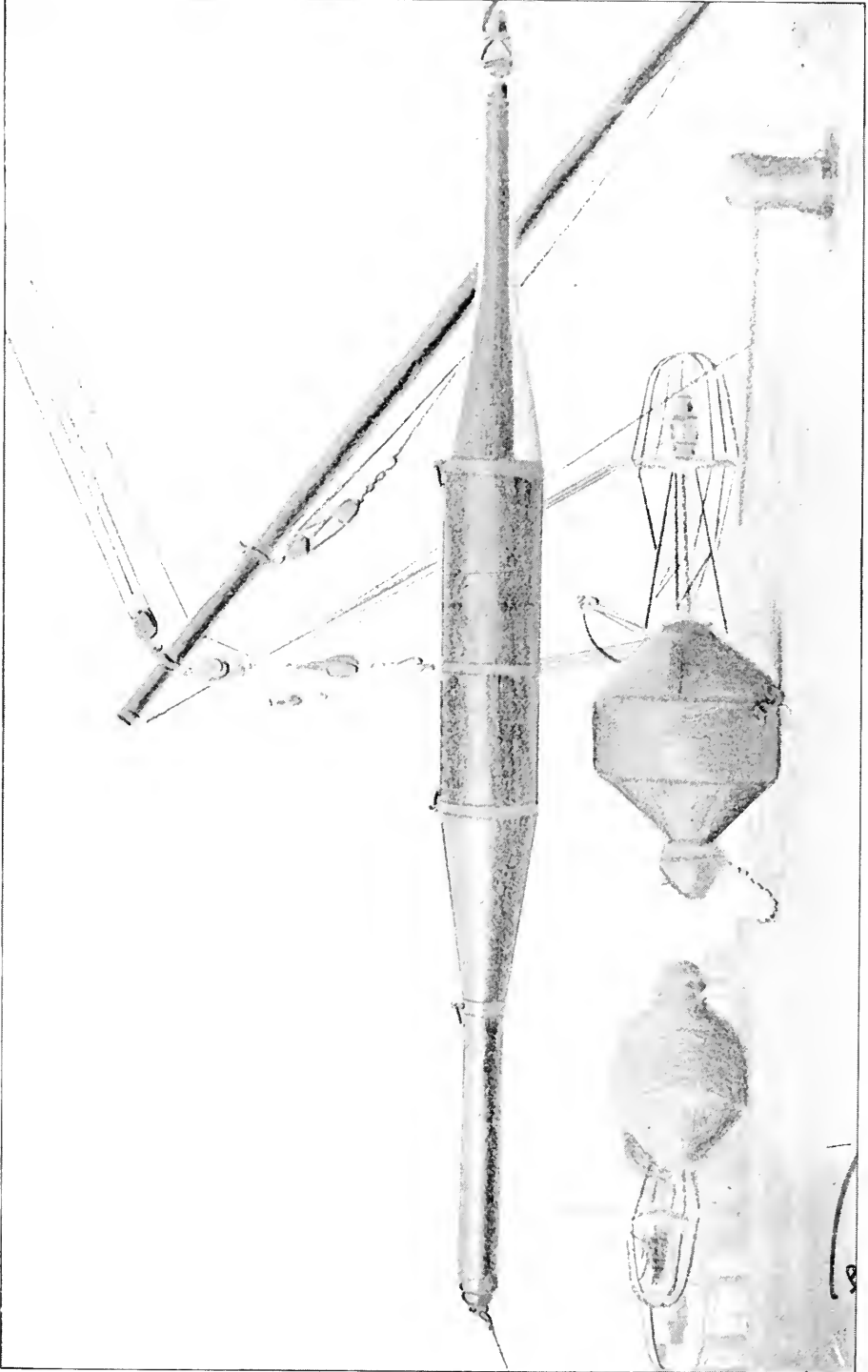




DEATHONE AND SHEN.

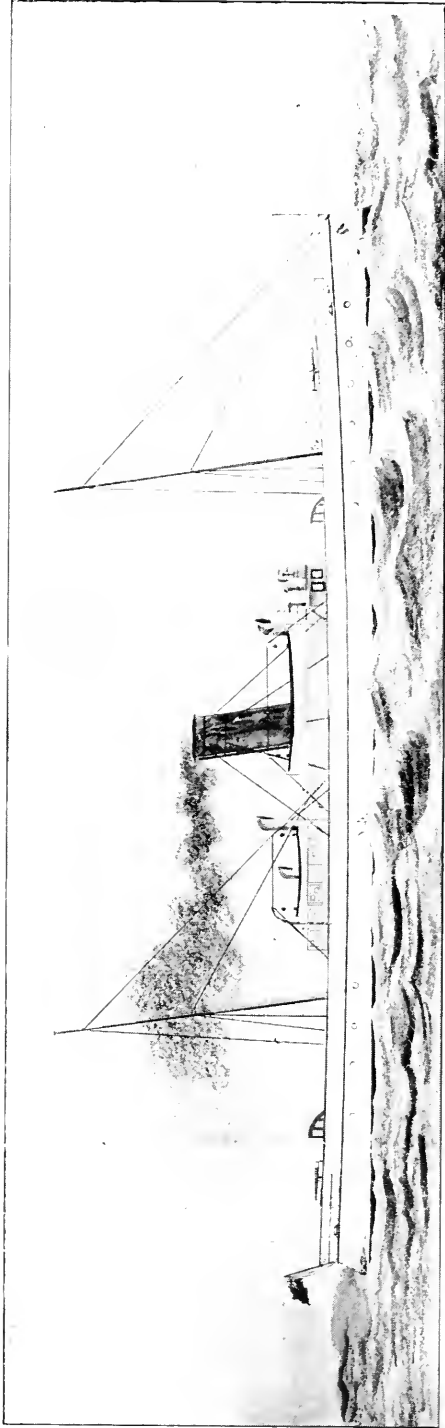






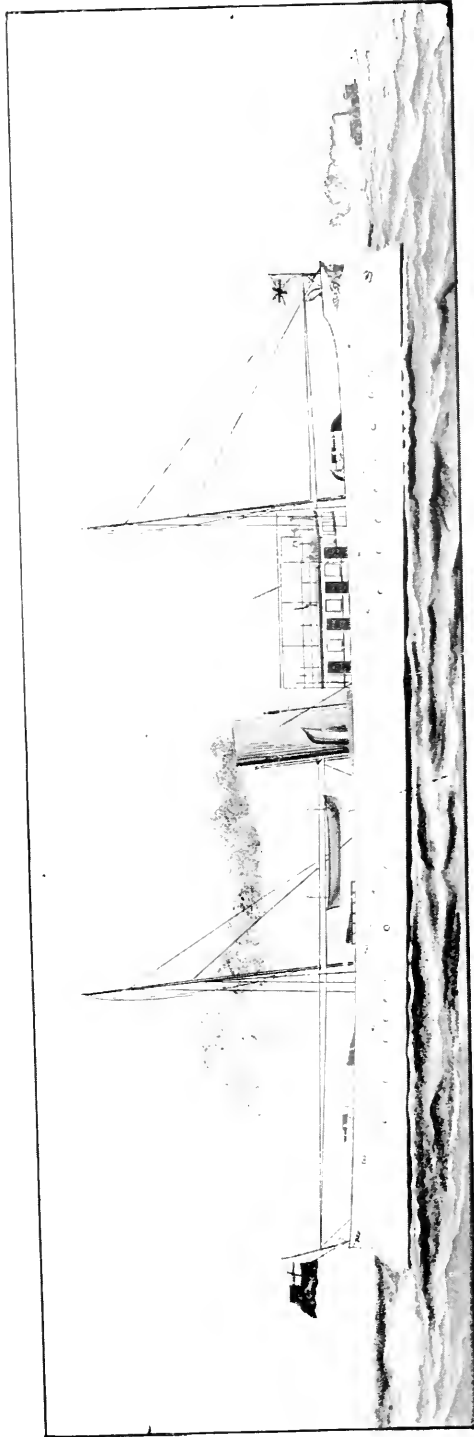
A SEA OR ICE GAS BUOY.





FISHERY CRUISER NOW UNDER CONSTRUCTION AT FARROW-ON-FURNESS, INTENDED FOR SERVICE ON THE ATLANTIC COAST.

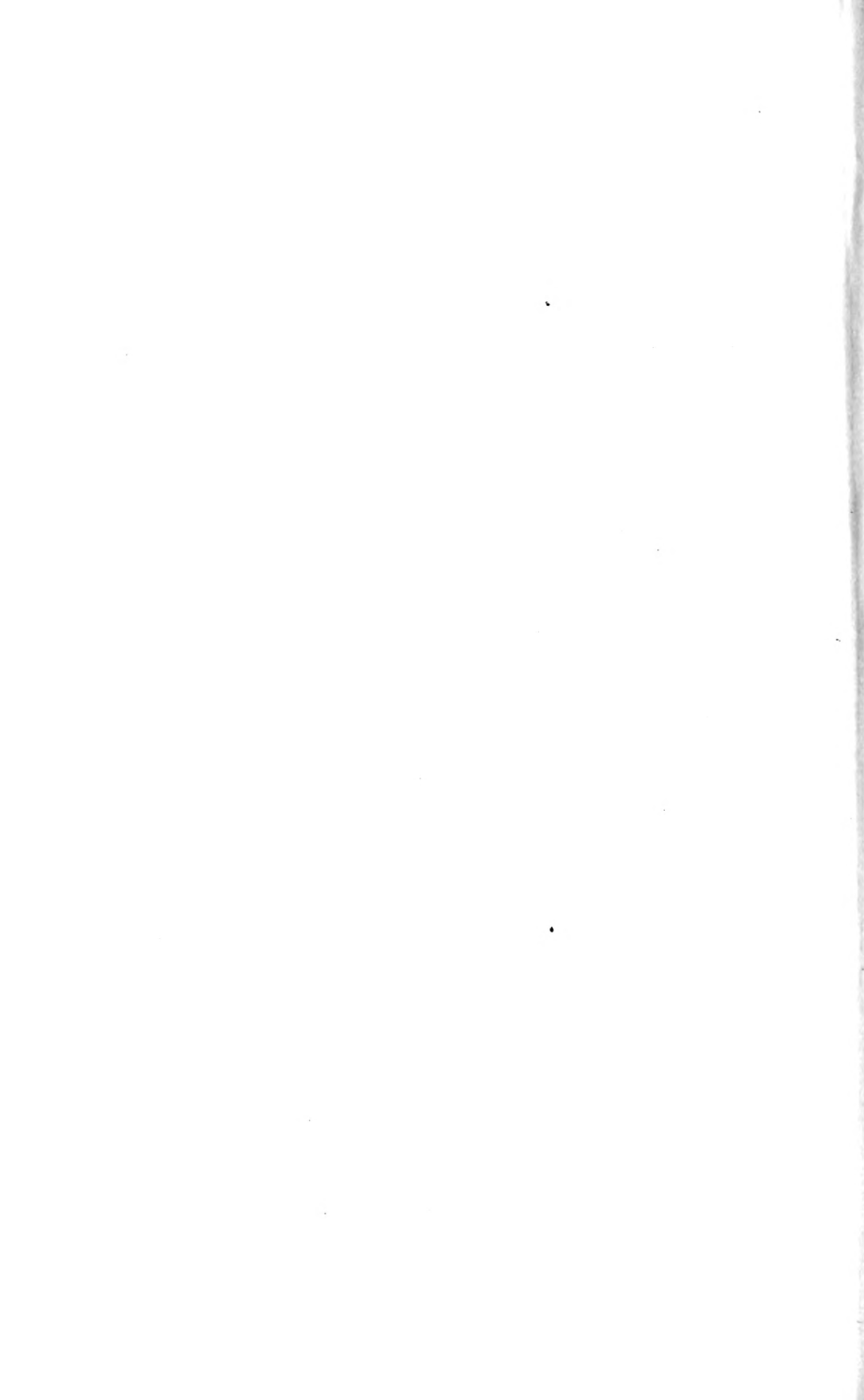




FISHERY CRUISER NOW UNDER CONSTRUCTION AT TORONTO, INTENDED FOR SERVICE IN SALT OR FRESH WATER.













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