

DOMINION OF CANADA

ANNUAL REPORT

OF THE

DEPARTMENT OF RAILWAYS AND CANALS

FOR THE FISCAL YEAR

FROM JULY 1, 1899, TO JUNE 30, 1900

SUBMITTED IN ACCORDANCE WITH THE PROVISIONS OF THE REVISED STATUTES
OF CANADA, CHAPTER 37, SECTION 28*PRINTED BY ORDER OF PARLIAMENT*

OTTAWA

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

1901

[No. 20—1901.]

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

MAY IT PLEASE YOUR EXCELLENCY :—

The undersigned has the honour to present to Your Excellency the Annual Report of the Department of Railways and Canals, of the Dominion of Canada, for the past fiscal year, from July 1, 1899, to June 30, 1900.

All of which is respectfully submitted,

ANDREW G. BLAIR,

Minister of Railways and Canals.

OTTAWA, February 13, 1901.

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REPORT OF THE DEPUTY MINISTER.

To the Honourable

ANDREW G. BLAIR,

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, 1900.

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.

RAILWAYS.

The present report deals with those railways of the Dominion directly controlled by the Federal Government, and others towards the construction of which subsidies have been authorized.*

In an appendix (Part VI.) will be found a special statistical report, embodying returns for the fiscal year ended June 30, 1900, made by Canadian railway companies, as required by statute. This report gives information as to railroad operations in Canada, including the Government roads.

The general facts gathered from the compilation will be of interest.

The number of railways in actual operation, including the two Government roads, the Intercolonial and the Prince Edward Island Railways, at that date was 154: some of these, however, are amalgamated or leased; making the total number of controlling companies 86, not including the Government railways. The number of companies absorbed by amalgamation is 36, and the number of leased lines is 33.

At the close of the fiscal year, June 30, 1900, the number of miles of completed railway was 17,824, an increase of 466 miles, besides 2,558 miles of sidings. The number of miles laid with steel rails was 17,694, of which 591 miles was double track. The number of miles in operation was 17,657.

*It should be observed that while the usual reports furnished by the superintending officers, and to be found in the appendices hereto, deal with the fiscal year only, the report of the Chief Engineer of the department covers works of construction up to December 1, 1900.

The paid-up capital amounted to \$998,268,404, an increase of \$33,568,620. The gross earnings amounted to \$70,740,270, an increase of \$8,496,486, and the working expenses aggregated \$47,699,798, an increase of \$6,993,581 compared with those of the previous year, leaving the net earnings \$23,040,472, an increase of \$1,502,805. The number of passengers carried was 21,500,175, an increase of 2,366,810, and the freight traffic amounted to 35,946,183 tons, an increase of 4,734,430 tons. The total number of miles run by trains was 55,177,871, an increase of 2,962,664. The accident returns show 7 passengers killed.

The above figures indicate a year of great activity in railway operations, the large increase in working expenses, due to the demands of a much increased traffic and the maintenance of a high standard of equipment and service, being more than offset by the additional earnings obtained. Out of the total increase in expenses, four roads, the Canadian Pacific, the Grand Trunk, the Canada Southern and the Intercolonial are responsible for over \$5,700,000, while at the same time they gained over \$6,700,000 out of the total increase in earnings.

The Federal Government expenditure on railways prior to and since the date of confederation (July 1, 1867) amounts, on capital account, to \$127,636,988.07 (including \$25,000,000 granted to the Canadian Pacific Railway Co.) which together with \$296,872.90 expended on the Nova Scotia Railway and the European and North American Railway and transferred to the Consolidated Fund, and for railway subsidies charged against the Consolidated Fund, the further sum of \$23,227,562.51*, makes a total expenditure of \$151,161,423.48. In addition, there has been an expenditure since confederation for working expenses of \$81,391,472.11, covering the maintenance and operation of the Government roads, or a grand total of \$232,552,895.59, * all of which, with the exception of \$1,381,460.65, paid out before confederation, has been expended on railways during the past thirty-three years. The revenue derived from the Government roads during the same period amounts to \$73,225,382.16.

GOVERNMENT RAILWAYS IN OPERATION.

The railways maintained by the Government 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, 1899-1900, amounted to \$4,774,161.87, and compared with those of the preceding year show an increase of \$828,344.47. The gross working expenses amounted to \$4,665,228.06, an increase of \$758,615.75.

*This includes the annual subsidy of \$186,600 to the Atlantic and North-west Railway Company for 20 years from July 1, 1889, amounting for the past 11 years to \$2,054,600, which is paid through the Finance Department, and now, for the first time, noted here. It does not include the annual payment of \$119,700 as interest at 5 per cent on the sum of \$2,394,000, payable to the province of Quebec for the line from Quebec to Ottawa, which sum has been transferred to the Public Debt.

It should be noted that in the Accountant's Statement part II., No. 3, showing railway subsidies paid, the \$25,000,000 to the Canadian Pacific Railway and \$500,000 to the Western Counties Railway, have both been included in his statement of capital account expenditure on page 42, part II.

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The net profit on the operations of the year was \$108,933.81.

The Intercolonial gave a profit of \$120,667.02; the Windsor Branch ($\frac{1}{3}$ of total earnings) gave a profit of \$34,459.87, and the Prince Edward Island a loss of \$46,193.08.

The above figures include the rental of leased lines 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 1,314.67 miles, instead of 1,145.

The leasing agreement with the Grand Trunk Railway Company, dated the 1st of February, 1898, was confirmed by the Act 62-63 Vic. ch. 5 (1899). It granted to Her Majesty for a term of 99 years from the 1st of March, 1898, an undivided half share or leasehold interest in the company's railway and property between Ste. Rosalie and Bonaventure Station, Montreal, together with an equal right of user with the company of their bridge across the River Chaudière; the annual rental being fixed at \$140,000.

With regard to the Drummond County Railway, the Act 62-63 Vic., ch. 6 (1899) authorized the acquisition by the Dominion of the Company's entire railway, for the sum of \$1,600,000, less a certain subsidy granted and paid them under the subsidy Act of 1897, for 42 miles thereof between Moose Park and the River Chaudière. The amount of this subsidy was \$136,000, making the amount payable to the Company \$1,464,000. Under date the 7th of November, 1899, a deed was executed by the company conveying to Her Majesty the whole of this railway from Ste. Rosalie to Chaudière and also their branch line from St. Leonard to Nicolet, for the consideration mentioned, less the sum of \$5,000 held pending settlement of certain details.

The accountant of the railway has dealt with the rental paid under these leases as an addition to the ordinary working expenses (page 66), and in his comparative statement of averages (page 75) gives such averages for each year, both with the rental included, and also with rental omitted. The figures of my present reports as Deputy and as Chief Engineer are based on his statements with the rentals included. The statements of the General Manager, however, are based on figures from which these rentals are omitted. This explanation will cover any seeming discrepancy of statement in the matter.

CAPITAL ACCOUNT.

During the fiscal year, in addition to the sum of \$1,459,000 paid for the Drummond County Railway and \$1,290.31 for improvements to the Governor General's car, there was an addition of \$1,796,348.89 to the Capital Account expenditure, making the total expenditure chargeable to 'Capital,' on the whole road as amalgamated under the Acts 54-55 Vic., ch. 50 (1891), and 62-63 Vic., ch. 5 and 6 (1899), up to June 30, 1900, \$60,341,425.21.*

*See statement of the Accountant of the Department, Part II., p. 32. The statements of the General Manager of the Railway (p. 64) do not include the Drummond County Railway, nor the car expenditure.

The additions made during the year included for increased accommodation at Halifax \$22,714.07, at St. John \$449,854.20, and at Lévis, \$79,999.95, also for increased siding, station, and other facilities \$176,902.92, for the elevator at St. John, \$140,781.50, for the elevator at Halifax \$82,671.12, for strengthening bridges, \$77,091.10, for rolling stock \$533,223.40, for refrigerator cars \$30,016.69, for applying air brakes to freight cars \$19,965.48, and for the Indiantown branch \$52,128.44. Information as to these items will be found in the reports of the General Manager (part I, p. 58) and of the Engineers of the road.

REVENUE ACCOUNT.

The gross earnings of the year amounted to \$4,552,071.71, an increase of \$813,740.27, and the working expenses to \$4,431,404.69 (including \$164,694.47 rent paid for the extension into Montreal), being an increase in comparison with the previous year (when \$210,000 was paid for such rental) of \$755,718.48; the excess of earnings over expenditure being \$120,667.02, against an excess of expenditure over earnings in the previous year of \$62,645.23, or a betterment of \$58,021.79.

Comparing the earnings with those of the previous year, the passenger traffic produced \$1,404,469.87 or 30.85 per cent of the gross earnings, an increase of \$237,006.71; the freight traffic amounted to \$2,912,790.52 or 63.99 per cent of the gross earnings, an increase of \$564,693.94, and the carriage of mail and express freight produced \$234,811.32 or 5.16 per cent of the gross earnings, an increase of \$12,029.62. The earnings per mile of railway were \$3,462.52,* an increase of \$618.97.

GENERAL OBSERVATIONS.

A comparison of the traffic of the past fiscal year with that of the previous year shows certain interesting features.

The number of passengers carried was 1,791,754, an increase of 188,659, and 2,151,208 tons of freight were carried, an increase of 400,447 tons.

Of flour and meal 1,234,076 barrels were carried, an increase of 76,826. Of grain 2,720,453 bushels were carried, an increase of 125,100. Lumber showed an increase of 2,796,043 superficial feet, the total quantity carried being 379,350,074 feet. There was a decrease of 17,008 in the number of live stock, of which 92,813 head were carried. 603,209 tons of coal, an increase of 109,003 tons, were carried. Of raw sugar, 96 tons were carried, the quantity in the previous two years having been nil. Of refined sugar 29,007 tons, an increase of 3,743 tons were carried. A total of 8,939 tons of fresh fish, an increase of 2,356 tons, and a total of 6,643 tons of salt fish, an increase of 1,169 tons, were carried. Of manufactured goods, 507,024 tons were carried, an increase of 107,497 tons.

Of ocean borne goods, other than deals, to and from Europe via Halifax, the aggregate was 39,794 tons, an increase of 5,531 tons. Of this 37,108 tons was local traffic. In addition 55,086 tons of deals were carried.

In the winter of 1899-1900 the removal of snow and ice entailed an expenditure of nearly \$89,000, about \$19,000 more than the cost the previous year.

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The permanent way and all structures and works are in good order.

The train mileage (or number of miles run by trains) of the year was 5,473,710, an increase of 592,015 miles. The cost per train mile was 80.95 cents, 5.66 cents more than in the previous year (in both years the rental of lease lines is included).

The working expenses per mile of railway amounted to \$3,370.73*, an increase of \$574.83 per mile. The rental of leased lines is included in both years.

The value of stores on hand at the close of the fiscal year, including fuel, rails and old material, was \$971,054.60.

The commencement in July, 1899, by the Dominion Iron and Steel Company of extensive iron works at Sydney has given a great impetus to traffic, necessitating the increase of equipment and accommodation on the line.

A number of interesting statistical and comparative tables and other information relating to the railway and the several features of its traffic during the past year and the previous year of its operation, will be found in the appended reports of the Chief Engineer of the department and of the officers of the road.

WINDSOR BRANCH.

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

This railway is operated by the 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 being 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 \$47,351.43, an increase of \$4,877.40. The expenses of maintenance amounted to \$12,891.56, an increase of 18.47, leaving the profit to the Government \$34,459.88.

The road has been maintained in good order. Details will be found in the appendices. (*See* Part I., p. 104).

PRINCE EDWARD ISLAND RAILWAY.

CAPITAL ACCOUNT.

The total cost of the road and equipment chargeable to capital account at the close of the fiscal year was \$3,843,653.28; there being an addition during the year of

*These figures are based on a mileage for both 1898-99 and 1899-1900 of 1,314.67 miles.

\$53,546.02; the main item being an expenditure of \$28,502.67 for a branch to Murray Harbour; \$9,995 for reducing curves and shortening the line between Loyalist and Colville; \$8,000 for rolling stock, and \$6,338.75 on a survey for a combined railway and carriage bridge over the River Hillsborough, Charlottetown.

REVENUE ACCOUNT.

The gross earnings amounted to \$174,738.73, and the working expenses to \$220,931.81; the expenditure in excess being \$46,193.08.

Compared with the previous year, the gross earnings show an increase of \$9,726.70, and the working expenses an increase of \$2,878.80. The railway carried 147,471 passengers, an increase of 17,804, producing \$72,908.42, an increase of \$7,615.31. Of freight there were carried 62,227 tons, an increase of 4,259 tons, producing \$83,627.41, an increase of \$3,738.89, while the earnings from mails and sundries amounted to \$18,112.90, a decrease of \$1,627.50,

Compared with the previous year, the working expenses were greater by the sum of \$2,878.20.

The train mileage (the number of miles run by trains) was 264,895, an increase of 1,560 miles.

The cost per mile run by trains was 83.40 cents, an increase of 0.60 cents; and per mile of railway \$1,038.35, an increase of \$13.70.

The value of stores on hand at the close of the fiscal year was \$68,608.51.

The road, with its buildings and rolling stock, has been maintained in a satisfactory condition.

Details of operations will be found in the appendices (Part I., p. 127), including the reports of the superintendent and other officers.

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

During the seasons 1898, 1899 and 1900, in accordance with parliamentary provisions, surveying parties have been engaged in the work of endeavouring to find a feasible route for a railway, on Canadian territory entirely, to give communication with the Yukon district from a point on an existing Canadian railway, and also from a Canadian port on the Pacific coast, and the approximate cost of such a railway. Reports from the officers in charge of these surveys were printed in the annual report of 1898-99. The work of the season of 1900 cannot yet be given, but the reports and plans being prepared. The chief engineer, however, states (part I., p. 31) that he is able to say that a practicable line can be obtained upon which a road could be constructed at a reasonable cost.

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GOVERNMENT ACTION AS TO SUBSIDIZED RAILWAYS.

NOTE—The numbers within brackets after the title of the company refer to the lists of railways subsidized by Parliament, in Part III.

With regard to the several lines of railway subsidized by the Dominion, the following represents the action taken and the progress made, in so far as the Dominion Government is concerned; only those lines and companies being mentioned as to which definite steps, other than merely preliminary, have been taken towards securing the subsidy.

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
do 1884-85	do	1885	403,245 00
do 1885-86	do	1886	2,171,249 00
do 1886-87	do	1887	1,406,533 00
do 1887-88	do	1888	1,027,041 92
do 1888-89	do	1889	846,721 83
do 1889-90	do	1890	1,678,195 72*
do 1890-91	do	1891	1,265,705 87*
do 1891-92	do	1892	1,247,215 93*
do 1892-93	do	1893	811,394 07*
do 1893-94	do	1894	1,229,885 10*
do 1894-95	do	1895	1,310,049 10*
do 1895-96	do	1896	834,745 49*
do 1896-97	do	1897	416,955 30*
do 1897-98	do	1898	1,414,934 78*
do 1898-99	do	1899	3,201,220 05*
do 1899-1900	do	1900	725,720 35*
			§20,202,312 51

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, 1900.	§23,227,562	51
The main line subsidy to the Canadian Pacific Railway was paid from 'Capital' amounting to.	25,000,000	00
Total paid as subsidies.	§48,227,562	51†

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 44 of the accountant's statement, Part II.)

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

† The sum of §500,000 granted by the Act 50-51 Vic., ch. 25 (1887) to the Western Counties Railway Company, in settlement of matters in dispute with the Government, towards the construction of a link of railway between Annapolis and Digby, has, in previous years, been included in this statement as a subsidy; it is now omitted, as under authority of the Act 52 Vic., ch. 8 (1889) the Government itself constructed the said link, which was handed over to the Company in 1891. The cost was charged against 'Capital.' (See the accountant's statement, Part II. p. 42).

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, 1899.

A tabulated statement of payments will be found in Part II. page 45, and a list of subsidy agreements entered into during the fiscal year in Part IV., page 2.

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

Information has been brought down to the end of the fiscal year 1899-1900, only, in the regular statements; but, in supplement to them, the following list shows the additional contracts entered into and the payments made between that date and December 31, 1900.

ADDITIONAL CONTRACTS.

Great Northern Ry. Co.—Sbawenegan Falls Branch $6\frac{1}{2}$ miles, contract dated July 4, 1900.

Great Northern Ry. Co.—Montcalm to St. Tite, $53\frac{1}{2}$ miles, contract dated July 26, 1900.

Central Ontario Ry. Co.—Coe Hill or Rathbun to Bancroft, 21 miles, contract dated August 29, 1900.

Cape Breton Ry. Extension.—Port Hawkesbury to St. Peters, 30 miles, contract dated September 15, 1900.

St. Mary's River Ry. Co.—From Alberta Railway and Coal Co.'s line to Cardston, Alberta, 30 miles. Contract dated September 10, 1900.

Montreal and Province Line —Farnham to Freleighsburg and Boundary, 21 miles, contract dated October 31, 1900.

Ottawa and New York Ry. Co.—Bridge over the St. Lawrence at Cornwall, \$90,000, contract dated October 4, 1900.

Quebec Bridge Co.—Bridge over the St. Lawrence at Chaudière Basin, \$1,000,000, contract dated November 12, 1900.

Pontiac Pac. Junction and Ottawa and Gatineau Ry. Co.'s. Bridge over the River Ottawa between Ottawa and Hull, additional \$100,000, supplemental contract dated November 26, 1900.

ADDITIONAL PAYMENTS.

Massawippi Valley Ry. Co	\$ 5,376 00
Inverness and Richmond Ry. Co.	132,800 00
Canadian Northern Ry. Co.	537,600 00
Great Northern Ry. Co.	187,911 00
Grand Trunk Ry. Co. (Victoria Bridge).	228,371 75
Canadian Pacific Ry. Co. (Pipestone Branch)	92,800 00
Central Ontario Ry. Co.	32,000 00
Midland Ry. Co.	170,264 00
Ottawa and New York Ry. Co. (Bridge).	90,000 00
Quebec Bridge Co.	26,676 00

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Albert Southern Railway Company.

(See Annual Report of 1891-92.)

Atlantic and North-west Railway Company.

(See Annual Report of 1899-90.)

Baie des Chaleurs Railway Company.

(See Annual Report of 1895-96.)

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.)

Brockville, Westport and Sault Ste. Marie Railway Company.

(See Annual Report of 1896-97.)

Brantford, Waterloo and Lake Erie Railway Company.

(See Annual Report for 1895-96.)

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 Ottawa, Arnprior and Parry Sound Railway Company.)

Canada Eastern Railway Co.; formerly Northern and Western Railway Company of New Brunswick.

(See Annual Report of 1894-95.)

(See No. 458.)

Up to the end of the fiscal year 1894-95 there had been paid to this company subsidies aggregating \$366,839.84.

By the subsidy Act 62-63 Vic., ch. 7 (1899), the grant of a subsidy to this company was authorized for a railway, $2\frac{1}{2}$ miles, to complete the connection between Nelson and their main line, namely \$3,200 a mile, with an addition of 50 per cent on the cost in excess of \$15,000 a mile, but limited in all to \$6,400 a mile.

A subsidy agreement was entered into with them accordingly on January 29, 1900. The work was completed, and they were paid during the fiscal year the sum of \$8,000, making the total payments \$374,839.84.

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.)

Pipestone Branch—Antler Station to Moose Mountain.

(See No. 447.)

By the subsidy Act 62-63 Vic., ch. 7 (1899), a subsidy of \$3,200 a mile with an addition of 50 per cent on cost in excess of \$15,000 per mile, but not exceeding in all \$6,400 a mile, was authorized for a railway from some point near Antler Station to a point near Moose Mountain, Man., not exceeding 50 miles.

The Canadian Pacific Railway Company having applied, were admitted to contract for this work on December 18, 1899. No payments have been made up to June 30, 1900.

Canadian Pacific Railway Company.

(Crow's Nest Pass Railway.)

(See No. 415.)

By the special Act 60-61 Vic., ch. 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 Balfour are practically built. The total payments made up to June 30, 1900, amount to \$3,116,250.

Cap de la Madeleine Railway Company.

(See Annual Report of 1896-97.)

Cape Breton Railway Extension Company.

(See Annual Report of 1895-96.)

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

Under the authority of an Order in Council of June 5, 1886, a contract was made with the Central Railway Company, on July 7, 1886, for a line from Salmon River, at

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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., ch. 3 (1889.)

On December 1, 1890, a new contract was made with the company for this work under the Subsidy Act of 1889, the limit of subsidy being \$128,000; this contract covered also a subsidy for $4\frac{1}{2}$ miles, the limit of which was \$14,400, authorized by the Act, 53 Vic., ch. 2, making a total subsidy of \$142,400; the total length of road subsidized being $44\frac{1}{2}$ miles. The date for completion was fixed as December 1, 1891.

By the Act 51 Vic., ch. 3, a grant as a subsidy to this company was authorized of used iron rails to the value \$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., ch. 4, the grant of a subsidy not exceeding \$48,000 to this company was authorized for 15 miles of their railway from Chipman station to the Newcastle coal fields, and a contract for the work was made with the company on September 7, 1895.

By the Subsidy Act 60-61 Vic., ch. 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., ch. 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 Gibson, 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, 1900.

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.

(See No. 403.)

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

By the Dominion Subsidy Act 60-61 Vic., ch. 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.

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

Cobourg, Northumberland and Pacific Railway Company.

(See Nos. 301, 249, 275 and 378.)

This company was incorporated by the Act 52 Vic., ch. 62 (1889), for the construction of a line of railway from Cobourg Harbour to the River Trent, to the Ontario and Quebec Railway, and to the mining regions of Marmora and Belmont.

By subsequent legislation in 1891, 1892 and 1894, the company's charter has been revived, and powers given for extension to the mineral lands of the county of Hastings, and for leasing the road to the Canadian Pacific Railway Company; the time for completion being extended to July 9, 1898.

By the Subsidy Act of 1890, assistance to the extent of \$96,000 was authorized for 30 miles of the company's railway from Cobourg to the Ontario and Quebec Railway, and by the Subsidy Act of 1892, an additional subsidy of \$60,800 was authorized for 19 miles. By the same Act the subsidy voted in 1890 was revoked.

A contract for the construction of the 49 miles subsidized was entered into with the company on June 16, 1894, the date for completion being fixed as August 1, 1896.

By an Order in Council of December 28, 1894, approval has been given to an agreement between the company and the Canadian Pacific Railway Company, dated June 30, 1894, for the lease of the road to the latter company, when completed, for a term of 999 years.

By the Subsidy Act of 1897, 60-61 Vic., ch. 4, in lieu of the subsidies granted by the Act of 1892, a subsidy was authorized for 50 miles of railway from Cobourg to the Ontario and Quebec Railway, namely, \$3,200 a mile, with a further subsidy of 50 per cent on cost in excess of \$15,000 a mile, the total subsidy not to exceed \$6,400 a mile.

Under date April 25, 1898, a contract was entered into with the company for this work, the date for completion to be July 1, 1900.

No payments have been made up to June 30, 1900.

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.)

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Dominion Atlantic Railway Company.

(See Western Counties Railway Company.)

Dominion Eastern Railway Company.

(No. 399.)

By the Subsidy Act 60-61 Vic., ch. 4 (1897), the grant of a subsidy was authorized for a railway from Sunny Brae to Country Harbour, and from a point at or near Country Harbour Cross Roads to Guysborough, N.S., 65 miles, namely, \$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.

The Dominion Eastern Railway Company having applied, they were admitted to contract on March 25, 1898, for the work so subsidized, the date for completion being fixed as July 1, 1901. No payments have been made up to June 30, 1900.

Dominion Lime Company.

(See Annual Report for 1888-89.)

Dominion Coal Company.

(See Annual Report for 1895-96.)

Drummond County Railway Company.

(See Nos. 99, 175, 214, 292, 339 and 406.)

By the Railway Subsidy Act of 1888, 50-51 Vic., ch. 24, the grant of aid to an extent not exceeding \$96,000 was authorized to the Drummond County Railway Company for 30 miles of their railway from Drummondville towards Nicolet, Quebec.

Under the authority of an Order in Council of November 12, 1887, a contract was made with the company on December 1, 1887, covering a line from the South-western Railway, at the village of Drummondville, to the south-west branch of the River Nicolet.

On May 2, 1889, the company were admitted to contract for the balance, 17½ miles, of the 30 miles subsidized.

By the Subsidy Act of 1889, 52 Vic., ch. 3, the company were further subsidized for 4½ miles from the end of the line already subsidized, to Ball's Wharf, on the River St. Lawrence, to the extent of \$14,400, and were admitted to contract on January 21, 1890.

By the Subsidy Act, 53 Vic., ch. 2 (1890), authority was given for the grant of a subsidy, the limit of which was \$76,800 for 24 miles of the railway of the company from Drummondville to Ste. Rosalie. Under date of February 2, 1891, the company were admitted to contract for this work.

By the Subsidy Act, 55-56 Vic., ch. 5 (1892), authority was given for the grant of a subsidy to the company for 4 $\frac{6}{10}$ miles from Ball's Wharf to Ste. Rosalie Junction, not exceeding \$14,720.

By the Subsidy Act, 57-58 Vic., ch. 4 (1894), authority was given for the grant of a subsidy to this company for 30 miles of railway from St. Leonard northerly towards a junction with the Intercolonial at Chaudière Junction; the limit being fixed at \$96,000, and a contract for the work was made with the company on November 14, 1894.

By the Subsidy Act, 60-61 Vic., ch. 4 (1897), the grant of a subsidy to this company of \$3,200 a mile for 42½ miles from Moose Park to Chaudière was authorized, with an addition of 50 per cent on the cost exceeding \$15,000 a mile, the amount of such subsidy to be refunded to the Government in the event of its purchasing or leasing for a term of years their railway from Ste. Rosalie to Chaudière River. A contract was made with the company for this work on December 13, 1897.

Under an agreement dated February 25, 1898, the Government, in connection with the extension of the Intercolonial Railway traffic into Montreal, leased from the company their line from Ste. Rosalie to Chaudière, for the period between March 1, and June 30, 1898, with option of renewal for one year, and also option of purchase. Both options were exercised.

The total payments up to June 30, 1895, amounted to \$287,935. During the fiscal years, 1898-99 the further sum of \$136,000 was paid, as subsidy for the line from Moose Park to Chaudière, making a total \$423,936.

The Act 62-63 Vic., ch. 6 (1899), authorized the Government to acquire the property of the company for the sum of \$1,600,000 less the subsidy above mentioned and under date of November 7, 1899, the company by deed, conveyed their railway from Ste. Rosalie to Chaudière, together with the branch from St. Leonard to Nicolet to the Crown accordingly.

East Richelieu Valley Railway Company.

(See Annual Report of 1888-89).

Elgin, Petitecodiac and Havelock Railway Company.

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

Erie and Huron Railway Company.

(See Annual Report for 1886-87.)

Esquimaux and Nanaimo Railway Company.

(See Annual Report for 1886-87.)

Fredericton and St. Mary's Bridge Company.

(See Annual Report for 1888-89.)

Grand Trunk, Georgian Bay and Lake Erie Railway Company.

(See Annual Report for 1893-94.)

Grand Trunk Railway Company.

(See No. 410 and 491.)

By the Subsidy Act, 60-61 Vic., ch. 4 (1891), the grant of a subsidy to the Grand Trunk Railway Company towards the rebuilding and enlargement of the Victoria Bridge over the River St. Lawrence at Montreal was authorized, namely, 15 per cent of the cost of the work, not exceeding \$300,000, and a contract to this effect was made with the company on January 14, 1898.

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By the Subsidy Act of 1900, 63-64 Vic., ch. 8, authority was given for increasing the grant of assistance to \$500,000, on condition that the tariff of tolls for passengers and vehicular traffic should be approved by the Governor in Council.

The work undertaken was the removal of the old tubular iron bridge (a single track bridge) and the erection, without interruption to traffic, of a new steel truss bridge to carry four railway tracks—two for steam locomotives and ordinary railway trains, and two for electric railway purposes—and also two sidewalks, the superstructure to consist of 24 spans of through steel trusses, each 254 feet long, and one span of 348 feet.

The new bridge was completed in the fall of 1899, with an expenditure of \$1,810,855.69.

During the past fiscal year the sum of \$72,028.68 was paid, making, up to June 30, 1900, a total of \$271,628.25.

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., ch. 68, 1899.)

(See Nos. 33, 37, 72, 79, 154, 215, 231, 308, 309, 346, 371, 380, 405, 407, 413.)

By the Act 47 Vic., ch. 8 (1884), a subsidy not exceeding \$32,000 was granted to this company for the construction of a line from St. Jérôme to New Glasgow, Que., the estimated length being 10 miles.

Under the authority of an Order in Council of 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., ch. 10 (1886), a subsidy not exceeding \$57,600 was authorized for a line from New Glasgow to Montcalm, a distance of about 18 miles. The Great Northern Railway Company having applied for it, it was granted to them by an Order in Council of 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., ch. 10, a subsidy not exceeding \$22,400 was granted for a line from St. Andrews to Lachute, Que., 7 miles. For this subsidy the above named company applied, but no contract was made. The same subsidy was again voted by the Act of 1889, 52 Vic., ch. 3, and under date 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., ch. 2 (1890), the grant of a subsidy was authorized, limited to \$48,000, for a line from, at or near Montcalm to the Canadian Pacific Railway, between Joliette and St. Félix de Valois, fifteen miles.

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

By the Act 56 Vic., ch. 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., ch. 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., ch. 4 (1894), the grant to this company of a subsidy limited to \$96,000, was authorized for 30 miles of railway from a junction with the Lower Laurentian Railway near St. Tite, westwards, in lieu of a subsidy previously granted to the Maskinongé and Nipissing Railway Company. A contract was entered into with the company for this work on September 16, 1895, the railway to be completed by November 30, 1896.

By the Subsidy Act, 60-61 Vic., ch. 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., ch. 7 (1899) the grant of a subsidy for 53½ miles of the company's railway between Montcalm and St. Tite Junction was authorized; 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.

By the Subsidy Act, 62-63 Vic., ch. 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 the 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., ch. 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 sections between St. Jérôme and Montcalm 27·84 miles, and 20

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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.

The total payments to this company, up to June 30, 1899, amounted to \$174,688. No further payments have been made up to June 30, 1900.

Gulf Shore Railway Company of New Brunswick.

(See Nos. 374 and 383.)

This company was incorporated by the New Brunswick Act, 48 Vic., ch. 49 (1885), with power to construct a railway from some point on the Caraquet Railway to the village of Tracadie or to some point in the parish of Sumarez, county of Gloucester. The Charter Act was revived by the Act 57 Vic., ch. 73 (1894).

By the Dominion Subsidy Act 57-58 Vic., ch. 4 (1894), assistance was authorized to the extent of \$38,400 for a railway from a point on the Caraquet Railway at or near Pokemouche siding towards Tracadie village, 12 miles.

The above company having applied, they were admitted to contract for the work on April 22, 1896, and were paid during the fiscal year 1896-7, \$28,635.05.

By the Subsidy Act, 60-61 Vic., ch. 4 (1897), authority was given for the grant to them of a subsidy for 5½ miles from the end of the section subsidized to Tracadie and thence to Big Tracadie, namely \$3,200 a mile, with an additional 50 per cent of expenditure in excess of \$15,000 a mile, to a limit, in all, of \$6,400 a mile. The company were admitted to contract on the 29th of October, 1897. The total paid up to June, 30, 1898, was \$53,699.20. No further payments have been made during the past fiscal year.

Guelph Junction Railway Company.

(See Annual Report of 1888-89.)

Harvey Branch Railway Company.

(See Annual Report of 1889-90.)

Hereford Railway Company (formerly Hereford Branch Railway Company).

(See Annual Report 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., ch. 60 (1887), with powers for the construction of a line of railway between Hawkesbury and a point in the district of Margaree. By the Act of 1888, ch. 79, the location of the line was authorized as from Port Hawkesbury, through Port Hastings, Judique, Port Hood, Mabou and Margaree, to a point at Eastern Harbour, Cheticamp.

By the Subsidy Act, 57-58 Vic., ch. 4 (1894), assistance to the extent of \$80,000 was authorized for 25 miles of railway from Port Hawkesbury towards Cheticamp, and the above company was admitted to contract for the work on November 23, 1894, the time for completion being fixed for December 1, 1896.

By the Subsidy Act of 1897, 60-61 Vic., ch. 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 were admitted to contract thereunder on April 29, 1898.

No payments have been made up to June 30, 1900.

Irondale, Bancroft and Ottawa Railway Company.

(See Nos. 24, 159, 301, and 412.)

By the Act 47 Vic., ch. 8 (1884), the Irondale, Bancroft and Ottawa Railway Company were subsidized, to an extent not exceeding \$160,000, for a line about 50 miles long, to connect the Victoria Branch of the Midland Railway with the village of Bancroft.

With the sanction of an Order in Council of July 10, 1886, a contract was made with the company on August 19, 1886.

The unpaid balance of subsidy, \$145,000, which had lapsed, was revoked by the Act 52 Vic., ch. 3 (1889), and was again revoked by the Act 56 Vic., ch. 2 (1893).

By the Subsidy Act, 60-61 Vic., ch. 4 (1897), in lieu of the subsidy voted in 1893, the sum of \$16,000 was voted for the last five miles of this railway as the unpaid balance. The company were admitted to contract on the 20th of September, 1897.

The total payments amounted to \$144,000, up to June 30, 1897. No payments were made during the past fiscal year.

Joggins Railway Company.

(See Annual Report for 1891-92.)

Kingston, Napanee and Western Railway Company.

(See Napanee, Tamworth and Quebec Railway.)

Kingston and Pembroke Railway Company.

(See Annual Report for 1884-85.)

Lake Erie and Detroit River Railway Company.

Formerly 'the Lake Erie, Essex and Detroit Railway Company.' Name changed by Dominion Act, 54-55 Vic., ch. 28 (1891).

(See Annual Reports for 1889-90 and 1893-94.)

(See No. 463.)

Up to the end of the fiscal year 1893-94, this company had received subsidies to the extent of \$338,731.

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By the Subsidy Act, 62-63 Vic., ch. 7 (1899), the grant of a subsidy to this company was authorized, namely, for a line from Ridgietown, Ont., to St. Thomas, 44 miles, the subsidy to be payable only in the event of adequate running rights over the Canada Southern Railway being granted them on terms to be approved by the Railway Committee of the Privy Council.

The matter came before the Railway Committee, who decided that such rights could not be assured on terms that they could approve, and advised that a subsidy contract should be granted to the company.

On the 23rd of June, 1900, the company were admitted to contract accordingly.

No further payments have been made up to June 30, 1900.

L'Assomption Railway Company.

(See Annual Report of 1886-7.)

Leamington and St. Clair Railway Company.

(See Annual Report of 1888-9.)

Lake Temiscamingue Colonization Railway Company.

(See Annual Report of 1896-7.)

Lotbinière and Megantic Railway Company.

(See Annual Report of 1896-7.)

Massawippi Valley Railway Company.

(See No. 442.)

This company was incorporated by the Act of Canada of 1887, ch. 94.

By the Subsidy Act, 62-63 Vic., ch. 7, the grant of a subsidy to this company of \$3,200 a mile, with an addition of 50 per cent on cost in excess of \$15,000 a mile, but limited, in all, to \$6,400 a mile, was authorized for an extension of their railway to the village of Stanstead Plain, P.Q.,

A subsidy agreement was entered into with them for the work on December 18, 1899.

No payment has been made up to June 30, 1900.

Midland Railway Company.

(See Nos. 336, 421, 472.)

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

By the Dominion Subsidy Act, 57-58 Vic., ch. 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., ch. 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 the 7th of December, 1899.

No payments have been made up to June 30, 1900

Montfort Colonization Railway Company.

(See Nos. 245, 310, 373 and 411.)

This company was incorporated by the Quebec Act, 53 Vic., ch. 107 (1890), for the construction of a railway from a point on the Canadian Pacific Railway, or the Montreal and Occidental Railway, either from Lachute, St. Jérôme or St. Sauveur, or near the same, to Montfort, and for the continuation of the road to a point on the Rivière Rouge, in the township of Arundel.

By the Subsidy Act, 55-56 Vic., ch. 5 (1892), the grant of a subsidy to this company to the extent of \$67,200 was authorized for 21 miles of railway from Lachute, St. Jérôme, or a point at or near St. Sauveur, on the line of the Montreal and Western Railway to Montfort and westward.

By the Subsidy Act, 56 Vic. (1893) this subsidy was revoked, with an addition specifying the gauge as three feet.

On May 16, 1893, a contract was entered into with this company for the construction of 21 miles of railway from St. Sauveur to Montfort and westward, the road to be completed by September 1, 1895.

By the Subsidy Act, 57-58 Vic., ch. 4 (1894), a subsidy to the company was authorized to the extent of \$38,400 for 12 miles from the end of the 21 miles previously subsidized, and the company were admitted to contract on July 30, 1896; the River Rouge being the terminal point for the distance subsidized.

By the Subsidy Act, 60-61 Vic., ch. 4 (1897), authority was given for the grant to this company of a subsidy of \$2,000 a mile for 33 miles of their railway from Montfort Junction to Arundel; and the company were admitted to contract on December 29, 1897.

The total payments, up to June 30, 1899, amounted to \$167,440.

No payments have been made during the past fiscal year.

Montreal and Champlain Junction Railway Company

(See Annual Report for 1892-93.)

Montreal and Lake Maskinongé Railway Company.

(See Annual Report for 1890-91.)

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Montreal and Sorel Railway Company.

(See Annual Report for 1892-93.)

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.)

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 of 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 Glasgow Iron, Coal and Railway Company.

(See Annual Report for 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 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., ch. 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 each dated January 27, 1900.

No payments have been made up to June 30, 1900.

Ontario and Pacific Railway Company.

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

(See Nos. 31, 115, 150, 288 and 375.)

By the Act 47 Vic., ch. 8 (1884), the grant of a subsidy to the Ontario and Pacific Railway Company was authorized, namely to the extent of \$262,400, on an estimated distance of 82 miles, for a line from Cornwall to Perth; and on July 27, 1886, a contract was made with the company, under the authority of an Order in Council of the first day of that month, for the construction of such line, via Newington, Chrysler, Manotick and Franktown; the road to be completed by July 1, 1888. This subsidy lapsed on July 1, 1888.

By the Act 50-51 Vic., ch. 24, a further subsidy of \$19,200 for a further distance of 6 miles was granted.

By the Act 52 Vic., ch. 3 (1889), a subsidy not exceeding \$172,400 was authorized to this company for a line from Cornwall to Ottawa.

By the Subsidy Act of 1892, 55-56 Vic., ch. 5, the subsidy granted in 1899 was revoked, the length being set down as $53\frac{7}{100}$ miles. Under date June 1, 1895, a contract was entered into with the company for the construction of this line from Cornwall to Ottawa, 53.87 miles.

By the special Act 60-61 Vic., ch. 57, the name of the company was changed to 'The Ottawa and New York Railway Company,' and its construction powers were extended to July 1, 1901.

By the Subsidy Act 60-61 Vic., ch. 4 (1897), in lieu of the subsidy voted in 1892, a subsidy was authorized of \$3,200 a mile, for 53.87 miles from Cornwall to Ottawa, with a further subsidy for expenditure in excess of \$15,000 a mile, to an extent of 50 per cent of such expenditure, the total subsidies not to exceed \$6,400 per mile.

The company were admitted to contract for the above on December 4, 1897.

The total payments up to June 30, 1899, amounted to \$172,384. No further payments have been made during the past fiscal year.

Ontario and Quebec Railway Company.

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

Ontario and Rainy River Railway Company.

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

This company, incorporated by the Ontario Act 49 Vic., ch. 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., ch. 82 (1891), which also extended the time for completion to August 1898, and ratified agreements made by the company for running powers over

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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., ch. 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., ch. 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 15 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., ch. 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., ch. 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., ch. 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., ch. 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., ch. 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.

The subsidized line is under construction, but no portion of the subsidies has been paid up to June 30, 1900.

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 Pacific Railway Company.)

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).

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

By the Act 48-49 Vic., ch. 29 (1885), the grant of a subsidy to this company was authorized (in lieu of subsidies granted in previous years), namely, for a line of railway from Hull station towards the village of Le Désert, 62 miles, the amount being \$320,000. The subsidy having lapsed, it was revoked by the Act 52 Vic., ch. 3 (1889).

Under authority of an Order in Council of 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., ch. 2 (1893), the unpaid balance, \$89,248, was revoked.

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

By the Subsidy Act 60-61 Vic., ch. 4 (1897), in lieu of this subsidy, the said 20 miles were 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., ch. 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. No further payments have been made up to June 30, 1900.

Under date September 21, 1899, a contract was 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 (which see.)

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 No. 389.)

This company was incorporated by the Act of the Province of Ontario, 56 Vic., ch. 96, 1893; with powers to build a line of railway from Pembroke to Douglas, and by the Ontario Act 59 Vic., ch. 107 (1896), were allowed the option of building from Pembroke to Golden Lake.

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By the Railway Subsidy Act 60-61 Vic., ch. 5 (1897), the grant of a subsidy to this company was authorized for 20 miles of their railway from Pembroke to Golden Lake, namely, \$3,200 a mile with an addition of 50 per cent on the average cost in excess of \$15,000 a mile, the whole limited to \$6,400 a mile.

The company having applied for the said subsidy, an agreement was entered into with them on August 22, 1898, for the construction of the 20 miles in question.

The road has been completed, the actual distance being 21 miles, and during the past fiscal year the full amount of the subsidy earned, \$64,000, has been paid. The road is leased to the Canada Atlantic Railway Company, with whose line it connects.

Philipsburg Junction Railway and Quarry Company.

(See Annual Report for 1894-95.)

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

(See No. 417.)

Up to the end of the fiscal year 1894-95, there had been paid to this company the sum of \$21,600.

By the Subsidy Act 62-63 Vic., ch. 7 (1899), the grant of a subsidy of \$3,200 a mile for shortage in an extension of this railway to the government wharf at Philipsburg, P.Q., not exceeding 0.66 of a mile was authorized.

A contract was made with the company accordingly on December 5, 1899, and the sum of \$2,112 was paid therefor, during the fiscal year, making the total payments to this company, \$23,712 up to June 30, 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 1889-90.)

Pontiac Pacific Junction Railway Company.

(See Nos. 25, 138, 211, 294, 329, 330, 331, 385 and 408.)

This company was incorporated by the Dominion Act 43 Vic., ch. 55 (1880), with powers to construct a railway from a point on the line of the Quebec, Montreal, Ottawa and Occidental Railway, at or near Hull or Aylmer, to a point in the county of Pontiac, suitable for crossing the River Ottawa, thence to Pembroke to connect with the Canada Central Railway.

The Act 45 Vic., ch. 69, gave authority for the construction of a bridge across the River Ottawa.

This line was subsidized in 1884, by 49 Vic., ch. 8, to the extent of \$3,200 a mile, not exceeding \$272,000.

Under authority of an Order in Council, dated December 12, 1884, a contract, dated the 22nd of that month, was made with this company for the building of the

line subsidized, namely, from Aylmer to Pembroke, crossing the River Ottawa at a point 'not east of Lapasse:' the first twenty-seven miles to be completed by September 1, 1885 (extended to December 15, by an Order in Council of August 13, 1895), the second twenty-seven miles by July 1, 1886, and the whole road, estimated at eighty-five miles west of Aylmer, by July 1, 1887.

By the Act 51 Vic., ch. 3 (1888), a subsidy to this company of \$31,500 was authorized for the bridging of the River Ottawa at Culbute; also a subsidy of \$9,600 for 3 miles of their railway from a point 3 miles east of Pembroke to Pembroke, provided that the entire work subsidized on this railway be completed within four years from May 22, 1888.

By the Act 53 Vic., ch. 2 (1890), a subsidy, limited to \$24,000 was authorized for $7\frac{1}{2}$ miles of this railway, between Hull and Aylmer.

By the Act 63 Vic., ch. 69 (1890), the time for completion of the railway to the town of Pembroke, and of the bridge over the River Ottawa, at or near the city of Ottawa, which the company were empowered to construct by the Act 45 Vic., ch. 69, was extended to May 22, 1892. The same Act gave the company power to extend their line from the said bridge to the canal basin in the city of Ottawa.

The Act 53 Vic., ch. 69 (1890), gave to this company power to purchase from the Canadian Pacific Railway Company the section between Hull and Aylmer, or any part thereof.

By the Subsidy Act 55-56 Vic., ch. 5, clause 4 (1892), the balance unpaid of the subsidy voted in 1884 was revoked; and by the special Act of 1892, ch. 56, the time for the commencement of a bridge over the River Ottawa, at or near Ottawa, was extended for two years, and its completion for five years from July 9, 1892. The time for the completion of the line to Pembroke was also extended for four years from that date.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), the subsidies voted in 1888 were revoked, subject to the condition that the entire work subsidized on this railway should be completed within four years.

By the same Act the unpaid balance of the subsidy voted by ch. 8 of the Act of 1884, less \$24,000 for the $7\frac{1}{2}$ miles from Hull to Aylmer, was revoked, namely, \$73,172.

By the same Act the sum of \$24,000, voted for the road from Hull to Aylmer in 1890, was, in effect, revoked.

By the Subsidy Act 60-61 Vic., ch. 4 (1897), the unpaid balances of the subsidies for 85 miles from Aylmer to Pembroke, and for bridging the River Ottawa, granted by the Acts of 1894, such balances amounting to \$114,272, were revoked. A contract was made with the company thereunder on July 29, 1899.

By the same Act the subsidy for $7\frac{1}{2}$ miles from Hull to Aylmer, revoked by the Act of 1894, was, in effect, revoked, with the addition of 50 per cent on expenditure in excess of \$15,000 per mile, the total of the subsidies not to exceed \$6,400 per mile. The company were admitted to contract thereunder on July 29, 1899.

By the Subsidy Act 60-61 Vic., ch. 4 (1897), authority was given for the grant of subsidy for a railway and traffic bridge over the River Ottawa at Ottawa, to the extent of 15 per cent of its cost but not exceeding \$112,500. A contract thereunder was made

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with the Pontiac Pacific Junction Railway Company and the Ottawa and Gatineau Railway Company, jointly, on September 21, 1899. This subsidy was increased to \$212,500 by the Subsidy Act of 1900, on the condition that free vehicular and foot passenger facilities should be provided. At the close of the fiscal year the work was rapidly approaching completion, but no portion of the subsidy can be paid until the bridge and its approaches are fully finished.

Up to the close of the fiscal year 1887-88, a total of \$174,828, had been paid out of the subsidy voted in 1884. During the fiscal year 1894-95 the sum of \$18,750 was paid, making a total of \$193,578. No further payments have been made up to June 30, 1900.

Quebec Central Railway Company.

(See Annual Report of 1895-96.)

Quebec and Lake St. John Railway Company.

(See Annual Report for 1895-96.)

Quebec, Montmorency and Charlevoix Railway Company.

(See Annual Report of 1894-95.)

Restigouche and Western Railway Company.

(See No. 384.)

This company was incorporated by the Act of the Province of New Brunswick, 60 Vic., ch. 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., ch. 4 (1897), there was authorized a subsidy for a railway from Campbellton, on the I.C.R., 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. During the past fiscal year, the sum of \$14,930 was paid, making the total payments up to June 30, 1900, \$46,930, covering the first ten mile section from Campbellton.

Schomberg and Aurora Railway Company.

(See No. 386.)

This company was incorporated by the Dominion Act 59 Vic., ch. 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., ch. 4 (1897), the grant of a subsidy of \$3,200 a mile for 15 miles between the point named above, with an 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.

No payments have been made up to June 30, 1900.

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 and 469.)

This company was incorporated by the Quebec Act of 1894, ch. 72, and this undertaking was declared to be a work for the general advantage of Canada by the Dominion Act, 60 Vic. ch. 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. ch. 7 (1899), the grant of a subsidy to this company for 82 miles of 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.

During the past fiscal year there has been paid to the company from the above subsidies a total of \$14,725.76 for work on the Richelieu Bridge. There has also been paid to them a certain balance of \$16,164.43 remaining of a subsidy granted under the Subsidy Act 53 Vic., ch. 2 (1890), for completing the Montreal and Sorel Railway from St. Lambert to Sorel, such completion having been effected in 1895, but the payment having been withheld in view of dispute as to the ownership of the road, which was in sequestration. Payment has now been made on the advice of the Department of Justice to the effect that the South Shore Railway Company is entitled thereto.

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., ch. 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,

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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, 1900.

St. John Valley and Rivière du Loup Railway Company.

(See Annual Report for 1893-94.)

St. Stephen and Milltown Railway Company.

(See Annual Report for 1895-96.)

(No. 393.)

A further subsidy to this company was authorized by the Act 60-61 Vic., ch. 4 (1897), namely, for 41 miles of their railway from Milltown to St. Stephen, \$3,200 a mile, with 50 per cent additional on the cost in excess of \$15,000 a mile, not exceeding in all \$6,400 a mile. The company were admitted to contract for this work on September 29, 1897. No payments have been made under this subsidy. Under the previous subsidy \$14,848 was paid up to June 30, 1900.

Stewiacke Valley and Lausdowne Railway Company.

(See Annual Report for 1895-96.)

St. Lawrence and Adirondack Railway Company.

(See Annual Report for 1893-94.)

(No. 394.)

A further subsidy to this company was authorized by the Act 60-61 Vic., ch. 4 (1897), namely, for 13½ miles of their railway from Beauharnois to Caughnawaga, \$3,200 a mile, with an addition of 50 per cent on expenditure in excess of \$15,000 a mile, such subsidy not to exceed in the whole \$6,400 a mile.

The company was admitted to contract on October 16, 1897. No payments have been made under this subsidy up to June 30, 1900. The payments under the previous subsidy aggregated \$149,481.60.

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.)

Témiscouata Railway Company—Rivière du Loup to Edmundston.

(See Annual Report for 1892-93.)

Thousand Islands Railway Company.

(See Annual Report for 1895-96.)

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, ch. 4 (1897), namely, for 3.50 miles from the then terminus, through Tilsonburg to the Michigan 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 past fiscal year 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, up to June 30, 1900.

Tobique Valley Railway Company.

(See Annual Report for 1893-94.)

Toronto, Grey and Bruce Railway Company.

(See Annual Report for 1887-88.)

United Counties Railway Company.

(See Nos. 297, 314 and 393.)

This company was incorporated by the Quebec Act 46 Vic., ch. 90 (1883), for the construction of a railway from a point on the line of the Montreal, Portland and Boston Railway, at Richelieu, to a point on the River Richelieu and the River St. Lawrence.

By the Subsidy Act 56 Vic., ch. 2 (1893), a subsidy to the extent of \$102,400 for 32 miles between Iberville and St. Hyacinthe, and beyond, toward Sorel, was authorized.

On August 19, 1893, a contract was entered into with the company for this work.

By the Subsidy Act 57-58 Vic., ch. 4 (1894), a subsidy, limited to \$102,400, was authorized for a further distance of 32 miles, and on October 23, 1894, a contract was made with the company for the work, covering the whole distance from St. Hyacinthe to Sorel.

By the Act 60-61 Vic., ch. 4 (1897), the grant 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 one mile of this company's railway from Johnson to St. Grégoire station.

During the past fiscal year no payments were made, leaving the total payments \$188,816, up to June 30, 1900.

Vaudreuil and Prescott Railway Company.(See *Montreal and Ottawa Railway Company.*)**Waterloo Junction Railway Company.**

(See Annual Report for 1891-92.)

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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.)

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 No. 423.)

This company was incorporated by the Act of New Brunswick, 1887, ch. 44.

By the Subsidy Act 62-63 Vic., ch. 7 (1899), the grant of a subsidy of \$3,200 a mile, with a further subsidy of 50 per cent on the cost in excess of \$15,000 a mile, the total subsidy not to exceed \$6,400 a mile, was authorized for 6 miles of railway from Cross Creek Station, on the Canada Eastern Railway, to Stanley Village, N.B., for which this company applied.

A subsidy agreement thereunder was entered with them on November 23, 1899.

No payments have been made up to June 30, 1900.

LAND SUBSIDIES.

A number of companies have been aided by subsidies in land, duly authorized by Parliament and granted by the Department of the Interior, to whose report reference must be had for information as to their position. Certain details in respect of these roads will, however, be found in the annual report of this department for 1895-96.

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, 1900, was \$79,043,784.09.† A further sum of \$16,273,125.98* was expended on the repairs, maintenance and operation of these works, making a total of \$95,316,910.07.* The total revenue derived, including tolls, and rentals of lands and water-powers, amounted to \$12,401,917.32. (See the accountant's statement, Part II, pp. 27 and 28.)

* These figures are the aggregate expenditure on specific canals and do not comprise certain items charged to 'Canals in general.'

† The figures for the year 1897 in the accountant's statement, p. 28, should be \$2,348,636.91, and the 'total' \$79,043,784.09, as correctly given on the preceding page, 27.

The total expenditure for the fiscal year ended on June 30, 1900, including 'canals in general,' was as follows: on construction and enlargement a total of \$2,639,564.93, and a further sum of \$711,600.06 for repairs, renewals, and operation, making a total for the year of \$3,351,164.99.

The total net revenue collected for the fiscal year was \$322,642.86, a decrease compared with the net revenue of the previous year of \$46,401.52. The net canal tolls amounted to \$272,533.82, a decrease of \$49,751.30. On July 1, 1899, the balance of rents unpaid was \$65,594.42. The rents accrued during the year amounted to \$54,364.63, and the rents received to \$50,109.04, an increase of \$3,449.74, leaving a balance of rents uncollected on June 30, 1900, amounting to \$68,739.52.

The total expenditure on canal staff and maintenance, repairs and renewals amounted, for the year, to \$711,600.06, an increase of \$78,284.45, and the total net receipts amounting as above, to \$322,642.86, the amount of expenditure in excess of receipts was \$388,957.20, compared with an excess expenditure the previous year of \$264,271.23.

The above figures relate to the *fiscal year* 1899-1900, but very voluminous statistics relating to the canal traffic, and various commercial statistics for the *season of navigation* of the year 1899 will be found in Part V., 'Canal Statistics.'

The total traffic through the several canals of the Dominion for the *season* of 1899 amounted to 6,225,924 tons, a decrease of 392,551 tons compared with the previous year. This includes 3,006,664 tons passing through the Sault Ste. Marie Canal, which is free of toll.

The following features of the principal canal traffic during the *season* of 1899 will be of interest:—

On the Welland Canal 789,770 tons of freight were moved, a decrease of 350,307 tons; of which 462,523 tons were agricultural products, a decrease of 269,947 tons, and 103,589 tons produce of the forest; 637,268 tons passed eastward and 152,502 westward; 769,618 tons were through freight, of which 622,104 tons passed eastward.

Of this through freight Canadian vessels carried 309,546 tons, a decrease of 740 tons, and United States vessels 460,072 tons, a decrease of 350,372 tons.

The total freight passed eastward and westward through this canal from United States ports to United States ports was 360,529 tons, a decrease of 127,010 tons compared with the year 1898.

The quantity of grain passed down the Welland and the St. Lawrence canals to Montreal was 332,746 tons, a decrease of 186,786 tons compared with the previous year; of this 48,828 tons were transhipped at Ogdensburg, as against 40,257 tons transhipped in 1898. The further quantity of 39,545 tons of grain passed down the St. Lawrence canals, only, to Montreal, making the total 372,291 tons.

The rate of toll on grain for passage through the Welland (giving free passage through the St. Lawrence canals) was 10c. a ton.

On the St. Lawrence canals 1,349,093 tons of freight were moved, a decrease of 90,041; of which 609,454 were east bound through freight, and 29,810 tons west bound through freight; 811,616 tons were agricultural products, 380,127 tons merchandise, and 81,951 tons forest products.

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Two cargoes of grain, aggregating 558 tons, were taken down direct to Montreal through the Welland and St. Lawrence canals.

On the Ottawa river canals the total quantity of freight moved was 520,105 tons, a decrease of 29,981, of which 507,722 tons were produce of the forest.

On the Chambly Canal 362,635 tons were moved, an increase of 91,299, of which 218,977 tons were produce of the forest.

On the Rideau Canal 69,905 tons were carried, an increase of 15,409, 37,189 tons being the product of the forest.

On the St. Peter's Canal 70,804 tons were carried, an increase of 6,314, of which 50,606 tons were merchandise.

On the Murray Canal 16,788 tons passed, an increase of 1,245, and 1,651 tons of this were the product of the forest.

On the Trent Valley Canal 40,160 tons were moved, of which 38,135 tons were product of the forest.

On the Sault Ste. Marie Canal the total movement of freight was 3,006,664 tons, being a decrease of 48,623 tons, carried in 3,769 vessels, the number of lockages being 2,610. Of wheat 12,759,318 bushels, and of other grain 1,737,956 bushels were carried; 1,078,668 barrels of flour, 1,680,064 tons of iron ore and 7,927,000 feet, board measure, of lumber; all these items except lumber show a considerable decrease. The total traffic at this point, accommodated by the two canals, the American and Canadian, amounted to 25,258,803 tons, an increase of 4,019,365 tons, carried in 20,249 vessels, a decrease of 2,516. The total quantity of wheat carried was 58,301,682 bushels, an increase of 4,138,322, and of other grain 30,079,806, an increase of 3,940,689. Of lumber the total was 1,032,602,000 feet, board measure, an increase of 133,814,420.

As having an interesting bearing on 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 332,746 tons, a decrease of 186,786 tons over the previous year, the quantity carried to Montreal via the Canadian Pacific and Grand Trunk railways amounted to 209,170 tons, a decrease of 84,221 tons. In addition, during the past two seasons, a new system of grain traffic has come into operation, from Depot Harbour on Georgian Bay, Lake Huron, over the line of the Canada Atlantic Railway to Coteau Landing at the head of the Soulanges Canal, thence by barge to Montreal. In the season of 1898, the total freight carried by this route to Montreal was 263,735 tons, of which 226,406 tons were grain. In the season of 1899 309,573 tons were carried, of which 259,531 tons were grain; going through the Beauharnois canal, the Soulanges not then being opened. Of the grain so carried in 1898 59,063 tons were wheat and 149,169 tons corn, and in 1899 66,635 tons were wheat and 174,932 corn. The quantity of grain carried to tide-water on the New York State canals was 416,700 tons, a decrease of 42,704 tons, while the quantity carried by the railways of the state to tide-water amounted to 4,642,952 tons, a decrease of 728,548 tons.

Of the total east and west bound 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 Railroad)

respectively (amounting in 1899 to 51,702,761 tons—greater by 2,391,731 tons than in 1898), 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 and 7.2 per cent in 1899. These canals carried in 1899 3,686,051 tons: 1,692,972 tons were through freight from Lake Erie to New York, and of this quantity 1,165,217 tons went eastward.

On the opening of navigation in the spring of 1900, by means of the enlarged canal systems and the intermediate water ways (though not fully completed), passage to vessels drawing 14 feet of water from Lake Superior to the head of ocean navigation at Montreal was afforded.

The extent of the improved facilities of communication so obtained, and their value to commercial interests may be understood from the fact that in place of the old limit of lock dimensions, viz., length, 200 feet; width, 45 feet; depth of water on the sills, 9 feet; the enlarged locks are 270 feet in length, 45 feet in width, with 14 feet of water on sills, accommodating vessels 255 feet long and 44 feet wide. 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 at the head of Lake Superior, now open for a 14-foot navigation, comprises 73 miles of canal and 965 miles of river and lake waters, or a total of 1,038 miles. To Duluth, the total distance is 1,162 miles. A summary of this route will be found in the Chief Engineer's report, Part I., p. 5, and further details of the several works in the pages immediately following.

The approaches to the canals and the channel through the intermediate river reaches are well defined and are lighted with gas buoys, rendering their navigation by night as well as by day feasible and safe. In the case of the Soulanges Canal, the canal is well lighted throughout by electricity, a system which will be extended to other canals before long.

With the more intimate knowledge of the new channel through the St. Lawrence now possessed by the river pilots, full advantage will, no doubt, be taken of the improved facilities afforded by the enlargement works; and this great water highway from the west will realize the aims of its projectors and constructors in giving rise to the establishment of lines of deep draught vessels on the route, with the beneficial result of a vast impetus to the trade and commerce of the country. Already, indications of movement on all sides promise the early and rapid development of the new era of progress, not only in the direction of the production and transport of crude materials, ores, grain, coal and lumber, but in the enormous expansion of manufactures and industries on the shores of the great lakes and their connecting rivers, notably the iron and steel and ship building industries, to all of which the ability to employ vessels carrying 3,000 tons of freight direct to the sea board and Europe, which Canada has now afforded, must inevitably prove a great stimulant. The growth of the main centres of production and collection on the lakes as shown by the last United States census of 1900 is sufficient indication of the prodigious vitality of the region. Since 1890 Buffalo has increased 37 per cent to a population of 352,000. Cleveland, the great ship building centre, 46 per cent to 382,000. Toledo, 61 per cent, to 132,000. Detroit, 38 per cent to 286,000. Milwaukee, 39 per cent, to 285,000, and Chicago, 54 per cent, to 1,699,000.

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To this has to be added the fact that during the fiscal year ended on June 30, 1899, vessels were built on the great lakes to the extent of a total gross tonnage of 183,317, of which 139,765 tons were steam vessels. In the previous year this total amounted to 190,743 tons, and the total for the past eleven years, 1889 to 1899 inclusive, to 816,297 tons.

Though, naturally, not marked in equal degree, the tendency to a similar industrial development on the Canadian side is very evident, specially so at the Sault Ste. Marie, where, in addition to the existing important pulp and paper mills, the establishment of large iron and steel works is in progress. At Collingwood, also, and Kingston like works are projected, while at Depot Harbour, on Georgian Bay, a system of wharfs and elevators has been constructed for the accommodation of the grain trade. The very extensive harbour improvement works at Montreal, with the system of wharfs and elevators in that connection will naturally tend to attract traffic down the canals to that port. The improvements at Port Colborne, the Lake Erie entrance of the Welland Canal, are in progress. They comprise the deepening of the approaches to the canal to 22 feet and the construction of two docks, with piers 200 feet wide, upon which grain elevators will be erected to transfer grain to the 14 feet draught canal boats when required. The deepening of the approaches to the Sault Ste. Marie Canal, at present limited to accommodating vessels of 17 feet 6 inches draught, so as to give a depth of 22 feet, thus enabling the canal works to be utilized to their full extent (which is the same as the American canal on the other side of the river,) will probably be carried out next year.

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 the Bay of Quinté, Lake Ontario, and the portion from the head of Lake Simcoe to Georgian Bay, Lake Huron, still to be dealt with. A question has, however, arisen as the expediency of adopting Port Hope as the Lake Ontario terminus instead of Trenton, and a survey has been made with a view to ascertaining the feasibility and cost of that route. The letting of the contract for the Trenton-Frankford section has, meantime, been postponed.

During the years 1899 and 1900, under special appropriations voted by Parliament, surveys have been conducted on the upper River Ottawa with a view to ascertaining the feasibility and probable cost of constructing a canal system which will give a 14 feet navigation from Georgian Bay down that 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, attached as an appendix to the present volume. It appears to be clearly established that such a series of works can be built at reasonable cost, which would attain the end desired.

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.

In concluding this report, it is only proper that I should draw attention to the rapid growth of the country during the last few years, specially in the enormous increase

in the area of its development and the interest of its business operations, which involve important questions, directly and indirectly affecting the great transportation problems with which this department is concerned and which it is called upon to deal with authoritatively. With this rapid growth the inner, or departmental staff proper, has not kept pace, and I must strongly urge the necessity, which is very apparent, of its amplification and its adjustment to the conditions of the times, if the wide and ever expanding field it is required to cover is to be properly and comprehensively treated.

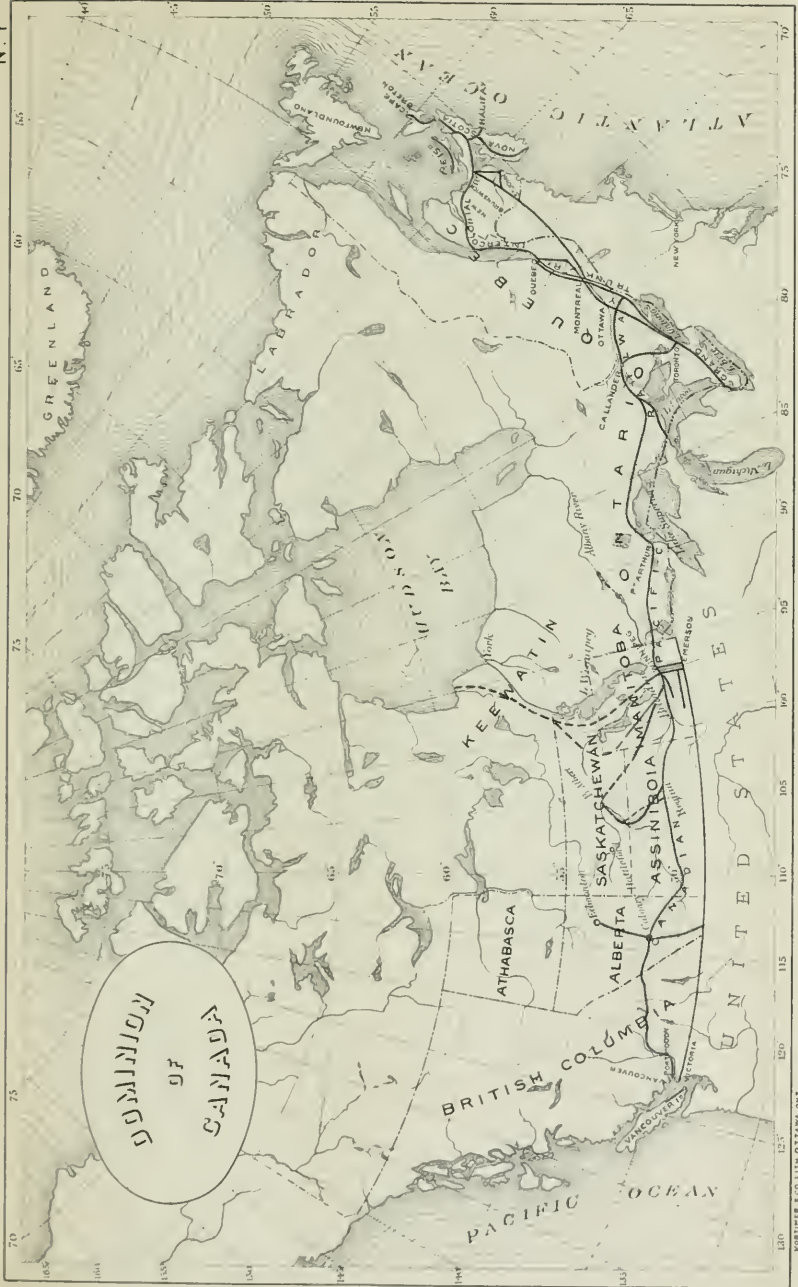
In addition to the very voluminous correspondence with the general public, its necessary record and filing, the supervision of the expenditures entailed by the government railway and canal works in operation and under construction, and the revenue derivable from them, the leasing of lands and water powers, the settlement of claims, the letting of contracts and the preparation of (often very extended) returns, giving information required by the House of Commons and the Senate. There is also the inspection of completed portions of subsidized railways, and of all railways before opened to traffic; the inspection of railway bridge structures, with the examination of all their plans, required to be sent in for approval; inspection of railways subject to complaint of any kind; the examination for approval of railway by-laws, whether of tariff or otherwise, and the carrying out of varied and complicated duties entailed on the Railway Committee of the Privy Council; further, the compilation, analysis and printing of extensive statistics relating to all Canadian railways, and of similar statistics relating to the traffic on the canals of the Dominion. In justice to the work to be done and to those who are required to perform it, I am compelled to state that the staff is inadequate.

I have the honour to be, sir,

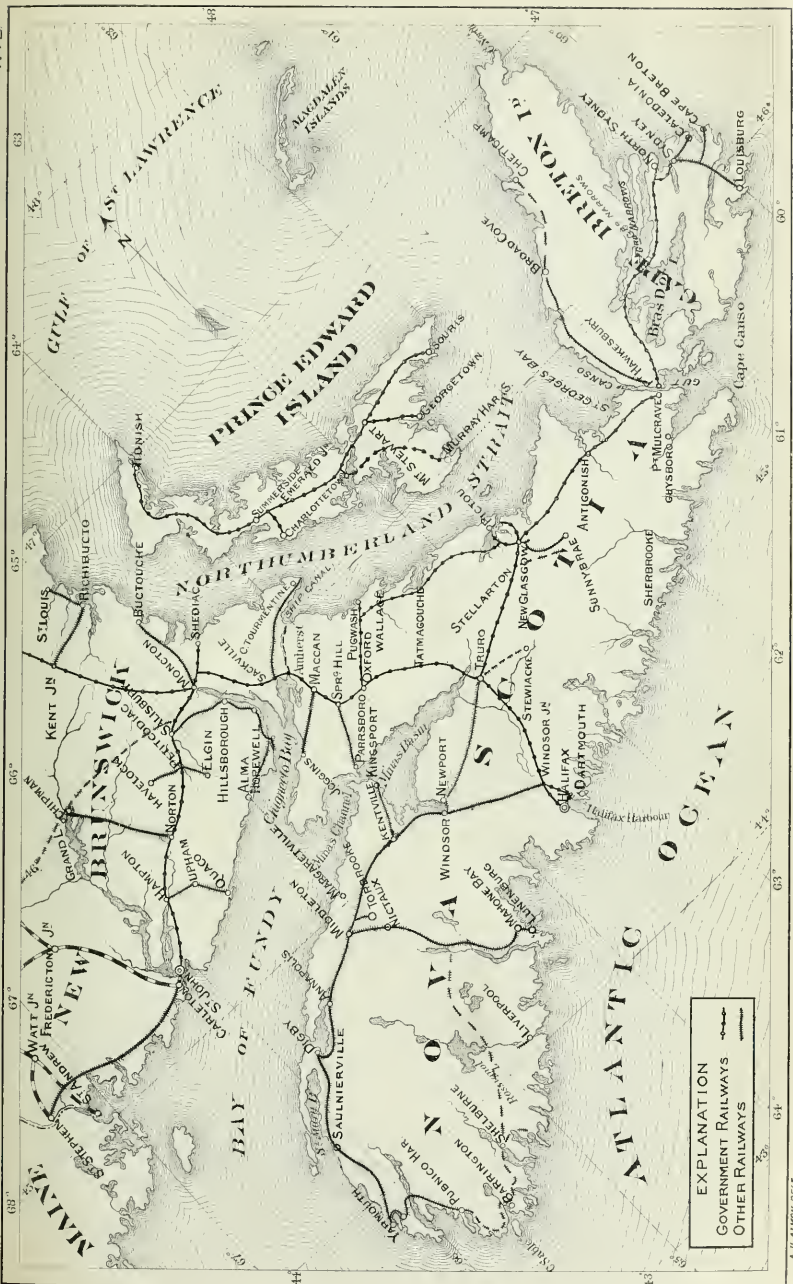
Your obedient servant,

COLLINGWOOD SCHREIBER,

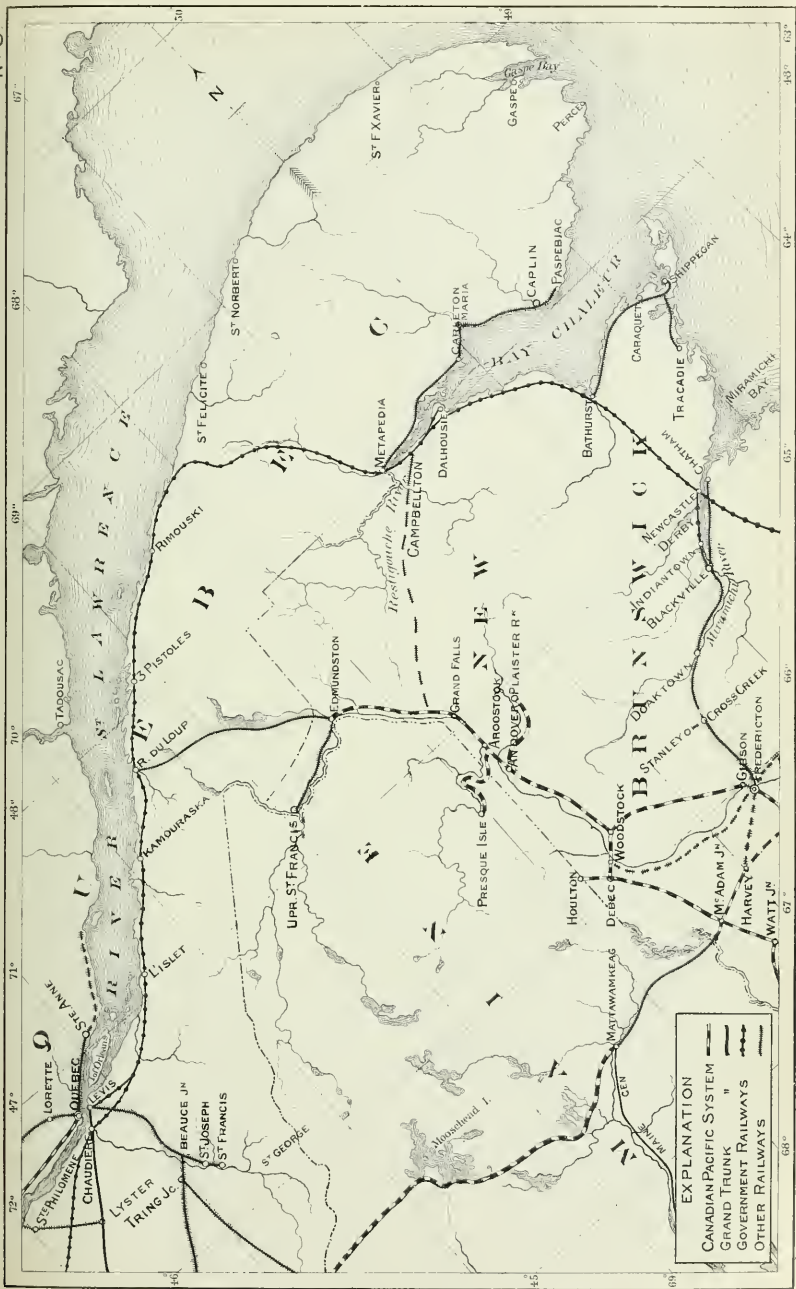
Deputy of the Minister of Railways and Canals.



DOMINION
OF
CANADA

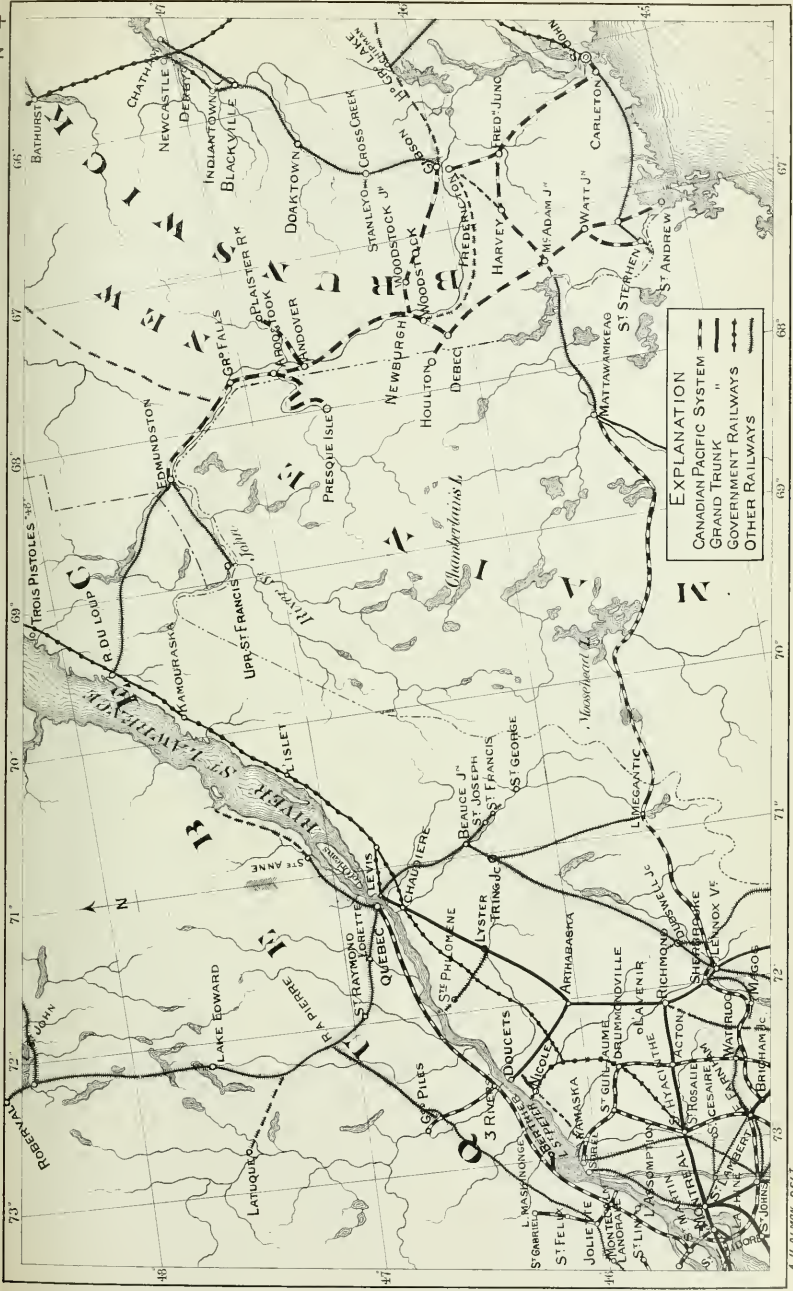


EXPLANATION
 Government Railways
 Other Railways



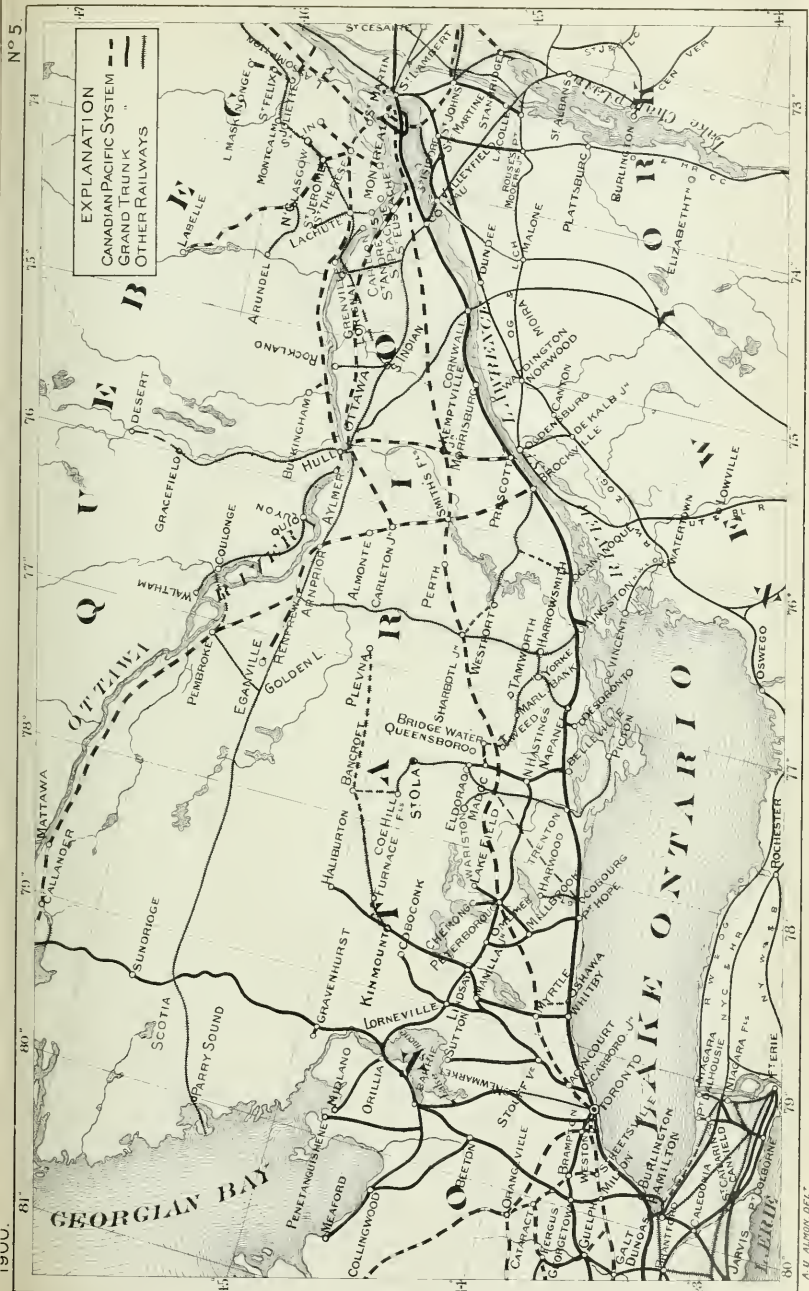
EXPLANATION

- CANADIAN PACIFIC SYSTEM
- GRAND TRUNK
- GOVERNMENT RAILWAYS
- OTHER RAILWAYS

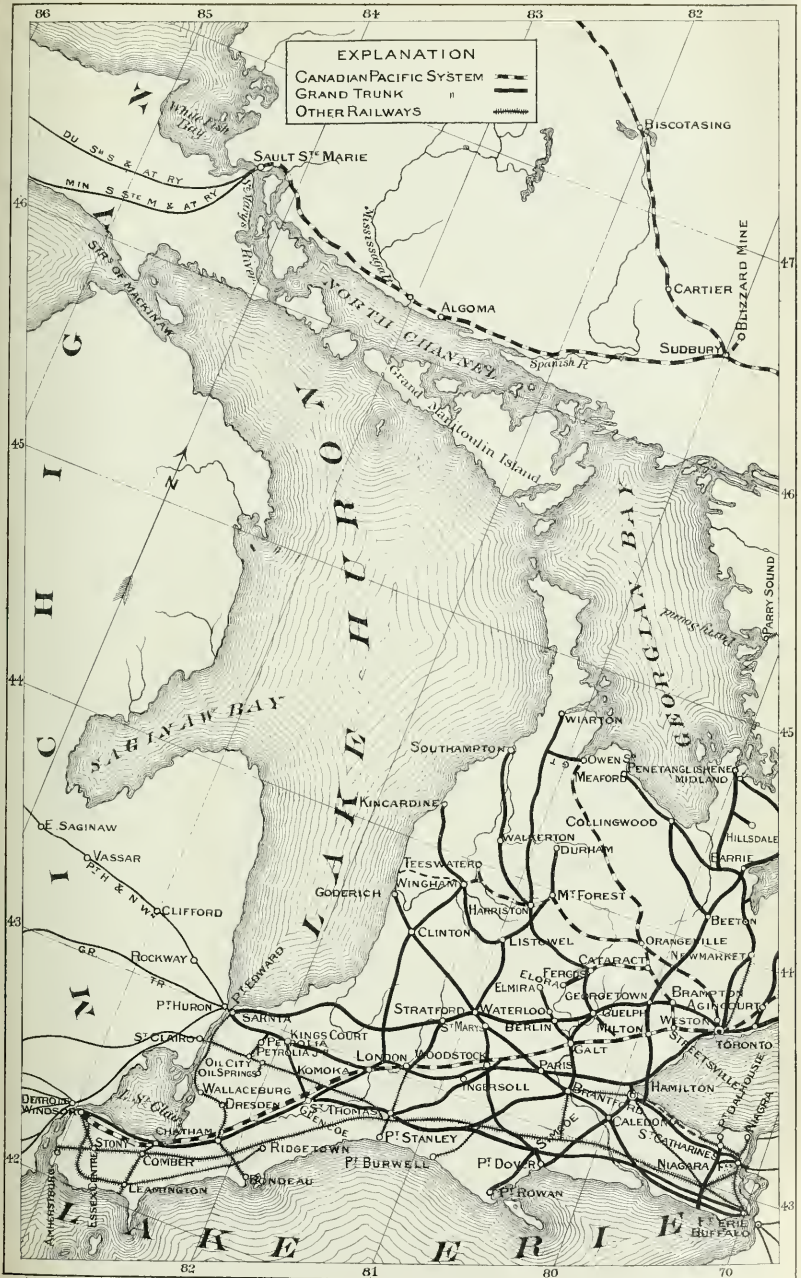


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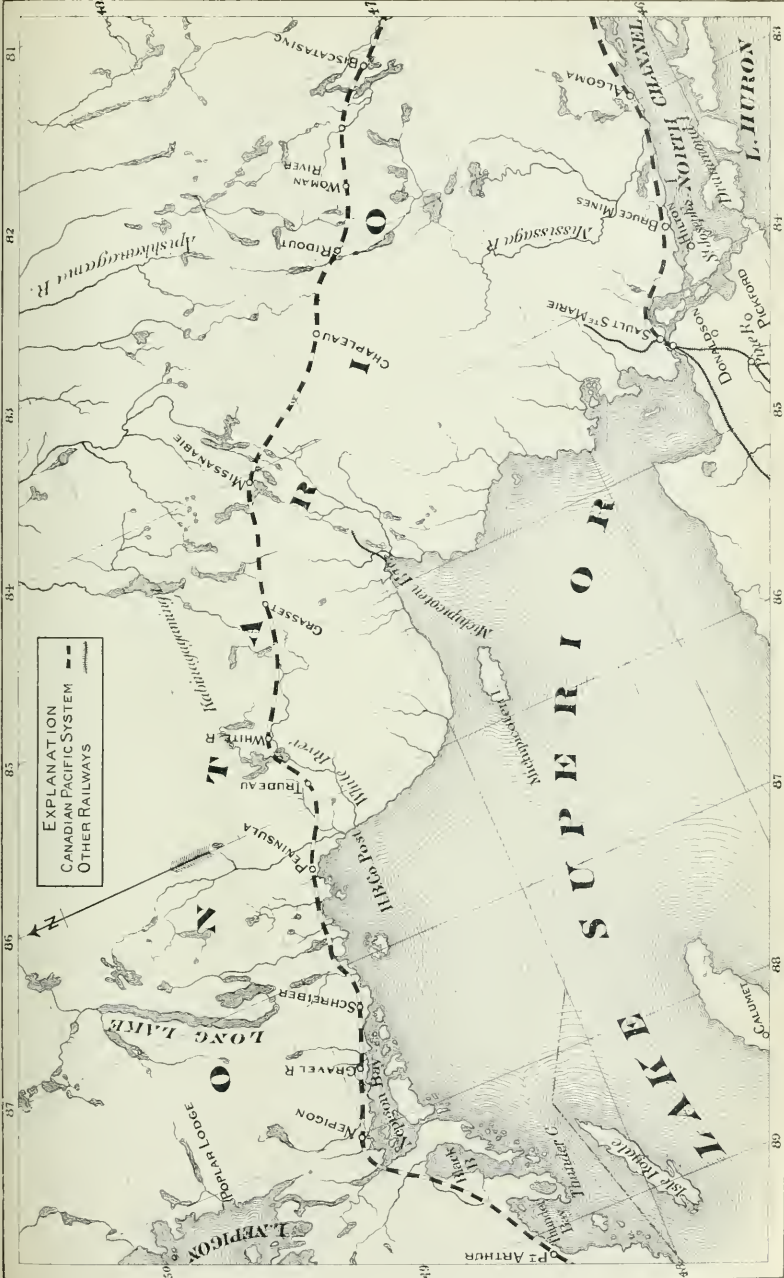
- CANADIAN PACIFIC SYSTEM
- - - GRAND TRUNK
- x - x - GOVERNMENT RAILWAYS
- | - | - OTHER RAILWAYS



EXPLANATION
 CANADIAN PACIFIC SYSTEM - - -
 GRAND TRUNK PACIFIC SYSTEM - - -
 OTHER RAILWAYS - - -

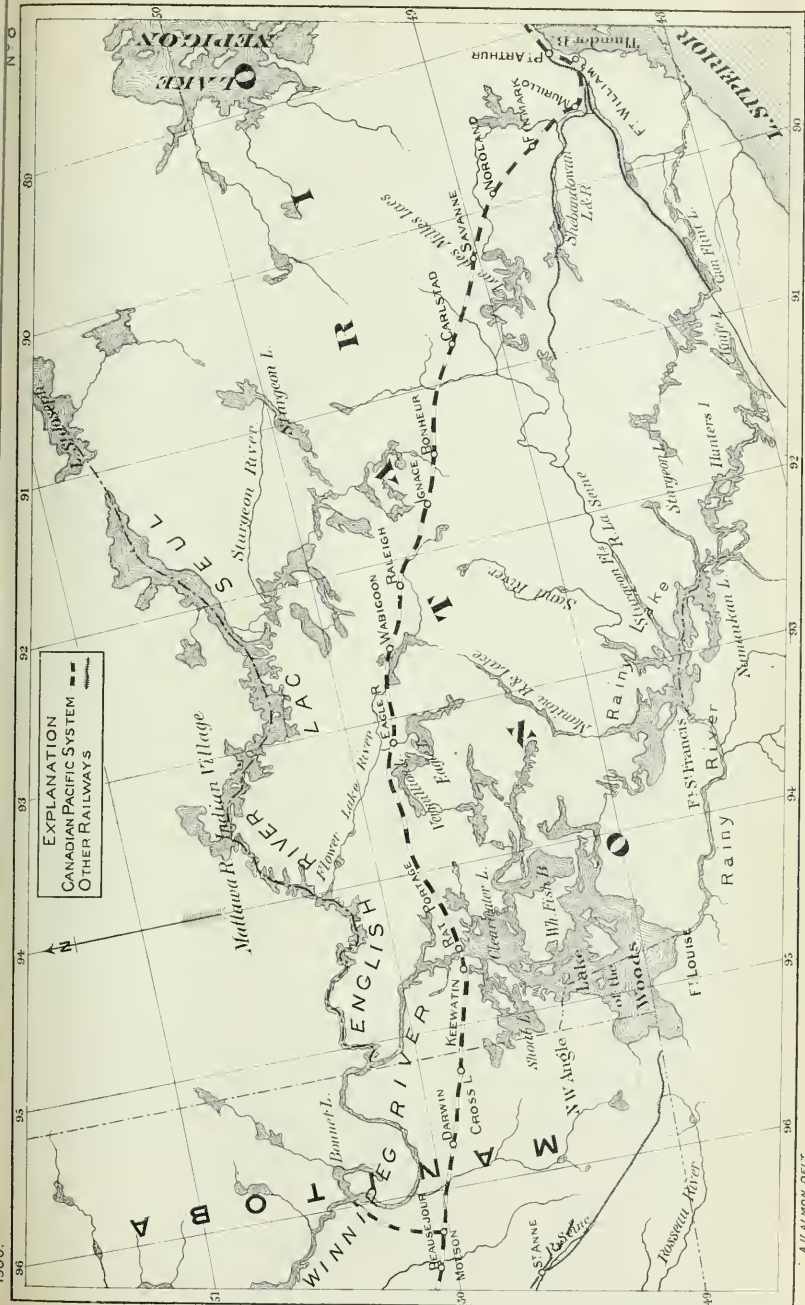


EXPLANATION
 CANADIAN PACIFIC SYSTEM - - - -
 GRAND TRUNK ————
 OTHER RAILWAYS — · — · —



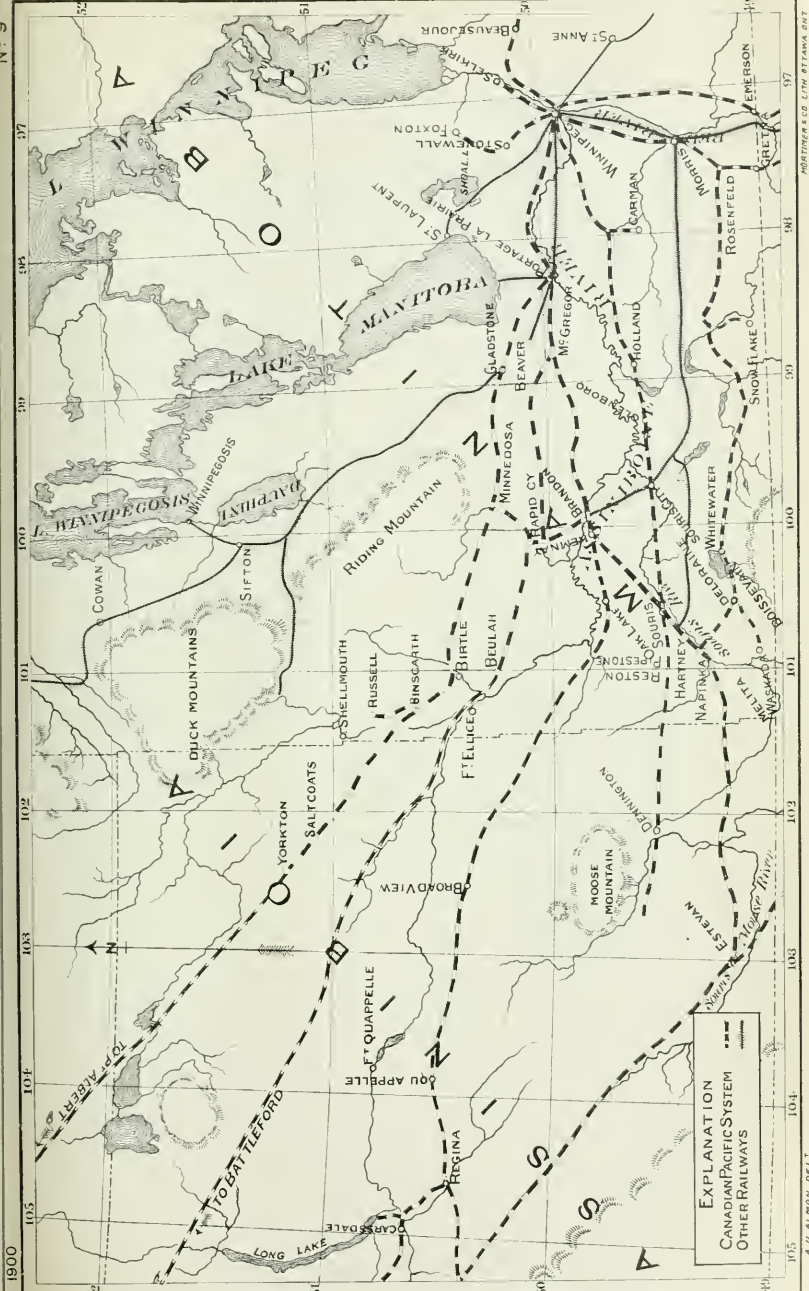
EXPLANATION
 CANADIAN PACIFIC SYSTEM

 OTHER RAILWAYS

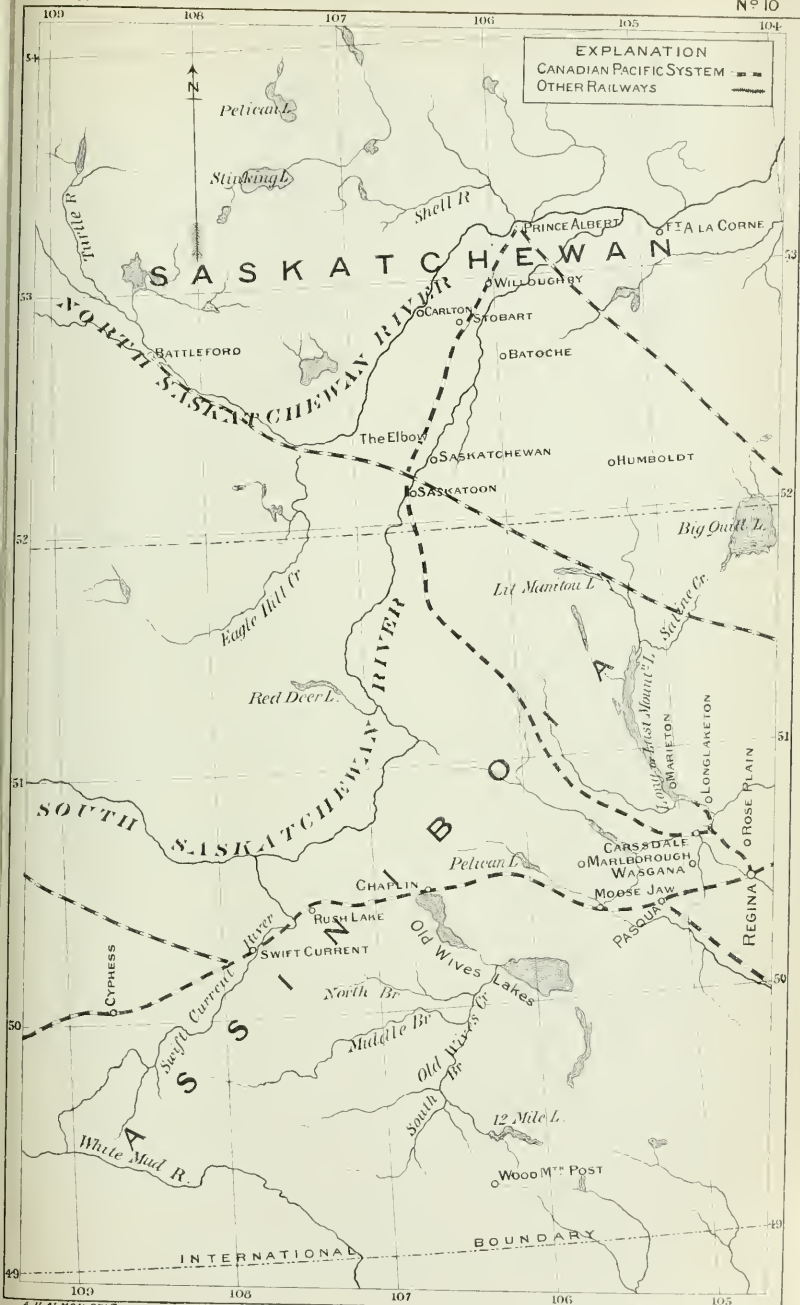


EXPLANATION
 CANADIAN PACIFIC SYSTEM ———
 OTHER RAILWAYS - - - - -

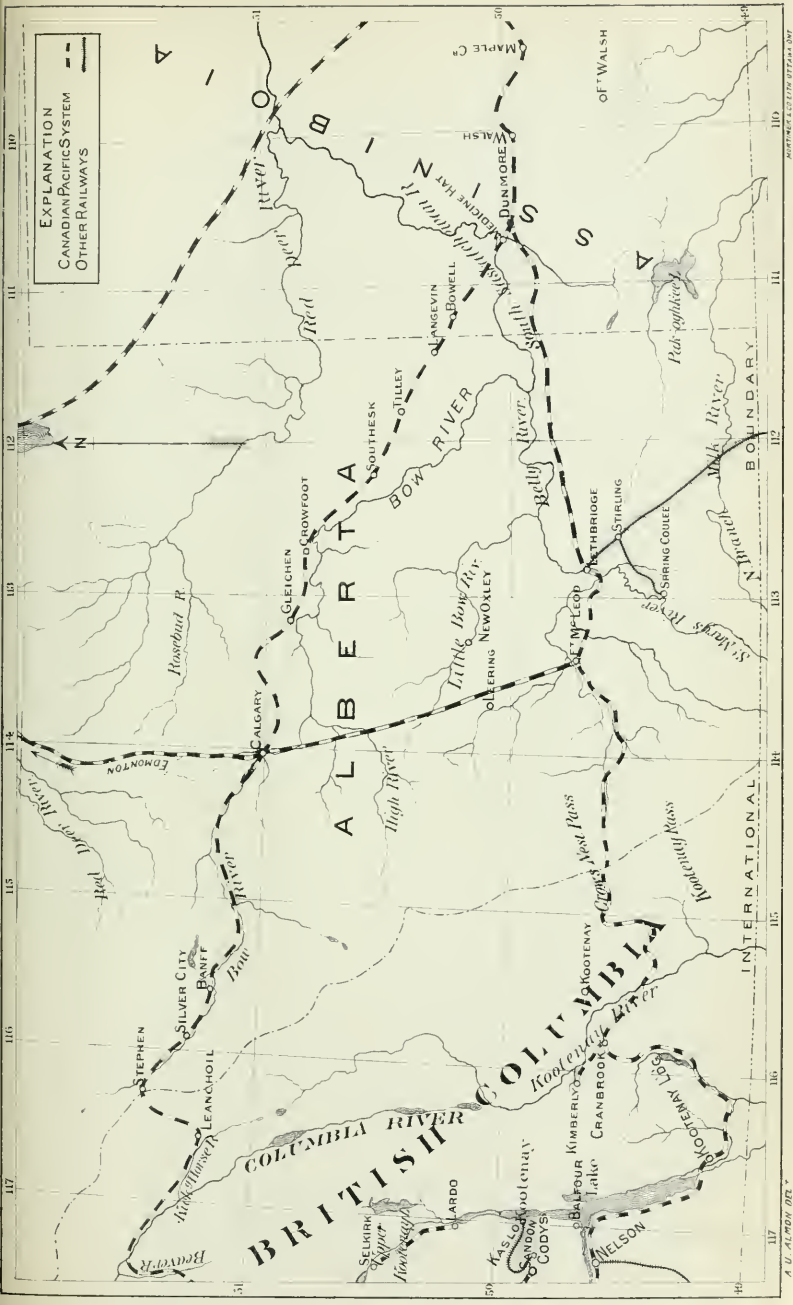


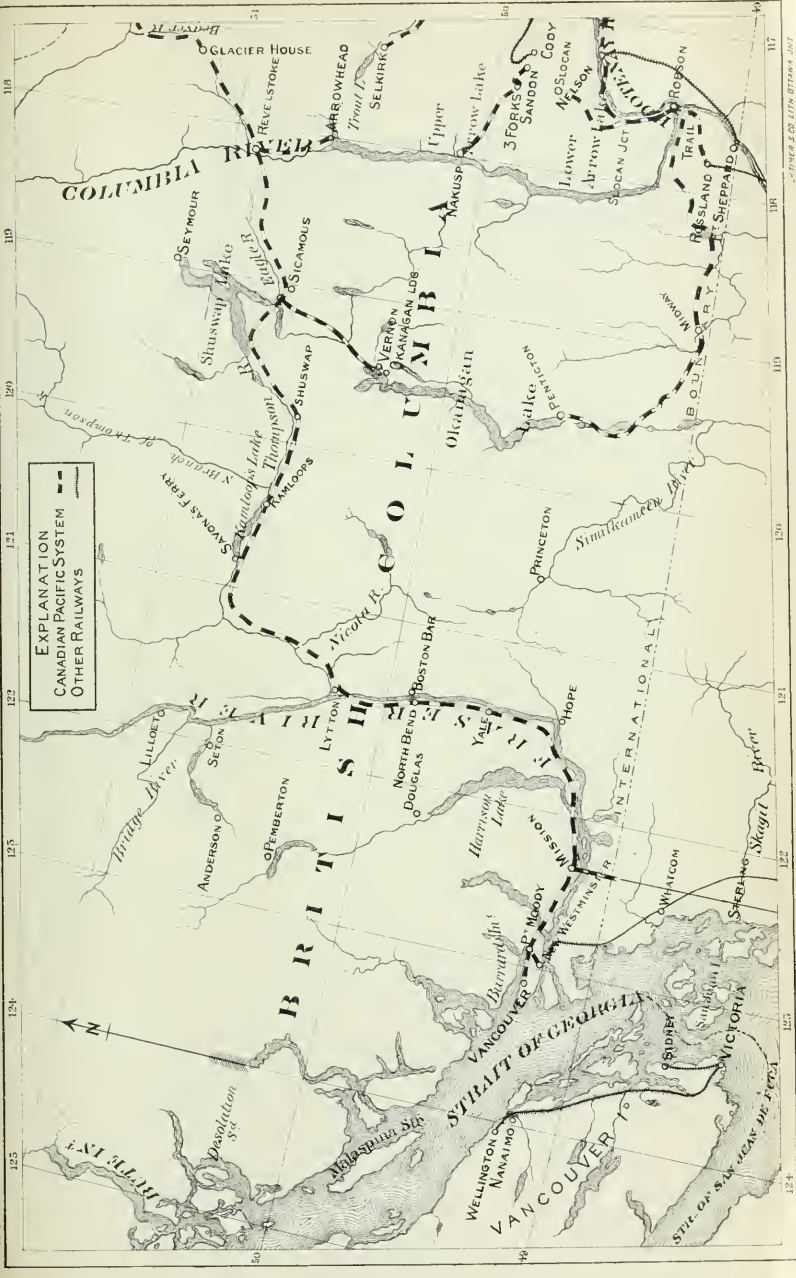


EXPLANATION
 --- CANADIAN PACIFIC SYSTEM
 _____ OTHER RAILWAYS

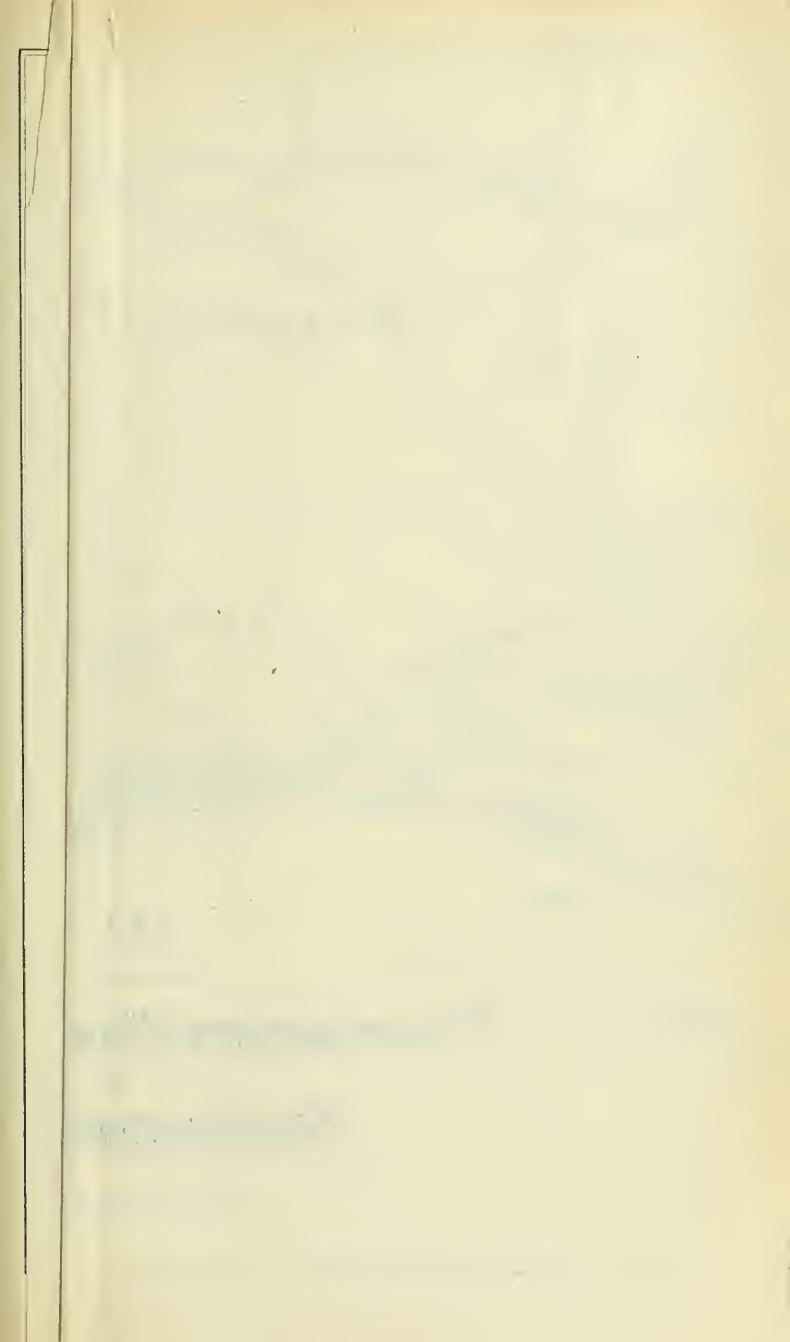


EXPLANATION
 CANADIAN PACIFIC SYSTEM - - -
 OTHER RAILWAYS ———





EXPLANATION
 - - - CANADIAN PACIFIC SYSTEM
 ——— OTHER RAILWAYS



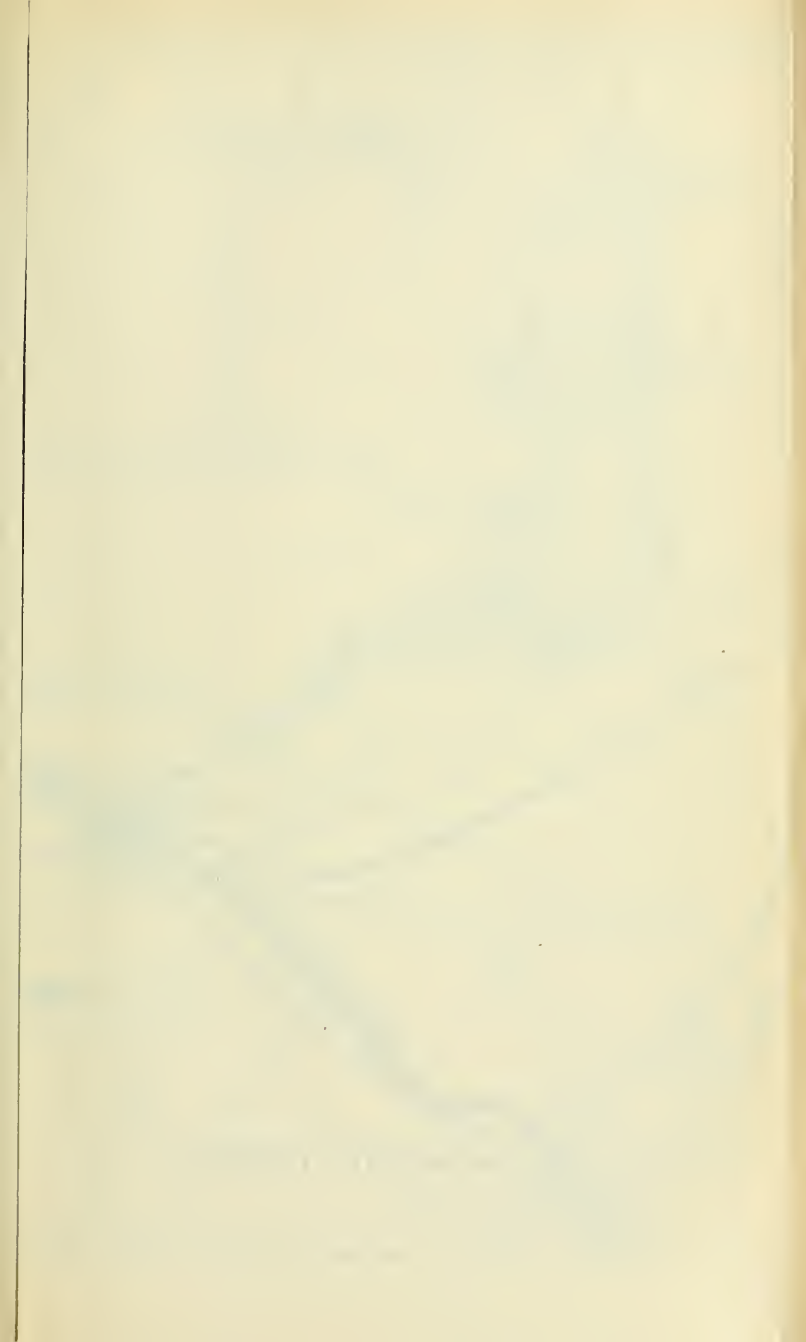


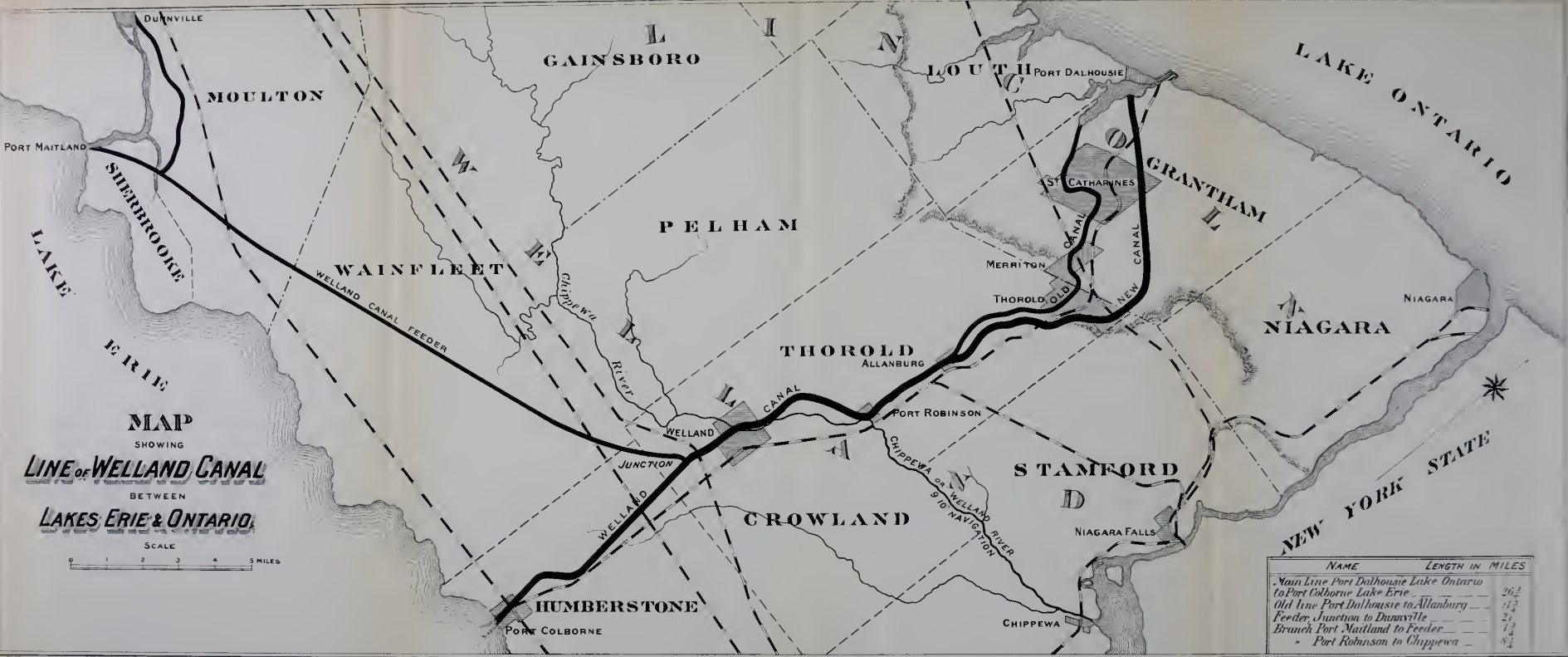
NAME	MILES
Lachine Canal	8½
Beauharnois Canal	11½
Soulanges Canal	14
Cornwall Canal	11½
Farrans Pt Canal	2
Rapide Plat Canal	4
Galops Canal	7½
Chambly Canal	12
S' Ours Lock	½
S' Annes Lock	½
Carillon & Grenville Canal	10
Rideau Navigation	126½
" Perth Branch	6

MAP
 SHOWING THE
ST. LAWRENCE, OTTAWA, RIDEAU,
 AND
RICHELIEU CANALS.

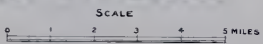
Scale 10 Miles = one Inch

Published by G. W. Colver, Ottawa





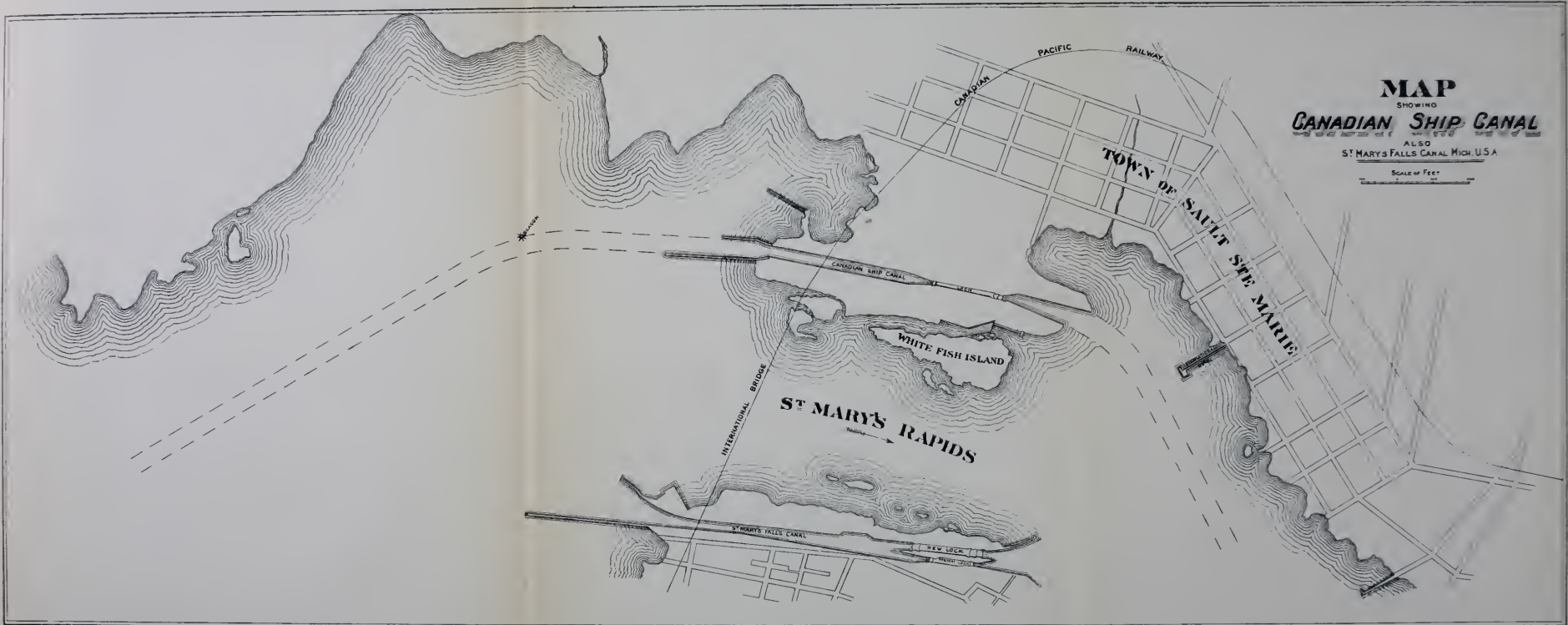
MAP
SHOWING
LINE OF WELLAND CANAL
BETWEEN
LAKES ERIE & ONTARIO.



NAME	LENGTH IN MILES
Main Line Port Dalhousie Lake Ontario to Port Colborne Lake Erie	26½
Old line Port Dalhousie to Allanburg	17½
Feeder, Junction to Dunnville	21
Branch Port Maitland to Feeder	13
" Port Robinson to Chippewa	8½







MAP
SHOWING
CANADIAN SHIP CANAL

ALSO
ST. MARY'S FALLS CANAL HIGH U.S.A.

SCALE OF FEET
0 100 200 300 400 500 600 700 800 900 1000

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 SUPERINTENDENTS 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: (the names adopted are those of the dominating roads):—

Intercolonial Railway Route—

	Miles.
By Intercolonial Railway to Point Lévis.....	675
“ “ Lévis to Montreal.....	173
	—— 848

(Or by ferry across the St. Lawrence to Québec, thence by Canadian Pacific Railway, also 173 miles.)

Canadian Pacific Railway Route—

By Intercolonial Railway to St. John, N.B.....	275
Canadian Pacific Railway and Maine Central Railway to Mattawamkeag	146
Canadian Pacific Railway to Montreal.....	334
	—— 775

Grand Trunk Railway Route—

By Intercolonial Railway to St. John, N.B.....	275
Canadian Pacific Railway.....	90
Maine Central Railway	224
	——
Total up to Danville Junction	589
By Grand Trunk Railway to Montreal.....	270
	—— 859

Témiscouata Railway Route—

By Intercolonial Railway to St. John, N.B.....	275
Canadian Pacific Railway to Edmundston	170
Témiscouata Railway to Rivière du Loup.....	81
Intercolonial Railway to Montreal	282
	—— 808

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MONTREAL TO THE PACIFIC COAST, CANADIAN PACIFIC RAILWAY.

Trunk Line.

	Miles.
Quebec to St. Martin's Junction (13 miles north of Montreal)	159
<hr/>	
Montreal (at head of Atlantic Ocean Navigation to St. Martin's Junction).....	13
St. Martin's Junction to Callander	331
Callander to Port Arthur	649
Port Arthur to Red River (opposite Winnipeg).....	428
Red River to Savona's Ferry.....	1,257
Savona's Ferry to the waters of the Pacific Ocean at Port Moody.....	213
	<hr/> 2,547
Port Moody to Vancouver	15
	<hr/> <hr/> 2,906

This railway was opened for through traffic on June 28, 1886.

INTERCOLONIAL RAILWAY.

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

The total length of the road operated during the year ended June 30, 1900 was 1,315 miles, and for freight branches $27\frac{1}{2}$ miles, making a total of $1,342\frac{1}{2}$ miles.

The following are the through distances:—

	Miles.
Montreal via St. Joseph and St. Charles Junction (14 miles) to Halifax ..	838
Montreal to St. John	741
Montreal via Truro. { to Sydney	990
{ to North Sydney.....	983

NOTE.—At Montreal the passengers make connection with the Canadian Pacific Railway and with the Grand Trunk Railway. Freight is carried direct along the line between Chaudière Junction and St. Charles Junction (17 miles), instead of round by Lévis to St. Charles Junction, a total distance of 24 miles, thence to Montreal.

WINDSOR BRANCH.

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

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PRINCE EDWARD ISLAND RAILWAY.

LENGTH OF LINE.		Miles.
Souris to Tignish		168
Mount Stewart to Georgetown		24
Charlottetown to Royalty Junction		5
Emerald Junction to Cape Traverse.		13
Alberton to Cascumpec Wharf.		1
		211

Communication between the Prince Edward Island Railway and the Intercolonial is afforded in summer by steamer between Summerside and Pointe du Chêne, between Charlottetown and Pictou, and between Georgetown and Pictou, and in winter by specially-built steamers between Georgetown and Pictou and between Charlottetown and Pictou; there is also further provision made for communication by iceboats from Cape Traverse. These cross the strait to Cape Tormentine, on the mainland, a distance of about 9 miles. Here, by the line of the New Brunswick and Prince Edward Railway, about 40 miles in length, connection is made with the Intercolonial Railway at Sackville. This winter service across the Straits is conducted by the Marine Department, the mails being taken to and met at Cape Traverse by special trains, whenever required by the Post Office Department.

CANALS.

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

First.—The through route between Montreal and the head of Lake Superior, 14 feet navigation.

	Miles.	Miles.
1. Lachine Canal.	8 $\frac{1}{2}$	
River St. Lawrence.		16
2. Soulanges Canal.	14	
River St. Lawrence.		32 $\frac{3}{4}$
3. Cornwall Canal.	11	
River St. Lawrence.		5
4. Farran's Point Canal.	1	
River St. Lawrence.		10 $\frac{1}{2}$
5. Rapide Plat Canal.	3 $\frac{3}{8}$	
River St. Lawrence.		4 $\frac{1}{2}$
6. Galops Canal.	7 $\frac{1}{2}$	
River St. Lawrence and Lake Ontario.		236 $\frac{3}{4}$
7. Welland Canal.	26 $\frac{3}{4}$	
Lake Erie, Detroit River, Lake St. Clair and St. Mary's River.		394
8. Sault Ste. Marie Canal.	1 $\frac{1}{2}$	
Lake Superior to Port Arthur		266
" Duluth, 390.		
	73 $\frac{3}{8}$	965 $\frac{1}{2}$
Total.		

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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 2,260 statute miles. The distance to Duluth is 2,384 miles.

From the Straits of Belle Isle, at the mouth of the St. Lawrence, to Montreal the distance is 986 miles. From Quebec to Montreal the distance is 160 miles. Owing to the shallowness of the waters on a portion of the river between these two places, particularly through Lake St. Peter, vessels drawing more than from ten to twelve feet were formerly barred from passage for the greater part of the season of navigation. In 1826, the question of deepening the channel was first definitely mooted, but it was not until 1844 that any dredging operations were begun. In that year, the deepening of a new straight channel was commenced, but the scheme was abandoned in 1847. In 1851 the deepening of the present channel was begun. At that time the depth of the channel at low water was 10 feet 6 inches. By the year 1869 this depth had been increased to 20 feet, by 1882 to 25 feet, and by the close of 1888 the depth of 27½ feet, at low water, was attained for a distance of 108 miles from Montreal to a point within tidal influence. This work is now being continued by the Government of Canada, which in 1888, under the provisions of the Act 51 Vic., ch. 5, of that year, assumed the indebtedness incurred. The channel has a minimum width of 300 feet, extending to 550 feet at points of curvature. The channel is lighted and buoyed.

Navigation, which is closed by ice during the winter months, opens about the end of April.

Montreal has by this work been placed at the head of ocean navigation, and here the canal systems of the River St. Lawrence begin, overcoming the various rapids by which the river channel upwards is obstructed, and giving access, through the St. Lawrence Canals, the Welland Canal, the Great Lakes and the Sault Ste. Marie Canal, to the head of Lake Superior.

The difference in level between the point on the St. Lawrence near Three Rivers where tidal influence ceases, and Lake Superior, is about 600 feet.

The Dominion canals, constructed between Montreal and Lake Superior are the Lachine, Soulanges, Beauharnois, Cornwall, Farran's Point, Rapide Plat, Galops, Murray,

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Welland and Sault Ste. Marie. Their aggregate length is 85 miles; total lockage (or height directly overcome by locks), 551 feet. The number of locks through which a vessel would pass in its passage from Montreal, at the head of ocean navigation, to the head of Lake Superior is 47. The Soulanges Canal takes the place of the Beauharnois Canal; the latter may be abandoned for navigation purposes.

Communication between Lakes Huron and Superior is obtained by means of the Canadian Sault Ste. Marie Canal, and also by the St. Mary's Falls Canal situated on the United States side of the River St. Mary. Both these canals are free of toll.

It is important to note that the enlargement of the canals on the main route between Montreal and Lake Erie comprises locks of the following minimum dimensions:—Length 270 feet, width 45 feet, depth of water on sills 14 feet. *The length of the vessels to be accommodated is limited to 255 feet.* At Farran's Point, in the canal of that name, the lock is 800 feet long. A similar lock is built at Iroquois on the Galops Canal, the object being to pass a full tow at one lockage.

LACHINE CANAL.

Length of canal..	8½ statute miles.
Number of locks.	5
Dimensions of locks.	270 feet by 45 feet.
Total rise or lockage.	45 “
Depth of water } at two locks	18 “
} on sills.	14 “
Average width of new canal.	150 “

The old lift locks 200 feet by 45 feet, are still available, with 9 feet of water on mitre sills.

The depth of the canal between locks is now adapted to vessels of 14 feet draught.

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 “
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 candle power each.

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

From the head of the Lachine to the foot of the Soulanges the distance of 16 miles.

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CORNWALL CANAL.

Length of canal.....	11 statute miles.
Number of locks.....	6
Dimensions of locks.....	270 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 9 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 14 feet.

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

WILLIAMSBURG CANALS.

The Farran's Point, Rapid 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 " 45 "
Total rise or lockage.....	$3\frac{1}{2}$ "
Depth of water on sills of new lock at ordinary water level.....	14 "
Depth of water on sills of old lock at ordinary water level.....	9 "
Breadth of canal at bottom.....	90 "
Breadth of canal at water surface.....	154 "

From the head of the Cornwall Canal to the foot of Farran's Point Canal, the distance on the River St. Lawrence is 5 miles. The latter canal enables vessels ascending the river to avoid the 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.....	$11\frac{1}{2}$ "
Depth of water on sills.....	14 "
Breadth of canal at bottom.....	80 "
Breadth of canal at surface of water.....	152 "

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The old lift lock, 200 feet by 45, is also available, with 9 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. This 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
Dimensions of locks	{ 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. This 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 $\frac{1}{6}$ 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.

WELLAND CANAL.

MAIN LINE FROM PORT DALHOUSIE, LAKE ONTARIO, TO PORT COLBORNE, LAKE ERIE.

	Old Line.	Enlarged or New Line.
Length of canal	27 $\frac{1}{2}$ miles.	26 $\frac{3}{4}$ miles.
Pairs of guard-gates (formerly 3)		2
Number of locks { lift	26	Lift 25
{ guard	1	Guard 1
Dimensions	{ 1 lock 200 x 45 1 " 200 x 45 1 (tidal) 230 x 45 24 locks 150 x 45	} 270 feet x 45 feet.
Total rise or lockage	326 $\frac{3}{4}$ feet.	326 $\frac{3}{4}$ feet.
Depth of water on sills	10 $\frac{1}{4}$ feet.	14 "

WELLAND RIVER BRANCHES.

Length of canal—Port Robinson Cut to River Welland	2,622 feet.
“ From the canal at Welland to the river, via lock at aqueduct	300 “
“ 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 by 45 feet.
Total rise or lockage	7½ feet.
Depth of water on sills	11 “

The Welland Canal has two entrances from Lake Ontario, at Port Dalhousie, one for the old, the other for the new canal.

From Port Dalhousie to Allanburgh, 11¾ miles, there are two distinct lines of canal in operation, the old line and the enlarged or new line.

From Allanburgh to Port Colborne, a distance of 15 miles, there is only one channel, the old canal having been enlarged.

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 394 miles. From the Sault the distance through Lake Superior to Port Arthur is 266 miles, and to Duluth 390 miles.

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SAULT STE. MARIE CANAL.

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

This canal has been constructed through St. Mary's Island, on the north side of the rapids of the River St. Mary, and, with that river, gives communication on Canadian territory between Lakes Huron and Superior. 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 $\frac{5}{8}$ miles.

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

The Ste. Anne's Lock,	} Ottawa River Canals.
Carillon Canal,	
Grenville Canal.	
Rideau Canal.	

The total lockage (not including that of the Lachine Canal) is 509 feet—(345 rise, 164 fall)—and the number of locks is 55.

The following table exhibits the intermediate distances from Montreal harbour:—

Sections of Navigation.	Intermediate distances.	Total distance from Montreal.
	Miles.	Miles.
The Lachine Canal.....	8 $\frac{1}{2}$	
From Lachine to Ste. Anne's Lock	15	23 $\frac{1}{2}$
Ste. Anne's Lock and piers.....	$\frac{1}{2}$	23 $\frac{3}{4}$
From Ste. Anne's Lock to Carillon Canal	27	50 $\frac{3}{4}$
The Carillon Canal	$\frac{3}{4}$	51 $\frac{1}{4}$
From Carillon Canal to Grenville Canal	6	57 $\frac{1}{4}$
The Grenville Canal	$\frac{1}{2}$	63
From the Grenville Canal to entrance of Rideau navigation.....	56	119
Rideau navigation ending at Kingston.....	126 $\frac{1}{2}$	245 $\frac{5}{8}$

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.

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 "

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.

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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 " in earth. 54 " in rock.
Breadth at surface of water.....	80 " in earth.

PERTH BRANCH.

Length of canal.....	6 miles.
Number of locks.....	2
Dimensions of locks.....	134 feet 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 of 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 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 Wolf 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.

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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 Canal is entered, and connection is obtained with the River Hudson, by which the city of New York is directly reached. From the boundary line to New York the distance is 330 miles.

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

Section of Navigation.	Intermediate Distances in Miles.	Total Distances.
Sorel to Ours Lock.....	14	14
St. Ours Lock to Chambly Canal.....	32	46
Chambly Canal.....	12	58
Chambly Canal to boundary line.....	23	81
Boundary line to Champlain Canal.....	111	192
Champlain Canal to junction with Erie Canal.....	66	258
Erie Canal, from junction to Albany.....	7	265
Albany to New York.....	146	411

ST. OURS LOCK AND DAM.

Length.....	$\frac{1}{8}$ mile.
Number of locks.....	1
Dimensions of lock.....	200 feet by 45 feet.
Total rise or lockage.....	5 "
Depth of water on sills.....	7 " at low water
Length of dam in eastern channel.....	300 "
" " western channel.....	690 "

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

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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 "	
" " 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/>	<hr/>
	132¼	32¾
Total distance, Bay of Quinté to a point across Balsam Lake.....	. . . . .	165
From Sturgeon Point on Sturgeon Lake, 48¾ miles from Lakefield, the branch through the town of Lind- say to Port Perry at the head of Lake Scugog... ..	. . . . .	<u>27½</u>

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

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

At Young's Point, five miles from Lakefield, the dam between Lake Katchiwannoe and Clear Lake controls the water level through Clear and Stony Lakes up to the foot of the Burleigh Canal. The lock here, it should be observed, is controlled by the Provincial Government.

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

At Buckhorn Rapids, seven 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 Fenelon	134' x 33' x 5' 0" to 7' 6" depth water on mitre sill.
1	" Lindsay	" 5' 0" to 7' 0" " "
1	" Bobcaygeon	" 5' 8" to 7' 6" " "
1	" Buckhorn	" 5' 0" to 9' 0" " "
1	" Lovesick	" 5' 0" to 9' 4" " "
2	" Burleigh	" 2' 4" to 7' 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	" 7' 0" to 10' 6" " "
1	" Chisholm	" 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 42 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	11 $\frac{1}{4}$ statute miles.
Number of locks	9
Dimensions of locks	200 feet by 45 feet.
Total rise or lockage	82 $\frac{1}{2}$ "
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, December 6, 1900.

SIR,—I have the honour to submit my annual report for the fiscal year ended June 30, 1900, covering, however, works of construction up to December 1, instant. Accompanying it are the following:—

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

Second.—Reports of Mr. J. S. O'Dwyer and Mr. Dupont, engineers on the exploratory surveys to ascertain the most practicable route for an all Canadian railway from some point on an existing railway into the Yukon District, also between the Stikine River and an ocean port in British Columbia. (Part I.)

Third.—The annual reports of the Superintending Engineers of the several canals. (Part I.)

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

Fifth.—Financial statements of the accountant of the department. (Part II.)

Sixth.—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.)

Seventh.—Statement of contracts entered into during the year, prepared by Mr. Ruel, the law clerk. (Part IV.)

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

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

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

Eleventh.—The canal statistics for the season of navigation of 1899, compiled by Mr. Devlin. (Part V.)

Twelfth.—The railway statistics for the year ended June 30, 1900, compiled by Mr. Ridout, from returns prepared by the railway companies. (Part VI.)

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The following table shows the length of the government railways in operation on June 30, 1900.

INTERCOLONIAL DIVISION.

	Miles.	Total Miles.
Montreal to Halifax	840	
Moncton to St. John	89	
Truro to Sydney	217	
Oxford Junction to Pictou	70	
Chaudière Junction to Lévis	8	
Lévis to St. Charles Junction via Harlaka	16	
Dalhousie Junction to Dalhousie	7	
Derby Junction to Indiantown	14	
Painsec Junction to Pointe du Chêne	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	7	
Dartmouth Branch	13	
	—	1,315·00

FREIGHT BRANCHES.

Nicolet Branch	14·76	
Rivière du Loup Wharf Branch	4	
Rimouski "	2	
Newcastle "	2	
Dorchester "	1	
Courtney Bay "	1	
Sackville "	50	
Stewiacke "	1	
Halifax Cotton Factory Branch	1	
	—	27·26
Total		1,342·26

WINDSOR BRANCH.

Windsor Junction to Windsor	32
---------------------------------------	----

PRINCE EDWARD ISLAND RAILWAY.

Souris to Tignish	168	
Mount Stewart to Georgetown	24	
Charlottetown to Royalty Junction	5	
Emerald Junction to Cape Traverse	13	
Alberton to Cascumpec Wharf	1	
	—	211
Total length of Government railways		1,585·26

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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	1,315	Working expenses.	4,431,404 69		
		Earnings.	4,552,071 71	120,667 02	
Windsor Branch	32	½ earnings.	47,351 43		
		Maintenance	12,891 56	34,459 87	
Prince Edward Island Division	211	Earnings.	174,738 73		
		Working expenses.	220,931 81		46,193 08
				155,126 89	
		Deduct loss from profit.		46,193 08	
Total miles.	1,388	Net profit		108,933 81	

The maintenance of the roads and rolling stock has received careful attention, and both roads and rolling stock continue to be in efficient condition.

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

	1898-99.	1899-1900.
	₹ cts.	₹ cts.
Intercolonial Division	3,738,331 34	4,552,071 71
Windsor Branch	42,474 03	47,351 43
Prince Edward Island Division	165,012 03	174,738 73
Total	3,945,817 40	4,774,161 87

Showing an increase in the gross earnings of ₹828,344.47.

The gross working expenses of the Government railways, including rentals of leased lines, for the last two years compare as follows:—

	1898-99.	1899-1900.
	₹ cts.	₹ cts.
Intercolonial Division	3,675,686 21	4,431,404 69
Windsor Branch	12,873 09	12,891 56
Prince Edward Island Division	218,053 01	220,931 81
Total	3,906,612 31	4,665,228 06

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Showing an increase in working expenses for the year, compared with the previous year, of \$758,615.75, which is made up of the following:—

	1898-99.		1899-1900.		Difference.	
	\$	cts.	\$	cts.	Increase.	Decrease.
Locomotive power	1,158,655	18	1,457,956	08	299,300	90
Car expenses	769,729	95	1,049,809	96	280,080	01
Maintenance of way and works	942,382	20	1,041,071	06	98,688	86
Station expenses	483,886	87	569,634	29	85,747	42
General charges	269,062	00	321,038	95	51,976	95
Car mileage	72,896	11	61,023	25		11,872 86
Rental of leased lines	210,000	00	164,694	47		45,305 53
	3,906,612 31		4,665,228 06		815,794 14	57,178 39
Deduct decrease					57,178 39	
Net increase					758,615 75	

INTERCOLONIAL DIVISION.

The ocean passenger and freight traffic via the port of Halifax shows a considerable increase for the winter season of 1899-00, 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 1898-99 and 1899-00.

Name of Steamer.	1898-99. No. of Passengers.			Name of Steamer.	1899-1900. No. of Passengers.		
	1st Class.	2nd Class.	Total.		1st Class.	2nd Class.	Total.
Vancouver	75	298	373	Vancouver	78	392	470
Parisian	41	110	151	Parisian	91	1,035	1,126
Tongario	7	108	115	Cambroun	56	531	587
Labrador	41	213	254	Lake Huron	12	328	340
Carthaginian	7	300	307	Carthaginian	9	144	152
Laurentian	34	219	253	Monteray	3	19	22
Scotsman	48	256	304	Monteagle	3	Nil	3
Siberian	4	158	162	Siberian	5	120	125
Californian	46	492	538	Californian	41	289	330
Nunidian	12	135	147	Nunidian	34	318	352
Castilian	14	98	112	Montrose	1	10	11
Lake Ontario		9	9	Lake Ontario	19	349	368
Dominion	34	207	241	Dominion	113	500	613
Mongolian	21	204	225	Ashant	3	Nil	3
Armenian		554	554	Arawa	3	46	49
Corean		25	25	Corean	11	68	79
Brazilia		1,792	1,792	Assyrian	8	58	66
Phenicia		1,308	1,308	Lake Superior	6	215	221
Bulgaria		771	771	Sardinian	1	46	47
				Etolia	1	1	2
				Lake Megantic	5	96	101
				Norwegian	Nil	54	54
				Yola	1	11	12
				Lusitania	4	173	177
				Tunisian	Nil	446	446
				Arcadia	70	904	974
				Adria	Nil	1,701	1,701
				Hispania	Nil	389	389
Total	384	7,257	7,641	Total	577	8,243	8,820

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Of ocean-borne passengers in 1898-9, 7,186 travelled via St. John by the Canadian Pacific Railway, and 461 travelled via Chaudière by the Grand Trunk Railway.

Of ocean-borne passengers in 1899-1900, 7,537 travelled via St. John by the Canadian Pacific Railway, and 824 travelled by the Intercolonial Railway to Montreal.

COMPARATIVE STATEMENT of ocean-borne freight traffic during the winter seasons of 1898-99 and 1899-1900.

Name of line of Steamers.	Winter of 1898-99.			Name of line of Steamers.	Winter of 1899-1900.		
	Measurement tons.	Weight tons.	Total tons.		Measurement tons.	Weight tons.	Total tons.
Allan Line from Liverpool	1,265	1,030	2,295	Allan Line from Liverpool	2,615	2,756	5,371
Beaver Line from Liverpool	401	69	470	Beaver Line from Liverpool	Nil.	Nil.	Nil.
Canada & Newfoundland from Liverpool	Nil.	Nil.	Nil.	Canada & Newfoundland	Nil.	Nil.	Nil.
Furness Line from London	650	1,430	2,110	Furness Line from London	1,831	5,165	6,996
Dominion Line from Liverpool	382	69½	451½	Dominion Line from Liverpool	Nil.	Nil.	Nil.
				Elder Dempster from Liverpool	233	213	446
Total	2,698	2,628½	5,326½	Total	4,679	8,134	12,813

The above statement shows an increase of 7,487 tons of ocean-borne freight traffic for the winter season of 1899-1900, as compared with the winter season of 1898-99.

The following is a statement of the quantity and classes of the rolling stock purchased on capital account up to June 30, 1900 :—

Engines.	Passenger Car Stock.										Platform Cars.	Coal Cars of three several kinds.	Snow Ploughs.	Wing Ploughs.	Flangers.	Rotary Snow Ploughs.	Auxiliary Cars.
	Dining Cars.	1st Class Sleeping and Parlour.	1st Class.	2nd Class Sleepers.	2nd Class.	Baggage and Mail Postal.	Conductors' Van.	Box and Cattle and Refrigerator Cars.									
228	4	23	102	19	93	45	99	2,796	103	2,319	999	49	10	22	2	9	
...	...	5	28	...	65	747	
Total..	228	4	28	102	19	93	73	99	2,964	2,319	1,975	49	10	22	2	9	

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The following is a statement of the quantity and classes of rolling stocks which have been rebuilt during the year ended June 30, 1900, at the cost of revenue to maintain the work :—

	Passenger Car Stock.						Box and Cattle Cars.	Platform Cars.	Coal Cars of three several kinds.	Snow Ploughs.	Wing Ploughs.	Plungers.	Rotary Snow Ploughs.
	Engines.	1st Class Sleeping and Parlour.	1st Class.	2nd Class Sleepers.	2nd Class.	Baggage and Mail.								Conductor's Van.
Total...	9	2					57	208	117			2	

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	618,957
1878-79	714	2,010,183 22	1,294,009 69		716,083 53	510,861	640,161
1879-80	829	1,603,429 71	1,506,298 48		97,131 23	561,924	581,483
1880-81	810	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	911	2,519,751 56	2,441,203 66		78,547 90	989,936	957,228
1885-86	946	2,583,999 67	2,450,093 88		133,905 79	1,023,788	932,880
1886-87	966	2,922,369 62	2,660,116 93		262,252 69	1,143,020	942,784
1887-88	971	3,366,781 74	2,983,336 05		383,445 69	1,288,823	1,040,163
1888-89	971	3,244,647 73	2,967,801 00		276,846 73	1,218,877	1,136,272
1889-90	971	3,560,575 74	3,012,739 87		547,835 87	1,368,819	1,219,233
1890-91	1,094	3,662,341 94	2,977,395 38		684,946 56	1,304,534	1,298,304
1891-92	1,142	3,439,377 00	2,945,441 97		493,935 03	1,264,575	1,297,732
1892-93	1,142	3,045,317 59	3,065,499 09	20,181 59		1,388,080	1,292,878
1893-94	1,142	2,981,671 98	2,987,510 27	5,838 29		1,342,710	1,301,062
1894-95	1,142	2,936,902 74	2,940,717 95	3,815 21		1,267,816	1,352,667
1895-96	1,142	3,012,827 62	2,957,640 10		55,187 52	1,379,618	1,471,866
1896-97	1,145	2,925,968 67	2,896,028 02		59,940 65	1,296,028	1,501,690
1897-98		3,327,648 51	3,117,069 85		209,978 66	1,434,576	1,528,444
1898-99		3,675,646 21	3,738,331 44	62,685 23		1,750,761	1,603,095
*1899-1900		4,431,404 69	4,552,071 71	120,667 02		2,131,208	1,791,754

* The working expenses include the rental paid for leased lines.

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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 Chaudière Junction 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 Chaudière.	Via St. John.		
1876-77			103,420	103,420
1877-78			97,043	97,043
1878-79	300		112,232	112,532
1879-80	1,097		135,369	136,466
1880-81	6,102	4,022	174,483	184,607
1881-82	18,015	11,779	218,364	248,158
1882-83	12,837	22,206	227,380	262,423
1883-84	22,014	19,534	252,014	293,562
1884-85	133,440	1,773	213,791	349,004
1885-86	171,170	21,150	215,272	407,592
1886-87	192,871	27,536	233,178	453,585
1887-88	133,704	35,228	309,727	529,659
1888-89	160,026	27,923	338,538	526,487
1889-90	164,453	25,126	366,967	556,546
1890-91	113,996	39,213	344,829	498,038
1891-92	35,447	5,918	392,441	433,806
1892-93	136,868	3,775	402,633	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.	599,714	603,289

It thus appears that the largest tonnage of coal carried over the road for the west was in the year 1886-87, when it reached 220,407 tons, since which the through coal traffic for points west of the Intercolonial Railway has greatly declined.

TABLE showing the number of bushels of grain carried during each year for shipment at Halifax since the road was opened as a through line to the west.

Year.	Bushels.		Total.	Year.	Bushels.		Total.
	Via Chaudière.	Via St. John.			Via Chaudière.	Via St. John.	
1876-77				1888-89	129,725		129,725
1877-78				1889-90	502,012		502,012
1878-79				1890-91	148,803	59,534	218,337
1879-80				1891-92	745,997	519,500	1,265,497
1880-81				1892-93	155,306	197,669	352,975
1881-82				1893-94	Nil.	8,026	8,026
1882-83	31,011		31,011	1894-95	Nil.	Nil.	Nil.
1883-84	73,389		73,389	1895-96	Nil.	Nil.	Nil.
1884-85	300,901		300,901	1896-97	Nil.	Nil.	Nil.
1885-86	389,122		389,122	1897-98	8,000	Nil.	8,000
1886-87	575,880		575,880	1898-99	30,000	Nil.	30,000
1887-88	69,021		69,021	1899-1900	13,239	Nil.	13,239

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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	1888-89.	948,514
1877-78.	657,778	1889-90.	1,116,050
1878-79.	630,329	1890-91.	1,013,129
1879-80.	533,248	1891-92.	954,015
1880-81.	672,310	1892-93.	856,913
1881-82.	692,095	1893-94.	944,967
1882-83.	983,916	1894-95.	938,351
1883-84.	817,134	1895-96.	822,097
1884-85.	935,977	1896-97.	847,701
1885-86.	761,127	1897-98.	987,408
1886-87.	763,894	1898-99.	1,157,250
1887-88.	871,838	1899-1900.	1,234,076

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	1888-89.	1,526,158
1877-78.	331,170	1889-90.	2,610,202
1878-79.	302,921	1890-91.	2,890,921
1879-80.	534,021	1891-92.	3,776,677
1880-81.	565,678	1892-93.	1,514,619
1881-82.	560,253	1893-94.	1,304,684
1882-83.	1,195,601	1894-95.	1,036,384
1883-84.	654,673	1895-96.	1,064,385
1884-85.	734,962	1896-97.	1,093,499
1885-86.	849,800	1897-98.	1,551,372
1886-87.	1,018,395	1898-99.	2,595,353
1887-88.	1,219,035	1899-1900.	2,720,453

TABLE showing the quantity of lumber in feet carried during each year over the road since it was first opened for traffic as a through line to the west.

Year.	Feet.	Year.	Feet.
1876-77.	58,096,474	1888-89.	199,507,777
1877-78.	56,626,547	1889-90.	210,886,071
1878-79.	55,626,696	1890-91.	184,188,324
1879-80.	55,462,654	1891-92.	175,474,340
1880-81.	72,841,388	1892-93.	181,211,013
1881-82.	78,356,418	1893-94.	200,507,949
1882-83.	104,633,417	1894-95.	202,247,269
1883-84.	131,120,948	1895-96.	226,332,715
1884-85.	138,493,675	1896-97.	243,355,725
1885-86.	117,186,512	1897-98.	354,093,816
1886-87.	161,801,763	1898-99.	306,554,031
1887-88.	197,755,272	1899-1900.	379,350,074

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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	1888-89..	85,960
1877-78..	46,498	1889-90..	86,771
1878-79..	47,584	1890-91..	95,520
1879-80..	70,990	1891-92..	87,889
1880-81..	61,574	1892-93..	93,369
1881-82..	73,479	1893-94..	79,203
1882-83..	68,338	1894-95..	72,106
1883-84..	60,090	1895-96..	64,051
1884-85..	70,785	1896-97..	72,082
1885-86..	74,498	1897-98..	89,301
1886-87..	82,896	1898-99..	109,821
1887-88..	98,302	1899-1900..	92,813

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 Chan- dière to and from the West.	Via St. John to and from the West.	To and from local Stations.	Total.
	Tons.	Tons.	Tons.	
1876-77..				
1877-78..	14,949		3,405	18,354
1878-79..	21,628		2,643	24,271
1879-80..	21,073		4,952	26,025
1880-81..	15,454		3,334	18,788
1881-82..	21,607		4,168	25,775
1882-83..	24,875		7,911	32,786
1883-84..	19,696		6,533	26,229
1884-85..	22,787		8,405	31,192
1885-86..	13,464		8,216	21,680
1886-87..	16,923		9,811	26,734
1887-88..	41,864		8,878	50,742
1888-89..	17,340		11,481	28,821
1889-90..	9,895		11,730	21,625
1890-91..	9,923		10,764	20,687
1891-92..	9,719	17	23,825	33,571
1892-93..	7,295	100	12,319	19,714
1893-94..	3,023	204	13,455	16,682
1894-95..	6,749	243	10,399	17,391
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

The above statement does not include deals, which amounted to 55,086 tons for the year 1899-1900.

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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 Chaudière for the West	To St. John for the West.	To Local Stations	Total.	To Chaudière for the West	To St. John for the West	To Local Stations	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1876-77	340			340				
1877-78	186			186				
1878-79	1,041			1,041				
1879-80	12,220			12,220				
1880-81	13,872			13,872	4,022		2,902	6,924
1881-82	14,256		1,290	15,546	7,146		3,607	10,753
1882-83	9,465		508	9,973	11,126		5,497	16,623
1883-84	13,778		3,068	16,846	14,543		7,265	21,808
1884-85	10,381		3,661	14,042	18,024		8,445	26,469
1885-86	4,304		3,968	8,272	7,660		5,858	13,518
1886-87	20,450		8,500	28,950	15,044		8,395	23,439
1887-88	14,320		14,085	28,405	21,641		7,133	28,774
1888-89	24,358		7,160	31,518	12,955		11,120	24,075
1889-90	7,390		8,913	16,303	6,778		6,125	12,903
1890-91	5,088	4,670	8,215	17,973	10,130	458	5,996	16,584
1891-92	7,142	3,966	10,535	21,643	12,633	7,674	12,414	32,721
1892-93	Nil.	Nil.	10,137	10,137	8,327	6,456	7,840	22,623
1893-94	X 1.	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	10,980	26,534
1898-99	Nil.	Nil.	Nil.	Nil.	8,138	2,195	15,833	26,164
1899-1900	96	Nil.	Nil.	96	9,795	257	19,655	29,907

TABLE showing the number of tons of fresh and salt fish carried over the road during each year since it was opened as a through line.

Year.	Fresh Fish.				Salt Fish.			
	To Chaudière for the West.	To St. John for the West	To Local Stations.	Total.	To Chaudière for the West.	To St. John for the West	To Local Stations	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1876-77	539	921	527	1,978	551	1,848	802	3,201
1877-78	596	1,015	474	2,085	808	1,644	805	3,347
1878-79	471	1,336	817	2,624	988	1,038	1,048	2,974
1879-80	519	1,362	453	2,334	1,612	2,238	959	4,809
1880-81	498	1,879	920	3,297	2,418	937	1,051	4,406
1881-82	475	1,619	957	3,051	4,031	1,066	2,487	7,584
1882-83	542	384	393	1,319	3,299	759	1,354	5,412
1883-84	838	1,682	412	2,932	1,322	1,143	1,224	3,689
1884-85	1,062	1,885	484	3,431	3,563	3,600	1,596	8,759
1885-86	1,669	1,645	902	4,216	1,680	2,047	3,376	7,103
1886-87	1,278	1,572	2,008	4,858	3,236	569	1,747	5,552
1887-88	1,533	1,477	1,031	4,041	2,617	476	1,099	4,193
1888-89	2,474	2,000	1,870	6,344	3,970	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	3,025	5,474
1899-1900	2,547	2,706	3,686	8,939	2,421	1,563	2,659	6,643

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Twenty-four miles of the 67 lb. steel rails have been lifted and replaced, at the cost of revenue, by 80 lb. steel rails, and 332,163 ties have been renewed.

CAPITAL ACCOUNT.

Total cost of road and equipment up to June 30, 1900 :—

Road, including \$1,459,000 paid on acct., purchasing Drummond County Railway	\$50,867,364 32
Rolling stock	9,138,827 86
Total.....	\$60,006,192 18

The increased accommodation at the deep water terminus at Halifax has been further improved.

Additions have been made to the rolling stock and both the road and rolling stock have been efficiently maintained during the year.

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.

The road has been maintained in efficient condition.

TABLE showing the earnings and its division between the Windsor Branch and the Main Line of the Intercolonial Railway between Windsor and Halifax, the maintenance, expenses and net earnings of the Windsor Branch for each year since 1880:—

Year.	Miles in Operation.	One third Gross Earnings.	Proportion of one-third Gross Earnings credited to Line Windsor Junction to Halifax.	Proportion of one-third Gross Earnings credited to the Windsor Branch.	Maintenance Expenses.	Profit.	Loss.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1880-81..	32	28,434 29	7,217 76	21,216 53	26,502 26	714 27	.....
1881-82..	32	28,461 07	7,407 88	21,053 19	13,099 55	7,953 64	.....
1882-83..	32	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	29,856 50	7,515 61	.....
1889-90..	32	39,514 19	9,381 73	30,162 46	18,982 82	11,179 64	.....
1890-91..	32	39,519 56	9,284 43	30,235 13	28,931 71	1,303 42	.....
1891-92..	32	42,891 23	9,382 38	33,508 85	19,514 37	13,994 48	.....
1892-93..	32	43,901 28	9,585 17	34,316 11	16,889 95	17,426 16	.....
1893-94..	32	41,834 70	8,859 23	32,975 47	17,645 09	15,320 38	.....
1894-95..	32	50,703 84	11,626 20	39,077 64	14,640 07	24,437 57	.....
1895-96..	32	47,456 74	10,894 91	36,561 83	16,476 46	20,085 37	.....
1896-97..	32	54,208 81	13,605 58	40,603 23	19,821 04	29,782 19	.....
1897-98..	32	48,892 21	11,665 57	37,226 64	18,181 63	19,045 01	.....
1898-99..	32	56,314 51	13,840 48	42,474 03	12,873 09	29,600 94
1899-1900	32	62,266 61	14,915 18	47,351 43	12,891 56	34,459 87

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PRINCE EDWARD ISLAND RAILWAY.

CAPITAL ACCOUNT.

Total cost of road and rolling stock up to June 30, 1900 :—

Road, &c	\$3,373,424 28
Rolling stock	470,229 00
Total	\$3,843,653 28

The rolling stock provided on capital account consists of :—

Passenger Car Stock.										
Engines	1st Class Car.	2nd Class Car.	Baggage Smoking and Postal Cars.	Official Car.	Box, Cattle and Refrigerator Car.	Platform Car and Coal Cars.	Conductors' Vans.	Pay Car.	Snow Ploughs.	Flangers.
21	17	11	9	1	183 17 1	127 18	3	1	8	7
					201	145				

Owing to converting of one class of car to another the stock now stands :—

21	17	11	9	1	201	145	3	1	8	7
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Statement of rolling stock rebuilt during the year—2 locomotives, 2 first-class cars, 1 baggage car, 3 coal cars, 1 platform car and 1 snow plough.

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 of Operation.	Working Expenses.	Gross Earnings.	Loss.	Tons of Freight carried.	No. of Passengers carried.
		\$ cts.	\$ cts.	\$ cts.		
1875-76	199	214,930 43	118,060 96	96,869 47	28,358	93,964
1876 77	199	228,595 25	130,664 92	97,930 33	41,039	93,478
1877-78	199	221,599 49	135,839 60	85,699 89	38,923	111,428
1878-79	199	223,313 12	125,855 99	97,457 21	38,668	105,046
1879 80	199	164,649 55	113,851 11	50,789 44	37,208	90,533
1880 81	199	203,122 88	131,131 43	71,991 45	45,336	102,937
1881 82	199	228,259 97	137,267 54	90,922 43	48,315	118,436
1882-83	199	252,808 41	146,170 42	106,637 99	51,920	117,162
1883 84	199	236,428 13	144,504 12	91,924 01	51,841	118,988
1884 85	211	211,207 01	158,588 06	52,618 95	57,346	130,423
1885 86	211	216,744 34	155,584 36	61,159 98	57,913	120,374
1886 87	211	204,237 37	155,303 37	48,934 00	53,589	123,067
1887 88	211	229,639 95	158,363 62	71,276 33	59,603	131,246
1888 89	211	247,559 44	171,369 56	76,189 89	59,682	152,780
1889 90	211	266,485 85	169,971 78	105,514 07	51,694	133,099
1890 91	211	257,990 08	174,258 05	83,732 03	59,511	145,508
1891 92	211	289,706 38	157,442 69	132,263 69	51,065	139,389
1892 93	211	226,422 17	162,090 42	63,731 75	56,718	132,111
1893-94	211	226,891 06	158,533 83	68,357 23	53,577	123,727
1894 95	211	232,905 19	149,654 71	83,250 41	48,325	125,089
1895 96	211	225,138 56	146,476 54	78,662 02	46,395	122,586
1896 97	211	240,489 90	153,443 13	87,046 77	52,151	121,498
1897 98	211	231,418 74	158,950 61	72,468 13	57,539	126,510
1898 99	211	218,653 01	165,012 03	53,040 98	57,968	129,667
1899 1900	211	220,931 81	174,738 73	46,193 08	62,227	147,471

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The track stands the same as at date of my last annual report.

Steel rails (50 lbs. to yard).....	151½ miles.
Iron rails (40 lbs. to yard).....	59½ "
Total length of road.....	211 "

The road and rolling stock are in good running condition.

CROW'S NEST PASS RAILWAY.

The construction of this road being considered a necessity for the successful development of the mining interests of British Columbia, Parliament by 60-61 Victoria, chapter 5, 1897, granted a subsidy of \$11,000 per mile in aid of it. Under this Act the Canadian Pacific Railway Company undertook the work of construction and entered into a contract, breaking ground on July 15, 1897.

The road was, for construction purposes, divided into two sections. Section 1 extended from Lethbridge to the crossing at the south end of Kootenay Lake, a distance of $288\frac{7}{100}$ miles. Section 2 commenced at the end of section 1, at the crossing of the south end of Kootenay Lake to Nelson, a distance of 54 miles, making a total of $342\frac{7}{100}$ miles. Section 1 has been completed some time, with the exception of the building of a permanent straightened line around the point at Bullhead Prairie, for which a certain amount has been retained from the subsidy. Of section 2 no work has been done at the south end of Kootenay Lake, but the 20 mile subsection between Balfour and Nelson is practically completed and ready for traffic: this subsection follows along the rocky bluff bordering on the Kootenay Lake; it is heavy work, the curvature is sharp, but the grades are light, and the road is well and substantially built. The section between Lethbridge and the south end of Kootenay Lake, $288\frac{7}{100}$ miles, has continued to be operated successfully during the year.

The amount of subsidy paid up to October 1, 1900, remains same as appeared in my last annual report, viz.....	\$3,116,250
Balance of subsidy applicable to section 1 unpaid.....	60,000
Total subsidy applicable.....	<u>\$3,176,250</u>

While upon the subject of the Canadian Pacific Railway construction, I may, as a matter of interest to the public, give a statement of the extensions made to their system during the year, viz.:

	Miles.
Crow's Nest Pass Railway, Balfour to Nelson.....	20·00
Vancouver and Lake Island Railway, Vancouver to North Arm of the River Fraser.....	6 80
Pipestone Extension (Assiniboia) Antler to Ancona.....	50·00
McGregor Branch (Manitoba) McGregor, westward.....	26·45
Lac du Bonnet Branch (Manitoba) Molson to Lac du Bonnet	21·88
Dymond Branch (Western Ontario) Dymond to Ottawa Mine	7 00
Total miles of railway constructed by C.P.R during the year	<u>132·13</u>

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SURVEYS FOR A RAILWAY TO THE YUKON DISTRICT FROM A POINT
ON AN EXISTING RAILWAY, AND ALSO FROM AN OCEAN PORT
IN BRITISH COLUMBIA.

To my last annual report were attached the following reports on the surveys for these routes—Mr. John S. O'Dwyer's report with map, February 8, 1899, also his reports of December 5, 1899, and March 1, 1900 with map; Mr. P. H. Dupont: reports April, 1899, and December 3, 1899; C. F. K. Dibblee; report September 20, 1899. In addition to these reports will be found attached to this my annual report of 1899-1900 a further report from Mr. P. H. Dupont, of January 8, 1900. These reports do not cover the whole route, but Mr. O'Dwyer and Mr. Dibblee have been employed in the field during the past season, completing the explorations, and they are now on the way home. I shall not be able to furnish any further information upon the subject in this report, as it will require some time to prepare their plans and reports. From the information, however, given me from time to time, I am able to say a practicable line can be obtained, upon which a road could be constructed at a reasonable cost.

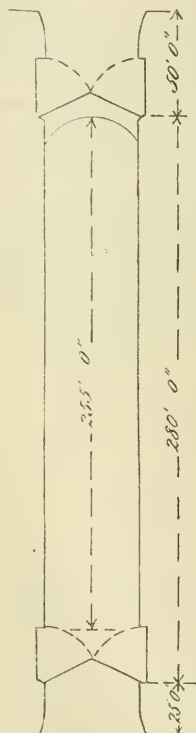
In the annual report for the year ending June 30, 1901 (before the preparation of which no doubt the reports of the engineers in charge of the surveys will be received, covering, it is expected, the entire route) it is proposed to give a full and intelligent description of the entire line from Edmonton to the Yukon and to an Ocean Port, as regards alignment, grades, cost of construction, and a general description of the country through which it passes.



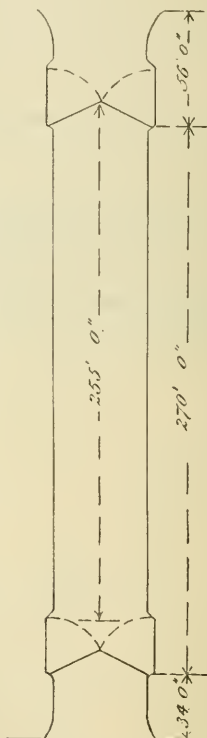
SECTION OF
SOULANGES CANAL LOCK.



SECTION OF
WELLAND CANAL LOCK



SOULANGES CANAL LOCK.



WELLAND CANAL LOCK

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CANALS—CAPITAL ACCOUNT.

SAULT STE. MARIE CANAL.

During the year ended on June 30 last and up to date, the Messrs Heckler Brothers have, under contract, removed a number of shoals in the lower approach to the canal, completing their contract in September, since which tenders have been invited for deepening the entire lower entrance channel so as to give a depth of 22 feet of water. It will also be necessary to give a like depth of water in the upper entrance, and in order to give berths to vessels waiting to pass through the lock it is very essential that the piers at the lower entrance should be lengthened. I suggest that provision should be made for carrying on these works next year. Some trees have been planted upon the canal reserve, and certain levelling of the grounds has been done.

The total cost of construction and equipment up to	
June 30, 1899, was.....	\$3,742,513 69
Expended during year ended June 30, 1900.....	27,157 98
<hr/>	
Total cost of construction and equipment to June 30,	
1900..	\$ 3,769,671 67
Expended from June 30 to December 1, 1900.....	300,765 72
<hr/>	
Total cost of construction and equipment to December	
1, 1900..	<u>\$4,070,437 39</u>

Of the amount of expenditure during the current year of \$300,765.72, \$281,973.43 was paid on an award made by Mr. Shanly in favour of Messrs. Hugh Ryan & Co., contractors for the lock.

SOULANGES CANAL.

The works of construction upon this canal are practically, although not actually, completed, the following being definitely finished :—

Section No. 3—O'Leary Brothers.
" " 8—Charles Rayner.
" " 9—Manning & McDonald.
" " 10—Rogers & Taylor.
" " 11—Poupore & Fraser.
" " 12—M. J. Hogan
" " 13—Manning & McDonald.
Lock Gates—J. & R. Miller.
Bridges—Dominion Bridge Co.
Bridges—Weddell Bridge Co.
Stony Sluices—Dominion Bridge Co.

The only contract works not fully completed are those of sections Nos. 4, 5, 6 and 7, Andrew Onderdonk, on which some work of road construction, sodding, &c., remains to be done, and the power house and electric appliances, Canadian General Electric Co. The power house is built, but the electric works are not yet in condition to be accepted

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This canal may, I think, be cited as the best equipped canal of any in the whole group between Lake Erie and Montreal; it is well lighted throughout by electricity; the locks and bridges will be worked by the same power. At lowest stage of water there are 15 feet of water in the mitre sills, and both the upper and lower approaches are well marked out with gas buoys; so that after the close of this season there will be no necessity to operate the Beauharnois Canal, and, for navigation purposes, I suggest it may be abandoned.

The following is a statement of the amounts which have been paid the contractors up to December 1, 1900:

Sections 1 & 2.. Archibald Stewart...	\$521,796 10	
Ryan & McDonnell..	592,900 00	
Day work.....	5,524 91	
	<u> </u>	\$ 1,120,221 01
Section 3. O'Leary Bros.		199,056 44
" 4, 5, 6 & 7 George Goodwin ...	\$356,726 85	
Andrew Onderdonk..	601,726 03	
	<u> </u>	958,452 88
Section 8 Charles Raynor ...		322,300 00
" 9..... Manning & McDonald.....		187,400 60
" 10..... Rogers & Taylor		297,047 26
" 11..... George Goodwin ...	\$ 42,020 00	
Thomas Feeney.	53,780 00	
Poupore & Fraser....	228,372 70	
	<u> </u>	324,172 70
Section 12 O'Brien & Sons.....	\$ 25,367 50	
George Goodwin.	8,100 00	
M. J. Hogan.....	203,108 70	
	<u> </u>	236,576 20
Section 13 Manning & McDonald.....		638,530 00
Power Weir... Charles Raynor		43,916 74
Power House and		
Electric Works.. Canadian Electric Co		77,230 00
Lock Gates ... J. & R. Miller.....		100,000 00
Stony Valves.. Dominion Bridge Co.....		56,934 00
Steel Bridges... Dominion Bridge Co.		39,687 00
Steel Bridges... Weddell Bridge Co.....		4,995 00
	<u> </u>	\$ 4,606,519 23

The payments are as follows, viz.:

For works and expenses of supervision....	\$ 5,703,033 93
For land damages.....	343,373 95
	<u> </u>
Total expenditure up to December, 1900.....	\$ 6,046,407 88

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In addition to the expenditure already made as herein stated, the estimated cost to complete is placed at about \$450,000, making a total estimated cost, based on existing contracts, of about \$6,500,000.

LACHINE CANAL.

The works being carried on under the capital account appropriation may be stated to be as follows, viz:—

1st. The rebuilding of the stone wall along the side of the canal, necessitated by the deepening of the prism to 15 feet of water, for which Mr. John Baptiste de Lorimier is the contractor. As some of the work remaining to be done is below water level, it cannot be completed until the canal is unwatered in the spring.

2nd. The erection of two lighthouses for range of new channel at Lachine: the work is completed. Messrs. Farand and Delorme were the contractors.

3rd. Deepening the River St. Pierre south of the canal. The work, for which Messrs. Brewder and McNaughton are the contractors, is drawing near to a close, and it is expected it will be finished this season. The object of this work is to give a freer and more rapid flow to the water passing down the river, thus improving the condition of the low lands on either side of the river, and removing possible grounds for complaints.

4th. Deepening of the prism of the canal from its lower entrance to the St. Gabriel and other basins in Montreal to give a depth of 20 feet of water. This work is still in progress, and is being executed by the Lachine Canal dredging fleet.

The amounts paid each of these contractors under their contracts up to October 1, are:

J. B. de Lorimier—Stone wall	\$18,507 90
Messrs. Farand and Delorme—Lighthouse	2,900 00
Messrs. Brewder and McNaughton—River St. Pierre	16,582 46
Total	<u>\$37,990 36</u>

Total amount expended on the works of enlargement and improvements to this canal up to June 30, 1899	\$8,197,561 16
Expended from June 30, 1899, to June 30, 1900	125,009 41
Total expended up to June 30, 1900	<u>\$8,322,570 57</u>
Expended from June 30, to December 1, 1900	30,599 68

Total expended up to December 1, 1900 \$8,353,170 25

LAKE ST. LOUIS.

The work of forming a channel 300 feet wide, on a direct course, with a depth of 16 feet of water is completed, and the engineers have been taking soundings and preparing a chart of this section of the St. Lawrence River and channel.

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GRENVILLE CANAL.

ENLARGEMENT.

Messrs. Pigott and Ingles are the contractors for the sections of this part under contract, they completed their work on May 16, 1900, and the final estimate is being prepared. Their work extended from Lock 4 to Station 95.20 below Lock 5, total distance about 9,500 lineal feet, of which 4,750 feet are between locks 4 and 5.

The amount paid to Messrs. Pigott and Ingles under their contract up to December 1, 1900.	\$ 91,675 57
The total expenditure on the enlargement works of this canal up to December 1, 1900, is.	<u>\$4,114,683 11</u>

TRENT CANAL.

CONSTRUCTION.

Tenders have been received for the Trenton-Frankford section, a distance of about 9 miles, but no action has been taken thereon, in consequence of the route via Port Hope having been urged upon the attention of the government as being a cheaper and better route than that via Trenton for which tenders had been obtained. With a view of determining which of the two routes is the best adapted to traffic, and also with the object of ascertaining the probable cost of construction of the Port Hope line, a survey was ordered, which has since been made: a plan and report thereon will be prepared for submission to the government so soon as an opportunity offers.

Tenders have been received and the contracts awarded for the two sections of the Balsam and Lake Simcoe division which cover the ground from the north end of section No. 1 of this division to Lake Simcoe, a distance of about 13 miles. For section No. 2 the contract is awarded to Messrs. Larkin & Sangster, and that for section No. 3 to Messrs Brown & Aylmer.

The work on the three sections which, as I stated in my report of last year, I anticipated would be completed this season, is not completed.

Section No. 1, Balsam and Lake Simcoe division, Andrew Onderdonk, contractor, will be completed in about three weeks from this time.

Section No. 1, Lakefield—Peterboro division, is finished with the exception of the dredging of some rock, which has already been blasted, in the Otonabee River near Lakefield, and will all be cleaned up in the early part of next season, when the contract will have been completed.

Section No. 2, Lakefield—Peterboro division. The work has dragged along slowly, but though the progress being made is unsatisfactory, I am pleased to be able to report that the contractors are doing good and substantial work. They have recently applied for a further extension of time until November, 1901; an extension has been granted to December 31, 1900; it will therefore be observed that there is no prospect whatever of this contract being completed for some time to come.

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Section No. 1—Balsam Lake end.

Gross amount of progress estimate for November,
 1900 § 446,834 30
 (Andrew Onderdonk, contractor.)

Section No. 1—Lakefield end.

Gross amount of progress estimate for November,
 1900..... § 374,794 63
 (Brown, Love & Aylmer, contractors.)

Section No. 2—Peterboro end.

Gross amount of progress estimate for November,
 1900..... § 357,793 53
 (Corry & Laverdure, contractors.)

Steel Superstructure Hydraulic Lock.

Gross amount of progress estimate for November,
 1900 § 65,578 99
 (Dominion Bridge Co., contractors.)

Details of the work done and general information in relation to the canal, will be found in Superintending Engineer Rogers's report herewith.

CORNWALL CANAL.

ENLARGEMENT.

With the exception of the work of improving the upper entrance to this canal the enlargement works were practically completed at the date of my last annual report. A little work of cleaning up on section No. 4 remained and the protection, &c, of the guard gates at lock No. 20, which latter work was executed by Messrs. J. & R. Miller. The work of improving the upper entrance of this canal is composed of an extension of the entrance pier on the south side and the cutting away of the shore on the north side, thus straightening the entrance, and the building of a pier to enable vessels to enter the canal with greater safety. This work is being executed under contract by Messrs. Weddell & McAuliff, who are making fair progress with the work, which will occupy all next season to complete.

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The following amounts have been paid to the several contractors up to December 1, 1900 :—

Section 2, Wm. Davis & Son	§	931,190	72
" 3 "		558,896	38
" 4 "		737,766	43
Sheik's Island "		433,957	00
Section 5, Gilbert Dredging Co.		138,306	73
" 6 "		47,721	37
" 7 "		96,832	88
" 8 "		216,270	21
" 10 Jocks, DeLoremier & Co		439,854	60
Pier upper entrance, Wm. Davis & Son ..		8,693	65
Protection to guard gate, J. & R. Miller ..		16,034	57
Improvement of upper entrance, Weddell & McAuliff		52,180	00
	§	<u>3,677,704</u>	<u>54</u>

Total amount expended on the works of enlargement
up to December 1, 1900.....§ 4,824,310 75

FARRAN'S POINT CANAL.

The work of enlarging this canal is practically completed, and it is believed will be entirely finished this season. Some delay has arisen in completing the masonry of the entrance pier at the lower entrance, owing to the water having stood at an unusually high level during the season; it is now completed. The stone lining and sodding of the slopes of the prism are in progress, as well as the work of dredging the canal to the full depth and width required, all of which will, it is expected, be finished this season.

The following is a statement of the amount paid the contractors up to December 1, 1900, and of the total expenditures. :

Enlargement—The Canadian Construction Co	§	708,119	39
Total amount of expenditure on account of the works of enlargement of this canal up to December 1, 1900.....	§	<u>720,426</u>	<u>75</u>

RAPIDE PLAT CANAL.

The works of enlargement of this canal were so far completed at the date of my last annual report as to give uninterrupted 14 feet navigation; since which the Weddell Dredging Co., contractors for section No 2, have proceeded with the work of lessening the bend in the canal by the removal of a portion of Mariatown Point, which when done will prove to be a great improvement to navigation. This work has not progressed very rapidly, but considerable advancement has been made. A contract has been entered into with the Messrs. Gilbert Brothers for improvements at the head of this canal, which consist of extending the southern entrance pier and the straightening of the entrance by digging into the shore line for some distance and building some cribwork. When these works are completed, which it is expected they will be next season, the entire enlargement works on this canal will be finished.

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The following statements show the amounts paid the contractors and the total expenditure up to December 1, 1900 :—

Section No. 1, Poupore & Fraser	\$ 917,026 01
“ “ 2, Weddell Dredging Co.	242,141 80
“ “ 3, Poupore & Fraser	263,442 10
Flaggs Bay, Wm. Broder	271,141 02
Total payments up to October 1, 1900	\$1,693,750 93
Total expenditure on works of enlargement up to December 1, 1900	\$1,911,413 97

GALOPS CANAL.

The work of enlarging this canal was divided into three sections, as follows, viz. :—

Iroquois Section—Iroquois to Presqu'île.

Cardinal Section—Presqu'île to Gates Point.

Upper entrance—Gates Point to Upper entrance.

The work on the Iroquois section is drawing close to a finish and there is every expectation of it being completed this season.

The work on the Cardinal section will not be completed this season, owing to the contractor having carried on his work in a very dilatory manner during two months this last summer. The work remaining to be done is largely composed of masonry to be built upon the cribwork in the Cardinal cutting, the building of a quantity of pitch stone facing on the slope of the cutting, removal of dam at the upper end of the cutting, forming a dam across old canal at the lower end of this cutting, and the straightening of the prism of the canal by cutting off the point of Glasfords Bay. These works will probably not be completed until the middle of next season, but navigation will be open through the cutting for vessels drawing 14 feet of water.

Upper entrance—This work may be considered practically completed, with the exception of straightening the canal by cutting away the point at McLaughlin's Hill, which work is now in progress, and will be completed next season.

The following is a statement of the amounts paid the contractors named below, and also the total amount expended on the works of enlargement up to December 1, 1900 :—

Iroquois section, Larkin & Sangster	\$1,221,870 00
Cardinal section, Wm. Davis & Sons	1,037,570 00
Upper entrance, Murray & Cleveland	1,490,758 51
“ William Allan	193,652 00
	<u>\$3,943,850 51</u>

Total amount expended on enlargement works up to
December 1, 1900 \$4,319,684 37

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GALOPS RAPID IMPROVEMENT.

The work of improvement authorized is very nearly completed, but owing to the lowering of the water in the St. Lawrence River it is recommended that the island shoal should be lowered another foot, and that no unnecessary delay should arise in proceeding with the work under the present contract.

Statement of amount paid the contractors up to December 1, 1900, and also showing the amount expended on this improvement to December 1, 1900:

Galops channel improvement, Wm. Davis & Son	\$ 22,000 00
" " The Gilbert Bros.	797,349 92
Total	<u>\$819,349 92</u>

Total amount expended on the Galops channel improvement to December 1, 1900. \$827,684 00

NORTH CHANNEL.

This channel is being formed of a width of 300 feet in bottom, with a depth of 17 feet of water at extreme low water. The work now being done is the dredging on the south side of the channel, the building and sinking of cribs at the westerly or upper entrance, and the drilling and dredging of rock at the eastern or lower entrance. It will probably occupy the greater part of next season to complete the channel work, after which will remain to be done the forming of a dam to block or close up the channel between Galops Island and Adam's Island. This work cannot be proceeded with until it is approved by the American government, as the international boundary passes through this channel: the necessary permission is being sought.

The following is a statement of the amount paid to the contractor up to December 1, 1900:—

North channel, M. A. Cleveland	\$906,800 00
Statement of amount expended in forming the north channel up to December 1, 1900.	<u>932,402 01</u>

RIVER REACHES.

IMPROVEMENTS TO CHANNEL—LAKE ST. FRANCIS.

St. Regis section, $2\frac{1}{2}$ miles east of Cornwall. Messrs. Manning & McDonald have the contract for the work of forming a channel through a shoal 1,100 feet long and 300 feet wide, protected with crib piers. This work is drawing near a close, and will be completed this season.

Hamilton Island section extends from the 7th to the 11th mile east of the foot of Cornwall Canal. Messrs. Manning & McDonald have the contract for this work, which is composed of the removal of the Middle Ground shoal at the 10th mile; the Highlander shoal at the $10\frac{1}{2}$ th mile; the Horse-back shoal at the 11th mile.

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The channel of 300 feet wide and 700 feet long through the Middle Ground shoal is completed, but the protection of the Island crib is still incomplete.

The channel through the Highlander shoal will be 600 feet long and 300 feet wide. No work has been done on it for some time, but it is to be again resumed with a powerful dredge.

The removal of Clark's Island shoal being more important than the Horse-back shoal, it will be the first to be cut through, but as there is at present a channel around it, though a little circuitous, the new channel may possibly not be cut out this season, much depends on the weather.

Statement of amount paid contractors up to December 1, 1900 :

River Reaches, Manning and McDonald	\$ 51,150 00
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ST. LAWRENCE RIVER AND CANALS.

This term applies to the river and canals between Coteau Landing and Prescott. The St. Lawrence River has been surveyed with a double purpose:—First with the object of locating obstructions to navigation and having them removed; second with a view of marking out the channel. The obstructions to the passage of vessels drawing 14 feet of water have been removed and a clear channel obtained, as has been proved by a thorough system of sweeping.

Total amount charged to St. Lawrence River and Canals appropriation up to December 1, 1900, \$2,247,278.27.

WELLAND CANAL.

A contract has been entered into with Messrs. Hogan and McDonnell, for improvements at the upper entrance to this canal at Port Colborne, by deepening the channel approach to give a depth of 22 feet of water up to the outer end of the east entrance pier and from that point, up to the guard lock, to give a depth of 16 feet of water; to construct two docks with two piers, 200 feet wide each, upon which to erect grain elevators for the transfer of grain cargoes from the heavy draught vessels drawing over 14 feet of water to those drawing 14 feet and under. I am most anxious to see the work of building the proposed breakwater, so necessary to protect vessels entering the canal and those lying at the elevators, started, and prosecuted with sufficient vigour to ensure its completion by the time the canal improvements are finished. I may say it is very difficult to carry on the work of deepening the entrance to the canal at this point until protection by a breakwater is given, as when even a mild wind is blowing it is difficult, and indeed almost impossible to work drills, on account of the sea that rolls in.

Amount paid the contractor up to December 1, 1900 . .	\$84,660 00
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Total amount expended in making this improvement up to December 1, 1900.	\$87,380 26
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A contract was entered into with Messrs. Rowan and Elliott, on April 5, 1900, for the substructure and approaches of a bridge over the canal at Humberstone and for the steel superstructure of this bridge.

The Hamilton Bridge Co. had the contract, which was dated May 21, 1900. The substructure is completed but the superstructure is not yet erected.

Statement of amount paid the contractor up to December 1, 1900 :

Substructure, Rowan and Elliott	\$22,604 92
Superstructure, Hamilton Bridge Co	3,600 00
	<hr/>
Total	\$26,204 92
	<hr/> <hr/>
Total expenditure on the work up to December 1, 1900..	\$27,571 21
	<hr/> <hr/>

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CANADIAN GOVERNMENT CANALS.

MEMORANDUM of Expenditure on Construction up to December 1, 1900.

Canal.	Original Construction up to June 30, 1900.		Enlargement up to June 30, 1900.		Enlargement from June 30, 1900, up to December 1, 1900.		Total cost of Enlargement up to December 1, 1900.		Total Expenditure on original Construction and Enlargement up to Dec. 1, 1900.	
	§	cts.	§	cts.	§	cts.	§	cts.	§	cts.
Lake St. Francis.....			41,961	46	12,153	21	54,114	67	54,114	67
Lachine.....	2,589,532	85	8,322,570	57	30,599	68	8,353,170	25	10,942,703	10
Lake St. Louis.....			261,772	18	1,686	79	263,458	97	263,458	97
Soulanges.....	5,792,066	67							6,046,407	88
Beauharnois.....	1,636,690	26							1,636,690	26
Cornwall.....	1,945,624	73	4,787,272	78	37,037	97	4,824,310	75	6,769,935	48
Farran's Point.....	80,041	21	686,646	38	33,783	37	720,429	75	800,470	96
Rapide Plat.....	426,882	15	1,889,799	71	21,614	26	1,911,413	97	2,338,296	12
Galops.....	813,732	18	4,138,636	65	191,360	72	4,329,997	37	5,143,729	55
Galops Channel.....			763,192	03	64,591	97	827,784	00	827,784	00
North Channel.....			858,316	15	74,085	86	932,402	01	932,402	01
Murray.....	1,247,470	26							1,247,470	26
St. Lawrence River and Canals	18,442	85	592,527	24	15,000	00	607,527	24	625,970	09
Welland.....	7,693,824	03	16,095,979	02	100,323	86	16,196,302	88	23,890,126	91
Sault Ste. Marie.....	3,769,671	67							4,070,437	39
Chambly.....	637,056	76							637,056	76
Carillon and Grenville..	*63,053	64	4,114,108	67	574	44	4,114,683	11	4,177,736	75
Trent.....	2,877,823	48							2,997,325	30
Rideau.....	4,097,793	87							4,097,793	87
Tay.....	476,128	73							476,128	73
St. Ours.....	121,537	65							121,537	65
Culbute (canal abandoned)...	382,579	46							382,579	46
Ste. Anne's.....	134,456	51	1,035,759	12			1,035,759	12	1,170,215	63
St. Peter's.....	248,762	84	399,784	30			399,784	30	648,547	14
	35,053,171	80	43,988,326	26	582,812	13	44,571,138	39	80,298,918	94

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

CANALS.

OPERATION AND MAINTENANCE.

The canals have been successfully operated throughout the year, no serious delays to traffic having occurred, with the exception of the Lachine Canal to which I refer in its proper place. The necessary repairs and renewals have been executed.

STATEMENT showing the dates of closing and opening Canals.

Name of Canal.	Closed.		Opened.	
	1898.	1899.	1899.	1900.
Sault Ste. Marie	9th December.	26th April.	20th December.	23rd April.
Lachine	1st December.	1st May.	30th November.	2nd May.
Beauharnois	1st December.	1st May.	1st December.	1st May.
Soulanges			10th December.	1st May.
Cornwall	9th December.	24th April.	8th December.	22nd April.
Williamsburg	13th December.	13th April.	8th December.	23rd April.
Welland	13th December.	22nd April.	15th December.	27th April.
Chambly	1st December.	1st May.	4th December.	2nd May.
St. Ours	26th November.	22nd April.	3rd December.	24th April.
Ste. Anne's	27th November.	27th April.	29th November.	24th April.
Carillon and Grenville	26th November.	1st May.	30th November.	1st May.
Rideau	{ at Kingston 23rd November.	2nd May.	30th November.	1st May.
	{ at Ottawa 29th November.	2nd May.	24th November.	1st May.
Trent	{ on Central Reach 17th November.	1st May.	2nd December.	24th April.
	{ on Lower Reach 26th November.	21st May.	27th November.	24th April.
Murray	6th December.	13th April.	15th December.	13th April.
	1899.		1900.	
St. Peter's	7th January.	2nd April.	24th January.	24th April.

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STATEMENT showing the dimensions of the locks of the Canals.

	EXISTING SYSTEM.				UNDER CONSTRUCTION.			
	No. of Locks.	Length.	Width.	Depth of water on mitre sill.	No. of Locks.	Length.	Width.	Depth of water on mitre sill.
Lachine	5	270	45	14				
Beauharnois	9	200	45	9				
Chambly	9	118 125	22 6 24	7				
St. Onrs	1	200	45	7				
St. Anne's	1	200	45	9				
Carillon and Grenville	7	200	45	9				
Trent	13	134	33	5	6	134	33	6
Rideau	49	134	33	5				
Rideau, Perth Branch	2	134	32	5 6				
Murray (no locks)				11				
Cornwall (Old)	5	200	55	9				
Cornwall (New)	5	270	45	14				
Farran's Point (Old)	1	270	45	Guard.				
Farran's Point (New)	1	200	45	9				
Farran's Point (New)	1	800	45	14				
Rapide Plat (Old)	1	200	45	9				
Rapide (New)	1	270	45	14				
Rapide (New)	1	270	45	Guard.				
Galops (Old)	2	200	45	9				
Galops (New)	1	270	45	14				
Galops (New)	1	270	45	Guard.				
Galops (New)	1	800	45	14				
Welland (Old)	24	150	45	10 3				
Welland (Old)	2	200	45	10 3				
Welland (Old)	1	230	45	10 3				
Welland (New)	26	270	45	14				
Welland Feeder	1	150	26 6	9				
Welland Feeder	1	200	45	9				
Welland, Port Robinson Branch	2	150	26 6	9				
Welland, Matland Branch	1	185	45	11				
Sault Ste. Marie	1	900	60	20 3				
Soulanges	4	270	45	14				
Soulanges	1	270	45	14				
St. Peter's	1	200	48	18				

NOTE.—The enlarged locks on the St. Lawrence and the Welland canals will accommodate vessels not exceeding 255 feet in length.

64 VICTORIA, A. 1901

CANALS REVENUE AND INCOME ACCOUNT.

LACHINE CANAL.

OPERATION.

The traffic through this canal was successfully operated without any interruption to navigation during the year.

MAINTENANCE.

The cost of repairs made during the year ended June 30, 1900, is as follows :—

Ordinary repairs under the head of Staff and Repairs.	\$	31,988	81
Special repairs under head of Income—			
Repairs to dredge, steam derrick and scows	\$	350	71
Rebuilding masonry wall, basin 2		2,960	09
Macadamizing 2½ miles Côte St. Paul Road		2,498	80
Damages to barge <i>Georgia</i>		58	00
Rebuilding a portion of south wall of canal at Atwater Avenue		6,343	28
			<hr/>
			12,210 88
			<hr/>
	\$		44,199 69

BEAUHARNOIS CANAL.

OPERATION.

On two different occasions the navigation through this canal was interrupted for several days, which was owing to the canal not having received the vigilant attention as regards its maintenance it would have had but for this fact that its use for navigation purposes was drawing to a close by reason of the substitution of the Soulanges Canal on the opposite side of the River St. Lawrence. The first detention to navigation that occurred was caused by the collapse, on August 1, 1899, of the waste weir at lock 10, when the traffic was interrupted for five days. The second interruption was caused by a washout at lock 12 on October 12, 1899. It occupied five days to make the repairs, during which time the canal was closed. At the close of navigation this season (1900) the canal will cease to be operated, as the traffic will, hereafter, take the Soulanges Canal route, which can give much greater despatch to business than the Beauharnois Canal.

MAINTENANCE.

The following statement shows the cost of repairs for the year ended June 30, 1900 :—

Ordinary repairs under head of Staff and Repairs	\$	14,505	30
Special repairs under head of Income—			
Steel bridge and masonry at St. Timothy . . .	\$	4,000	00
Surveys and defining land boundaries		959	22
			<hr/>
			4,959 22
			<hr/>
Total	\$	19,464	52

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CHAMBLY CANAL.

OPERATION.

The interruption to navigation on this canal during the year was very slight, being only for 12 hours due to a leak sprung in the culvert under the canal at Little River des Iroquois, in October, 1899, which occupied twelve hours to repair. With this exception, navigation was uninterrupted.

MAINTENANCE.

The following is a statement showing the cost of repairs for the year ended June 30, 1900 :—

Ordinary repairs under head of Staff and Repairs	\$ 13,995 00
Special repairs under head of Income—	
Drainage works at St. Johns, P.Q.	\$ 3,925 18
To build protection wall around head of St. Thérèse Island	1,523 70
	5,448 88
Total	\$ 19,443 88

ST. OURS LOCK AND DAM.

OPERATION.

There was no interruption to navigation at this lock during the year.

MAINTENANCE.

The cost of the repairs for the year were as follows :—

Ordinary repairs under head of Staff and Repairs	\$ 2,681 10
Special repairs under head of Income—	
Building two new scows	1,596 88
Total	\$ 4,277 98

STE. ANNE'S LOCK.

OPERATION.

There was no interruption to navigation at this lock during the year.

MAINTENANCE.

Ordinary repairs under head of Staff and Repairs	\$ 2,679 21
Special repairs under head of Income.	Nil.
Total	\$ 2,679 21

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CARILLON AND GRENVILLE CANALS.

OPERATION.

These canals have had no interruption to their navigation during the year.

MAINTENANCE.

Ordinary repairs under head of Staff and Repairs. . . .	\$14,666 71
Special repairs under head of Income—	
Building four scows	\$ 1,379 68
Rebuilding dry wall at lock 6	3,096 82
	4,476 50
Total	\$ 19,143 21

LAKE ST. FRANCIS.

Special work under head of Income—

Building protection wall on north side	\$ 6,514 12
" " south side	5,774 27
	12,288 39
Total	\$ 12,288 39

TRENT CANAL.

OPERATION.

No interruption occurred to navigation during the year.

MAINTENANCE.

The cost of repairs for the year was as follows :

Ordinary repairs under head of Staff and Repairs.	\$ 9,989 26
Special repairs under head of Income—	
Constructing two concrete piers at Rosedale	\$ 28 50
Dredging shoals at Otonabee River	3,252 84
Removing rock at Hastings channel	2,399 91
Constructing entrance pier at Burleigh lock	1,162 56
" " Lovesick lock	1,199 58
	8,043 39
Total	\$ 18,032 65

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RIDEAU CANAL.

OPERATION.

No interruption occurred to navigation on this canal during the year.

MAINTENANCE.

The cost of repairs for the year was as follows :—

Ordinary repairs under head of Staff and Repairs	\$ 30,237 09
Special repairs under head of Income—	
Deepening rock cut at Kilmarnock	\$ 6,242 94
Rebuilding hull of dredge <i>Rideau</i>	4,981 50
Repairing damage by fire to collector's office, Ottawa	555 97
	11,780 41
Total	\$ 42,017 50

MURRAY CANAL.

OPERATION.

Vessels drawing 11 feet of water and under have a clear run through this canal, there being no lock upon it to impede navigation, and consequently nothing to damage which would block navigation.

MAINTENANCE.

The cost of repairs for the year was as follows :—

Ordinary repairs under head of Staff and Repairs	\$ 2,777 60
Special repairs under head of Income	Nil.
Total	\$ 2,777 60

CORNWALL CANAL.

OPERATION.

Navigation on this canal has been uninterrupted during the year.

MAINTENANCE.

The cost of repairs during the year was as follows :—

Ordinary repairs under head of Staff and Repairs	\$13,998 29
Special repairs under head of Income	18,547 50
Total	\$32,545 79

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WILLIAMSBURG CANALS.

OPERATION.

These canals have been operated during the year without accident.

MAINTENANCE.

The cost of repairs during the year was as follows :—

Ordinary repairs under head of Staff and Repairs.	£10,897 79
Special repairs under head of Income, constructing combined gate and two lifters.	4,137 04
Total.	<u>£15,034 83</u>

NORTH CHANNEL.

Navigation has been conducted through this channel during the year to the great advantage of transportation companies, and they express themselves greatly pleased with the work.

SOULANGES CANAL.

OPERATION.

This canal was opened for the passage of vessels drawing over nine feet of water and up to fourteen feet, on October 10, 1899, and has since been successfully operated. It is, I think I am correct in saying, the best and most completely equipped canal in this country.

MAINTENANCE.

The cost of repairs for the year is as follows :—

Ordinary repairs under head of Staff and Repairs.	£2,679 21
Special repairs under head of Income.	Nil.
Total.	<u>£2,679 21</u>

WELLAND CANAL.

OPERATION.

No interruption has occurred on this canal to navigation during the year.

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MAINTENANCE.

The cost of repairs during the year is as follows :—

Ordinary repairs under head of Staff and Repairs.	\$59,507 64
Special repairs under head of Income—	
Renewal of West pier at Port Dalhousie	\$14,999 90
Renewing docking superstructure at lock 1.	10,284 68
Renewing protection works at Allanburg	3,298 12
" " Port Colborne and	
bridges between Port Robinson and Port Col-	
borne	4,584 89
Renewing slides on Deep Cut	3,997 25
	37,164 84
Total	\$96,672 48

ST. PETER'S CANAL.

OPERATION.

This canal was operated successfully and without detention to navigation during the year.

MAINTENANCE.

The cost of repairs during the year was as follows :—

Ordinary repairs under head of Staff and Repairs.	\$1,483 30
Special repairs under head of Income	Nil.
Total	\$1,483 30

GENERAL OBSERVATIONS RESPECTING GOVERNMENT CANALS.

There has been a 14 foot navigation from Lake Erie to Montreal during the season of 1900. West of Lake Erie to Port Arthur or Duluth, vessels drawing 20 feet of water can navigate by passing through the American St. Mary's Canal, or drawing 17 feet 6 inches by passing through the Canadian Sault Marie Ste. Canal. The depth of water on the mitre sills in the American and in the Canadian Canals is, actually, the same, viz., 20 feet 3 inches. Very few vessels drawing over 9 feet of water have made use of this chain of canals during the year; one reason, no doubt, being that the pilots have not yet become familiar with the new channel down the St. Lawrence River, through which vessels drawing 14 feet of water would require to pass; but next season it is expected that with the complete system of buoying and lighting this channel, and the knowledge the pilots have acquired of it, a large fleet of the heavier draught vessels will traverse this route. The Soulanges Canal has passed a considerable volume of traffic in vessels of greater draught of water than could pass through the Beauharnois Canal; which traffic has been despatched in a most satisfactory manner. It has, for the most part, reached Coteau Landing by the Canada Atlantic Railway, the grain cargo having been transferred from the cars to the vessels through the railway company's elevator at that point.

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SUMMARY.

Cost of maintenance and operation of the canal systems for the year ended June 30, 1900.....	\$579,072 78
Net revenue of Canals, after deducting refunds.....	322,642 86
	<hr/>
Excess of cost of maintenance and operation over revenue..	\$256,429 92

SURVEY IN VIEW OF IMPROVEMENTS TO NAVIGATION OF THE
RIVER OTTAWA.

With a view to obtaining reliable information as to the present condition of the River Ottawa, in order to enable an estimate to be formed of the probable cost of securing a 14 feet navigation, Parliament voted

For 1899-1900	\$10,000 00
For 1900-1901.....	10,000 00
	<hr/>
Making a total of	\$20,000 00

towards making a survey of the river. So soon as these sums became available, the Minister of Railways and Canals selected Mr. H. A. F. McLeod, as a suitable, experienced and reliable engineer, to take charge of the surveys, with Mr. Carr and Mr. Stanton as his assistants. They have, during the past two seasons, been engaged in making surveys, taking soundings, preparing plans and reports of the results of their labours upon the River Ottawa between Lake Deschenes and St. Annes. The work done makes it clear that a channel for vessels drawing 14 feet of water can be had at a cost which may be regarded as reasonable. The amount expended on these surveys up to December 1, 1900, has been—

During the year ending June 30, 1900	\$9,994 90
From June 30, 1900, to Dec., 1, 1900	3,290 02
	<hr/>
Total	\$13,284 92

The staff of engineers is still in the field adding to the valuable information already obtained, and will continue the field work until the weather is unpropitious for such work, when they will be withdrawn from outside work, and placed in the office to prepare their plans and reports. For the full particulars in connection with these surveys, I refer you to Mr. H. A. F. McLeod's reports, which form an appendix hereto.

RAILWAY SUBSIDIES.

Subsidies to railways have in the last three sessions of Parliament been voted 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 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 I shall, as heretofore, show the actual amount paid; also the number of miles of rail-

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way for which subsidy granted, per mile, was available on the 1st July, 1899, and the number of miles of railway for which cash subsidy, per mile, was granted, built up to June 30, 1900. There will also be found the amount of subsidy paid up to October 31, 1900.

There will also be found a statement of cash subsidy, per annum, paid up to the 30th of June, 1900, with the number of miles built; also a statement showing the railways to which has been granted aid in land.

Amount of cash subsidy, per mile, paid up to June 30, 1900.....	\$19,245,407 31
Number of miles of railway on which cash subsidy, per mile, was paid up to June 30, 1900.....	3,790 $\frac{0.5}{100}$
Amount of cash subsidy, per mile, paid up to October, 31, 1900.....	\$20,855,014 49
Cash subsidy, per annum, paid up to June 30, 1900.....	2,052,600 00
Number of miles built on cash subsidy, per annum, up to June 30, 1900.....	252
Number of miles of railway to which aid, in land, has been authorized.....	2,937 $\frac{2.1}{100}$
Number of acres of land, the grant of which in aid of railways, has been authorized.....	21,518,144

The foregoing statements do not include the grants in cash and land to the Canadian Pacific Railway, the Canada Central Railway and the Esquimalt and Nanaimo Railway.

These roads, as previously reported, received in cash as follows :

Canadian Pacific Railway (mileage 1,905).....	\$25,000,000 00
Canada Central Railway (mileage 120).....	1,525,250 00
Esquimalt and Nanaimo Railway (mileage 71)..	750,000 00
Total.....	<u>\$27,275,250 00</u>

In land as follows :—

	Acres.
Canadian Pacific Railway.....	25,000,000
Esquimalt and Nanaimo Railway.....	1,900,000
Total.....	<u>26,900,000</u>

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RAILWAY COMMITTEE OF THE PRIVY COUNCIL.

The report of the Secretary of the Railway Committee of the Privy Council enumerates the cases which have been before the Committee during the 11 months from November 1, 1899, to October 1, 1900. Within the period above named there were ten meetings of the Railway Committee, as follows :—

7th, 8th and 9th November, 1899.
 15th November, 1899.
 30th January, 1900.
 20th, 21st and 22nd March, 1900.
 8th and 9th May, 1900.
 23rd and 25th " "
 31st " "
 21st June, 1900.
 10th July "
 26th September, 1900.

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 railway.
3. For permission for one railway to form a junction with another railway.
4. For permission for railways to cross streets and highways.
5. For approval of plan and proposed site of bridges over navigable streams.
6. To hear complaints *re* discrimination on freight rates, &c.
7. For permission to use crossings and junctions before installation of interlocking appliances.
8. For permission to construct branch lines and spurs.
9. For running powers by one railway over another railway.
10. For protection at streets and highways crossed by railways.

All evidence is taken down by a stenographer and is placed in file on the department as a record for future reference.

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CANAL STATISTICS.

These statistics are for the season of 1899 ; they have 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 tolls collected, and the number of trips of vessels passing through each canal, for the year ending December 31, 1899 :—

Name of Canal.	Tons of Traffic passing through.	Tolls collected.	Number of trips of vessels passing through.
		\$ cts.	
Lachine.....	1,349,093	86,348 81	11,104
Beauharnois.....			
Cornwall.....			
Williamsburg.....			
Welland.....	789,770	118,033 93	2,202
Chambly.....	362,635	26,000 10	2,846
St. Anne's.....	520,105	35,365 40	2,653
Carillon.....			
Grenville.....			
Rideau.....	69,905	5,704 22	2,468
Murray.....	16,788	714 49	729
Trent.....	40,160	1,240 70	2,432
St. Peter's.....	70,804	3,151 33	1,711
*Sault Ste. Marie.....	*3,006,664	*Free	3,769

* This canal was opened for traffic on September 9, 1895.

RAILWAY STATISTICS.

Difficulty continues to be experienced, in getting out the Annual Report of the department, owing to many of the railway companies failing to make the returns required by law and taking no notice whatever of the communications addressed to them from time to time, urging them to forward their returns. I again suggest that in future legal proceedings be taken to compel the delinquent railway companies to comply with the law ; the costs of the suits to be collected from them.

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TABLE showing the growth of Railways from year to year, since the opening of the first line in 1836.

Year.	Miles in Operation.	Year.	Miles in Operation.
1835.....	0	1868.....	2,278
1836.....	16	1869.....	2,524
1837.....	16	1870.....	2,617
1838.....	16	1871.....	2,695
1839.....	16	1872.....	2,899
1840.....	16	1873.....	3,613
1841.....	16	1874.....	3,832
1842.....	16	1875.....	4,331
1843.....	16	1876.....	4,804
1844.....	16	1877.....	5,218
1845.....	16	1878.....	5,782
1846.....	16	1879.....	6,126
1847.....	54	1880.....	6,858
1848.....	54	1881.....	7,194
1849.....	54	1882.....	7,331
1850.....	66	1883.....	8,697
1851.....	159	1884.....	9,577
1852.....	205	1885.....	10,275
1853.....	506	1886.....	10,773
1854.....	764	1887.....	11,793
1855.....	877	1888.....	12,184
1856.....	1,414	1889.....	12,585
1857.....	1,444	1890.....	13,151
1858.....	1,863	1891.....	13,838
1859.....	1,994	1892.....	14,564
1860.....	2,065	1893.....	15,005
1861.....	2,146	1894.....	15,627
1862.....	2,189	1895.....	15,977
1863.....	2,189	1896.....	16,270
1864.....	2,189	1897.....	16,550
1865.....	2,240	1898.....	16,718
1866.....	2,278	1899.....	17,250
1867.....	2,278	1900.....	17,657

FATAL ACCIDENTS for Year ended June 30, 1900.

	Passengers Killed.	Employees Killed.	Others Killed.	Total Killed.
Falling from cars or engines.....	3	25	7	35
Getting on or off trains in motion.....	3	6	11	20
At work making up trains.....		11		11
Putting heads or arms out of windows.....		1		1
Coupling cars.....		16		16
Collisions and derailments.....		15	3	18
Striking bridges.....		3	1	4
Walking or being on track.....		18	103	121
Explosions.....				
Other causes.....	1	28	70	99
Total.....	7	123	195	325

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The summary of railway statistical tables for the years ended June 30, 1899, and June 30, 1900, is as follows, viz. :—

	Comparative Statement.	
	June 30, 1899.	June 30, 1900.
Miles of railway completed (track laid)	17,358	17,824
" sidings	2,402	2,558
" iron rails in main line	178	130
" steel	17,180	17,694
" " " double track	562	591
Capital paid (including the four following items	\$964,699,784	\$998,268,404
Government (Dominion and Provincial) bonuses paid	\$165,534,900	\$169,706,725
" " " loans paid	\$20,468,245	\$20,869,214
" (Provincial only) subscription to shares paid)	\$300,000	\$300,000
Municipal aid paid	\$15,740,668	\$15,884,542
Miles in operation	17,250	17,657
Gross earnings	\$62,243,784	\$70,740,270
Working expenses	\$40,706,217	\$47,699,798
Net earnings	\$21,537,567	\$23,040,472
Passengers carried	19,133,365	21,500,175
Freight carried (tons)	31,211,753	35,946,183
Train mileage	52,215,207	55,177,871
Passengers killed	20	7
Number of elevators	163	239
" guarded level crossings—public roads	197	169
" unguarded	11,813	12,879
" overhead bridges	430	431
" level crossings of other railways	276	244
" junctions with other railways	347	346
" " branch lines	234	251
" engines owned	2,142	2,179
" " hired	75	103
" sleepers and parlour cars owned	231	535
" " " hired	37	3
" first class cars owned	1,170	1,213
" " " hired	69	74
" second class and immigrant cars owned	621	640
" " " hired	19	1
" baggage, mail and express cars owned	639	632
" " " hired	29	30
" refrigerator cars owned	665	736
" " " hired	122	207
" cattle and box freight car owned	38,839	39,112
" " " hired	3,112	3,426
" platform cars owned	15,434	14,947
" " " hired	377	679
" coal and dump cars owned	5,540	5,739
" " " hired	1,008	1,055
" conductors vans owned	42	133
" " " hired	5	1
" tool cars owned	910*	872*
" " " hired	8	300
" snow ploughs owned	302	300
" " " hired	2	311
" flangers owned	186	311
" " " hired	1	1

*Including steam shovels, pile drivers, water tank cars, store cars, gravel cars, boarding cars, &c.

I have the honour to be, sir, your obedient servant,

COLLINGWOOD SCHREIBER,

Deputy Minister and Chief Engineer of Railways and Canals.

The Honourable A. G. BLAIR,

Minister of Railways and Canals.

No. 1.

RAILWAYS.

INTERCOLONIAL RAILWAY OF CANADA.

OFFICE OF THE GENERAL MANAGER,

MONCTON, N.B., November 14, 1900.

SIR,—I have the honour to submit the following report on the working of the Intercolonial Railway during the fiscal year ended June 30, 1900.

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 renewal of the permanent way, buildings and works, and the report of the Mechanical Superintendent on the rolling stock, also the following statements of the accounts by the Chief Accountant and Treasurer :—

- No. 1. Capital Account.
2. Revenue Account.
3. Locomotive Power.
4. Car Expenses.
5. Maintenance of Way and Works.
6. Station Expenses.
7. General Charges.
8. 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, 1,314.67 miles

CAPITAL ACCOUNT.

The total cost of road and equipment on June 30, 1899, by last report was \$56,750,843.89.

The additions during the year were as follows :—

Increased accommodation at Halifax	\$	22,714	07
“ “ St. John		449,854	20
“ “ Levis		79,999	95
“ siding accommodation		102,501	53
“ station “		14,519	50
“ facilities along the line		59,881	89
Elevator at St. John		140,781	50
“ Halifax		83,671	12
Extension to deep water at North Sydney		4,124	08

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To provide sea wall protection along Cape Breton Railway.....	\$ 10,036 59
Land and damages, Oxford and New Glasgow and Cape Breton Railways.....	149 49
Improvements at Point Tupper.....	435 71
“ Mulgrave	14,906 71
Dredging at Pictou wharf.....	1,325 25
“ Pictou Landing wharf.....	4,800 00
For a subway at Christies Crossing, Amherst.....	4,004 70
For finishing the upper flat of the general offices, Moncton	2,000 00
To provide new machinery, Moncton.....	4,598 01
To excavate the roof of Morrisey rock tunnel.....	3,011 29
For track scales at Pictou, Drummondville, and North Sydney	2,678 31
For strengthening iron bridges	77,091 10
To build rest houses at engine stations.....	244 15
Improving the telegraph service.....	4,932 18
Snow fences	4,997 80
Machinery at various points.....	11,582 11
To enlarge engine houses.....	3,623 69
To provide larger and stronger turntables	11,763 42
To provide drop pits.....	759 43
Rolling stock.....	533,223 40
Rolling stock, refrigerator cars	30,016 69
One first class passenger coach.....	10,378 26
Rolling stock, changing car couplers.....	7,130 00
“ “ to apply air brakes to freight cars	19,965 48
Changing the draw bars of freight cars.....	10,000 00
To provide apparatus in connection with lighting cars by Pintsch gas.....	4,315 50
For equipment of stations.....	6,273 89
Original construction	7 35
To pay McDonald & Moffatt's claim.....	1,074 00
To pay Ralph Jones interest, &c	847 50
Indiantown Branch	52,128 44
	<hr/>
	\$1,796,348 29
Making the total cost on June 30, 1900.....	<hr/> 58,547,192 18 <hr/>

The reports of the Engineers and the statements of the Mechanical Accountant give further information in regard to the foregoing expenditures.

REVENUE ACCOUNT.

The gross earnings and the working expenses for the year compare as follows:—

Gross earnings.....	\$ 4,552,071 71
Working expenses	4,266,710 22
	<hr/>
Surplus.....	\$ 285,361 49 <hr/>

64 VICTORIA, A. 1901

The gross earnings compare as follows with those of the previous year :—

In 1899-1900.....	\$ 4,552,071 71
In 1898-1899.....	3,738,331 44
Increase.....	<u>\$ 813,740 27</u>

The earnings from passenger traffic compare as follows :—

In 1899-1900.....	\$ 1,404,469 87
In 1898-1899.....	1,167,453 16
Increase.....	<u>\$ 237,006 71</u>

The earnings from freight traffic compare as follows :—

In 1899-1900.....	\$ 2,912,790 52
In 1898-1899.....	2,348,096 58
Increase.....	<u>\$ 564,693 94</u>

The earnings from mails and express freight compare as follows :—

In 1899-1900.....	\$ 234,811 32
In 1898-1899.....	222,781 70
Increase.....	<u>\$ 12,029 62</u>

The earnings by mile of railway compare as follows :—

In 1899-1900.....	\$ 3,462 52
In 1898-1899.....	2,843 55
Increase.....	<u>\$ 618 97</u>

The earnings by train mile compare as follows :—

	Cents.
In 1899-1900.....	82·10
In 1898-1899.....	<u>76·57</u>

The number of passengers carried compare as follows :—

In 1899-1900.....	1,791,754
In 1898-1899.....	1,603,095
Increase.....	<u>188,659</u>

The increase was in both local and through passengers.

SESSIONAL PAPER No. 20

The weight of freight carried compares as follows :—

	Tons.
In 1899-1900.....	2,151,208
In 1898-1899.....	1,750,761
Increase.....	400,447

The increase was in both local and through freight.

The following is a comparative statement of a few of the chief articles of freight, showing the quantity carried in this and in the previous year :—

Articles.	1898-99.	1899-1900.	Increase.	Decrease.
Barrels of flour and meal.....	1,157,250	1,234,076	76,826	
Bushels of grain.....	2,595,353	2,720,453	125,100	
Lumber in superficial feet.....	306,554,031	379,350,074	72,796,043	
Head of live stock.....	109,821	92,813		17,008
Coal in tons.....	494,206	603,209	109,003	
Manufactured goods in tons.....	399,527	507,024	107,497	
Cords of firewood.....	58,960	49,638		9,322
All other articles in tons.....	198,571	296,341	97,770	

There was an increase over last year in the quantity of the following articles carried :—Flour and meal, grain, lumber, coal, ore, stone, lime and cement, bricks, sand, iron and other metals, turnips, beets and carrots, butter and cheese, eggs, hay and straw, fresh and canned fish, molasses, pork both fresh and salted, salted meat, dry goods, hardware, groceries, and a decrease in the quantity of the following: Live stock, firewood, extract of hemlock bark, gypsum, potatoes, salted fish, dried fish, oysters, sugar, fresh meat, hides and skins, leather.

WORKING EXPENSES.

The working expenses compare as follows with the previous year :—

In 1899-1900.....	\$4,266,710 22
In 1898-1899.....	3,465,686 21
Increase.....	\$801,024 01

The averages compare with those of last year as follows :—

Per mile run by engines :—	cents.
In 1899-1900.....	62.49
In 1898-1899.....	58.02

64 VICTORIA, A. 1901

Per mile run by trains:—	cents.
In 1899-1900.....	77-94
In 1898-1899.....	70-99
<hr/>	
Expenditure per mile of railway:—	
In 1899-1900... ..	\$3,245 46
In 1898-1899... ..	2,636 16
<hr/>	

The rent paid to the Drummond County Railway Company and to the Grand Trunk Railway Company 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 in previous years.

The permanent way and structures and all the works of the railway received necessary repairs and are in good order.

In consequence of the increased weight of locomotives and of cars, and the increasing traffic, it was decided to relay the track with heavier rails than those in use, which weigh sixty-seven pounds to the yard. This was commenced during the year, and on twenty-four miles of track the rails weighing sixty-seven pounds to the yard were taken up and new rails weighing eighty pounds to the yard were laid in their place.

The number of ties renewed was 332,163.

Portions of the track on various parts of the line aggregating two hundred and seventeen and three quarter miles were reballasted.

Three miles of new sidings were laid at various places.

The bridges, wharfs, and buildings received necessary repairs.

The fences received necessary repairs, and eighty-eight and one-half miles of new fences were built.

The snow fences were repaired, and two thousand eight hundred and seventy-one rods of new snow fences were erected.

The snow sheds were repaired and one thousand lineal feet of new snow sheds were built.

Thirty-four new semaphores were erected at various stations.

The rolling stock received necessary repairs and is in good order.

Four locomotives were rebuilt in the railway shops, and five were purchased, on revenue account.

Two box freight cars, eight platform cars, seventeen coal cars, and two flanger cars were rebuilt in the railway shops; and one hundred and fifty-five box cars, and two hundred platform cars were purchased on revenue account.

STORES.

The value of stores purchased was.	\$1,752,911 77
The value of stores used was.....	1,665,607 19
The value of old material sold was.	188,330 27
<hr/>	

The value of stores on hand at the end of the year was:—

Ordinary stores including fuel.....	\$661,102 08
Iron and steel rails and fastenings.....	309,952 52
<hr/>	
Total.....	\$971,054 60

In July, 1899, the Dominion Iron and Steel Company commenced the erection of large iron works at Sydney, and the construction of these is being energetically carried on. The starting of this industry caused great activity in business in the neighbourhood, and a large increase in the traffic of the railway, to accommodate which the works and equipment of the railway are being improved.

SESSIONAL PAPER No. 20

On March 2, 1900, a storm and high tide did some damage to a portion of the Dartmouth Branch.

On April 19, 1900, a freshet did some damage to a bridge over the Etchemin River.

On May 2, 1900, there was a fall of rock from the cliff near Hadlow.

All these damages have been repaired.

Two station houses were accidentally destroyed by fire, the one at Salt Springs on May 26, 1900, and the other at Coal Branch on June 21, 1900.

The cost of clearing snow and ice from the track was more than in the previous year, amounting to eighty-nine thousand dollars.

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.

No. 1.—INTERCOLONIAL RAILWAY.

Dr.

CAPITAL ACCOUNT, Year ended June 30, 1900.

Cr.

Dr.	1899.	1899.	1899.	1899.	By Dominion of Canada	cts.
	June 30.			June 30.		
To cost of Intercolonial Railway to date.....		83				
Eastern Extension Railway to date.....		94,578,948				
Oxford and New Glasgow Railway to date.....		1,324,042				
Cape Breton Railway to date.....		1,950,820				
Cape Breton and Oxford and New Glasgow Railways to date.....		3,875,610				
Ferry Service at Strait of Canso to date.....		57,928	15			
		633,463	03			
					56,750,843	89
Expenditure for current year:						
Increased accommodation, St. John.....		449,854	20			
" " Halifax.....		22,714	07			
" " Lewis.....		79,999	95			
Elevator at St. John.....		146,781	50			
" " Halifax.....		83,671	12			
Strengthening Iron Bridges.....		77,001	10			
Changing draw bars of freight cars from link and pin to M.C.B. Standard Complexions.....		533,223	40			
Increased Siding Accommodation.....		10,000	00			
" " Station.....		102,501	53			
To enlarge engine houses.....		14,519	50			
" " excavate roof Morrissey Rock tunnel.....		3,625	69			
" " provide for the construction of a subway under the tracks at Charlies Crossing, Amherst.....		3,011	29			
Improvements at Mulgrave.....		4,004	70			
Extension to deep water North Sydney.....		14,906	71			
Improvements at Point Tupper.....		4,124	08			
To provide sea wall and embankment protection to banks along line of C. B. Ry.....		455	71			
" " provide larger and stronger turntables and strengthening some old ones.....		10,036	59			
" " provide new appliances and apparatus in connection with the installation of the Pinksch Gas Car Lighting System.....		11,763	42			
Land and Damages (O. & N. G. and C. B. Ry's).....		4,315	50			
Rolling Stock, to apply air brakes to freight cars.....		149	49			
One first class passenger coach.....		19,965	48			
Rolling Stock, refrigerator cars.....		10,378	26			
To provide for finishing upper flat General Offices.....		30,016	69			
Dredging at Pictou wharf.....		2,000	00			
Original Construction.....		1,295	25			
		7	35			

SESSIONAL PAPER No. 20

To provide new machinery Moncton.	4,598 01		
Dredging at Pictou Landing wharf.	4,800 00		
To build rest houses at nine engine stations.	244 15		
" provide and put up truck scales at Pictou, Drummondville and North Sydney.	2,078 31		
Rolling Stock—changing car couplers.	7,150 00		
To provide drop pits.	759 43		
Increased facilities along the line.	59,681 89		
Machinery at various points.	11,582 11		
Improving telegraph service.	4,932 13		
Stake fences.	4,997 80		
To Indiantown Branch.	52,128 41		
" pay McDonald and Moffatt claim.	1,074 00		
" Equipment of stations.	6,273 89		
" pay Ralph Jones—interest, etc.	847 50		
	19 0.		
	1,796,348 89	June 30, . . . By Dominion of Canada.	1,796,348 29
	58,547,192 18		58,547,192 18

E. & O. E.,

Moncton, N.B., June 30, 1900.

T. WILLIAMS,

Chief Accountant and Treasurer.

64 VICTORIA, A. 1901

No. 2.—INTERCOLONIAL RAILWAY.

DR. REVENUE ACCOUNT, Year ended June 30, 1900. CR.

Previous Year.	Expenditure.	Year ended June 30, 1900.	Previous Year.	Earnings.	Year ended June 30, 1900.
§ cts.		§ cts.	§ cts.		§ cts.
1,100,190 62	Locomotive power. Abst. No. 1.	1,385,069 90	1,167,453 16	Passenger traffic.	1,404,469 87
731,266 31	Car expenses " 2.	1,010,256 87	2,348,096 58	Freight traffic . . .	2,912,790 52
849,322 51	Maintenance way & works " 3.	962,978 41	222,781 70	Mails and sundries	234,811 32
453,971 00	Station expenses " 4.	537,548 85			
258,039 66	General charges " 5.	309,832 94			
72,896 11	Car mileage " 6.	61,023 25			
3,465,686 21		4,266,710 22			
210,000 00	Rental of leased lines.	164,694 47			
3,675,686 21		4,431,404 69	3,738,331 44		4,552,071 71
62,645 23	Balance	120,667 02			
3,738,331 44		4,552,071 71	3,738,331 44		4,552,071 71

E. & O. E.

MONCTON, N.B., June 30, 1900.

T. WILLIAMS,

Chief Accountant and Treasurer.

No. 3.—INTERCOLONIAL RAILWAY.

DR. LOCOMOTIVE POWER. (Abstract No. I.) CR.

Previous Year.		Year ended June 30, 1900.
§ cts.		§ cts.
13,168 13	Mech'l. supt's salary, clerks, office and travelling expenses	16,755 60
317,748 69	Wages of drivers, firemen and cleaners.	359,996 15
467,480 30	Fuel	601,867 63
29,846 39	Oil, tallow and waste and small stores.	24,891 77
221,150 55	Repairs to engines, tenders and engine tools	316,999 78
32,325 07	Water, including pump and tank repairs.	41,805 73
18,471 49	Miscellaneous.	22,753 24
1,100,190 62		1,385,069 90

E. & O. E.

MONCTON, N.B., June 30, 1900.

T. WILLIAMS,

Chief Accountant and Treasurer.

SESSIONAL PAPER No. 20

No. 4.—INTERCOLONIAL RAILWAY.

CAR EXPENSES.—(Abstract No. 2.)

Previous Year.		Year ended June 30, 1900.
§ cts.		§ cts.
74,687 97	Repairs to passenger cars	106,608 01
12,964 51	Repairs to postal, express and baggage cars.....	27,563 80
172,634 33	Repairs to freight cars and vans	338,292 78
5,090 40	Repairs to snow ploughs and flangers	5,851 81
317,994 42	Wages of conductors, train baggage masters and brakemen.....	360,585 01
13,395 32	Oil and waste for packing.....	5,473 20
91,442 71	Small stores and fuel.....	115,180 27
43,056 65	Miscellaneous.....	50,791 99
731,266 31		1,010,256 87

E. & O. E.

MONCTON, N. B., June 30, 1900.

T. WILLIAMS,

Chief Accountant and Treasurer.

No. 5.—INTERCOLONIAL RAILWAY.

MAINTENANCE OF WAY AND WORKS.—(Abstract No. 3.)

Previous Year.		Year ended June 30, 1900.
§ cts.		§ cts.
10,041 95	Chief and asst. engineer's salaries, clerks, office and travelling expenses.....	9,558 42
125,872 93	Wages in repairing roadway, fences, semaphores, including new sidings laid in.....	505,534 75
38,624 71	Rails and fastenings, including new sidings laid in.....	35,565 81
99,163 35	Ties.....	69,298 95
111,067 44	Timber, lumber, etc., for repairs to bridges, cattle guards, snow sheds, fences, etc.....	134,953 57
6,562 33	Repairs to wharfs	8,544 96
69,404 53	Repairs to buildings and platforms, including extensions and additions to same.....	86,546 97
14,516 00	Repairs to tools.....	19,776 01
70,104 71	Clearing snow and ice.....	88,873 51
3,964 56	Miscellaneous	4,325 46
849,322 51		962,978 41

E. & O. E.

MONCTON, N. B., June 30, 1900.

T. WILLIAMS,

Chief Accountant and Treasurer.

64 VICTORIA, A. 1901

No. 6.—INTERCOLONIAL RAILWAY.

STATION EXPENSES.—(Abstract No. 4).

Previous Year.		Year ended June 30, 1900.
£	cts.	£
365,429	78	432,320
88,541	22	195,228
453,971	00	537,548

E. & O. E.

MONCTON, N.B., June 30, 1900.

T. WILLIAMS,

Chief Accountant and Treasurer.

No. 7.—INTERCOLONIAL RAILWAY.

GENERAL CHARGES.—(Abstract No. 5).

Previous Year.		Year ended June 30, 1900.
£	cts.	£
109,200	96	122,136
33,820	42	36,508
14,871	25	16,770
28,712	42	40,296
5,184	30	6,434
27,483	77	35,699
38,766	54	52,076
258,039	66	309,832

E. & O. E.

MONCTON, N.B., June 30, 1900.

T. WILLIAMS,

Chief Accountant and Treasurer.

No. 8.—INTERCOLONIAL RAILWAY.

SPECIAL VOTES.—(Abstract No. 6.)

Previous Years.	RENTAL OF LEASED LINES.	Year ended June 30, 1900.
£		£
140,000	00	140,000
70,000	00	24,694
210,000	00	164,694

E. & O. E.

MONCTON, N.B., June 30, 1900.

T. WILLIAMS,

Chief Accountant and Treasurer.

SESSIONAL PAPER No. 20

No. 9.—INTERCOLONIAL RAILWAY

GENERAL STORES ACCOUNT—Year ended June 30, 1900.

Cr.

DR.	1899.	1900.	\$ cts.	\$ cts.	1900. June 30.	By	\$ cts.	\$ cts.
June 30... To balance				553,177 72		Issues during year	1,665,697 19	
1900.						Sales, material, fuel, &c	291,058 68	
June 30... To Purchases during year			1,752,941 77			Sales, old material	188,339 27	1,882,946 14
Charges from other departments.			475,961 84					
Labour, etc.			59,133 77					
Staff pay rolls			12,805 64					
				2,300,873 02		By Balance		
						Ordinary stores, including fuel	661,102 08	
						Iron and steel rails and fastenings.	309,952 52	
				2,854,050 74				971,054 60
								2,854,050 74

E. & O. E.

MONTGOMERY, N.B., June 30, 1900.

T. WILLIAMS,

Chief Accountant and Treasurer.

No. 10.—INTERCOLONIAL RAILWAY.
GENERAL BALANCE, Year ended June 30, 1900.

Dr.

To Cash.....	933 64
Station.....	138,866 90
General Stores.....	\$661,102 08
Ordinary stores, including fuel.....	360,952 52
Iron and steel rails and fastenings.....	
Dep't. Accounts.....	\$ 19,713 77
Militia and Defence.....	107 48
Post Office.....	428 83
Marine and Fisheries.....	117 25
Agriculture.....	1,171 22
Interior.....	
Canadian Pacific Railway rolling stock.....	24,638 55
Canada Eastern Railway—traffic.....	22,446 90
Canadian Pacific Railway—general.....	11,889 63
Canadian Pacific Railway—general (N.B.D.).....	14,993 25
Grand Trunk Railway—traffic.....	9,992 60
Grand Trunk Railway—general.....	4,295 96
Rents.....	20 46
Unclaimed freight.....	3,071 35
Quebec Central Railway.....	617 31
Dominion Atlantic Railway—general.....	865 94
Caracquet Railway.....	5,760 35
Bay Chaleur Railway.....	10 88
N. B. and P. E. I. Railway.....	352 08
Boston and Maine Railway.....	74 83
Buctouche and Moncton Railway.....	2,739 25
Tobique Valley Railway.....	2 33
Maine Central Railway.....	446 50
Canada Atlantic Railway.....	2 03
Detroit, Grand Haven and M. Railway.....	5 16
Swift Refrigerator Line.....	5,766 10
Kent Northern Railway.....	1 69
Nova Scotia Central Railway.....	17 82
New York Central and Hudson River Railway.....	90 10
Midland Railway of Nova Scotia.....	0 81
Imperial Tank Line.....	1 10
National Despatch Line.....	

Cr.

By Dominion of Canada.....	1,312,916 76
Shawmose.....	3,535 05
General Railway of New Brunswick.....	67 49
Copper Crown Mining Company.....	111 05
Chatham Railway.....	0 07
Newfoundland Railway.....	2 19
Peamsville Company.....	3 34
Canada Coals and Railway Company.....	15 00
Salisbury and Harvey Railway.....	15 51
I. C. R. Employee's R. and I. A.....	156 15
Canadian Pacific Railway—traffic.....	12,517 18

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Restigouche and Western Railway	6 98
Northern Pacific Railway	0 54
Tenniscumata Railway	888 94
Prince Edward Island Railway	936 95
St. Martins and Upham Railway	1 43
Great Eastern Fast Freight Line	2 55
Pennsylvania Railway	56 56
Inverness and Richmond Railway	3,165 90
Grand Trunk Railway—suspense	98 75
Lake Shore and Michigan Southern Railway	2 30
Allegheny Valley Railway	2 21
Central Vermont Railway	0 61
Wisconsin Central Lines	1 15
Illinois Central Railway	2 68
Texas and New Orleans Railway	1 04
Wabash Railway	9 43
Drummond County Railway	2,843 38
Southern Railway	1 15
Western New York and P. Railway	9 00
P. E. I. Steam Navigation Company	1 39
Delaware and Hudson Co.	5 60
Toronto, Hamilton and Buffalo Railway	8 11
Pittsburg, Cincinnati, C. and St. Louis Railway	3 36
Minn., St. Paul and Sault St. M. Railway	7 25
Fitchburg Railway	8 86
Detroit and Lima Northern Railway	4 33
New York, Chicago and St. Louis Railway	0 29
West Shore Railway	0 50
Lake Erie and Detroit River Railway	0 25
Elgin and Havelock Railway	71 15
Chicago, Milwaukee and St. Paul Railway	1 81
St. Louis and Cairo Short Line Railway	0 53
Cleveland, Lorraine and Western Railway	0 26
Boston and Albany Railway	0 65
Western Counties Railway—general traffic	15,457 92
" " " "	3,161 99
" " " "	1,151 42
" " " "	736 10
" " " "	2,864 86
" " " "	6,287 19
" " " "	14 70
" " " "	68 39
" " " "	352 82
" " " "	1,522 29
" " " "	3 00
" " " "	49 57
" " " "	131 28
" " " "	48 13
Springhill and Parrsboro Railway	
Halifax and Cape Breton Railway	
Elgin Branch Railway	
Acadia Coal Co.	
Canadian Express Co.	
Intercolonial Coal Co.	
Cumberland Railway and Coal Co.	
Dominion Coal Co.	
Steamer <i>Admiral</i>	
Car <i>Ottawa</i>	
St. Francois Bridge Co.	
Western Union Telegraph Co.	
Town of Fraserville	
" " " "	\$ 15,893 35
" " " "	64 57

No. 10—INTERCOLONIAL RAILWAY.

Dr.

GENERAL BALANCE, Year ended June 30, 1900—Concluded.

	\$	cts.
To Dominion Iron and Steel Co.....	4,801	69
Baldwin Locomotive Works.....	181	10
Canadian Locomotive and Engine Co.	691	02
Municipality of Kings, N.B.....	69	00
People's Heat and Light Co.....	3	60
SS. <i>Ferda</i>	19	48
SS. <i>Lake Ontario</i>	50	78
SS. <i>Ardara</i>	17	04
SS. <i>Assyria</i>	3	00
City of Moncton.....	10	04
Great North-western Telegraph Co.	36	85
Record Foundry and Machine Co.	78	88
Wagner Palace Car Co.....	223	00
Alban SS. <i>Linu</i>	5,770	58
Union Bearing Co.....	1,802	13
Halfax Cotton Co. Siding.....	928	18
Poulsen Iron Works.....	5,801	37
Town of Dartmouth.....	273	25
St. John Street Railway Co.	32,000	00
Ontario Car and Foundry Co.	31	00
Remittances destroyed.....	1,276	00
Schooner <i>Mary Jane</i>	788	81
Coldbrook Rolling Mills Co.....	71	30
Stations:—	1,967	41
Nauwigewauk.....	3	00
Glengarry.....	5	00
Bloomfield.....	25	21
Coal Branch.....	65	84
Weldford.....	35	00
Ste. Luce.....	89	00
Ile.....	22	00
Nappan.....	40	00
St. Arsenne.....	197	12
Dalhousie.....	19	69
Valley.....	6	65
Iona.....	72	71
Kent Junction.....	28	38
Isle Verte.....	25	00
Gloucester Junction.....	78	87
Campbellton (freight).....	25	00
Derby Junction.....	231	04
Ste. Louise.....	0	66

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Nicolet	3 00	
Rivière du Loup (freight)	136 82	
St. Alexandre	25 90	
Rivière du Loup (ticket)	16 00	
New Castle	102 75	
Red Pine	20 00	
Menamcook	7 54	
St. John (freight)	3,696 46	
Amherst (freight)	3 31	
Sackville	10 17	
Boisdale	7 80	
Wentworth	33 24	
Rockingham	27 47	
New Glasgow	633 90	
Halifax (freight)	887 49	
Nash's Creek	5 00	
Shediac	34 70	
Boreka Mills	13 56	
Athol	4 44	
Individual accounts		5,960 72
Total		10,057 90
		1,329,343 09

T. WILLIAMS,
Chief Accountant and Treasurer.

E. & O. E.
 MONROE, N.B., June 30, 1900.

64 VICTORIA, A. 1901

No. 11.—INTERCOLONIAL RAILWAY.

INDIVIDUAL ACCOUNTS, Year ended June 30, 1900.

Dr.	\$	cts.	\$	cts.
The Gray & Lawrence Bros. Co.				6 75
F. E. Caine			2,760	70
T. A. S. DeWolf & Son.				3 50
F. D. Corbett & Co.				11 86
H. A. McKeown				150 00
Geo. McDougall & Co.			1,466	00
L. R. Harrison			1,313	41
Pickford & Black				132 28
J. N. 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
Cr.			10,527	45
J. B. Snowball				6 14
Dubs & Co				98 63
Robb Engineering Co.				20 00
M. J. O'Brien			344	78
				469 55
			10,057	90

SESSIONAL PAPER No. 20

No. 12.—INTERCOLONIAL RAILWAY.

COMPARATIVE STATEMENT of Averages, Year ended June 30, 1900.

	1899.	1900.
Mileage of railway...	1,314 67	1,314 67
Engine mileage.....	5,974,170	6,828,005
Train mileage.....	4,881,695	5,473,710
Car mileage.....	53,422,606	63,810,012
Receipts per engine mile.....	Cents. 62 57	66 67
Receipts per mile of railway.....	Dollars. 2,843 55	3,402 52
Percentage of passenger earnings to gross earnings.....	31 23	30 85
" freight.....	62 81	63 90
" other.....	5 96	5 16
Expenses per engine mile :—		
Drivers, firemen and cleaners' wages.....	Cents. 5 32	5 27
Fuel.....	7 83	8 81
Oil, tallow, waste and small stores.....	50	37
Repairs to engines.....	3 70	4 65
Water and tank repairs.....	54	61
Miscellaneous.....	31	33
Total.....	18 20	20 04
Mechanical superintendent's salary, office and travelling expenses.....	22	25
Total.....	18 42	20 29
Locomotive power per engine mile.....	Cents. 18 42	20 29
Car expenses.....	12 24	14 80
Maintenance way and works per engine mile.....	14 22	14 10
Station expenses.....	7 60	7 87
General charges.....	4 32	4 53
Car mileage.....	1 22	90
Total.....	58 02	62 49
Rental of leased lines.....	3 51	2 41
Total per engine mile.....	61 53	64 90
Locomotive power per train mile.....	Cents. 22 53	25 30
Car expenses.....	14 98	18 46
Maintenance way and works per train mile.....	17 40	17 59
Station expenses.....	9 30	9 82
General charges.....	5 20	5 66
Car mileage.....	1 49	1 11
Total.....	70 99	77 34
Rental of leased lines.....	4 30	3 01
Total per train mile.....	75 29	80 35
Working expenses per mile of railway :		
Ordinary.....	Dollars. 2,636 16	3,245 46
Rental of leased lines.....	159 74	125 27
Total.....	2,795 90	3,370 73

E. & O. E.

MONCTON, N.B., June 30, 1900.

T. WILLIAMS,

Chief Accountant and Treasurer.

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INTERCOLONIAL RAILWAY OF CANADA,
OFFICE OF THE GENERAL SUPERINTENDENT,
MONCTON, N.B., September 11, 1900.

SIR,—Replying to your letter of July 14, I send herewith the annual report on the maintenance of way and works for the year ended June 30, 1900.

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 OF CANADA,
OFFICE OF THE ENGINEER OF MAINTENANCE,
MONCTON, N.B., August 14, 1900.

SIR,—I have the honour to submit the report of maintenance of way and works department for the year ending June 30, 1900.

TRACK.

During the year 24 miles of track laid with old $4\frac{1}{2}$ -inch steel rails weighing 67 pounds to the yard, were taken up and replaced with new five (5) inch rails weighing 80 pounds to the yard; and one mile of old $4\frac{1}{4}$ -inch rails weighing 58 pounds to the yard, was taken up and replaced with new four and a-half inch ($4\frac{1}{2}$) rails, weighing 67 pounds to the yard.

Twenty-two miles of rails which had become worn at the ends, were taken up, cut and relaid.

TIES.

During the year, 332,163 ordinary ties, and 316 sets of switch ties were renewed.

BALLASTING.

During the year, 226,383 cubic yards of ballast were distributed over $217\frac{3}{4}$ miles of track on various parts of the line.

SEMAPHORES AND SWITCHES.

New distant semaphore signals were erected at the following stations: Halifax (2), Brookfield, Truro, Ferrona Junction, Antigonish, Mulgrave, Belmont, Westchester, Springhill Junction, Calhoun's, Apohaqui (2), Sackville, Amherst, Buctouche Crossing, Hampton, St. John (3), Harcourt, Barnaby River, Rogersville (2), Kent Jnction, (2), Metapedia, St. Anaclet, Rimouski, Trois Pistoles, Old Lake Road, Drummondville (2), Ste. Rosalie Junction.

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The number of new switches put up on the various divisions during the year was as follows:—

Between	Halifax and Stellarton.....	26
"	Stellarton and Mulgrave.....	20
"	Pictou and Oxford Junction.....	5
"	Truro and Painsec Junction.....	17
"	Point du Chêne and St. John.....	23
"	Moncton and Newcastle.....	15
"	Newcastle and Campbellton.....	15
"	Campbellton and Ste. Flavie.....	14
"	Ste. Flavie and Riv. du Loup.....	9
"	Riv. du Loup and Lévis.....	13
"	Chaudière and Ste. Rosalie.....	13
	<hr/>	
	Total switches renewed.....	170

New station telegraph signals were provided at the following stations:—Richmond, Enfield, Stewiacke, Truro, Glengarry, Avoudale, James River, South River, Pomquet, Heatherton, Bayfield Road, Sydney, Leitches Creek, North Sydney Junction, Boisdale, Grand Narrows, Iona, Orangedale, River Denys, West Bay Road, McInyre's Lake, Point Tupper, Oxford, Pugwash Junction, Pugwash, Wallace, Tatamagouche, Denmark, River John, Meadowville, Scotsburn, Anagance, St. Anaclet, Ste. Luce, Rimouski, Bic, St. Fabien, St. Eloi, Isle Verte, Riv. du Loup, Carmel.

Necessary repairs were made to all other semaphores, switches and station telegraph signals throughout the line where required.

SIDINGS.

During the year, three (3) miles of additional siding accommodation was provided at different points throughout the line.

FENCING.

Eighty-eight and one-half (88½) miles of new woven wire, Anchor wire and Page wire fencing, were erected at different points of the line during the year. Heavy repairs were also made to existing fences.

SNOW SHEDS AND SNOW FENCES.

During the past year, 47,385 feet of new snow fencing, and 1,000 feet of new snow shedding has been erected. Heavy repairs were also made to existing snow sheds and fences where found necessary on different sections of the line.

WHARFS AND TRESTLES.

At Pier No 3, deep water terminus, Halifax, a number of mooring posts were renewed.

At Pier No 4, the wharf and shed were overhauled and repaired, and some defective piles renewed. The trestle on wharf was also overhauled, jacked up and surfaced.

At Pier No 6, new sills were provided where required, and necessary repairs made to roof of shed on pier.

At Piers 1, 2, 3, 4, and 5, life saving ladders have been provided and hung in place: life buoys have also been provided at each of the piers.

At Richmond, the pier was overhauled and repaired, piles were driven where necessary, and a portion of the covering renewed.

The coal shed trestle was also overhauled and received necessary repairs. Two bents were renewed, the trestle blocked up and the hand railing repaired.

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At Mulgrave, the north corner of wharf which had been damaged, was renewed with hardwood timber and birch sheathing. It was also found necessary to renew about 20 feet of the sheathing on the outer side of the wharf. The crib work on the shore side of Mulgrave dock damaged by the ss. *Mulgrave*, was overhauled and repaired with hardwood sheathing.

At Pirate Harbour, the coal shed and trestle were overhauled and repaired, and two doors were placed in the roof for unloading coal into shed.

At Pictou, extensive repairs were made to the crib work of wharf.

At Point Tupper, the wharf was overhauled, and repaired where found necessary.

At Amherst, the coal trestle was overhauled, and heavy repairs made to same.

At Dorchester, extensive repairs were made to the wharf, and necessary repairs made to the coal trestle.

At Point du Chêne, the top of steamboat landing wharf was recovered with pine plank, and other extensive repairs made to wharf.

At St. John, a portion of the top of the ballast wharf was recovered with 4 inch hemlock deals; the hoisting run was also replanked. Heavy repairs were also made to the other portions of the wharf.

New timbers and cross ties were placed under tracks of coal trestle, and the roof of coal shed was renewed with three inch deals, and a new pitch and gravel roof provided.

At Dalhousie, general repairs were made to the wharf where found necessary.

At Campbellton, the coal trestle was overhauled and repaired, and new ties placed under the track where required.

At St. Charles Junction, necessary repairs were made to the coal trestle.

At Lévis, some filling was put in the cribs of wharfs, and other repairs made where found necessary.

At Pointe Lévis, the planking on the top of Princes Pier was repaired.

BUILDINGS AND PLATFORMS.

At North Street station, new galvanized iron bars were placed in sky-lights on east side of roof, and necessary repairs made to sashes and glass on roof. A new floor was laid in the baggage room. Necessary repairs were made to the train shed doors, and the waiting room papered and painted.

At Richmond, one side of the car shed roof was recovered with shingles, and repairs made to floors and sills of building. New stringers were placed on some of the engine pits in the round house and machine shop, and the floor repaired. The roof of railway tenement house was recovered with shingles, and the interior of building overhauled and repaired. Two section men's hand-car houses were built during the past year.

At the Deep Water Terminus, a large loading platform 200 feet long by 25 feet wide was provided, having inclined approaches at either end.

The car cleaning platform was renewed.

At Rockingham, the platform was overhauled and extended, and necessary repairs made to the station building and coal shed.

At Prince's Lodge, the platform was repaired, and extended 50 feet.

At Fall River, a flag station was erected, and the platform extended 60 feet.

At Bedford, the platform was overhauled and repaired, and some slight repairs made to the station agent's dwelling apartments.

At Windsor Junction, the roof of freight shed was reshingled, and necessary repairs were made to the station building. An extension was made to the north end of passenger platform of some 70 feet. A new hardwood floor was laid in the kitchen, and the walls sheathed.

At Milford, new hardwood floors were laid in the station master's office and waiting room, and the walls and ceilings were sheathed. The freight house was overhauled and repaired, and the floor raised 18 inches. A new cattle pen was erected.

At Enfield, the roof of station was overhauled and repaired.

At Elmsdale, the platforms were overhauled and repaired where necessary.

At Stewiacke, new sills were placed under the station, and repairs made to platform.

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At Hilden, the freight platform was renewed, and made the standard height. Necessary repairs were made to the station building, coal shed and section men's hand car house.

At Truro, the passenger platform was renewed, the freight platform overhauled and repaired, and an enlargement was made to the freight house office.

At Alton, the passenger platform was renewed.

At Valley, the interior and exterior walls of station were overhauled, repaired and painted. Necessary repairs were made to the cattle pen.

At Riversdale, the station building was overhauled, repaired and painted, and some new sills provided. Outside sashes were provided for the station master's dwelling apartments.

At Glengarry, the roof of station was reshingled, and repairs made to the doors, windows, &c., &c.

At Stellarton, the walls of station master's office and waiting room were sheathed and painted. The station building was overhauled and repaired, and the trimmings painted. The freight house was repaired and painted.

At New Glasgow, necessary repairs were made to the woodwork of station building and platform. A small office was provided for freight handlers.

At Woodburn, the platform was renewed, and the passenger shelter repaired.

At West Merigomish, the station building was overhauled, repaired and painted, and the platform renewed. The interior walls of the waiting room were painted.

At Merigomish, the station platform was renewed.

At Piedmont, necessary repairs were made to the station building, coal shed, &c., and the interior walls of waiting room painted.

At Avondale, the exterior walls of station building were overhauled, repaired and painted. The waiting room, station master's office, coal shed and w. c. were also painted.

At Barney's River, the north side of station was reshingled, spouting was provided for the station, and the building overhauled, repaired and painted. The interior of station building was also painted.

At Marshy Hope, the platform was overhauled and repaired.

At James River, the south side of station building was reshingled, and the station building and freight shed overhauled, repaired and painted. The interior walls of the waiting room and office were also painted.

At Antigonish, the station and other buildings were overhauled, repaired and painted, together with the waiting room and station master's office. Necessary repairs were made to the cattle pen, and a high platform for loading sheep into cars was provided.

At South River, the station was overhauled and repaired, and the exterior walls, the station master's office and waiting room painted. The platform was renewed.

At Pomquet, necessary repairs were made to the roof and exterior walls of station building, and the building painted outside and inside. The coal shed and other buildings were also painted.

At Heatherton, the roof and walls of station were overhauled, repaired and painted. The station platform was repaired. Some filling was placed around the approaches to the station grounds, to make better accommodation for the public. The cattle pen was also repaired.

At Bayfield Road, the station building was overhauled and repaired, and the exterior and interior walls painted. The platform was renewed.

At Afton, repairs were made to the station, and the platform was renewed.

At Tracadie, one-half of the station platform was renewed. The station master's office, and waiting room were repaired and painted.

At Monastery, the station platform was renewed.

At Harbour au Bouche, necessary repairs were made to the dormer windows in the roof of station. New floors were laid in the dwelling apartments upstairs, and the walls of two of the rooms were sheathed. The station building, coal shed, &c., were painted. The platform was renewed.

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At Mulgrave, necessary repairs were made to the passenger platform and to the exterior walls of freight shed, and the shed and ice house painted.

Necessary repairs were made to all station buildings and platforms between Point Tupper and Sydney.

At Pictou, a new top was placed on the station platform, and the engine house and freight shed overhauled and repaired. Necessary repairs were also made to the turntable.

At Scotch Hill, the passenger platform was overhauled and repaired.

At Wallace and Tatamagouche, extensions were made to the freight houses. At the latter station, new hardwood floors were laid in the station master's dwelling apartments.

At Sylvester, an extension was made to the loading platform, and the station building repaired.

At Scotsburn, River John and Meadowville, the passenger platforms were renewed.

At Pugwash, the station building, and freight shed on wharf were overhauled, and necessary repairs made to same.

At Westchester, a new water closet was provided for the station

At Thompson, the kitchen was raised, and new sills placed underneath.

At River Philip, the top of loading platforms, 100 feet long by 18 feet wide, was renewed.

At Oxford Junction, the wood-work of roof of round house was overhauled and repaired, and a new Sparham roof was put on. The trimmings of station building and baggage room, and the station master's office and waiting room were painted. The old floor of the round house was taken up, and the space filled in with cinders.

At Spring Hill Junction, an enlargement was made to the ladies waiting rooms, and an office provided for the baggage master. Modern flush water closets were placed in the ladies and gentlemen's waiting rooms, and also in the dwelling apartments of the station master. The roof of the repair shop was recovered with shingles, repairs were made to the coal delivery shed and a new Sparham roof put on. The wood-work of the station master's office, ladies waiting room and water closets was painted.

At Salt Springs, the exterior walls of station were overhauled and repaired.

At Nappan, the station building was overhauled and repaired, the floor of the freight shed raised and a portion of the roof reshingled. The station building, freight shed and coal house were painted.

At Maccan, new sills were placed under the station building, and the exterior walls and roof of station overhauled and repaired. The station master's office and waiting room were painted.

At Sackville, the station and freight house were overhauled, repaired and painted.

At Athol, the roof of station building was reshingled, and the exterior walls of station repaired and painted.

At Evans, the flag station was moved, and the exterior walls papered and covered with shingles. A heavy canvas roof was placed on the building.

At College Bridge, the station building was overhauled and repaired, and one side of the roof recovered with shingles.

At Upper Dorchester, new sills were placed under the station building, the floor of the freight house was renewed and the exterior walls of both buildings overhauled, repaired and painted. The ceiling and walls of waiting room were sheathed.

At Moncton, a tinsmith's shop was erected in one of the sections of the old round house. The government building occupied by the mechanical superintendent was overhauled and repaired, and the roof recovered with shingles. A number of the government cottages were provided with coal houses. General repairs were made to all other buildings where required.

The building used by the stores department as an oil store had the interior reconstructed, the old tanks taken out and replaced by new ones; a counter was also provided and a number of pumps put in.

At Humphrey's Mills, the passenger platform was repaired, and one half of the loading platform renewed.

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At Boundary Creek, a loading platform, 20 feet by 12 feet, was provided, and the passenger platform repaired.

At Salisbury, both the loading and passenger platforms were entirely renewed; the latter 368 by 16 feet, and the loading platform 200 by 12 feet. At Petitcodiac, heavy repairs were made to the station building, and a portion of the platform 200 feet by 12 feet was renewed.

At Anagance, extensive repairs were made to the station building and the platform was renewed.

At Sussex, the station building which was damaged by fire received extensive repairs, and one-half of the station platform was renewed.

At Chalet and Dunsinane, new passenger platforms were erected, 75 feet long by 8 feet wide.

At Dorchester Road, a new passenger shelter was provided and the platform repaired.

At Pollet River, Bloomfield and Rothesay, the platforms were overhauled and repaired.

At Torryburn, the platform was renewed, 146 feet by 16 feet.

At St. John, general repairs were made to all the government tenement buildings. The loading platform on the ballast wharf, 100 feet by 12 feet was renewed, also the exhibition platform, 30 feet by 14 feet.

A new platform was laid in the train shed, 470 feet long and 9 feet wide. The passenger platform in station, 125 feet by 12 feet was also renewed. Necessary repairs were made to the coal shed and trestle, round house, and freight shed on ballast wharf. A new hardwood floor was laid down in the restaurant, and repairs made to the floor of baggage room. Heavy repairs were made to the loading platform in St. John yard. The wooden flooring under the old closets and urinals in the station building having become rotten and offensive by reason of leakage, it became necessary to remove it. The old flooring was torn up and replaced with a flooring of old rails overlaid with concrete, on top of which was placed a tile flooring. This has made a first-class substantial job. The old plumbing and woodwork of closets was removed, and new self flushing closets and urinals provided, also new wooden stalls, &c., for the closets. Two partitions were taken down, and some other small repairs made. The whole work presents a first-class appearance.

At Berrys Mills, the station building and platform were overhauled and repaired.

At Canaan, a new platform was provided.

At Coal Branch, the exterior walls of station building were overhauled and repaired, and a new cattle pen was provided.

At Adamsville, necessary repairs were made to the station building and platform.

At Harcourt, the station building and freight shed were overhauled and repaired where found necessary. The platform was also repaired.

At Kent Junction and Acadieville, the platforms were renewed.

At Tunnel Siding, a flag station and passenger platform were provided.

At Rogersville, the roof of freight shed was reshingled, and the platform repaired.

At Barnaby River, necessary repairs were made to the exterior and interior walls of station building. The freight shed was overhauled and repaired, and the platform renewed.

At Chatham Junction, the station building was repaired. The platform was also overhauled, repaired and extended.

At Indiantown, necessary repairs were made to the station, and a new hardwood floor was laid in the waiting room. The engine shed was overhauled and repaired and the roof reshingled.

At Millerton, the station building and kitchen were repaired, and the roof of the latter building reshingled.

At Newcastle, the roofs of station building, oil-house and blacksmith shop were repaired and recovered with shingles. A new hardwood floor was put down in the station. Necessary repairs were made to the round house, blacksmith shop and turntable in the round house. The station platform was renewed.

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At Gloucester Junction, storm windows were provided for the dwelling apartments of station.

At Beresford and Nigadoo, passenger shelters were provided.

At Bathurst, the woodwork of stationmaster's office, waiting-room and dwelling apartments was overhauled, repaired and painted. General repairs were made to the coal shed and pump house. An office was provided in the freight house for the use of the agent. The loading platform was taken down and removed to a new site to make room for extending the freight sidings.

At Petit Rocher, the station building was overhauled and repaired where found necessary.

At Belledune, a well was dug to provide a water supply for the station master.

At Jacquet River, the exterior walls of station building were overhauled, repaired and painted. A new cattle pen was provided.

At Nash's Creek, the interior woodwork of station building was painted and necessary repairs made to the coal shed.

At New Mills, the station master's office was repaired and painted.

At Charlo, the tank building was overhauled and repaired, and the roof re-shingled. Necessary repairs were made to the dwelling apartments of the station master.

At Eel River, the passenger platform was lowered and extensive repairs made to same.

At Dalhousie, the interior walls of engine house were sheathed.

At Dalhousie Junction, the interior woodwork of station was overhauled, repaired and painted, and three outside sashes provided.

At Campbellton, the water supply pipes and drainage of the house occupied by Superintendent Rennels was overhauled and put in a good state of repair. The interior walls of the following offices were sheathed and painted: Superintendent Rennels's, despatchers' and conductors' lobby. A new hardwood floor was laid down in the trackmaster's office. The locomotive foreman's and station master's dwellings were overhauled and repaired. The baggage master's office was enlarged, and a chimney provided in same. The freight shed and ice house were overhauled and repaired. The turntable and engine pits in the round house were repaired where found necessary, and repairs were made to the roof of building.

At Metapedia, the roof of station was re-shingled, and some repairs made to the interior of building. The station platform was overhauled and repaired.

At Millstream, the station building and section foreman's house were overhauled, repaired and painted.

At Assametquaghan, necessary repairs were made to the exterior walls of station and the building painted. The two section foremen's dwellings were also painted.

At Causapsca, the walls of station master's office and ladies' waiting room were sheathed, and the old freight shed converted into a gentlemen's waiting room. The exterior walls of station building were overhauled, repaired and painted. A two stall w. c. was provided, and the roof of coal shed re-shingled. The platform was overhauled and repaired, and an extension of 75 by 8 feet wide was made to same.

At Salmon Lake, a loading platform was erected, and the station building overhauled and repaired.

At Amqui, the passenger platform was overhauled and extensive repairs made to same.

At Sayabec, the station building was overhauled and repaired, and the interior woodwork of station and dwelling apartments painted.

At St. Moise, necessary repairs were made to the roof, and the exterior walls of station building overhauled, repaired and painted.

At Little Metis, general repairs were made to the station building, a new cattle pen provided, and the platform overhauled and repaired where necessary.

At St. Octave, the station building was overhauled and repaired, and a portion of the platform renewed.

At Ste. Flavie, general repairs were made to the station, and to some of the engine pits in the round house. Necessary repairs were also made to the coal shed.

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At Ste. Luce, the station building and platform were overhauled and repaired.

At St. Anaclet, necessary repairs were made to the station building.

At Rimouski, the station building was overhauled and repaired, also the office on Rimouski wharf and the ice house at the station.

At St. Fabien, general repairs were made to the station building and freight shed, and the platform renewed.

At St Simon, some sheathing was done to the interior walls of station.

At St. Arsène, the roof of station building was partially recovered with shingles and the interior and exterior walls of station overhauled and repaired.

At Riv. du Loup, general repairs were made to the station building, blacksmith shop and coal shed. The top timbers of some of the engine pits in the round house were renewed, and a new coal shed platform was provided, 300 feet long by 30 feet wide.

At Old Lake Road, the passenger platform was repaired.

At St. Alexandre, new hardwood floors were laid in the station master's office, waiting room and kitchen, and a storm porch provided.

At St. André, the station and freight platforms were overhauled and repaired.

At St. Philippe de Néri, new hardwood floors were laid in the station master's office, waiting room and kitchen.

At River Ouelle, Ste. Anne and St. Jean Port Joli, the station platforms were overhauled and repaired.

At Cape St. Ignace, a storm porch was provided for the station and the station master's office sheathed.

At Montmagny, an extension was made to the freight shed, and a hand car house provided for the section men.

At St. François, the station master's office was sheathed and painted.

At St. Valier, necessary repairs were made to a part of the old station platform.

At St. Michel, the waiting room and station master's offices were sheathed and painted.

At St. Charles Junction, a storm door was provided, and new hardwood floors were laid in the station master's office and waiting room.

At Chaudière Curve, extensive repairs were made to the roof and interior and exterior walls of the government tenement house, and the foundation walls overhauled and pointed.

At Chaudière Junction, a hand car house was provided for the section men, and new doors placed on the scale house. The blacksmith shop was overhauled and repaired, and an extension of 50 by 12 feet was made to the building.

At Hadlow, an extension of 100 feet was made to the station platform, 12 wooden smoke stacks were placed in the round house, and a number of stringers of the engine pits were renewed.

At Point Lévis, the government tenement house occupied by Mr. King received extensive repairs. Necessary repairs were made to the exterior walls of the car repair tool house, and a new hardwood floor provided.

At Harlaka Junction, a new cattle pen was provided.

At Lévis, three offices were made in the second flat of station building in the part formerly used as a restaurant. The roofs of the electric light building and coal shed were recovered with shingles, and an extension of 40 by 12 feet was made to the store room.

At St. Apollinaire, a new coal shed was erected.

At Moose Park, necessary repairs were made to the station building and platform which were damaged by a train which ran off the track at that place.

At Maddington Falls, an extension of 137 feet was made to the platform.

At St. Leonard Junction, a new cattle pen was provided.

At Nicolet the engine house was overhauled and repaired.

At Drummondville, a store room was provided, and a small building erected for the use of the fuel men. Necessary repairs were made to the engine house and coal shed, and the trestle raised two feet.

At Ste. Rosalie, a platform 60 feet long was erected.

BRIDGES AND CULVERTS.

The masonry of retaining wall from North Street to overhead bridge, Campbell Road, Halifax, was overhauled, repaired and pointed.

Two abutments of Rawdon River bridge were overhauled, repaired and pointed up.

At Grand Lake, necessary repairs were made to the masonry of box culvert.

A crib retaining wall was built at each end of Stewiacke bridge.

Dry masonry retaining wall were erected at abutments of Malcolm's, Enfield, and Wellington bridges.

An iron guard rail was placed on the standard top of Beaver River bridge.

The culvert west of Milford station was overhauled and repaired, and a new concrete bottom put in.

A passage was made for cattle under the railway embankment at Dewis siding, 20 feet long, 6 feet high, and 4 feet 6 inches wide. Necessary repairs were made to the ends of five culverts between Barney Brook and Milford.

The stringers, ties, and wall plates of five culverts between Elmsdale and Stewiacke were renewed.

Dry retaining walls were built to the abutments of four small bridges between Elmsdale and Milford.

A new wooden box culvert about 2 ft. by 2 ft. was laid through Elmsdale station yard to carry off the surface drainage.

The masonry of an old culvert near Enfield was removed and replaced with 24 inch cast iron pipe 24 feet long, with 12 feet of masonry at either end.

Necessary repairs were made to the masonry of three culverts in the vicinity of Shubenacadie Station.

The masonry of retaining walls of arch culvert near Stewiacke was overhauled, repaired and pointed, and repairs made to paving of same.

On account of increasing the length of the siding at Hilden, two abutments of bridge at this place had to be extended; some 70 cubic yards of masonry were required in the work.

A 2 ft. by 2 ft. box culvert near Truro, which had broken down, was cleaned out and rebuilt.

Two new abutments were provided for Lydia Brook bridge.

Five 2½ by 2 feet cedar box culverts were renewed between Landsburg and Hope-well.

The bridge crossing the brook at West River yard, 18 feet wide and 23 feet long, and having wooden abutments 4 feet high was renewed.

At Pine Tree, 150 feet of the old pile bridge was renewed with creosoted piling, and a standard hard pine top placed on same. Cedar crib abutments were built at the west end of bridge. An under crossing for winter use was provided under the bridge.

Three cedar box culverts were put in between Merigomish and Avondale to replace defective stone culverts damaged by freshets.

At Antigonish, the trestle bridge 745 feet long, was renewed in hard pine.

At McDonald's Cove, the old pile bridge was replaced by a 12 foot beam culvert with cedar abutments, and the rest of the bridge filled in.

New hard pine ties were placed over the beam culvert near South River, and the walls faced up with cement.

Necessary repairs were made to the walls and covers of three culverts between South River and Pomquet.

At Pomquet trestle, one new bent was put in, and a number of new posts were put in to strengthen the old bents.

New cedar ballast timbers were provided at each end of Pomquet through bridge.

At Pettipas Cove and Gerrior's Cove, 5 by 6 ft. cedar box culverts were put in to replace the old pile bridges, and the balance of bridges filled in.

At Gerrior's Marsh, two old pile bridges were replaced with cedar box culverts 6* by 8 ft., and 5 by 6 ft., respectively, and the balance of bridges filled in.

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At Monastery and Black River, the stone abutments of the bridges were overhauled and pointed.

Between Tracadie and Monastery, a big arch culvert had the wing walls of one end rebuilt. The abutments of a 20 foot span had the abutments overhauled and pointed, and a new hard pine top provided.

At Tracadie Road, stone abutments and retaining walls have been built at the big trestle, which is to be replaced by a steel plate girder bridge.

The woodwork, towers, and apron, of the transfer ferry truss bridge at Mulgrave were painted.

At Little River, hard pine ballast timbers were placed at each end of the deck bridge.

General repairs were made to all the bridges and culverts where found necessary between Point Tupper and Sydney.

The masonry of several culverts between Stellarton and Pictou was overhauled, repaired and pointed.

At French River, a casing of concrete was placed round the four piers.

New standard hard pine tops and guard rails were placed on the following bridges on the O. & N. G. Division: West River, Middle River, Harris and Gut bridges.

Necessary repairs were made to Waugh's River bridge.

At Pugwash, the masonry of abutments and one pier was overhauled and pointed.

Extensive repairs were made to a 3 by 4 foot stone culvert near Oxford. Three culverts in the vicinity of Pugwash Junction had the stone coverings repaired, and ends pointed up.

At Tatamagouche, Nos. 1, 2, and 3 culverts had the old masonry walls and ends torn down and rebuilt. New covers were also placed on these culverts.

Between Scotch Hill and Brown's Point six culverts were overhauled, repaired and pointed.

Necessary repairs were made to the end walls and new paving provided in an 8 foot arch culvert on the Pugwash Branch.

At Truro, one of the abutments of the 'Y' bridge was taken down and rebuilt.

At Belmont, extensive repairs were made to the centre pier of bridge, which had become scoured out on one side.

At Onslow, cribwork was erected along the top of embankment, 155 feet long and 5 feet 6 inches in height, and filled with stone.

A large cedar box culvert was put in between Oxford Jct. and Thomson.

Necessary repairs were made to the tunnel at Caldwell's Brook.

The masonry of a number of box culverts between Truro and Painsec Jct., was overhauled, repaired and pointed.

At Callhoun's Bridge, ballast walls were erected, and the masonry of bridge overhauled and pointed.

A new hard pine standard top was placed on Breau's Creek bridge near Menramcook.

A new floor was laid on the overhead bridge at McLean's Corner.

One of the stone abutments of the overhead bridge at Mountain Road, Moncton, was taken down and rebuilt.

Heavy repairs were made to bridge on branch leading to Portage ballast pit, which had been damaged by freshets. Necessary repairs were made to masonry and superstructures of Harris, Mill Stream, Brookville, Quispamsis, and McCafferty's Bridges.

One end of arch culvert near Painsec Junction was taken down and rebuilt, also made repairs to two arch and two box culverts near this station.

At Cook's Brook, a new 4 by 2½ foot stone culvert 22 feet long was put in.

The masonry of six stone culverts between Moncton and Boundary Creek was overhauled, repaired and pointed.

Two new stone culverts, one 35 feet long and 6 feet wide, and the other 25 feet long by 2 feet 6 inches wide, were built a short distance west of Salisbury station.

A new cedar box culvert was put in near Bloomfield station.

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At Lakeside near Hampton, a new floor was laid on the overhead bridge, and wooden bents placed under the ends.

At St. John, the overhead bridges carrying Stanley and Wall Streets across the railway were overhauled and repaired.

Necessary repairs were also made to the swing bridge on the harbour extension.

A cedar box culvert near Berry's Mills, which had become broken down was renewed.

At Coal Branch, a portion of the tops of the east and west bridges were renewed with hard pine.

A number of cedar box culverts between Rogersville and Coal Branch were overhauled and repaired where found necessary.

At Derby, a number of the hard pine stringers were renewed in overhead bridge.

The masonry of the following bridges between Moncton and New Castle was overhauled, repaired, and pointed: North and South Cocagne, Buctouche, South Forks, North Brook, Main River, Kouchibouguac's, 3rd crossing, Barnaby River, Barnaby River bridge, and the north and south-west Miramichi bridges.

A new hard pine standard top with guard rails was placed on the Nepisiguit Bridge, and a new stone ballast wall built at the east end of this bridge.

The masonry of Tataouche bridge was overhauled, repaired and pointed.

The hard pine stringers of a number of open culverts between Bathurst and Jacquet River were renewed.

A hand railing was provided for Moffat's bridge, near Campbellton.

Between Metapedia and Mill Stream the hard pine stringers and ties of twelve open culverts were renewed.

A number of hard pine ties in top of McKinnon's Brook bridge were renewed.

Eight open culverts between A-sametquaghan and Amqui had the hard pine stringers and ties renewed.

A new cedar culvert was built in Amqui station yard, and an extension was made to culvert in Cedar Hall station yard.

New masonry of the following bridges was overhauled, repaired and pointed:—Restigouche, Gilmore's, Clarke's Brook, Mill Stream and McKinnon's.

The masonry of abutments of Ste. Anne and L'Islet bridges was overhauled, repaired and pointed.

At Boyer Bridge one new bent was put in, and 15 bridge ties were renewed.

At Chaudière Curve, a stone culvert which had partially fallen down, was rebuilt, and another stone culvert repaired and pointed.

At St. Romuald, a new floor was placed on the bridge.

At Hadlow, Welsh's Mill Brook bridge was renewed with iron girders.

Between River du Loup and Hadlow the hard pine stringers and ties of 32 culverts were renewed.

Three new cedar box culverts were put in between Aston and St. Leonard Junctions.

At St. Eugène and St. Edward station yards, new cedar box culverts were placed under the tracks, and between St. Leonard Junction and Carmel, 3 new cedar box culverts were put in.

Where the track was raised on the Drummond division last year, it became necessary to raise a large number of open culverts, and between Forestdale and Drummondville, some 81 culverts were overhauled, repaired and new stringers placed on them.

The following bridges were overhauled, scraped and painted:—

	Spans.
Drummondville bridge.....	3
West Trois Saumons bridge.....	2
Bridge 2 miles east of Ste. Louise.....	2
Fouge River bridge.....	1
Bridge 1 mile west of Ste. Louise.....	1

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	Spans.
Mill Creek bridge.....	2
River Ouelle ".....	9
Langelier ".....	1
Kamouraska ".....	2
Riv. du Loup Branch.....	1
Bras St. Michel bridge, near Montmagny.....	4
Montmagny bridge.....	7
" ".....	15
Tobicote ".....	1
Charlo (overhead).....	1
West Jaquet River bridge (overhead).....	1
Richibucto River bridge.....	3
Buctouche River ".....	1
North and South Cocagne bridge.....	1
North River.....	1
Chapman's Brook.....	1
Petitcodiac River.....	2
Lakeside.....	1
Bridge (1 mile west Lakeside).....	1
Hammond River.....	3
Bridge, two miles east Quispamsis.....	1
St. John station yard (overhead).....	1
Wall Street (overhead).....	1
Stanley Street ".....	1
McManus Brook bridge.....	1
Fort Lawrence ".....	1
Little Forks ".....	1 4 girders
Sodom ".....	1
Westchester ".....	1
Bridge (east of Folleyigh station).....	1
Sackville.....	3
Harris Brook bridge.....	7
Mulgrave transfer bridges.....	7

During the working season, a gang of rivetters have been at work at various places throughout the line, tightening up rivets, putting in lateral bracing, and making other necessary improvements and repairs to iron bridges.

GENERAL.

At Halifax Deep Water Terminus, eight new buffers were erected at the ends of sidings.

The scows and boats used in connection with the dredging and wharf work at the Deep Water Terminus, Halifax and Richmond, were overhauled and repaired.

A cesspool was provided at Springhill station, and a six inch drain pipe was put in leading from the station building to the same.

Derailing switches were put in at Beau Rivage, and at the coal shed siding, Campbellton.

New mail bag catchers were put up at the following stations :—Millstream, Assam-etquaghan, Beau Rivage, Causapsca, Salmon Lake, Amqui, Cedar Hall, Sayabec and St. Octave. Eight were also erected at various points between Chaudière and Ste. Rosalie.

A number of old box car tops were obtained from the Mechanical Department and sent to various stations along the line, where they were set up, repaired and painted, and converted into section men's hand car and tool houses.

During the past year, a large number of farm crossing gates and cattle guards were renewed throughout the line, and repairs made to others where necessary.

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CAPITAL ACCOUNT.

The following works chargeable to capital account, were carried out by the maintenance department:—

SNOW FENCING.

9,355 feet of new stone fencing, also 13,200 feet of portable snow fencing, were erected at various points of the line.

BUILDINGS, PLATFORMS, ETC.

At Halifax, a building was erected to hold Pint-ch gas reservoirs and fittings.

At North Street, a quantity of rock was excavated and used in connection with the sidings laid down during the past year.

A large amount of grading was done at the deep water terminus, both for the tracks and approaches to the new pier, No. 3.

Four hose reels were made and stationed at various points around the railway property at this station for fire protection purposes.

A fence 8 feet high was put up on three sides of the grain elevator.

At Waverley, a well, together with pump and fittings, was provided for the accommodation of the station master.

At Miller's brick yard a platform was erected.

At New Glasgow, an ice house, 40 by 20 feet was erected. A watchman's shanty was also provided at this station.

At Merigomish, an extension of 220 by 8 feet wide was made to the passenger platform.

At Avondale, a new loading platform, 130 feet long, with cedar crib front and ballast filling was erected, to be used in loading heavy timber, deals, &c.

At James River, the passenger platform was extended 90 feet long by 8 feet wide. A new loading platform of the same dimensions, and similar to that built at Avondale was also provided.

At Heatherton, an extension was made to the passenger platform, 100 feet long by 8 feet wide.

At Bayfield Road, the passenger platform was extended 120 feet long by 8 feet wide.

At Afton, a kitchen was built at the rear of the station for the accommodation of the station master.

At Tracadie, an extension 100 feet long by 8 feet wide was made to the passenger platform.

At Harbour au Bouche, the passenger platform was extended 100 feet by 8 feet.

At Sydney, an extension of 100 feet was made to the freight shed.

At Wallace and Tatamagouche, necessary extensions were made to the passenger platforms.

At Ferguson's Crossing, a platform 60 feet long by 8 feet wide was provided.

At Scotburn, a new freight shed 50 by 25 feet was erected.

At Debert, a loading platform was provided.

At Westchester, a loading platform 50 feet long faced with cedar and filled with earth was erected.

At Spring Hill Junction, the necessary land for a 'Y' was purchased and the 'Y' put in.

At Shediac, a baggage room 16 by 27 feet was erected.

At Millerton, an extension was made to the passenger platform, and a water supply provided for the station master.

At Green Point, a shelter was put up for the accommodation of passengers.

At New Mills and Charlo, an extension of 100 feet was made to the passenger platforms.

At Armstrong's Brook, a platform was provided.

At Campbellton, an extension of 150 feet was made to the freight platform.

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At Cedar Hall, a new freight house 40 by 30 feet was built, also a platform 250 long by 4 feet wide.

At St. Moïse, a new freight shed 40 by 20 feet was erected.

At Old Lake Road, an extension of 75 feet was made to the passenger platform.

At Ste. Hélène and St. Paschal, new loading platforms 70 feet long by 14 feet wide were erected.

At River Ouelle, an extension was made to the passenger platform of 75 feet.

At Ste. Anne, the passenger platform was extended 100 feet.

At St. Jean Port Joli, a new passenger station was erected, and the station platform extended.

At L'Islet, an extension of 25 feet was made to the passenger platform.

At Cap St. Ignace, the platform was extended 50 feet.

At Montmagny, alterations and improvements were made to the freight shed.

At St. François, the passenger platform was extended 100 feet.

At St. Valier, a new station was erected.

At St. Michel, an extension of 100 feet was made to the passenger platform.

At Hadlow, a new ash pit was provided.

At Duncan, a freight house and platform were provided.

At River Sauvage, a combined station and freight shed 40 by 20 feet was erected.

At Laurier, Aston Junction and Kingsburg Junction, dwelling houses were provided for the accommodation of the station masters.

At George's River, a small kitchen was built at the rear of the station for the accommodation of the station master.

At Gondola Point, a platform was erected.

SIDINGS.

New sidings and extension of sidings were made at the following stations:—
 Rockingham, Bedford, Enfield, Stewiacke, Slubenacadie, Brookfield, Hilden, West River, Albion, Acadia, Marshy Hope, Tracadie, Avondale, Granton, Pomquet, Briery Brook, Cape Porcupine, Rockway, Sydney, Pugwash, Onslow, Greenville, Salt Springs, Springhill Junction, Evans, Jones Crossing, Torryburn, Berry's Mills, Canaan, Coal Branch, Harcourt, Kent Junction, Rogersville, Lakeland, Chatham Junction, Barnaby River, Newcastle, Beaver Brook, Red Pine, Gloucester Junction, Bathurst, Petit Roche, Belledune, Jacquet River, New Mills, Charlo, Eel River, Morrisey's Rock Tunnel, Millstream, Moffat's, Metapedia, Beau Rivage, Assametquaghan, Amqui, Causapsca, Sayabec, Cedar Hall, Kempt, St. Moïse, Ste. Luce, St. Anaclet, Rimouski, Bic., St. Simon, Trois Pistoles, St. Eloie, Isle Verte, St. Arsène, Riv. du Loup, Old Lake Road, Ste. Hélène, River Ouelle, Ste. Anne, Ste. Louise, St. Jean Port Joli, L'Islet, Cap St. Ignace, Montmagny, St. Pierre, St. François, St. Valier, St. Michel, St. Charles, Hadlow, St. Nicholas, Moose Park, Maddington Falls, River Sauvage, Aston Junction, St. Leonard Junction, Drummondville, St. Eugène, Bagot, St. Edward, Ste. Rosalie, Fountain Road, St. Hughes, Bécancour River.

The total mileage of new sidings and extensions is about $18\frac{3}{4}$ miles.

I have the honour to be, sir,

Your obedient servant,

T. C. BURPEE,

Engineer of Maintenance.

J. E. PRICE, Esq.,

General Superintendent, I.C.R.,

Moncton, N.B.

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INTERCOLONIAL RAILWAY OF CANADA,

OFFICE OF THE CHIEF ENGINEER,

MONCTON, N.B., October 16, 1900.

SIR,—I have the honour to submit the following report of the engineering department on capital appropriations for the year ending June 30, 1900.

Increased Accommodation, Halifax.—The creosoted pile wharf about 600 ft. by 160 ft. with a warehouse 525 ft. by 126 ft. was complete. About one-half of the inside of the monitor roof has been sheathed and white-washed. The bulkhead between pier No. 2 and pier No. 4 has been raised and the front sheathed. A complete system of electric lighting has been installed in shed No. 3. Nearly three miles of new sidings have been laid.

Grain Elevator, Halifax.—The Halifax grain elevator has been completed according to contract. The main building, conveyor and interior walls and ceilings of power house have been painted with two coats of Carson's anti corrosion oxide of iron paint. A coal shed has been built and necessary connecting sidings have been laid down.

Land damages, Oxford and New Glasgow and Cape Breton Divisions.—Two claims in Cape Breton, one for a crossing, the other for land damages, were settled.

Extension to deep water at North Sidney.—Dredging was done here to afford 20 feet of water at low tide on both sides of the terminal wharf.

To provide for sea-wall and cribwork protection to banks on C. B. Railway.—Plans were prepared in October, 1899, tenders called for early in November, and the contract let to the lowest tenderer in December of the same year. The amount of cribwork called for by the specification is between Iona and McKinnon's Harbour, 830 lineal feet, and at Jamesville, 900 ft. Work was done on this contract to the extent of the money available.

To provide and put up track scales at Pictou, Drummondville and North Sidney.—Three 100 ton scales were purchased by tender from the Gurney Scale Company, and other necessary materials for foundations, &c., were also purchased and are on hand. Instead of putting the new heavy scale on the Oxford and New Glasgow division, it was decided to replace the scale at Moncton by a heavy scale, and send the Moncton scale to the Oxford and New Glasgow division. Part of this work on the Moncton scale was done. The scale sent from Moncton will be amply heavy to meet the requirements on the O. & N. G. division for some years to come. Nothing was done at North Sidney and Drummondville.

Improvements at Point Tupper.—With the exception of taking soundings and making a thorough examination of the bottom, nothing was done on this account.

Improvements at Mulgrave.—In connection with the improvements here, a thorough examination and record was kept of the tides, run of ice, &c., in the Strait of Canso, and a full report made thereon. Plans for a cribwork addition to the present wharf were prepared in December, and tenders were called in the same month. In January, 1900, the contract was awarded to the lowest tenderer. The work was started with as little delay as possible, and carried on until the amount of money available was expended. Considerable still remains to be completed next year.

Dredging at Pictou and Pictou Landing.—Dredging was done here by the Public Works dredge *St. Lawrence*, and shipping facilities very much improved.

Strengthening iron bridges.—The doubling up of Folley bridge was completed. The masonry of the bridge over the Sackville River near Bedford was strengthened by

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the addition of concrete and No. 9 wire lacing. An iron beam bridge, 16 feet clear span, was put in at Welch's Cove, near Hadlow. Stone abutments were built at Lydia Brook, and at Mulgrave Road crossing. These are to support new plate girder spans to take the place of the present wooden trestle bridges. A new self-propelling pile-driver was purchased to drive pile false work for erecting new steel bridges. A universal hydraulic punch was also purchased for bridge work. Hard pine timber and channels required to double up present deck bridges were purchased, and are on hand.

A contract was let for seven through Warren truss spans, 108 to 110 ft. over all. These spans were ordered to replace present spans at :—Debert 2 spans, Nappan 1 span, Barnaby River 1 span and Beau Rivage 3 spans. Owing to the difficulty in getting material this contract was not completed, and only part payments on account were made on the Barnaby River, Nappan and Beau Rivage bridges. A contract was let for three spans deck plate girders, 56 feet long over all, for the Sackville River, near Bedford station. This contract was completed. Contracts were also let for a 70 foot deck plate girder span for Mulgrave Road undercrossing on the Eastern Extension, and an 87 foot deck plate girder span for Lydia Brook, near Truro. These are now on hand.

Nothing was done in the way of doubling up present bridges on account of the late delivery of the new spans.

Provide and Construct a Subway Under Tracks at Christie's Crossing, Amherst.—Plans were prepared, tenders advertised and a contract let for the masonry, abutments and necessary grading. About three-quarters of the work was done. Rolled steel 'I' beams for a 20 foot clear span were purchased and are now on hand.

To Provide Larger and Stronger Turntables, and Strengthen Some Old Ones, to Meet the Requirements of the Modern Heavy Engines at the Various Points.—A new traverse table was provided at Rivière du Loup. The turntable at Hadlow was strengthened. New turntables were let by contract for the following places :—Truro, Hadlow, Rivière du Loup, Moncton and Stellarton. These were delivered but not erected in place.

To Provide New Engine Houses and Enlarge Others.—With the exception of work done on plans for a new brick engine-house at Stellarton, and survey of ground, nothing was done on this vote. The expenditure was charged to the vote to enlarge engine-houses.

To Enlarge Engine Houses.—At Moncton several engine pits were extended by adding outside wooden bays with shed roofs. Plans were prepared and tenders asked for addition to Stellarton engine-house. It was, however, decided not to build this wooden addition, but build a new brick engine-house. Materials were purchased for roof supporting girders for enlargement of engine-houses at Campbellton and Ste. Flavie. The girder for Campbellton was completed, and the one for Ste. Flavie partly completed.

Plans were prepared for the enlargement of Campbellton engine-house, and tenders were asked for the work.

To Provide Drop Pits.—With the exception of a little labour done at Moncton, all the money expended on this account was done by the mechanical department.

To Build Rest Houses at Nine Stations.—On this account several proposed plans for different places were prepared, but nothing definite was settled, and no further work was therefore done.

To Provide for Finishing the Upper Flat of General Offices.—The third flat of the general offices was thoroughly finished up in every detail, providing four large offices and four small ones. Two water-closets were provided as well as a blue-printing room, complete. The different offices were provided with all the necessary furniture, and the vault fitted to suit the departments using them. The extra necessary heating apparatus was put in. All materials were purchased for electric bells, lighting and telephones, and tubing for same placed. The money was provided for this work in the account named above, and an item in the supplementary estimate for 'increased facilities.'

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Increased Accommodation at St. John.—The valuator appointed investigated and reported in February 1900, on the value of the property required, the greater part of which has been paid for.

New Wharf. Cribs Nos. 1, 2, 3, 4, 5, and 6 have been sunk and topped out to a considerable extent. Cribs Nos. 7 and 8 to complete west arm of wharf, have yet to be sunk. The east arm and harlour front of wharf was almost completed.

Dredging. The dredging was practically completed.

Submarine rock blasting. In part of the west dock and for the northern portion of the west arm of the crib wharf, the rock blasting was about one-quarter completed. The timber for trestle for two tracks within the wharf was almost all on hand.

The new main line. This work was well advanced last year and was completed. A small highway bridge was built to improve the approach to the new wharf property. The pile trestles for tracks to new wharf were completed. Tracklaying and ballasting about four-fifths completed. The new freight house on the wharf was about one-third completed. The driveway from Long Wharf and York Point Wharf to the new wharf was completed. A set of railroad crossing gates were put up at Gilbert's Lane.

Elevator at St. John.—The excavation for elevator and tracks was completed and tracks laid. The elevator and conveyor were completed, but have not yet been taken over by the railway department.

Indian town Branch.—To pay amount of award of Walter Shanly of \$34,675.23, and interest thereon from December 1, 1886, to July 1, 1899, to the Honourable J. B. Snowball. This award with interest was paid by the department at Ottawa.

To Excavate Roof Morrissey Rock Tunnel.—Plans were prepared, tenders called, contract let and work completed. Since the completion of this work it is possible to carry classes of work which before it was necessary to refuse, and the clear headroom here no longer limits the loaded height.

Increased Accommodation at Lévis.—Plans were prepared for the cribwork and filling required, tenders asked and contract let. Part of this work was done. Plans were prepared for new station. Survey made and plan prepared of property required, and part of the property purchased. Plans were prepared for the property to be expropriated and for that to be decided.

Cape Breton Railway.—To pay McDonald & Moffat in full settlement of claim for extra work on the Terminal Wharf at Sydney.

This matter was attended to by the department at Ottawa.

Increased Station Accommodation.—At St. Valier, land was purchased, new freight shed 25 ft. by 50 ft. built.

Cap St. Ignace, an addition to freight shed 18 ft. by 25 ft. was made.

St. Philippe de Néri, land was purchased.

At St. Anaclet, a new freight shed 20 ft. by 30 ft. was built.

At Cedar Hall, old coal shed was converted into a freight house.

At St. Germain, land was purchased for station yard purposes.

At Causapsal, improvements were made to the station.

At Flatlands, improvements were made to the station and a new freight shed built.

At Painsec Junction, a new covered platform was built.

At Chatham Junction, an addition to present freight shed was made.

At Plumseweep, a combined station and freight house 20 ft. by 40 ft. was built.

At Jaquet River, an addition was made to the station building.

At Westchester, land was purchased and some improvements to yard made.

At Truro, a watchman's box was provided.

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At Westville, a water supply was put in station.

Passenger platforms were built or extended at the following places :—Afton, Iona, Amherst, Memramcook, Canaan.

Loading platforms were built or extended at the following places :—Eel River, Moffatts, St. Valier, St. Luc and Ste. Hélène.

Increased Facilities Along the Line.—At Sydney, land was purchased for the extension of the station yard, and an icehouse 18 ft. by 38 ft. built.

At Boisdale, land for water supply was bought and a tank and water service provided.

At West Bay Road, a tank and water service was provided.

Westville, a set of railroad crossing gates were erected.

Painsec Junction, right of way and use of spring was purchased.

Canaan, land for water supply was bought.

Tunnel Siding, a freight shed was provided.

Rivière du Loup, a baggage building, 21 feet by 100 feet, for baggage and other purposes was provided. The station building was remodelled and thoroughly fitted up, and is now a first class station.

St. Alexandre, a new freight shed, 20 feet by 60 feet, was built.

Old Lake Road, a new freight shed, 20 feet by 30 feet, was built.

St. Philippe de Néri, a new freight shed, 20 feet by 60 feet, was built.

Bagot, land for stock yard was purchased.

St. Leonard, a tank and water service was provided.

Carmel, land for borrow-pit was purchased.

St. Eugène, land was purchased for the enlargement of station ground.

Ste. Hélène, land was purchased for the enlargement of the station yard.

General Offices, Moncton, the finishing of the third flat was completed, and furniture for offices provided.

Moncton, the office in freight shed was enlarged.

Track scales, some labour was performed, a new 100-ton scale provided and materials for foundation purchased.

Machinery at various points, at Point Tupper and Mulgrave, machinery was provided to work the transfer bridges.

Equipment of Stations.—All the expenditure on this account was on the Drummond division, and consisted of track tools, handcars, rails to extend siding, track jacks, rail braces, office furniture and tools at the different stations.

Oxford and New Glasgow Railway.—This vote was to pay the claim of Ralph Jones, and was settled by the department at Ottawa.

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.

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INTERCOLONIAL RAILWAY OF CANADA,
OFFICE OF THE MECHANICAL SUPERINTENDENT,
MONCTON, N.B., October 6, 1900.

SIR,—I beg to submit for your information the following statements prepared by the mechanical accountant :

Statement showing the number of locomotives, and the various classes of cars.

Locomotive and car mileage.

Abstract of locomotive returns.

Locomotive power for each month.

General statement of expenses of mechanical department.

Also a summary of the principal work done in drawing office, Moncton locomotive and car shops, shops at Richmond and Rivière du Loup.

Complete statement of renewals and repairs to the water service, on the whole system, for the year ending June 30, 1900.

Yours truly,

G. R. JOUGHINS,

Mechanical Superintendent.

D. POTTINGER, Esq.,

General Manager,

Moncton.

DRAWING OFFICE.

Work done in the drawing office from June 30, 1899, to June 30, 1900.

Partial detail drawings for four new passenger engines.

Further detail drawings for four Mogul engines.

New draft rigging for converting link and pin couplers of freight cars to M. C. B. automatic couplers.

New draft rigging for converting Miller couplers of passenger cars to M. C. B. automatic couplers.

Detail drawings of first-class passenger cars.

General arrangements with details of new 100,000 lbs. capacity platform cars.

Details for refrigerator cars.

New stock car, 35 feet long with details.

New furnace for smith shop.

New drop pits and air jack for enlarged round houses.

New transfer table for erecting shop, Moncton,

New overhead hoists " " " "

Machine for testing cast iron wheels.

Arrangement of new water service, with new boiler and pump house, Moncton.

Altering of roof supports, erecting shop, Moncton.

New shop appliances, &c., and miscellaneous detail drawings for locomotive and car repair work.

Specifications for freight cars and locomotives.

Register of locomotive repairs, and water service report.

Specifications and special drawings supplied to stores to order on, and all material so ordered checked and listed.

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MONCTON LOCOMOTIVE SHOPS.

Four new freight locomotives, Nos. 3, 90, 91 and 92, were rebuilt new complete. Two new tenders complete.

93 locomotives received heavy repairs and 36 had specific repairs, the following new parts being supplied:—25 driving wheel centres, 67 driving tires, 39 driving axles, 13 truck axles, 4 main rods, 2 slab side rods, 29 crank pins, 5 new cylinders and half saddles, one set W. a. brakes, 10 new cabs, 50 new pilots, 202 new tubes, 2 new tube sheets, 3 new half fire box door sheets, 8 half side sheets put in fire boxes, 1 new smoke box. 134 locomotives were tested, 8,584 tubes were pieced, 54 fire boxes were patched, 277 pairs of driving tires were turned, 93 locomotives and tenders were repainted and varnished.

MONCTON BRASS FOUNDRY.

Output:—99,565 lbs. of castings, 157,259 lbs. of brass bearings.

MONCTON CAR SHOPS.

The following cars received heavy repairs:—

Five parlour cars, 15 sleeping cars, 4 dining cars, 1 official car, 56 first-class cars, 56 second-class cars, 21 postal cars, 28 baggage cars, 38 freight vans, 3 flangers, 1 wing plough, 7 snow ploughs, and 567 freight cars.

The following cars received light repairs:—

Fourteen sleeping cars, 5 dining cars, 32 first-class cars, 52 second-class cars, 22 postal cars, 14 baggage cars, 30 freight vans, 1 flanger, 1 wing plough and 3,994 freight cars.

The following were repainted or stained and varnished:—

Three parlour cars, 1 sleeping car, 24 first-class cars, 39 second-class cars, 13 postal cars, and 9 baggage cars.

The following were renovated and varnished:—

Two parlour cars, 12 sleeping cars, 29 first-class cars, 4 dining cars, 17 second-class cars, 10 postal cars, 15 baggage cars.

The following cars were repainted:—

Ninety-eight box cars, 184 platform cars, 84 gondola cars, 33 hopper cars, 39 freight cars, 7 snow ploughs, 1 wing plough and two flangers.

The following cars were rebuilt:—

One flanger, 1 box car, 8 platform cars and 18 gondola cars.

Special work was done as follows:—

Ten new iron trucks, and 47 new wooden trucks built.

Four hundred new axles turned and 1,271 old axles trued up.

1,116 steel wheels turned.

2,514 new wheels pressed on axles and 954 old wheels pressed on axles.

5,668 wheels pressed off axles.

Forty-nine 60,000 lb. new cars boxed for carrying coal.

64 VICTORIA, A. 1901

Thirty-nine 40,000 lb. new cars boxed for carrying coal.

Fifteen passenger cars changed from Miller to National M.C.B. passenger coupler with Miller combinations.

Nine passenger cars changed from Miller to Hien passenger coupler.

Twenty-four passenger cars fitted with air signal.

Thirty-nine freight cars changed from link and pin to M.C.B. coupler.

In addition to the lumber prepared for the above repairs, 300,000 feet was milled according to store orders. Also a large amount of work was done to freight and baggage trucks, chairs, foot boards, ticket cases and station furniture on account of No. 1 store.

RICHMOND SHOPS.

Heavy repairs, engines.....	22
Medium repairs, engine.....	1
Specific repairs, engines.....	71
Fire box, patched, engine.....	1
Boilers tested, engines.....	18
Tires turned, pairs.....	139
New driving axles turned.....	2
New driving tires turned.....	4
New crank pins turned.....	54
New pilots.....	3
New tender frames.....	1
Bolts forged.....	26,550
Bolts screwed.....	37,850
Studs screwed.....	740
Engines and tenders painted.....	17

RIVIERE DU LOUP SHOPS.

Heavy repairs, engines.....	22
Medium repairs, engines.....	3
Specific repairs, engines.....	31
Boilers tested.....	39
Engines and tenders painted.....	19
New tube sheet.....	1
Tires turned, pairs.....	196
Tires, new.....	28
Bolts forged.....	14,800
Bolts screwed.....	14,800
Studs screwed.....	3,600
New half side sheets, fire box.....	2
Tubes put in.....	1,441
Fire boxes patched.....	3
New tender frames.....	6
New main rods.....	1
New crank pins.....	2
New pilots.....	6

WATER SERVICE, FROM JULY 1, 1899, TO JUNE 30, 1900.

ALTON.

One $1\frac{1}{4}$ nipple. 1 $\frac{1}{2}$ elbow. One $1\frac{1}{2} \times 1\frac{1}{4}$ bushing. Eight feet rubber hose. One box metal polish. Tested boiler No. 23 to 100 lbs. pressure.

SESSIONAL PAPER No. 20

AMHERST.

October, 1899. Moved crane from freight siding to No. 1 siding. Eighteen feet 8 in. cast iron pipe. New cedar crib. Cleaned out reservoir. New copper strainer. Rebuilt fence around reservoir.

March, 1900. Repaired tank pipe.

ARMOUR'S ROAD.

Nil.

ASSAMETQUAGHAN.

September, 1899. Cleaned out reservoir and repaired leak in water pipe.

December, 1899. Repaired tank stove. Thirteen lengths and 4 elbows, 7 in. galvanized stove pipe.

ANTIGONISH.

August, 1899. New galvanized stove pipe on top of tank.

October 1899. One new No. 16 Globe stove. One fire shovel.

December, 1899. Repaired tank pipe. Put in new valve chain.

BAYFIELD ROAD.

September, 1899. Cleaned out reservoir. Put in new copper strainer.

November, 1899. Repaired tank stove. One padlock. One new leather on tank valve.

December, 1899. Tank pipe repaired.

January, 1900. Tank pipe repaired.

March, 1900. Tank pipe repaired. New valve lever.

BATHURST.

July, 1899. Repaired tank pipe.

November, 1899. Two No. 16 Globe stoves. Five joints and 2 elbows, 7 in. stove pipe. Repaired tank pipe.

December, 1899. No. 16 Globe stove put in.

January, 1900. New smoke pipe and elbow for top of boiler.

February, 1900. Repaired tank pipe and No. 16 stove.

March, 1900. Repaired tank stove.

April, 1900. Repaired foot valve on suction pipe, and water piston in steam pump.

May, 1900. Took out boiler No. 111 and shipped to Moncton for repairs. Put in boiler No. 16 and tested it to 100 lbs. pressure, May 16, 1900.

BELLEDUNE.

July, 1899. Repaired water and steam pump.

February, 1900. Tank burned. Shipped boiler and steam pump (No. 3 Knowles) to Moncton for repairs. Put in temporary boiler No. 16 and No. 5 Knowles steam pump. 25 feet $2\frac{1}{2}$ -in. rubber hose.

64 VICTORIA, A. 1901

BAGOT.

July, 1899. Repairs to inspirator pipes.
 August, 1899. New check valve on inspirator.
 October, 1899. Repaired injector and pipes.
 May, 1900. Tested boiler No. 32 to 100 lbs. pressure.

BOISDALE.

November, 1899. Put in 2,000 feet 4-in. cast iron pipe. Two 4-in. water gates. One 6-in. water gate. Thirty-six-inch cast iron pipe. Ninety feet $\frac{3}{4}$ -in galvanized pipe. Three thousand feet pine deal. Built reservoir and connected water pipe with the tank and station. Took down the windmill and repaired tank pipe.

BEAVER BROOK.

May, 1900. Tested boiler No. 12 to 100 lbs. pressure. O K.

CAMPBELLTON.

July, 1899. Repaired water pipe in engine house. Repaired leak in water main and pipes in station.

August, 1899. Repaired tank pipe. Put in new 4-in. valve in main water pipe. Cleaned out reservoir and put new coverings on reservoir. New smoke pipe top of tank.

October, 1899. Repaired water pipes for washing passenger cars.

December, 1899. Repaired water pipe in engine house.

May, 1900. Steam pump. New set of valves and springs for water end.

CANAAN.

February, 1900. Repaired tank pipe.

May, 1900. Tested boiler No. 7 to 100 lbs. pressure. May 14, O. K.

CARLETON—(BAIE DES CHALEUR BRANCH.)

Nil.

CHARLO.

April, 1900. Repaired tank pipe and chains.

May, 1900. Tested boiler No. 9 to 100 lbs. pressure. May 18, O. K.

CHAUDIERE (CURVE).

November, 1899. Repaired windmill pump.

April, 1900. New windmill pump.

SESSIONAL PAPER No. 20

CAUSAPSCAL.

- July, 1899. Cleaned reservoir.
 August, 1899. New galvanized smoke pipe in top of tank.
 September, 1899. Repaired tank pipe, cleaned out reservoir and put in new copper strainer.
 February, 1900. Repaired tank pipe.

CEDAR HALL.

- October, 1899. Repaired tank pipe.
 November, 1899. Two thousand six hundred feet 4-in. cast iron pipe. Thirty-six feet 6-in. cast iron pipe.
 December, 1899. Repaired tank pipe.
 January, 1900. Finished laying 2,600 feet 4-in. pipe, and finished reservoir.
 February, 1900. Laid 215 feet 1-inch pipe, galvanized, to King Brothers house, connected water pipe with same, and connected water pipe with station.

DALHOUSIE JUNCTION.

- July, 1899. Repaired reservoir.
 December, 1899. Twelve joints, 2 elbows, 7-in. galvanized stove pipe, and repaired valve.

DRUMMONDVILLE.

- October, 1899. Repaired tank valves.
 January, 1900. Repaired tank pipe and valve.
 February, 1900. " "
 March, 1900. " "

FORESTDALE.

- November, 1899. Repaired tank valve.
 January, 1900. " "
 May, 1900. " "

FOLEIGH.

- August, 1899. New trestle under tank, cut and riveted hoops.
 September, 1899. Painted tank.
 December, 1899. Repaired tank pipe.
 March, 1900. Washed out boiler.
 April, 1900. Repaired tank pipe. Tested boiler No. 20 to 100 lbs. pressure.

RICHMOND (HALIFAX).

- December, 1899. New leather on tank valve.

HAMPTON.

- November, 1899. Smoke pipe for top of tank.
 April, 1900. One new tank pipe. One new tank pipe repaired.

64 VICTORIA, A. 1901

HARCOURT.

- July, 1899. New bolts in tank valve.
 January, 1900. New valve chain on tank, repaired feed pipe and washed out boiler.
 April, 1900. Repaired steam pump and floor in tank.
 May, 1900. Tested boiler No. 14 to 100 lbs. pressure. O.K.

HADLOW.

- August, 1899. Repaired tank valve.
 September, 1899. " " "
 November, 1899. Repaired suction pipe to steam pump.
 December, 1899. Repaired and put in No. 6 Knowles pump. Took out a No. A. pump. New large copper strainer. One nipple 4 in. galvanized pipe.
 February, 1900. Repaired and put in a No. A. steam pump and shipped old pump to Moncton.
 April, 1900. Repaired steam pump and suction pipe in river.

INDIANTOWN.

- January, 1900. New smoke pipe for top of tank.
 February, 1900. Repaired hand pump.

ISLE VERTE.

- July, 1899. Repaired tank valve.

JACQUET RIVER.

Nil.

LONDONDERRY.

- July, 1899. Took No. 3 Knowles steam pump, and put in and repaired No. 3 Knowles steam pump. One copper strainer. Eighteen feet of galvanized 2 in. pipe. One galvanized 2 in. nipple.
 March, 1900. Washed out boiler.
 April, 1900. Tested boiler No. 22 to 100 lbs. pressure.

LITTLE METIS.

- August, 1899. New galvanized pipe for top of tank.
 November, 1899. Four joints 7 in. galvanized stove pipe.
 January, 1900. Repaired tank pipe.

L'ISLET.

- December, 1899. New leather on tank valve.

LEVIS.

- October, 1899. Repaired steam pump.
 February, 1900. Put in repaired No. 5 Knowles steam pump. Shipped one taken out to Moncton.

SESSIONAL PAPER No. 20

METAPEDIA.

November, 1899. One new No. 16 Globe stove, 15 joints, 2 elbows, 7 in. galvanized stove pipe.

June, 1900. Put on new copper strainer and barrel of gravel over strainer to filter water.

MONCTON.

July, 1899. Repaired stop cock boxes on north line.

April, 1900. Repaired leak in 6 in. pipe, north supply.

May, 1900. Rebuilt water crane at main line, and cleaned 300 feet of 6 in. sewer pipe. Put in 6 in. water gate.

January, 1900. Rebuilt crane and box around base of crane at old engine house. Repaired crane pipe. New covers on fire stop cock boxes.

MULGRAVE.

September, 1899. Repaired water pipes in wharf. One new valve, 2½ in. Sixteen feet galvanized 2½ in. pipe.

November, 1899. Repaired tank stove. New leather on tank valve.

January, 1900. Thirty feet 2 in. iron pipe. Cleaned out reservoir at engine house. One Globe 2½ in. valve on the wharf.

March, 1900. New valve chain and lever.

April, 1900. Repaired water pipes at engine house.

June, 1900. Repaired tank pipe. Repaired water pipes on wharf. Cleaned strainer in reservoir.

MILLSTREAM.

July, 1899. Repaired tank valve.

September, 1899. Cleaned out reservoir and repaired it.

December, 1899. Repaired tank stove.

MCKINNON'S HARBOUR.

February, 1900. Repaired tank pipe. Rebuilt windmill.

NEWCASTLE.

July, 1899. Repaired tank pipe.

December, 1899. Repaired water pipe in engine house. New roof on tank at station. Roof painted.

March, 1900. Repaired tank pipe.

April, 1900. " " "

NEW GLASGOW.

May, 1900. New crane pipe. One water gate, 4 in.

NORTH SYDNEY.

February, 1900. Laid 1,300 ft. of 6 in. cast iron pipe. Put in 1 fire hydrant. Thirty-six feet 4 in. cast iron pipe. Thirty feet 2½ in. galvanized pipe to connect with town water supply. One 2½ in. valve. One 2 in. ball cock. Repaired tank pipe.

April, 1900. Repaired tank pipe.

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OXFORD JUNCTION.

October, 1899. One new No. 16 Globe stove. Five joints 7 in. galvanized iron stove pipe.

February, 1900. Put in No. 6 Knowles steam pump (repaired). Took out No. 6 pump and shipped to Moncton. Repaired ladder for tank and floor in pump house.

April, 1900. New floor in pump house. Boiler No. 29 tested to 100 lbs. pressure. Seven feet $1\frac{1}{4}$ in. pipe. New chain on valve and new foot lever. Repaired tank valve.

PETITCODIAC.

July, 1899. New leather on tank valve.

August, 1899. New galvanized pipe on top of tank.

October, 1899. Repaired tank valve and stove.

March, 1900. Repaired tank pipe, and washed out boiler.

May, 1900. Tested boiler No. 21 to 100 lbs pressure O. K.

PUGWASH JUNCTION.

September, 1899. Rebuilt fence around reservoir.

November, 1899. New trestle under tank, cut and riveted hoops, painted tank, repaired tank pipes. New leather on valve. 1 plug cock, 3 in.; 1 $2\frac{1}{2}$ in. valve. 5 feet $2\frac{1}{2}$ in. galvanized pipe, 1 elbow $2\frac{1}{2}$ in.

December, 1899. Five joints 7 in. galvanized stove pipe.

PIEDMONT.

December, 1899. One No. 16 Globe stove. Smoke pipe for top of tank.

February, 1900. Repaired tank pipe.

March, 1900. Repaired tank pipe and new valve leather.

PICTOU LANDING.

June, 1900. Rebuilt fence around reservoir.

PICTOU.

December, 1899. One No. 16 Globe stove, 4 joints, 7-in. galvanized stove pipe.

January, 1900. New brass plug in 4 in. cock. Repaired trestle under tank. New tank pipe.

ROGERVILLE.

April, 1900. Repaired tank pipe.

May, 1900. Repaired tank pipe and steam pump. Tested No. 13 boiler.

RED PINE.

December, 1899. One new tank pipe, repaired tank stove.

January, 1900. Repaired tank pipe.

May, 1900. Tested No. 10 boiler to 100 lbs. pressure. O. K. Repaired boiler feed pipes.

SESSIONAL PAPER No. 20

RIVER JOHN.

July, 1899. Repaired windmill and pump.

October, 1899. New smoke stack, galvanized, 4 joints, 7-in. galvanized stove pipe.

November, 1899. Repaired tank stove.

RIVIERE DU LOUP.

July, 1899. Repaired water pipes in machine shop. Cleaned water pipes in despatcher's office.

August, 1899. Repaired water pipes in shop and cleaned out well and repaired foot valve.

September, 1899. Cleaned out well.

November, 1899. Repaired station water closets and steam pump.

June, 1900. Repaired water pipes in buildings. New exhaust pipe from steam pump. New covers on tank valve.

RIMOUSKI.

July, 1899. Repaired station water pipes.

August, 1899. Repaired station water pipes in station.

December, 1899. Six joints 7in. galvanized stove pipe.

February, 1900. Repaired tank pipe.

RIVIERE DU CHENE.

July, 1899. Cleaned out well and repaired pump. Old boiler, no number, was sold for scrap.

November, 1899. Repaired foundation and repaired steam pump.

March, 1900. Repaired steam gauge and steam pump.

May, 1900. Tested boiler No. 31 to 100 lbs. pressure.

SUSSEX.

January, 1900. Repaired smoke pipe in top of boiler. Put in 20 new tubes.

SPRINGHILL JUNCTION.

August, 1899. Put in galvanized smoke pipe, top of boiler, tubes exhausted. Repaired valve lever and put in new post for same.

November, 1899. Repaired tank pipe.

January, 1900. Repaired tank pipe.

April, 1900. One tallow pot, 1 engine oiler, $1\frac{3}{8}$ in. Globe valve. Repaired feed pipe to boiler. Tested boiler No. 8 to 100 lbs. pressure. Exhausted tubes in boiler.

June, 1900. One new tank pipe. Took down old crane. One new weight rest.

ST. MOISE.

July, 1899. Repaired steam pump.

May, 1900. Tested boiler No. 28 to 100 lbs. pressure. O.K. Repaired auxiliary feed pump. New grate for boiler.

64 VICTORIA, A. 1901

ST. FABIEN.

July, 1899. Repaired water pipes in station.
 August, 1899. Cleaned out well and repaired water pipes.
 March, 1900. Repaired steam pump.
 May, 1900. Tested No. 3 boiler to 100 lbs. pressure. O. K. Exhausted tubes in boiler. 1 padlock.

ST. VALIER.

September, 1899. Repaired steam gauge and pump.
 January, 1900. Repaired steam pump and put in new steam valve.
 May, 1900. No. 2 boiler tested to 100 lbs. pressure. O. K.
 June, 1900. Repaired steam pump and tank pipe chains.

STE. LUCE.

September, 1899. Took down windmill and pump.

ST. PIERRE.

August, 1899. Repaired wind port in boiler.
 November, 1899. Put in new No. 6 Knowles steam pump, and took out old pump.
 February, 1900. Repaired tank valve.
 April, 1900. Repaired steam pump.
 May, 1900. Tested boiler No. 1 to 100 lbs. pressure. O. K.

STE. FLAVIE.

August, 1899. Repaired tank valve.
 December, 1899. Five joints, 7-in. stove pipe, galvanized, put in.
 February, 1900. Put in No. 6 Blake steam pump. Took out old pump.
 May, 1900. Put in No. 6 Knowles steam pump. Took out No. 6 Blake steam pump.

ST. PASCHAL.

March, 1900. Repaired water crane.

ST. CHARLES.

August, 1899. Repaired steam pump.
 September, 1899. Repaired steam pump and foot valves.
 November, 1899. Washed out tank boiler.
 December, 1899. Put new gauge glass mountings on boiler.
 January, 1900. Built trestle and foundation of new tank.
 February, 1900. Repaired steam pump.
 May, 1900. Tested boiler No. 6 to 100 lbs. pressure. O. K.

SESSIONAL PAPER No. 20

STELLARTON.

July, 1899. New tank pipe put in.
 November, 1899. Repaired tank pipe.
 December, 1899. Repaired tank pipe, one 3-in. Globe valve.
 January, 1900. Repaired tank pipe.

SYDNEY.

November, 1899. Repaired tank pipe. Put in new tank pipe.

STE. ANNE.

December, 1899. Repaired ball cock.

STE. HELENE.

October, 1899. Put in new smoke pipe.
 September, 1899. Repaired tank pipe and chains.
 March, 1900. Repaired ball cock.

SACRE CŒUR.

December, 1899. Repaired crane.

ST. LEONARD JUNCTION.

February, 1900. Finished foundation of 50,000 gallon tank and built the trestle.

ST. APOLLINAIRE.

July, 1899. Repaired tank pipe and chains.
 April, 1900. New tank pipe and chains put in.
 • May, 1900. Tested boiler No. 30 to 100 lbs. pressure. Exhausted 20 tubes on top end of boiler. Put in pipe to wash out boiler.

TATAMAGOUCHE.

December, 1899. Put on storm door and shutters on windows.

THOMPSON.

December, 1899. Put in No. 16 Globe stove, new.

TROIS PISTOLES.

December, 1899. Repaired tank and valve rod.
 May, 1900. Repaired ball cock.

TRURO.

September, 1899. Galvanized smoke pipe put in for top of tank.
 November, 1899. Put in two 2-in. Globe valves.
 January, 1900. Smoke pipe complete for top of tank. Repaired tank cock.
 June, 1900. Repaired leak in engine house.

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WINDSOR JUNCTION.

April, 1900. Four rubber valves for pump put in. $5\frac{1}{2}$ feet of $\frac{3}{8}$ -in. copper pipe put in. One cock.

WEST RIVER.

December, 1899. Repaired tank pipe.

February, 1900. Smoke pipe complete for top of tank put in.

April, 1900. Five feet $\frac{1}{2}$ -in. pipe. One $\frac{1}{2}$ -in. nipple. One $\frac{1}{2}$ -in. union. One $\frac{1}{2}$ -in. elbow. One bush, $1\frac{1}{2}$ in. x 1-in. One $1\frac{1}{4}$ -in. safety valve. Tested boiler No. 26 to 100 lbs. pressure. Repaired tank pipe.

WESTCOCK.

October, 1899. Repaired tank pipe.

September, 1899. Galvanized smoke pipe put in.

November, 1899. Repaired feed pipe to boiler. One $\frac{3}{4}$ -in. Globe valve.

April, 1900. Repaired tank pipe. Tested boiler No. 27 to 100 lbs. pressure.

WEST BAY ROAD.

February, 1900. Built pump house. Took down wind mill. Put in boiler No. 18 and No. 5 Knowles steam pump repaired. 40 feet $2\frac{1}{2}$ in. galvanized pipe, 15 feet of 3 in. galvanized pipe. Repaired tank valve.

April, 1900. Repaired tank pipe. Boiler No. 18 tested to 100 lbs. pressure.

A.—INTERCOLONIAL RAILWAY.

STATEMENT showing the Number of Locomotives and of the Various classes of Cars on July 1, 1899, and on June 30, 1900.

The Various Classes of Cars.

	The Various Classes of Cars.														Total										
	Locomotives.	First Class Sleepers.	Second Class Sleepers.	Parlour.	Dining Cars.	First Class Passengers.	Second Class Passengers.	Postal and Smoking Passengers.	Express and Baggage.	Box.	Refrigerator.	Platform, 10, 15, 20 and 30 tons.	Hoppers, 6 tons.	Gondolas, 20 tons.		Coal Cars, 20 tons.	Stock Cars, 20 tons.	Auxiliary and Tool Cars.	Vans.	Total.	Snow Ploughs.	Wing Ploughs.	Flangers.	Steam Ploughs.	Total
On hand July 1, 1899, serviceable.....	227	23	7	5	4	95	94	25	42	2,276	2,183	963	152	624	93	98	6,684	49	10,222	49	10,222	2	2	83	
Condemned July 1, 1899.....									45		136	36	177	123	10	1	528								
Received on capital account.....										2,321	2,319	999	329	747	103	99	7,212	49	10,222	49	10,222	2	2	83	
Transferred from second class to auxiliary.....	1	23	7	5	4	95	94	25	42	2,321	2,319	999	329	747	103	99	7,212	49	10,222	49	10,222	2	2	83	
Transferred from box to auxiliary.....								3	3	420	28														
Transferred from box to refrigerator.....										*															
Gondolas replaced by box.....										37	37														
										100	*100														
Total.....	228	23	19	5	4	102	93	28	45	2,796	2,319	999	229	747	103	99	7,685	49	10,222	49	10,222	2	2	83	
Condemned July 1, 1899.....										41	4	136	36	177	123	10	1	528							
" during year.....	11								2	44	2	76	26	80	61	5		296							
Rebuilt.....	11								2	85	6	212	62	237	184	15	1	824							
To be rebuilt.....	9								57		298			100	17			382							
Add serviceable replaced.....	2	23	19	5	4	102	93	28	43	2,768	2,315	937	72	580	88	1	412	49	10,222	49	10,222	2	2	83	
Total.....	228	23	19	5	4	102	93	28	45	2,796	2,319	999	229	747	103	99	7,685	49	10,222	49	10,222	2	2	83	

*Deduct.

MORRISON, June 30, 1900.

JOHN SUTTON,
Mechanical Accountant.

B.—INTERCOLONIAL RAILWAY.
 STATEMENT of Locomotive and Car Mileage, Year ended June 30, 1900.

Months.	LOCOMOTIVE MILEAGE.			CAR MILEAGE.			Total.	Average Passenger.	Snow Ploughs.	Freight.
	Passenger.	Freight.	Passenger.	Passenger.	Freight.	Freight.				
1899 July	147,580	251,343	764,212	342,008	3,310,264	4,416,484	95	7 50	13 17	
August	151,674	265,226	792,196	351,438	3,646,798	4,790,432	130	7 54	13 75	
September	143,482	278,355	777,735	329,456	3,882,849	4,990,040	1,110	7 69	13 95	
October	129,203	309,322	664,824	317,786	4,531,274	5,513,884	209	7 80	14 05	
November	123,379	323,907	589,612	296,408	4,736,296	5,622,316	1,204	7 18	14 62	
December	125,783	322,923	585,553	292,808	4,552,032	5,430,313	3,164	6 99	14 69	
1900 January	134,761	336,681	645,292	298,632	4,314,474	5,257,708	16,198	6 69	13 04	
February	122,709	314,496	435,284	277,107	4,097,552	4,909,943	18,065	6 62	13 04	
March	138,786	376,713	625,887	301,823	4,737,129	5,664,829	30,540	6 69	12 78	
April	127,315	379,220	595,739	288,068	5,234,106	6,118,913	1,588	6 95	13 80	
May	133,866	365,942	625,041	313,362	4,806,485	5,744,888	.....	7 01	13 14
June	151,066	325,028	686,102	336,571	4,327,409	5,350,172	.....	6 77	13 31
Total	1,630,054	3,843,656	7,888,387	3,744,867	52,176,758	63,801,012	172,181	7 13	13 58	

JOHN SUTTON,

Mechanical Accountant.

MOXCROX, June 30, 1900.

SESSIONAL PAPER No. 20

C. INTERCOLONIAL RAILWAY.

ABSTRACT of Locomotive Returns for Year ended June 30, 1900.

Months.	Hours in Steam.	Locomotive Mileage.	CONSUMPTION.					AVERAGE CONSUMPTION PER 100 MILES.				
			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.	
1899—July,	46,217	493,611	14,751	17,880	10,272	9,740	10.68	3.62	2.08	1.97		
August	49,433	517,400	15,824	19,004	11,150	10,259	10.48	3.67	2.15	1.98		
September	50,673	524,112	16,627	19,068	11,336	10,141	10.34	3.64	2.17	1.94		
October,	53,094	542,130	17,639	17,019	9,691	10,519	10.21	3.14	1.79	1.94		
November	54,382	554,476	19,013	17,776	9,348	10,618	10.20	3.21	1.69	1.91		
December	55,256	558,807	20,103	18,127	9,487	10,485	10.11	3.24	1.69	1.88		
1900—January	58,328	588,188	21,692	20,653	10,578	11,476	9.57	3.51	1.80	1.95		
February	56,040	550,606	20,591	21,566	10,594	11,465	9.83	3.42	1.92	2.08		
March	67,352	645,188	24,443	23,828	12,188	11,313	9.49	3.60	1.80	1.76		
April	64,049	633,165	21,872	22,589	12,530	11,589	9.89	3.56	1.98	1.83		
May	62,494	627,698	20,079	21,459	10,150	12,218	10.03	3.50	1.62	1.95		
June	57,231	562,791	17,710	22,096	10,260	12,441	10.36	3.73	1.73	2.10		
	675,149	6,828,005	230,354	241,555	127,604	132,294	10.11	3.54	1.87	1.94		

JOHN SUTTON,
Mechanical Accountant.

MONCTON, June 30, 1900.

D.—INTERCOLONIAL RAILWAY.

STATEMENT of Locomotive Power for each month July 1, 1891, to June 30, 1900.

Months.	Miles run by Engines.	Mechanical Super- intendent's Salary, Clerks and Office Expenses.	Engine- men's Wages.		Fuel.	Oil and Waste.		Repairs to Engines, Tenders, and Tools.		Water.	Engine Houses and Turn- tables.		Total.	AVERAGE PER 100 MILES.																									
			\$	cts.		\$	cts.	\$	cts.		\$	cts.		\$	cts.	Engines & Furnab's	Water.	Repairs.	Oil and Waste.	Fuel.	Wages.	Mech ^y Sup ^t .																	
1899.																																							
July . . .	493,618	1,269 35	27,369 16	35,920 26	2,211 71	25,990 87	1,487 62	1,337 61	95,577 58	26 5 54	7 28	45 5 26	30	27	19 36																								
August . . .	517,907	1,334 90	28,229 98	29,446 74	2,130 58	31,829 09	4,231 90	1,572 77	108,475 96	26 5 45	7 62	41 6 00	82	30	20 95																								
September . . .	524,121	1,380 16	28,031 91	41,138 13	2,116 60	32,913 66	4,150 19	1,591 70	111,322 65	26 5 35	7 85	41 6 28	79	30	21 24																								
October . . .	542,130	1,313 16	27,868 76	44,467 75	1,686 46	30,839 45	3,947 73	1,474 68	111,597 99	24 5 14	8 20	31 5 69	73	27	20 58																								
November . . .	554,476	1,276 39	27,817 23	46,965 85	1,629 97	33,229 54	5,790 27	2,253 68	118,893 33	23 5 02	8 46	29 5 99	1 04	41	21 44																								
December . . .	568,807	1,250 76	28,975 31	51,324 61	1,911 65	22,139 60	5,377 90	2,323 90	113,363 73	22 5 19	9 18	34 3 96	96	42	20 27																								
1900.																																							
January . . .	588,188	1,380 18	31,478 24	61,189 84	2,353 71	27,138 03	3,857 58	2,069 34	129,466 92	23 5 35	10 40	40 4 62	166	35	22 01																								
February . . .	550,606	1,412 20	28,663 94	58,498 58	2,413 32	24,148 40	5,529 02	3,661 38	124,327 44	26 5 21	10 62	44 4 38	1 00	67	22 58																								
March . . .	615,188	1,572 41	34,864 72	69,968 48	2,614 56	21,769 13	2,163 91	2,675 16	135,598 37	24 5 40	10 84	41 3 36	333	42	21 00																								
April	683,165	1,482 70	33,367 47	51,541 67	2,637 76	21,373 91	913 54	1,591 10	115,907 55	23 5 27	8 61	32 3 47	15	25	18 30																								
May	627,698	1,574 41	32,171 63	50,706 69	1,746 26	18,048 74	291 77	645 65	105,145 15	25 5 13	8 09	28 2 88	4	16	16 77																								
June	592,701	1,508 98	31,166 80	47,759 33	2,078 19	27,339 36	4,133 70	1,556 87	115,543 23	26 5 26	8 06	35 4 61	69	26	19 49																								
Total	6,828,065	16,755 60	359,996 15	601,867 63	24,891 77	316,399 78	41,805 73	22,753 24	1,385,069 96	25 5 27	8 81	37 4 64	61	33	20 28																								

JOHN SUTTON,
Mechanical Accountant.

Moncton, June 30, 1900.

SESSIONAL PAPER No. 20

E.—INTERCOLONIAL RAILWAY.

GENERAL STATEMENT of the Expenses of the Mechanical Department Year ended
June 30, 1900.

The miles run by trains	5,473,710
" engines	6,828,005
" cars	63,810,012
" snow ploughs	72,181
<hr/>	
Cost of locomotive power	1,385,069 90
<hr/>	
Cost of cars repairs :—	
Repairs to passengers cars	106,698 01
" postal express and baggage	27,563 80
" freight cars and vans	338,202 78
" snow ploughs and flangers	5,851 81
Oil waste for packing	5,473 20
<hr/>	
	483,699 60
<hr/>	
The cost of locomotive power :—	
Per 100 miles run by trains	25 30
" " engines	20 28
" " cars and ploughs	2 17
<hr/>	
The cost of repairs to cars and ploughs :—	
Per 100 miles run by train	8 73
" " engines	7 00
" " cars and ploughs	0 75
<hr/>	
The cost of oil and waste for packing :—	
Per 100 miles run by train	0 10
" " engines	0 08
" " cars and ploughs	0,0085
<hr/>	
The cost of repairs to cars per 100 miles run by them :	
Passenger	1 35
Postal, express and baggage	0 74
Freight cars and vans	0 65
Ploughs and flangers	8 11

JOHN SUTTON,

Mechanical Accountant.

MONCTON, June 30, 1900.

64 VICTORIA, A. 1901

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada on the

Date.	Time of Day.	Number of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Injuries.
1899.						
July	1	12 30	Special	J. L. Barnhill	J. E. Champion	101
"	1	16 55	33 Express	W. A. Mitchell	J. Houston	81
"	5	10 45	3 Q. C. Railway	C. Lawrence	J. Smith, (Q.C.R.)	14
"	10	19 45	34 Express	G. C. Johnston	G. Findlay	152
"	10	5 30				
"	18	3 00	Special	J. L. Barnhill	H. McDonald	106
"	20	7 00	Shunter	Geo. Sullivan	J. McLellan	44
"	22	24 10	Special	B. Wood	J. Stewart	206
"	26	Morning				
"	31	18 20	Special	G. Bouchard	J. Couturier	136
Aug.	2	15 35	147 Accommodation	J. Rioux	M. Normand	195
"	4	11 00	Ballast	C. Conchy	D. Boucher	2
"	4	16 55	19 Express	C. Craigie	A. McLeod	56
"	7	12 40	Ballast	J. Wilson	G. Lamothe	204
"	7	23 45	Special	A. Arcand	J. Dion	229
"	8	11 15	"	J. Henderson	J. McAnlay	53
"	8	11 37	137 Accommodation	L. E. Proulx	J. O. LeBel	192
"	9	11 30	Shunter		H. Como	123
"	10	19 30	"	H. McDaid	W. H. Anderson	189
"	12	11 00	Special	J. Henderson	P. McKenna	53
"	16	11 00	Shunter			
"	16	16 04	Special	R. Hunter	T. Wilkins	54
"	16	11 15	49 Freight	J. Dionne	G. Topping	8
"	17	10 45				
"	17	16 40	147 Accommodation	P. Frechette	M. Normand	81
"	20	5 00	Special	S. Bernier	W. F. Duncan	211
"	23	1 50	75 Accommodation	T. W. Johnston	R. Wilson	130
"	31	22 30	151 Express	L. Proulx	O. Jolivet	199
Sept.	4	14 40	3 Accommodation	G. Chesley	G. W. Anderson	65
"	12	13 35	Special	J. Baxter	R. Ferguson	10
"	14	8 15	26 Express	—McGovern	Thompson, (C.P.R.)	173
"	17	3 50	Special	J. F. Kelly	H. Stewart	176

SESSIONAL PAPER No. 20

RAILWAY.

line of the Intercolonial Railway during the Year ended June 30, 1900.

Place of Accident.	Name of Person injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
McLeod's Siding Bellevue.....	T. Pierce. A.E.J. Globensky	Employee .. Neither.....	While coupling cars. . . . Trying to board train in motion.	Finger jammed. Leg cut off. . . .	
Levis Station.....	A. Franceur.....	"	"	Foot slightly injured.	
Pt St. Charles ..	Thos. Mahon.....	"	Struck by train at crossing	Fatal.....	Accidental.
Leitches Creek..	C. Jefferson.....	Employee ..	Knocked off hand car. . . .	Hip dislocated and broken.	
Albion.....	C. Scothorn.....	"	While shunting jumped from car.	Ankle sprained..	
Richmond Car Shop.....	R. Whebby.....	"	While shunting struck head on cross-beam.	Head badly cut .	
Stellarton.....	A. R. Gordon.....	"	While coupling cars.....	End of finger taken off.	
Folleigh Bridge.	F. Mitchell.....	"	Fell off the bridge	Seriously injured	
Moose Park.....	L. Filteau.....	"	Collision, Bouchar'd's special and Varvell's working train.	Slightly injured.	
St. Eugene.....	Mrs. F. Morin..	Passenger ..	While leaving train fell on arm of car seat.	Considerably in- jured.	
Mitchell.....	T. Sinjohn.....	Brakeman..	Trying to board train in motion, fell between cars.	Fatal.....	Accidental.
4 miles east of Riv. Denys.	Mr. McKenzie..	Neither.....	Lying along track; on ap- proach of train scrambled and fell down embank- ment.	Face bruised....	
4 miles west of Bic.	N. Pelletier.....	Employee ..	While unloading ballast, fell between cars.	Fatal.....	Accidental.
Chaudiere Jct..	O. Langlois	"	While coupling cars.....	Left hand badly crushed.	
Amherst Yard..	C. B. Clarke.....	"	While shunting, stepped on broken bottle.	Bottom of right foot badly cut.	
Duncan.....	L. Therrien	"	While unloading cheese, fell down on platform.	Leg hurt.....	
St. John.....	J. Maber	"	While coupling cars.....	Three fingers smashed.	
"	J. Proctor	"	While shunting.....	Hand jammed ..	
Amherst.....	F. McKimmon..	"	While shunting, fell off front of engine.	Left leg and right hip bruised.	
Deep water ter- minus, Halifax	C. E. Mitchell..	Neither.....	Run over by flat car. . . .	Leg badly hurt..	
Lawlor's Lake..	T. Hourihan ..	Employee ..	Cars left the track.....	Fatal.....	Accidental.
King Siding	Jos. Proulx.....	"	While shunting.....	Two fingers cut off left hand.	
River du Loup..	T. Rossignol....	"	Struck in the back by mov- ing car.	Fatal.....	Accidental.
Ste. Hyacinthe..	P. Vandal.....	Neither.....	Crossing track in team, in front of engine shunting.	Left hand slightly injured.	
2 miles east of Sayabec.	Ferdinand Bosse.	"	Found dead on track.....	Fatal.....	Accidental.
$\frac{1}{2}$ mile east of Truro.	Pat Reynolds....	"	Lying on track, run over by train.	"	Accidental.
St. Jean Port Joli.....	Mrs. Pelletier..	Passenger..	Getting off train while in motion.	Considerably in- jured.	
St. John, Mill Street.....	P. Duffy.....	Employee ..	Crossing track, struck by engine.	Arm broken, head cut. Since died.	No inquest.
New Glasgow Bridge.....	R. Ferguson.....	"	While looking at rear of train, head struck bridge.	Skull fractured, died next day.	Accidenta
St. John.....	R. Elliott.....	"	While coupling	Hand smashed..	
2 $\frac{1}{2}$ miles east of Stellarton.	D. McMaster.....	Neither.....	Struck by train.....	Fatal.....	Accidental.

64 VICTORIA, A. 1901

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada on the

Date.	Time of Train.	Number of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1899.						
Sept. 22.	23:45		Shunter	J. Jackson.	A. McGrath.	191
" 23.	6:30		Special	W. McClafferty.	P. O'Toole	159
" 26.	16:20	13	Accommodation	F. Davidson.	J. McLellan	173
" 28.	13:00		Working	G. Lamkie.	A. Cook	208
" 30.	23:15	84	Accommodation	J. Berry.	J. Brownell.	184
Oct. 3.						
" 5.	10:30		Shunter		J. Moody	94
" 7.	16:20		Special	V. Roy.	J. Bruce.	113
" 11.	11:30		Shunter	W. Bovard.	A. McCabe.	74
" 13.	18:00	23	Freight	J. Buchanan.	M. White.	175
" 15.	24:30		Special	A. Begin.	E. Henry.	211
" 18.	17:00	148	Accommodation	A. Bonneau.	J. Fohy.	193
" 20.	15:00	105	Freight	J. McDonald.	A. Proulx.	9
" 23.	27:30		Special	A. Desjardins.	E. Thomas	225
" 22.	22:30		"	A. Dumas	C. Mercier.	223
" 23.	10:00	147	Accommodation	J. Rioux.	J. O. LeBel.	192
" 25.	17:40	8	Express	R. Hunter.	F. Whitney	55
" 30.	17:00		Shunter	J. C. Carter.	J. Leonard.	23
Nov. 1.	17:00	46	Accommodation	F. Laliberté.	C. E. Sawyer.	171
" 2.	17:45	6	Freight	J. Henderson.	W. Gross.	137
" 2.	18:45	19	Express	J. Craigie.	A. McLeod	129
" 3.	16:30		Ballast	Coulombe	F. N. Rioux.	204
" 7.	11:00					
" 7.	17:00		Shunter		A. McLeod	129
" 8.	1:15	51	Accommodation	E. S. Vye.	J. Oakleaf.	53
" 8.	15:57	34	Express	P. Corbett.	H. Atkinson	153
" 10.	15:50	140	Accommodation	A. Calder.	J. Sproule.	78
" 16.	20:15		Special	G. Soucy.	A. Goulet.	205
" 17.	9:50	153	Accommodation	L. S. Proulet.	A. Doig.	15
" 17.	16:30		Special	J. C. Gillespie.	L. Starratt.	174

SESSIONAL PAPER No. 20

RAILWAY.

line of the Intercolonial Railway during the Year ended June 30, 1900—*Continued.*

Place of Accident.	Name of Person injured.	Whether Passenger or Employee.	Particulars of Accidents.	Extent of Injury.	Verdict of Coroner's Jury.
Richmond.....	W. Vaughan....	Employee ..	Slipped between cars, wheel ran over leg.	Leg badly cut...	
1 mile west of Antigonish.	A. McGillivray..	" ..	Train struck hand car....	Legs and arm broken, shoulder dislocated.	
Near Millview Platform.	Dimock Clinton.	Passenger...	Jumped from train in motion.	Face and hands scratched.	
Jacquet River Yard.	L. Vineau	Employee ..	Fell between flat cars.....	Slightly injured.	
Napan.....	E. Ripley	Passenger...	Jumped from train in motion.	Fatal.....	Death caused by jumping from train.
St. Leonard bridge.	C. H. Bousquest	Employee ..	Fell from bridge	Seriously injured	
St. John Yard..	H. A. Doherty..	Neither....	Crossing track in team. Struck by engine.	Head cut; otherwise injured.	
Pt. St. Charles.	A. Lalibate....	Employee ..	Fell between cars while passing bell cord over.	Knee badly injured.	
Newcastle.....	W. Stewart (boy)	Neither	Attempting to get on train in motion.	Foot crushed amputation necessary.	
Painsec.....	B. Ripley.	Employee ..	Coupling cars.....	Hand badly jammed.	
Cedar Hall.....	J. Raymond ...	" ..	While shunting.....	Left hand jammed.	
Chaudière Curve	Etienne Nadeau	Neither....	Attempting to board train in motion.	Left arm badly crushed.	
Sydney.....	D. McKenzie...	Employee ..	While shunting.....	Hand badly injured.	
Salmon Lake...	F. Blackquere ..	" ..	Uncoupling car from engine	Hand slightly jammed.	
Ste. Flavie.	L. Pettigreu ...	" ..	While coupling cars.....	Two fingers crushed.	
St. Hyacinthe ..	L. Gingras.	" ..	While shunting.....	Hand badly injured.	
Hampton.	J. McManus....	" ..	Tripped and fell on track.	Leg badly injured	
Truro.....	J. McKay Hill ..	" ..	While coupling cars.....	Fingers injured..	
Rimouski.	J. A. Levasseur.	" ..	While shunting, slipped...	Sprained ankle..	
Peticodiac.....	Walter Clarke..	" ..	While coupling cars.....	Left hand jammed.	
Grand Narrows..	Mrs. Levisconte.	Passenger ..	In getting on train walked over edge of platform of car on opposite side.	Hip dislocated. Seriously injured.	
Montmagny ...	Honoré Drolet..	Labourer...	Fell off ballast train while trying to board it in motion.	Feet crushed....	
St. John.....	Thos. Hastings..	Employee ..	Fell from roof of coal shed.	Ankle broken...	
Sydney.....	W. Grantmyre..	" ..	While shunting.....	Two fingers badly injured.	
Dalhousie.	W. W. Doherty.	Passenger ..	Walking from passenger car to van fell between cars.	Leg slightly injured.	
Between Berry's Mills & Moncton.	Mrs. O'Dell....	" ..	Fell in sleeping car 'Shubenacadie.'	Arm dislocated at elbow.	
Stellarton	Andrew Small..	" ..	Attempting to board train in motion.	Fatal	Accidental.
1 mile east St. Henri Station.	W. Couturier...	Employee ..	Fell from moving train ..	"	Accidental.
St. Charles.....	F. Nolin.	" ..	While coupling cars.....	Leg badly crushed.	
Stellarton	Roy Bond ...	" ..	While shunting	Hand badly injured.	

64 VICTORIA, A. 1901

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada on the line

Date.	Time of Day.	Number of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1899.						
Nov. 17	16:30		Working	G. Lamkie	L. Bradshaw	208
" 21	18:30				C. McHugh	118
" 24	9:00	58	Freight	J. Pollock	R. Kennedy	108
" 24	17:40		Shunter	F. Ritchie	J. Walsh	87
" 25	20:00		Special	W. L. Irish	P. Scott	49
" 26	7:00				J. Scott	117
" 26	15:30	33	Express	F. Derouin	L. Dutil	200
" 28	17:05	22	Accommodation	D. McIntosh	J. H. Campbell	50
" 29	23:55		Special	C. D. Phillips	P. W. Hennessy	108
Dec. 2	11:60		"	B. McLellan	A. Robbins	142
" 2	15:15				J. S. Cote	96
" 6	18:45		Pilot	M. Varville	G. Goddard	120
" 12	20:12		Special	L. E. Proulx	G. Goddard	38
" 13	10:00					
" 13	16:45				R. J. Wilkins	94
" 13	20:30		Special	W. C. Irish	James Stuart	49
" 14	8:55	25	Express	R. Cummings	S. Trider	150
" 14	14:30		Working	J. Therrien	D. Boucher	20
" 22	12:20		Special	J. Hughes	J. Donald	42
" 22	1:00		"	G. Soucy	O. Gagnion	205
" 27	8:00	24	Freight	J. Daly	J. McAuley	160
" 27	8:45	87	Accommodation	W. Foster	J. J. Ferguson	80
1900.						
Jan. 2	9:00		Pilot	J. Therrien	H. C. Goddard	120
" 3	2:00				N. White	121
" 13	12:00		Pilot	T. Coke	N. Parsons	98
" 13	17:00		Shunter		N. White	121
" 16	11:10		"		S. Watson	75
" 16	13:00	6	Freight	J. B. Crockett	W. Gross	136
" 18	15:30		Shunter		J. Phinney	23
" 20	17:00		"		G. Roberge	126
" 22	1:10				S. Stewart	23
" 22	13:50		Special	N. Hopper	W. Hanway	216
" 27	22:25					

*Killed by I. C. R. train at crossing, signals not sufficiently given. Recommend that rules be more

SESSIONAL PAPER No. 20

RAILWAY.

of the Intercolonial Railway during the Year ended June 30, 1900—Continued.

Place of Accident.	Name of Person Injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
4 miles east of G. Chamberlin, Bartibogue.		Employee ..	Fell from moving train...	Face & shoulder slightly injured	
Moncton yard ..	P. E. Ables....	" ..	While coupling	Hand injured....	
Stewiacke	Percy Ambrose..	Neither	Riding on hopper car. Fell off.	Fatal.....	No inquest.
North St Halifax Meadowville....	M. Pendergast.. W. F. Landry..	Employee .. " ..	While shunting..... While coupling cars ..	Hand injured .. Three fingers injured.	
Rivière du Loup yard.	D. Laplante....	" ..	While coupling	Two fingers crushed.	
$\frac{3}{4}$ mile east of St. Eugene.	R. Champagne..	Neither....	Crossing track in team struck by train.	Fatal.....	*
Stellarton	F. Black.....	Employee ..	Fell from car.....	Sprained ankle..	
Albion.....	S. Lane	" ..	While coupling; fell under cars.	Seven fingers crushed.	
Bedford.....	J. Cooper	" ..	While coupling cars	Leg jammed....	
Rivière du Loup yard.	A. Beaulieu....	" ..	While coupling.....	Foot badly sprained.	
Forrestdale	E. Dupont.....	Employee ..	While shunting	Left hand hurt..	
$\frac{1}{4}$ M. W. Hadlow	Arthur Duperré.	Neither	Found dead on the track..	Fatal.....	Accidental..
Near St. Moise.	P. Charest.....	Employee ..	Fell while carrying boards across ditch.	Head injured....	
St. John yard ..	J. L. Coulon....	" ..	While coupling cars	Finger smashed.	
James River ..	R. Swetnam	" ..	Collision; Baxter's east bound freight and pay train.	Jaw fractured and arm cut.	
Truro	J. Jacobs.....	" ..	While coupling cars.....	Collar bone broken; otherwise injured.	
Rivière Sauvage.	J. Hamel.....	" ..	While unloading rafts. Rail fell on foot.	Foot injured ...	
Amherst..	M. Wryn.....	" ..	While shunting.....	Slightly injured.	
St. Pierre.....	J. Castonguay..	" ..	While shunting; jumped from train.	Leg slightly hurt	
Calhouns.....	J. Boyce.....	" ..	Loading a case on car.....	Finger badly smashed.	
2 miles west of Tatamagouche.	Miss McEachran	Neither....	Crossing track in team. Struck by train.	Forehead seriously cut.	
Drummondville.	Z. Langlois....	Employee ..	While shunting.....	Thumb cut off..	
Truro	P. Leonard.....	" ..	" "	End of finger cut off.	
Lévis	E. Morin.....	" ..	While coupling cars	Right hand crushed.	
Truro yard.....	R. Payne.....	" ..	While shunting.....	Two fingers badly injured.	
Moncton yard..	G. Henderson...	" ..	While coupling cars.....	Slightly injured.	
Nauwigewauk ..	Chas. Green....	" ..	While unloading freight from train.	Eye cut with bar of iron.	
Truro.....	W. Layton.....	" ..	While coupling; caught between cars.	Arm considerably injured.	
Chaudière Jct. yard.	F. Fontaine....	" ..	Disconnecting airbrake between cars.	Seriously injured	
Truro yard	Jas. Spears.....	" ..	Run over by shunting engine.	Fatal	Accidental
Thomson.....	H. Bruce.....	" ..	Fell from engine in motion.	Slightly injured.	
St. John.....	M. J. McGuire..	Neither....	Struck by train.....	Arm cut; amputation necessary.	

64 VICTORIA, A. 1901

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada on the line

Date.	Time of Day.	Number of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1900.						
Jan. 29...	14 05		Express	C. J. Rhodes.	E. White	156
" 29...	23 40		Shunter	R. Whebby	C. Skinner	188
Feb. 3...	12 15			J. Rouselle.	E. B. Price	135
" 3...	24 00				J. G. McDonald	121
" 5...	14 30		Special	A. J. Welling	J. Donald	42
" 9...	10 20				W. Fitzpatrick	91
" 11...	20 00				J. Hessian	89
" 14...	18 50	33	Express	J. Berry	J. W. Nairn	119
" 14...	23 00		Shunter	J. Currie	C. Skinner	191
" 25...	16 45		Special	A. Rioux	G. Toppng	104
" 19...	5 30		Shunter	P. Clarke	G. Spear	22
" 27...	9 15	50	Freight	J. Dionne	J. Dube	158
Mch 2...	19 15		Special	C. Couchy	{ J. Fohy..... A. LeBel..... J. C. Cloutier.....	{ 190 170 112
" 4...	1 10		"	L. Hicks	J. Brownell	59
" 7...	19 30		Shunter	D. McDonald	J. McRury	123
" 14...	14 30	24	Freight	J. Daley	J. McAuley	178
" 15...	3 30	33	Express	P. E. Heine	J. Morton	173
" 15...	3 30		Special	F. Dixon	A. Connell	135
" 16...	12 45	26	Express	J. Millican	H. Tait	164
" 17...	16 20	25	"	"	J. Stewart	147
" 20	17 25		Special	J. B. Michand	J. Cameron	167
" 23...	9 30		"	J. Swetnam	S. Black	140
" 27...	10 00			F. Cote	D. Boucher	97
" 29...	14 30	34	Express	J. Berry	J. Ross	153
April 1...	14 15		Special	A. Arcand	J. Dion	158
" 11...	7 15		"	W. W. Irvin	A. Wood	226
" 12...	6 40	54	Accommodation	E. S. Vize	P. Scott	187
" 14...	11 40	20	Express	W. McClafferty	H. McAuley	159
" 20...	24 30		Special	J. W. Coles	A. Fryers	139
" 23...	8 55	20	Express	J. Craigie	A. McLeod	129
" 27	16 00		Special	J. H. Pushie	R. Phinney	3

SESSIONAL PAPER No. 20

RAILWAY.

of the Intercolonial Railway during the Year ended June 30, 1900—Continued.

Place of Accident.	Name of Person Injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Old main line Moncton.	J. E. Masters...	Neither....	While walking on track. Struck by engine.	Slightly injured.	
Deep water terminus Halifax.	A. McDonald.	Employee..	While coupling cars.....	Finger jammed.	
Ste. Flavie yard.	P. Charette....	"	Caught between two cars..	Fatal.....	Accidental..
Truro yard.....	A. McKenzie....	"	While coupling cars.....	Three fingers of right hand jammed.	
Amherst.....	L. G. Berryman.	"	While shunting.....	Hips badly injured.	
Near Round House Moncton.	T. Mitton....	"	Struck by engine.....	Seriously injured	
Richmond.....	Chas. Gough....	"	Slipped while getting on engine.	Foot jammed, amputation necessary.	
1½ mile W Spring-hill Jet.	J. Langill....	Neither....	Walking on track: struck by train.	Fatal.....	Accidental..
D. W. Terminus Halifax.	E. O'Grady....	Employee..	Jumped from train in motion.	Knee injured...	
Near Trois Pistoles.	Pierre Riox....	"	Struck by snow-plough...	Leg broken.....	
Moncton yard..	Don Gay.....	"	While coupline cars.....	Hand badly jammed.	
Chaudière Jet..	J. Dube.....	"	Fell from engine in motion.	Arm cut off....	
½ mile west of Hadlow.	C. Lemelin....	"	While uncoupling.....	Leg slightly jammed.	
Amherst.....	G. Gould.....	Neither....	Run over by train.....	Fatal.....	Accidental.
Sydney.....	D. McDonald..	Employee..	While coupling cars.....	Hand badly jammed.	
Between Salt Spring and River Philip.	T. Furlong....	"	Pin fell from tender of engine and hit him.	Slightly injured.	
Dalhousie Jct. {	Mr. Corbett....	"	Collision between No. 33 train and Dixon's snow-plough special.	Seriously injured	
" " {	F. Dixon.....	"		Slightly injured.	
" " {	N. Lutes.....	"		Ankle slightly injured.	
St. John.....	G. Galletly....	"	Coupling engine to train..	Hand injured...	
Nauwigewauk	A. Saunders..	Neither....	Trying to cross track, struck by train.	Fatal.....	Accidental.
Campbellton yd.	V. Le Brun....	Employee..	Fell on window seat in van.	Forehead badly hurt.	
Catamont.....	E. Steves.....	"	Jumped from engine in motion.	Wrist badly injured.	
St. Joseph....	G. Lebreaux....	"	While shunting; drop brake fell on fingers.	Two fingers jammed.	
Brookfield....	H. McKay....	Neither....	Crossing track with team; struck; by train.	Fatal.....	Accidental.
Pt. Lévis.....	C. Gauvin....	Employee..	While setting off cars.....	Thumb crushed.	
Jacquet River.	B. Hachey....	"	While shunting.....	Finger crushed..	
Dalhousie Jct..	A. Cameron....	"	" ".....	Hand slightly jammed.	
Har. au Bouche.	F. Phillips (Indian).....	Passenger..	Trying to board train in motion.	Toes smashed..	
Hampton.....	C. M. Sweeney.	Employee..	While coupling cars.....	Two fingers injured.	
Alba.....	Mrs. D. Campbell	Passenger..	Stepped from train before it stopped.	Seriously injured	
McKinnon's Har	C. McDonald..	Employee..	Slipped in front of engine..	Head badly hurt	

64 VICTORIA, A. 1901

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada on the

Date.	Time of Day.	Number of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1900.						
April 28..	20:00				S. Stewart	23
May 1	16:35	25	Express	J. Millican	J. Stewart	147
" 2..	16:40	34	"	W. A. Mitchell	H. Atkinson	113
" 2..	16:40	34	"	"	"	
" 2..	15:30					
" 4.	8:30		Special	F. Dixon	R. C. Colpitts	220
" 12..	8:55		"	J. A. Davidson	T. Rippey	218
" 16..	17:15		Shunter	C. Steel	M. Tobin	188
" 18..	9:50	157	Accommodation	E. L. Watts	J. Scott	187
" 22.	14:50	147	"	J. Rioux	J. O. LeBel	197
" 22.	14:50	147	"	"	"	197
" 22..	9:00		Working	J. Royer	T. Matheson	204
" 23..	20:00		Shunter	"	M. F. O'Brien	127
" 24	14:55		Special	D. McKenzie	H. Cummings	53
" 26.	21:05	84	Accommodation	G. N. Armstrong	Geo. Manning	59
" 29..	16:38	34	Express	F. Derouin	S. G. Ferguson	6
" 30..	12:35	26	"	J. Millican	H. Tait	164
June 3..	9:45		Special	P. Coffey	Geo. Morrison	176
" 3..	9:45		"	"	"	176
" 5..	14:35	128	Accommodation	J. J. Daley	J. Stockall	42
" 13..	24:45		Special	C. Rioux	O. Gagnon	235
" 17..	13:50	33	Express	W. A. Mitchell	Jas. Houston	125
" 20..	18:50					
" 21..	15:15		Special	A. B. Vance	R. Wilson	155
" 22..						
" 24..	5:30		Shunter		F. W. Nelling	118
" 26..	4:40		Special	J. F. McDonald	J. Gallivan	210
" 26..	9:35	86	Express	R. F. Rutherford	A. McLeod	218
" 29..			Shunter		D. Matheson	123

* Killed by engine running contrary to Sunday law. Censures railway for running engine fast and General Manager's Office,
Moncton, N. B., October 4, 1900.

SESSIONAL PAPER No. 20

RAILWAY.

line of the Intercolonial Railway during the Year ended June 30, 1900—*Concluded.*

Place of Accident.	Name of Person injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Truro	J. McKay Hill.	Employee	While coupling cars	Left hand injured.	
St. John	Mrs. Rhind	Passenger	Fell while getting off train	Ankle sprained.	
Hadlow	H. Atkinson	Employee	Train wrecked on account of landslide	Hip dislocated.	
"	V. Dussault	Neither	Train wrecked on account of landslide. Baggage car struck his house throwing him to the floor	Neck slightly scratched.	
New Mills	A. McCormack	Employee	Fell from hand car, in motion	Head and shoulders hurt, rib broken.	
Newcastle	Miss Smallwood (little girl)	Neither	Running across track, struck by car.	Forehead and nose slightly bruised	
Jacquet River	P. Rippey	Employee	Fell while getting off his engine.	Shoulder dislocated	
Halifax	Mr. Now	Neither	Struck by engine while walking on track.	Face bruised	
Dalhousie	Jerome Roy	Employee	While making up train	Right foot sprained.	
St. Cyrille	W. Parenteau	Neither	While loading a car	Slightly injured.	
"	E. Demouche	"	"	"	
Sayabec	A. Deschamplain	"	Run over while shunting	Fatal	No inquest.
Moncton	J. E. Prites	Employee	While coupling cars	Left hand smashed.	
Prenton	Harvey Bruce	"	Jumped from train in motion.	Slightly injured.	
Springhill	J. A. Stronach	Passenger	While shunting	Ankle sprained.	Accidental.
$\frac{1}{2}$ mile west of Hadlow	Jos. Collin	Neither	Walking on track; struck by train.	Fatal	"
1 mile west of Riverside	Mrs. Pierce	"	Walking on track; struck by train.	"	"
Norton	Mrs. B. Graham	"	Crossing track in team; struck by engine.	"	*
"	Miss Graham	"	Crossing track in team; struck by engine.	"	*
Burnside and Dartmouth	N. Mosley (little girl)	"	Struck by train on main road crossing.	"	No inquest.
St. Charles Jct.	Ernest Puize	Employee	While shunting	Left foot injured	
Kingsburg Jct.	W. Blanchet	"	Fell from engine	Slightly injured.	
Lévis	J. Connelly	"	Fell while shunting with Q. C. Ry. engine.	Right leg cut below knee and toes of left foot injured.	
$\frac{1}{2}$ mile east of Rockingham	Mr. George	Neither	Struck by train	Fatal	"
Near Antigonish	R. McIsaac	"	Found cut in two on track; supposed by train.	"	Accidental.
Moncton	John Boyce	Employee	Run over while shunting	"	"
Sydney	Frank Moffatt	"	While coupling cars	Toes crushed; leg bruised.	
Near Sydney	F. Richardson	Neither	Crossing track in team; struck by train.	Seriously injured; since died.	
Sydney	A. McKenzie	Employee	While coupling cars	Arm injured; body jammed.	

recommends that Mr. Graham be compensated for the loss of his wife and daughter.

64 VICTORIA, A. 1901

WINDSOR BRANCH RAILWAY.

OFFICE OF THE GENERAL MANAGER OF GOVERNMENT RAILWAYS,

MONCTON, N.B., October 12, 1900.

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, 1900 :

- No. 1. Revenue account.
 “ 2. Maintenance of way and works.
 “ 3. General balance.
 “ 4. Statement of earnings.

I also send you the report of the 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 accruing to the government were. \$	47,351 43
The expenses of maintenance were.....	13,891 56
	<hr/>
Net earnings.....	\$ 34,459 87
	<hr/>

There was an increase of earnings when compared with last year as follows:—

Earnings, 1899-1900.....	\$ 47,351 43
“ 1898-1899.....	42,474 03
	<hr/>
Increase.....	\$ 4,877 40
	<hr/>

The earnings from passenger traffic increased \$335 34 and the earnings from freight traffic increased \$4,542.06.

The permanent way and works have been well maintained and are in good order.

Some new rails were laid.

8,412 ties were renewed.

Some ballasting was done.

Bridges and buildings were 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

OFFICE OF THE ENGINEER OF MAINTENANCE,

MONCTON, N.B., September 11, 1900.

SIR,—I have the honour to submit herewith the report of the maintenance of the Windsor Branch for the year ending June 30, 1900.

TRACK.

During the past year 2,500 feet of new four and a quarter inch steel rails have been laid down in the main line, and 106 feet of four and a quarter inch steel rails which had the ends worn, have been taken up, cut, and relaid.

TIES.

8,412 ordinary ties and 8 sets of switch ties have been renewed during the year.

BALLASTING.

1,325 cubic yards of ballast has been distributed at various points along the branch during the past year.

SEMAPHORES AND SWITCHES.

New semaphores were erected at Windsor Junction, and Windsor station, and switches were renewed at the following stations:—Windsor Junction (2), Mount Uniacke (2), Newport, Windsor (2). Switches were also renewed at the following sidings:—Bennette, Wilkins and Campbell's. The station telegraph signals at Windsor Junction, Mount Uniacke and Windsor were overhauled, repaired and supplied with new lamps. Repairs were made to all other signals where found necessary.

SIDINGS.

During the year additional siding accommodation to the extent of 388 feet was provided.

FENCING.

Thirty-six rods of Page wire fencing, and 427 rods of woven wire fencing were erected on the branch during the past year, and the existing fencing overhauled and repaired.

BUILDINGS AND PLATFORMS.

At Windsor Junction, the freight platform was renewed; also a portion of the passenger platform. The clapboards on west side of station building were renewed and painted, and a new water closet was provided. At Beaverbank, necessary repairs were made to the plaster in station master's office and dwelling apartments, and the freight shed platform renewed.

At Mount Uniacke, the interior woodwork of station master's office and waiting rooms was painted, and the walls and ceilings kalsomined. Repairs were also made to the chimneys of station building. At Ellershuse, new sills were placed under the station building, and new hardwood floors were laid down in the waiting room and station master's office. Necessary repairs were made to the broken plaster. At Newport, new sills were placed under the station building and freight shed. A bow window was

64 VICTORIA, A. 1901

built on the front of station to provide a better view of the track for the agent. New hardwood floors were laid in the station master's office and waiting room. Two new sashes were placed in station building, and the interior woodwork overhauled and repaired.

At Windsor, the station building and freight shed were overhauled and repaired; the interior walls of the office in the latter building were sheathed. New silis and posts were placed under the coal shed. The doors of engine shed and baggage room were repaired. Necessary repairs were also made to the station and freight house platform.

BRIDGES AND CULVERTS.

One of the abutments and one of the piers of St. Croix bridge were overhauled and painted.

The timbers of small bridge at Stillwater siding were renewed.

The stringers and wall plates of four culverts between Stillwater and Mount Uniacke were renewed.

GENERAL.

A number of sectionmen's tool-houses were reshingled, and otherwise repaired.

Two new sets of cattle-guards, and fourteen new farm crossing gates were provided. Repairs were made to all others along the branch where found necessary.

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

T. C. BURPEE,
Engineer of Maintenance.

J. E. PRICE, Esq.,
General Superintendent,
Moncton, N.B.

SESSIONAL PAPER No. 20

No. 1.—WINDSOR BRANCH RAILWAY.

REVENUE ACCOUNT, Year ended June 30, 1900.

Previous Year.	Expenditure.	Year ended June 30, 1900.	Previous Year.	Earnings.	Year ended June 30, 1900.
§ cts.		§ cts.	§ cts.		§ cts.
12,873 09	Maintenance way and works.....	12,891 56	15,668 57	Passenger traffic...	16,003 91
29,600 94	Balance.....	34,459 87	25,653 62	Freight traffic....	30,195 68
			1,151 84	Mails.....	1,151 84
42,474 03		47,351 43	42,474 03		47,351 43

E. & O. E.

MONCTON, N.B., June 30, 1900.

T. WILLIAMS.

Chief Accountant and Treasurer.

No. 2.—WINDSOR BRANCH RAILWAY.

MAINTENANCE OF WAY AND WORKS, Year ended June 30, 1900.

Previous Year.		Year ended June 30, 1900.
§ cts.		§ cts.
8,475 34	Repairs of track.....	9,551 69
285 10	Rails and fastenings.....	1,058 27
1,308 50	Ties.....	714 06
701 76	Bridges.....	7 60
30 67	Signals.....	14 58
238 74	Culverts, cattle guards, &c.....	182 82
13 00	Wharf at Windsor.....	28 40
815 13	Buildings and platforms.....	322 40
6 21	Hand cars and trolleys.....	
319 72	Removing snow and ice.....	187 14
149 70	Tools and repairs of same.....	156 67
55 15	Fencing.....	200 74
461 78	Accountant's office and expenses.....	445 49
12 29	Miscellaneous.....	21 70
12,873 09		12,891 56

E. & O. E.

MONCTON, N.B., June 30, 1900.

T. WILLIAMS,

Chief Accountant and Treasurer.

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No. 3.—WINDSOR BRANCH RAILWAY.

GENERAL BALANCE, Year ended June 30, 1900.

1900		§ cts.	1900.		§ cts.
June 30,	To stores	2,163 97	June 30,	By Dominion account . . .	2,180 14
	o old rails	16 17			
		<hr/> 2 180 14			<hr/> 2,180 14

E. & O. E.

MONCTON, N.B., June 30, 1900.

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.	§ cts.
1899—July	1,653 18	1,597 84	96 91	3,347 93
August	2,247 67	1,751 22	96 91	4,095 80
September	3,050 66	3,075 16	96 90	6,222 72
October	1,487 14	4,056 29	95 68	5,639 11
November	919 78	3,478 05	95 68	4,493 51
December	1,049 36	2,652 64	95 68	3,797 68
1900—January	930 28	2,238 50	95 68	3,264 46
February	755 56	2,162 50	95 68	3,013 74
March	669 84	2,555 44	95 68	3,320 96
April	948 07	2,119 12	95 68	3,162 87
May	876 97	2,210 07	95 68	3,182 72
June	1,415 40	2,298 85	95 68	3,809 93
	<hr/> 16,003 91	<hr/> 30,195 68	<hr/> 1,151 84	<hr/> 47,351 43

E. & O. E.

MONCTON, N.B., June 30, 1900.

T. WILLIAMS,

Chief Accountant and Treasurer.

SESSIONAL PAPER No. 20

PRINCE EDWARD ISLAND RAILWAY.

OFFICE OF THE GENERAL MANAGER OF GOVERNMENT RAILWAYS,

MONCTON, N.B., October 22, 1900.

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, 1900.

I inclose the report of the superintendent, including statements of the various accounts.

The mileage of railway in operation was the same as last year, 210 miles.

There was expended on capital account a sum amounting to \$53,546.02 for the survey of and work on a branch of the railway to Murray Harbour, for the surveys in connection with the bridge to be built over the Hillsborough river, near Charlottetown, for reducing curves and shortening the line, for additional rolling stock and for increased accommodation at Summerside.

The total cost of the railway on June 30, 1900, was \$3,843,653.28.

The working expenses for the year were.....	\$220,931 81
The gross earnings were.....	174,738 73
	<hr/>
Deficiency	<u>\$ 46,193 08</u>

The business done by the railway has been good, the gross earnings being larger than in any previous year.

The increase of earnings was in both freight and passenger traffic. There was an increase in the number of passengers and also in the weight of freight carried.

There was an increase over last year in the quantity carried of grain, canned fish and meat, coal, salt, fresh meat, butter and cheese, starch and general merchandise; and a general decrease in potatoes and other roots, flour and meal and mackerel, cod and other fish, oysters, lumber, live stock, salted meat and eggs.

The buildings and bridges received necessary repairs and some improvements were made.

Two new locomotives were purchased and two first-class passenger cars, one baggage car, one platform car, three coal cars and one snow plough were built in the railway shops to maintain the stock.

Necessary repairs were made to the rolling stock and it is in a state of efficiency.

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

D. POTTINGER,
General Manager Government Railways.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer, Railways and Canals,
Ottawa, Ont.

64 VICTORIA, A. 1901

PRINCE EDWARD ISLAND RAILWAY,
SUPERINTENDENT'S OFFICE,

CHARLOTTETOWN, P.E.I., August 31, 1900.

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, 1900.

I also inclose 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 was the same as the preceding year, 210 miles.

CAPITAL ACCOUNT.

The total expenditure to June 30, 1899, was.....	\$3,790,107 26
The additions during the year were as follows:—	
Survey of Hillsborough bridge.....	6,338 75
Branch railway to Murray Harbour	28,502 67
Rolling stock.....	8,000 00
Reducing curves and shortening the line between Loyalist and Colville.....	9,995 20
To increase accommodation Summerside.. . . .	709 40
	<hr/>
Making the total cost on June 30, 1900.....	<u>\$3,843,653 28</u>

Survey of Hillsborough bridge.—This is for the survey in preparation for the construction of a railway and carriage bridge combined, to cross the Hillsborough river at the shipyard point, at the east of the city of Charlottetown to Mutch's Point near Southport on the south side of the river, a distance of 4,496 feet, 2,606 of which is intended to be constructed of earth work and the balance to consist of spans of iron and steel work, to rest on abutments of piling, concrete and stone masonry.

Branch railway to Murray Harbour.—Eleven and one-half miles of this branch (Mutch's Point to Village Green) is now under construction. Twenty platform cars were built and charged to this appropriation.

Rolling stock.—In consequence of increased traffic, eighteen box cars were built during the year.

Reducing curves and shortening line.—This work, consisting of 8,540 lineal feet of grading, has been under contract and is completed. The ballasting will be done by the railway during the next year.

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To increase accommodation at Summerside.—This was necessary to provide for the increased traffic in live stock. About one acre of land was purchased, stock yards were erected, and a through siding of 750 feet was built in connection therewith.

REVENUE ACCOUNT.

The earnings from passenger and freight still continue to increase as compared with previous years. The crops during the past year were good, and the output from the cheese factories and creameries has been largely in excess of any former year. All branches of agriculture have shown signs of general prosperity, in fact business along nearly all avenues of trade has been good.

The gross earnings and working expenses for the year compare as follows :—

Gross earnings	\$ 174,738 73
Working expenses	220,931 81
Deficit	\$ 46,193 03

The gross earnings compare with the previous year as follows :—

In 1899-1900	\$ 174,738 73
1898-1899	165,012 03
Increase	\$ 9,726 70

The earnings from passenger traffic compare as follows :—

In 1899-1900	\$ 72,998 43
1898-1899	65,383 11
Increase	\$ 7,615 31

The earnings from freight traffic compare as follows :—

In 1899-1900	\$ 83,627 41
1898-1899	79,888 52
Increase	\$ 3,738 89

The earnings from mails and sundries compare as follows :—

In 1899-1900	\$ 18,112 90
1898-1899	19,740 40
Decrease	\$ 1,627 50

The number of passengers carried compares as follows :—

In 1899-1900	\$ 147,471
1898-1899	129,667
Increase	\$ 17,804

64 VICTORIA, A. 1901

The weight of freight carried compares as follows:—

	Tons.
In 1899-1900	62,227
1898-1899	57,968
Increase	4,259

WORKING EXPENSES.

The working expenses compare as follows with the previous year:—

In 1899-1900	\$220,931 81
1898-1899	218,053 01
Increase	\$ 2,878 80

The averages compare with the previous year as follows:—

Per mile run by engines.	Cents.
In 1899-1900	65·08
1898-1899	64·74
Per mile run by trains.	Cents.
In 1899-1900	83·40
1898-1899	82·80
Per mile of railway.	
In 1899-1900	\$1,052 05
1898-1899	1,038 35
	1,038 35

TRACK.

During the year 2,600 old iron rails were taken up and replaced with a better class of old rails, some of which were improved by cutting the worn ends off.

The whole line was chained, and double mile blocks were put up at each mile, and section posts were put up at the end of each section, showing the number of the section.

SIDINGS.

At Reeves, one and one-quarter miles east of Richmond, a siding of 150 feet was constructed.

At Summerside a through siding of 750 feet was built to the stock yards, and a spur was lengthened 400 feet.

At Emerald a through siding of 511 feet was renewed.

At Doyle's a spur was extended 26 feet.

At North Wiltshire, a through siding of 700 feet was renewed.

TIES.

There were renewed during the year 45,000 ordinary ties, 24 sets switch ties and 22 head-blocks and frames, and there were 1,250 culled ties used in yards and sidings.

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BALLASTING.

During the year 25,143 cubic yards of ballast were distributed where most needed, and between Fredericton and Bradalbane, a number of cuttings were widened and ditched, the material from which was used in widening embankments in preparation for ballast and in grading station yards at Summerside, Emerald and Bradalbane.

FENCING.

Six and three-quarter miles of old fence was replaced by woven wire, with posts and battens, and about one mile with barbed wire; 10,300 feet of snow fences were rebuilt, and general repairs were made on both snow and ordinary fences where required.

One hundred farmer's gates were made of woven wire and used to replace those worn out.

BUILDINGS, PLATFORMS, ETC.

At O'Leary's the coal shed was taken down and rebuilt.

At Port Hill the office and waiting room were painted.

At Wellington one side of the station roof was shingled.

At St. Eleanor's the station and platform were rebuilt.

At Summerside the walls and ceiling of the ladies' waiting room were sheathed and painted, and a new floor was put down, and the outside of the station was painted. Part of the old building at one time used as a blacksmith's shop, was converted into an ice-house. The roof of the freight office was repaired. A loading platform was built at the end of the freight shed.

At Kensington the office and waiting room were painted, and a semaphore was rebuilt.

At Cape Traverse the office and waiting room were painted, and a new pitch and gravel roof was put on the engine house.

At Bradalbane the outside of the station was painted.

At Hunter River a new door was supplied the waiting room, and the office and waiting room were painted.

At North Wiltshire one side of the roof of the station was shingled.

At Royalty Junction the station roof was shingled and the office and waiting room were repaired and painted.

At St. Dunstons a flag station was built and painted.

At Charlottetown the two waiting rooms, the train despatcher's office and two outside offices of the superintendent were painted inside. The machine shop and blacksmith's shop were relaid with plank floors.

At York a stock pen was built, and a new section tool house erected.

At Bedford the station roof was shingled.

At Cardigan a new door was supplied the waiting room.

At Brudenell the station was rebuilt.

At Georgetown the wharf warehouse was raised two feet and blocked up with square timber, and a new section tool house was built.

At Midgell the station and platform were renewed.

At Bear River the roof of the station was shingled, and new sills were put under part of the building.

At Souris the inside of the office and waiting room were painted, the platform at the station was renewed, and sills put under the building, and a portion of the station grounds were graded. The roof of the engine house and freight shed were repaired. Four water closets, seven pairs of sashes, and four doors were made and supplied different stations.

WHARF AND BREASTWORKS.

At Alberton in making repairs to the wharf, 20 tons of timber, 10 tons of hard stone, and two mooring posts were used.

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At Summerside 300 tons of hard stone were used in repairing the roadway of the wharf, and in repairing the wharf, and filling two arches; 8 cars of slabs, 6 cars of earth, 2 cars of poles, and 30 tons of hard stone were used. A plank walk containing 2,300 feet of plank was put down along a portion of the wharf.

At Charlottetown the wharf was repaired, and 10 cars of slabs, 5 cars of brush, 4,000 feet of plank, 19 creosote piles, 50 hemlock piles, 3 creosote mooring posts, 250 cubic yards of ballast, and 65 tons of timber were used.

At St. Peters 734 feet of breastwork was extended, in the construction of which 50 tons of hemlock timber, 100 hardwood cross ties, 250 drift bolts, 173 cart loads of brush, and 500 cubic yards of earth were used.

At Midgell 900 cart loads of brush, 31 carloads of stone, and 200 cubic yards of earth were used in the extension and 200 cubic yards of earth were used in the extension and construction of a breastwork.

At Georgetown 70 tons of hemlock timber, 45 hemlock piles, 4 creosote mooring posts, 8 cars of slabs, 19 carloads of stone, 52 carloads of earth, 11 carloads of brush, 375 drift bolts, and 4,680 feet of plank were used in repairing the wharf.

At Souris 15 tons of timber, 40 tons of stone, and 60 carloads of earth were used in repairing the wharf.

BRIDGES.

At Harper's a second hand iron pin and girder structure of 105 feet in length, was purchased from the Intercolonial Railway, and in building the foundation which consists of four concrete piers, and two concrete abutments, there were 160 barrels of cement, 80 tons of stone, and 3 carloads of sand used. The erection of this bridge will extend into the next year.

At Ellerslie the two stone abutments were repaired by putting in floor walls of concrete, 18 inches thick, about three feet below the level of the rail.

At Clyde two stringers, and two braces were put in.

At Hunter River a pile bent was put under the centre of the bridge.

For Morell a new steel through deck structure 107 feet in length, was purchased from the Dominion Bridge Company, and will be erected next year.

ROLLING STOCK.

The following is a summary of the principal work done in the shops of the mechanical department:—

Locomotives.

Two new locomotives were purchased from the Canadian Locomotive Works of Kingston, Ont. (Nos. 8 and 20), and charged to revenue.

Seven locomotives received heavy repairs, two of which were largely rebuilt. Ten locomotives received specific repairs.

The following work was performed and new parts supplied:—Ten cylinders were bored and fitted with new cylinder heads and piston rods, two new fire boxes were built, and two boilers were patched and fitted with new front tube sheets, and one new throat sheet. Two locomotives received new motion, crank pins, slides, axles, driving boxes, truck boxes, driving brasses, main rod brasses, tubes and cross heads. Two cabs were built and furnished with new fronts and mountings; two new vacuum ejectors were made, four tenders were equipped with the vacuum brake, and two tenders were largely rebuilt, twelve boilers were tested, 415 wheels were bored and pressed on axles, twelve ejectors were repaired, 100 new axles were turned, 2,000 stay bolts were turned and threaded, 72 driving and truck springs were repaired, and twenty new driving springs were made, nine sets of driving wheel tires were turned, and two sets of truck wheels were turned, 600 tubes were pieced, six smoke stacks were made, twelve smoke stacks were made and supplied engine houses, 7,000 bolts were forged and threaded, 5,418 pounds of nuts were tapped.

SESSIONAL PAPER No. 20

For the car department $47\frac{1}{2}$ tons of iron were forged, and for the road department 8,583 lbs., six frogs were repaired, and four new frogs were made, seven sets of switch gear were repaired, and eight sets were made, four sets of track scales were repaired, and six sets of small scales were repaired, 773 lbs. of iron were forged for the engineers on the survey of the Hillsborough bridge.

Brass Foundry.

Output:—10,160 lbs. brass castings, 761 brass bearings, 80 battery hangers, and 212 battery zincs.

Car Shop.

Two first class cars and one baggage car were built.

One first-class converted into a second-class, and one second-class car was condemned.

Eighteen box cars and twenty platform cars were built, and charged to capital account.

One snow plough was rebuilt.

One platform car was rebuilt.

Three fifteen-ton coal cars were built to replace the same number of ten-ton coal cars condemned.

Fifteen box cars, twenty-one platform cars, two first-class cars, one snow plough, and one flanger car received thorough repairs.

Forty-five box cars, twenty platform cars, two first-class cars, four second-class cars, four flanger cars, and two snow ploughs received light repairs. Two new cabs were built, five locomotives were supplied with new running boards, buffer beams, floors, boxes and seats, two new trucks, four new pilots, three new tender houses, and three tenders were repaired.

Twenty six loading platforms and seven cattle stages were made, forty bags of plugs were cut, two freight trucks were built, three boxes were supplied for offices, and seventy farm gates were made.

Paint Shop.

Two first-class cars, one baggage car, one second-class, one postal and smoking car, and seven locomotives were painted and varnished, twenty-eight box cars, twenty platform cars, eight coal cars, thirty-eight box car roofs, one flanger car, and seven ploughs were painted. Ten sign boards, twenty crossing signs, 300 mileage, eleven track straight edges, ten track levels, ten hand cars, four semaphores, and nine stations were painted, and 300 panes of glass were put in.

Ten days' work of one man was employed in repairing the steamer *Hillsborough*.

STORES.

The value of stores purchased was	\$ 89,555 27
The value of stores used was	84,833 05
The value of old material sold was	61,606 28

The value of stores on hand at the end of the year was :

Ordinary stores	\$ 40,098 89
Fuel	12,991 37
Iron and steel rails and fastenings	9,962 55
Old material for sale	5,555 70
	<hr/>
	\$68,608 51

64 VICTORIA, A. 1901

GENERAL.

The rolling stock, road bed 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, Government Railways,
Moncton, N.B.

SESSIONAL PAPER No. 20

No. 1.—PRINCE EDWARD ISLAND RAILWAY.

DR.		CAPITAL ACCOUNT.		CR.	
		\$	cts.		
1899.				1899.	
June 30	To cost of road and equipment to date.....	3,790,107	26	June 30	By Dominion of Canada.....
1900.				1900	
June 30	To expenditure year ended June 30 as follows:			June 30	" "
	Survey of Hills-borough Bridge \$	6,338	75		
	Branch Railway to Murray Harbour.....	28,502	67		53,546 02
	Rolling stock....	8,000	00		
	Removing curves main line.....	9,995	20		
	Increased accommodation at Summerside....	709	40		
			53,546 02		
		3,843,653	28		
					3,843,653 28

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1900.

No. 2.—PRINCE EDWARD ISLAND RAILWAY.

DR.		REVENUE ACCOUNT for Year ended June 30, 1900.		CR.	
Previous Year.	Expenditure.	Year ended June 30, 1900.	Previous Year.	Receipts.	Year ended June 30, 1900.
\$ cts.		\$ cts.	\$ cts.		\$ cts.
58,464 56	Locomotive power.....	72,886 18	65,383 11	Passenger traffic.....	72,998 42
38,463 64	Car expenses.....	39,553 09	79,888 52	Freight traffic.....	83,627 41
80,186 60	Maintenance of way and works.....	65,201 09	19,740 40	Mails and sundries.....	18,112 90
29,915 87	Station expenses.....	32,085 44	165,012 03	... Total receipts.....	174,738 73
11,022 34	General charges.....	11,206 01	53,040 98	... Balance.....	46,193 08
218,053 01	... Totals.....	220,931 81	218,053 01	... Totals.....	220,931 81

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1900.

64 VICTORIA, A. 1901

No. 3.—PRINCE EDWARD ISLAND RAILWAY.

LOCOMOTIVE POWER—(Abstract No. 1).

Previous Year.	Details.	Year ended June 30, 1900.
§ cts.		§ cts.
617 83	Mechanical superintendent's salary, clerks, office and travelling expenses	792 34
18,732 54	Wages of drivers, firemen and cleaners	18,410 18
14,935 67	Fuel	14,614 19
2,257 61	Oil, tallow, waste and small stores	2,080 77
19,712 91	Repairs to engines, tenders and engine tools	34,843 29
639 20	Water, including pump and tank repairs	395 46
1,568 80	Miscellaneous	1,749 95
58,464 56	Totals	72,886 18

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1900.

No. 4.—PRINCE EDWARD ISLAND RAILWAY.

CAR EXPENSES—(Abstract No. 2).

Previous Year.	Details.	Year ended June 30, 1900.
§ cts.		§ cts.
7,663 96	Repairs to passenger cars	11,038 89
3,557 28	" postal and baggage cars	2,431 37
5,728 66	" freight cars and vans	3,806 29
347 43	" snow ploughs and flangers	650 25
16,815 85	Wages of conductors, train baggage-masters and brakemen	16,997 48
770 24	Oil and waste for packing	740 93
2,728 69	Small stores and fuel	2,933 79
851 53	Miscellaneous	954 09
38,463 64	Totals	39,553 09

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1900.

SESSIONAL PAPER No. 20

No. 5.—PRINCE EDWARD ISLAND RAILWAY.

MAINTENANCE OF WAY AND WORKS—(Abstract No. 3).

Previous Year.	Details	Year ended June 30, 1900.
§ cts.		§ cts.
292 47	Engineer's salary, clerks, office and travelling expenses	294 01
39,726 59	Wages in repairing roadway, fences and semaphores	45,560 60
2,407 62	Rails, chains and spikes	17,255 13
17,887 56	Ties	13,755 64
7,401 80	Timber and lumber for repairs to bridges, cattle guards, &c.	11,234 78
2,464 12	Repairs to wharfs	4,959 64
6,604 55	" buildings and platforms	4,464 27
1,108 58	" tools	1,188 40
2,243 51	Cleaning ice and snow	998 88
80,136 80	Totals	65,201 09

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1900.

No. 6.—PRINCE EDWARD ISLAND RAILWAY.

STATION EXPENSES—(Abstract No. 4).

Previous Year.	Details.	Year ended June 30, 1900.
§ cts.		§ cts.
22,864 90	Salaries and wages of station masters, agents, clerks, telegraph operators, station baggage-masters, yardmasters, switchmen, watchmen and labourers	25,801 27
7,050 97	Fuel, oil, light, stationery and other incidental expenses	6,284 17
29,915 87	Totals	32,085 44

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1900.

64 VICTORIA, A. 1901

No. 7.—PRINCE EDWARD ISLAND RAILWAY.

GENERAL CHARGES—(Abstract No. 5.)

Previous Year.	Details.	Year ended June 30, 1900.
§ cts.		§ cts.
4,524 41	Superintendents' and train despatchers' salaries, clerks, office and travelling expenses	4,705 94
5,077 24	Accountant and auditors, paymaster's and cashier's salaries, clerks, office and travelling expenses	5,049 52
481 35	Advertising	237 34
227 30	Damages to men, animals and goods	720 50
365 66	Telegraph expenses (not including pay to operators)	151 07
346 38	Miscellaneous	341 64
11,022 34	Totals	11,206 01

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1900.

No. 8.—PRINCE EDWARD ISLAND RAILWAY.

STATEMENT OF GENERAL STORES ACCOUNT—Year ended June 30, 1900.

1899.	Dr.	§ cts.	§ cts.
June 30.	To balance brought forward		84,039 91
1900.			
June 30.	Purchases during the year	89,555 27	
	Charges from other departments	38,960 46	
	Pay rolls	960 00	
			129,475 73
1900.	Cr.		213,515 64
June 30.	By issues during the year		150,010 33
	Balance {		
	Ordinary stores	840,098 89	
	Fuel	12,991 37	
	Rails and fastenings on hand	9,962 55	
	Old material serviceable	452 50	
			63,505 31

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1900.

SESSIONAL PAPER No. 20

No. 9.—PRINCE EDWARD ISLAND RAILWAY.

DR.	GENERAL BALANCE.		CR.		
	\$	cts.	\$		
		cts.	cts.		
General stores	63,505	30	Dominion Account.	73,145	93
Cash	5,079	11	Accident Insurance.	796	21
Stations	1,621	43	J. McDougall & Co.	160	00
Through Ticket Ledger.	102	43	Intercolonial Railway.	280	73
Post Office Department.	2,597	50	Rhodes, Curry & Co	54	76
Militia Department.	234	04			
North-west Mounted Police	273	85			
Anglo American Telegraph Company .	46	43			
Judge Weatherbie.	30	00			
Sidney Grey.	30	00			
Railway Extension, Charlottetown . .	812	83			
B. & M. Rattenbury.	76	20			
Canadian Pacific Railway.	28	51			
	74,437	63		74,437	63

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1900.

64 VICTORIA, A. 1901

No. 10.—PRINCE EDWARD ISLAND RAILWAY.

COMPARATIVE STATEMENT of Averages for Year ended June 30, 1900 and 1899.

Details.	1900.	1899.
Mileage of railway open	210	210
Engine mileage	339,458	336,820
Train mileage	264,895	263,335
Car mileage	1,538,038	1,427,479
Receipts per engine mile	Cents. 51.47	48.99
" mile of railway	Dollars. 832.09	785.87
Percentage of passenger earnings to gross receipts	41.77	39.62
" freight	47.86	48.41
" other	10.37	11.97
Expenses per engine mile :—		
Drivers, firemen and cleaners' wages	5.43	5.57
Fuel	4.31	4.43
Oil, tallow, waste and small stores .....	.61	.67
Repairs to engines	10.26	5.85
Water and tank repairs .....	.12	.19
Miscellaneous .....	.52	.47
	21.25	17.18
Mechanical superintendent's salary, office and travelling expenses .....	.23	.18
Total	Cents. 21.48	17.36
Locomotive power, per engine mile	21.48	17.36
Car expenses	11.65	11.42
Maintenance of way and works	19.20	23.81
Station expenses	9.45	8.88
General charges	3.30	3.27
Total per engine mile	Cents. 65.08	64.74
Locomotive power, per train mile	27.51	22.20
Car expenses	14.93	14.61
Maintenance of way and works	24.61	30.45
Station expenses	12.12	11.36
General charges	4.23	4.18
Total per train mile	Cents. 83.40	82.80
Working expenses per mile of railway	Dollars. 1,052.05	1,038.35

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1900.

SESSIONAL PAPER No. 20

A.—PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

STATEMENT of Cost of Locomotive Power for the Year ended June 30, 1900

Months.	Miles run by Engines, less Ballasting.	COST OF						AVERAGE PER MILE RUN.																					
		Enginemen's Wages.		Fuel.		Oil, Tallow, &c.		Repairs.		Water, including Tank and Pump Repairs.		Miscellaneous, including Expenses of Offices and Engine House.		Total.															
		\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.														
1899—July	33,721	1,627	24	1,361	06	214	97	1,546	26	41	75	156	95	4,948	23	4	82	4	04	0	63	4	59	0	12	0	47	14	67
August	32,782	1,607	07	1,358	37	233	01	1,436	39	10	00	146	47	4,791	31	4	90	4	14	0	71	4	38	0	43	0	45	14	61
September	31,059	1,568	07	1,150	21	199	52	1,018	33	.....	.....	169	56	4,105	69	5	05	3	70	0	04	3	28	.....	.....	0	54	13	21
October	32,027	1,579	12	1,230	72	173	53	1,824	28	2	36	250	43	21,485	44	4	87	3	84	0	54	56	98	.....	.....	0	78	67	01
November	31,484	1,641	12	1,556	49	195	89	1,816	82	7	94	225	07	5,443	33	5	21	4	94	0	62	5	78	0	02	0	72	17	29
December	29,380	1,585	55	1,456	47	189	83	1,819	07	154	97	258	08	5,463	97	5	49	4	96	0	04	6	19	0	52	0	88	18	59
1900—January	23,394	1,639	02	985	84	191	34	2,078	00	6	80	240	44	5,141	44	7	01	4	21	0	82	8	88	0	03	1	03	21	98
February	21,431	1,522	66	773	56	163	56	1,518	63	2	40	250	40	4,231	21	7	10	3	61	0	76	7	09	0	01	1	17	19	74
March	24,700	1,658	95	925	68	169	74	1,885	30	3	34	248	78	4,891	79	6	72	3	75	0	69	7	63	0	01	1	00	19	80
April	22,073	1,437	12	1,149	35	133	12	1,684	14	8	72	206	73	4,639	18	6	51	5	20	0	69	7	63	0	04	0	94	21	01
May	26,994	1,519	34	1,253	82	191	26	1,552	60	1	14	205	49	4,723	65	5	63	4	65	0	70	5	75	0	00	0	76	17	49
June	30,413	1,024	92	1,412	62	5	00	238	47	156	04	183	89	3,029	94	3	37	4	64	0	02	78	0	51	0	61	9	93	
Totals	339,458	18,110	18	14,614	19	2,080	77	34,843	29	395	46	2,542	29	72,885	18	5	42	4	31	0	91	10	26	0	12	0	75	21	47

* This includes cost of two new locomotives purchased.

S. F. HODGSON,
Mechanical Accountant.

64 VICTORIA, A. 1901

B.—PRINCE EDWARD

MECHANICAL

STATEMENT of the Performance and Consumption

Months.	Hours in Steam.	Train Mileage.				Mileage by Engines.			
		Passenger.	Freight and Mixed.	Balasting.	Piloting.	With Train.	Light.	Shunting.	Total.
1899—July.	3,854	12,839	13,913	3,125	564	30,441	161	6,754	37,356
August ..	3,873	11,846	14,499	2,618	22	28,985	235	6,790	36,010
September .	3,656	10,777	14,189	1,682	122	26,770	.....	6,226	32,996
October...	3,974	11,141	14,636	2,339	.....	27,116	103	7,727	34,946
November..	3,605	10,489	14,600	365	.....	25,454	44	6,421	31,919
December.....	3,368	9,366	13,924	10	.....	23,300	.....	6,100	29,400
1900—January ..	3,200	4,588	12,640	.....	17	17,245	103	6,046	23,394
February ...	2,845	5,066	11,180	.....	32	16,278	32	5,121	21,431
March.	3,309	4,498	13,185	76	917	18,676	22	6,078	24,776
April	2,916	3,030	12,607	4	196	15,837	70	6,166	22,073
May	2,529	5,901	14,725	1,263	.....	21,889	66	6,662	28,617
June.....	3,646	10,289	14,097	1,591	.....	25,977	.....	6,696	32,673
Totals.....	40,775	99,830	163,195	13,073	1,870	277,968	836	76,787	355,591

SESSIONAL PAPER No. 20

ISLAND RAILWAY.

DEPARTMENT.

of Locomotives for the Year ended June 30, 1900.

Total Mileage.		Average Mileage.		Consumption.				Consumption per 100 miles run by Engines.				
Cars.	Snow Ploughs.	Average Cars per Mile run with Train.	Miles to one hour in Steam.	Of Cars to one of Engines.	Bushels of Coal.	Pints of Oil.	Pints of Valve Oil.	Pounds of Waste.	Bushels of Coal.	Pints of Oil.	Pints of Valve Oil.	Pounds of Waste.
180,485	.....	6 04	6 69	4 83	15,756	1,956	788	636	42 17	5 23	2 11	1 70
160,205	.....	5 53	9 29	4 34	15,164	1,931	968	680	42 11	5 36	2 68	1 88
155,592	.....	5 84	9 02	4 71	13,320	1,849	768	616	40 36	5 60	2 33	1 87
163,956	.....	6 04	8 79	4 69	15,316	1,830	740	597	43 82	5 26	2 12	1 70
156,762	.....	6 15	8 85	4 91	17,409	1,797	772	587	54 54	5 63	2 41	1 84
133,812	22	5 70	8 72	4 55	15,311	1,761	658	531	52 07	5 99	2 20	1 80
100,256	.....	5 82	7 31	4 29	12,308	1,633	552	530	52 61	6 98	2 35	2 27
88,673	.....	5 46	7 53	4 14	9,767	1,360	576	456	45 57	6 34	2 68	2 12
113,793	1,477	6 41	7 48	4 59	11,406	1,483	608	465	46 03	5 99	2 45	1 88
95,549	.....	6 11	7 57	4 33	8,411	1,244	552	397	38 10	5 63	2 50	1 79
140,212	.....	6 40	11 31	4 90	13,802	1,785	776	593	48 23	6 23	2 71	2 07
145,181	.....	5 59	8 96	4 44	15,022	1,761	712	532	45 98	5 39	2 18	1 63
1,634,476	1,499	5 92	8 72	4 51	162,992	20,390	8,470	6,620	45 83	5 73	2 38	1 86

S. F. HODGSON,
Mechanical Accountant.

64 VICTORIA, A. 1901

C.—PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

MONTHLY STATEMENT of Car Mileage for Year ended June 30, 1900.

Months.	First Class.	Second Class & Baggage.	Postal and Smoking.	Box and Stock.	Platform.	Total.
1899—July	36,932	27,543	27,747	47,449	40,814	180,485
August	33,040	25,877	29,096	45,724	26,468	160,205
September	39,378	23,643	27,970	45,958	27,643	155,592
October	27,302	21,859	29,866	53,206	31,723	163,956
November	24,510	22,579	27,470	65,823	16,380	156,762
December	25,586	20,616	26,081	46,249	15,280	133,812
1900—January	18,848	14,258	18,182	41,209	7,759	160,256
February	17,759	13,202	16,132	33,327	8,253	88,673
March	17,198	16,316	16,372	41,903	22,004	113,793
April	18,244	14,569	15,847	40,248	6,641	95,549
May	20,536	19,586	24,877	54,646	20,567	140,212
June	25,442	22,852	27,161	47,933	21,793	145,181
Total	295,775	242,900	286,801	563,675	245,325	1,634,476
Less ballasting			11,848	527	84,063	96,438
Balance	295,775	242,900	274,953	563,148	161,262	1,538,038

S. F. HODGSON,
Mechanical Accountant.

SESSIONAL PAPER No. 20

D.—PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

STATEMENT showing the number of locomotives and the various classes of Cars and other Rolling Stock on June 30, 1900.

	CLASSIFICATION OF CARS.													Totals.				
	Locomotives.	1st Class.	2nd Class.	Combined 2nd and Baggage.	Postal and Smoking.	Combined Postal and Baggage.	Baggage.	Pay Car.	Vans.	Box Freight.	R. f. igrator Car.	Stock.	Coal.		Platform.	Total.	Snow Ploughs.	Flangers.
On hand, serviceable, June 30, 1899....	20	17	6	5	2	3	4	1	3	165	1	17	..	123	347	8	7	15
Condemned, July 1, 1899.....	1	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..
Total	21	17	6	5	2	3	4	1	3	165	1	17	..	125	349	8	7	15
Built during the year on capital account .....	..	..	..	..	..	..	..	..	..	18	..	..	..	29	38	..	..	..
Total	21	17	6	5	2	3	4	1	3	183	1	17	..	145	387	8	7	15
Transferred as follows:—																		
1st class to 2nd class .....	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Platform to coal .....	..	..	..	..	..	..	..	..	..	..	..	18	18	..	..	..	..	..
Total	21	15	8	5	2	3	4	1	3	183	1	17	18	127	387	8	7	15
Condemned, July 1, 1899.....	1	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..
" during the year	1	1	1	..	..	1	..	..	..	..	..	3	1	7	7	1	..	1
Total condemned.....	2	1	1	..	..	1	..	..	..	..	..	3	3	9	9	1	..	1
Less purchased and rebuilt	2	2	..	..	..	1	..	..	..	..	..	3	1	7	7	1	..	1
To be rebuilt .....	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..
Add serviceable and repairing	21	17	7	4	2	3	4	1	3	183	1	17	18	125	385	8	7	15
Total	21	17	7	4	2	3	4	1	3	183	1	17	18	127	387	8	7	15

S. F. HODGSON,

Mechanical Accountant.

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E.—PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

COMPARATIVE STATEMENT of the Expenses of the Mechanical Department for the Years ended June 30, 1899 and 1900.

	1899.	1900.
The miles run by trains were.....	263,335	264,895
" engines were.....	336,830	339,458
" cars were.....	1,427,499	1,538,038
" snow ploughs were.....	5,161	1,499
	\$ cts.	\$ cts.
The cost of locomotive power was.....	58,464 56	72,886 18
" repairs to cars were.....	16,949 90	17,276 55
" " passenger cars was.....	7,663 96	11,038 89
" " postal and smoking cars was.....	3,557 28	2,431 37
" " freight cars and vans was.....	5,728 66	3,806 29
" labour, oil and waste for cars was.....	770 24	740 93
" repairs to snow ploughs and flanges was.....	347 43	650 25
The cost of locomotive power per 100 miles run by trains was.....	22 20	27 51
" " " engines was.....	17 35	21 18
" " " cars was.....	4 09	4 73
The cost of repairs to cars per 100 miles run by trains was.....	6 43	6 52
" " " engines was.....	5 03	5 09
" " " cars was.....	1 19	1 12
The repairs to passenger cars per 100 miles run by trains were.....	2 91	4 16
" postal and smoking cars were.....	1 35	0 91
" freight cars and vans were.....	2 17	1 43
The cost of labour, oil and waste for packing, per 100 miles run by trains was..	0 29	0 28
" " " engines was.....	0 23	0 21
" " " cars was....	0 05	0 04

S. F. HODGSON,

Mechanical Accountant.

SESSIONAL PAPER No. 20

PRINCE EDWARD ISLAND RAILWAY.

RETURN of Accidents and Casualties which have occurred in Canada on the line of the Prince Edward Island Railway during the Year ended June 30, 1900.

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.	Places of Accident.	Name of Person injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
1899.												
July 21.	.....	Special.	Ballast.	Tanton.	Love.	6	Black River Road Crossing.	Peter Lacey.	Employee.	Fell getting on train while train was moving.	Leg fractured.	
Oct. 30	5.30 p.m.	"	Freight.	Munroe.	Dalziel.	6	Alberton.	S. H. Jones.	Neidler.	Foot injured while loading sheep, by car being moved.	Foot bruised.	
Nov. 9.	.....	.....	.....	.....	.....	.....	Summerside.	Geo. Ryan.	Employee.	Finger crushed loading freight.	Fingers injured.	
" 18	.....	.....	.....	.....	.....	.....	Near 48 Stn'n	David Birt.	"	Fingers injured while loading rails.	Fingers lacerated.	
Dec. 5.	12.04 p.m.	6	Mixed.	Tanton.	Good.	5	Emerald.	J. G. Sheriff.	"	Thumb injured while shunting at Emerald.	Thumb crushed.	
1900.												
Jan. 24.	9.50 a.m.	1	"	McKenna.	Pound.	5	Summerside.	J. H. Burns.	"	Thumb crushed while handling baggage.	Thumb amputated.	
Apr. 10.	2.45 p.m.	2	"	McKenna.	Yeo.	8	St. Dunstons.	Theo. Kavanagh.	Neither.	Struck by engine while lying asleep on track.	Fatally injured.	Accidental.

No. 2.

REPORT OF AN EXPLORATION ON THE UPPER PART OF THE STIKINE RIVER TO ASCERTAIN THE FEASIBILITY OF A RAILWAY.

(BY V. H. DUPONT, C. E.)

NOTE.—The plan, profile and album of views referred to throughout this and following Reports on Surveys are on file in the Department of Railways and Canals.

SIR.—In accordance with your instructions dated May 1, directing me to make an exploration of the upper valley of the Stikine river, and to find, if possible, a pass for a railway line between the Stikine and Skeena rivers, I have the honour to submit herewith the following report accompanied by a plan and profile which show the results obtained, also an album of photographs giving a general idea of the country herein described.

As I have already given in a preliminary report a narrative of my trip and also in a limited way the incidents connected therewith, I will now describe that part of the country which was the object of the expedition.

On August 4, we arrived at the initial point of my survey, viz.: 111 miles south-east of Dease lake and where Mr. J. S. O'Dwyre, C.E., completed his survey up to the previous year. Here no trace of a trail was visible and on the morning of the 5th four men were set to work cutting one, to enable the pack train to travel while the survey was in progress.

At 10 p. m., in the rain and darkness two men and seven horses arrived at camp where we were awaiting the pack train with anxiety and it was 11 o'clock before we had our supper. Three men remained behind to look for eleven horses which had strayed from the rest of the band during the night. This was a bad start but unavoidable.

DESCRIPTION OF THE COUNTRY.

From the initial point of the exploration, and for a distance of a little over three-quarters of a mile on the north-east side of the river, there is a narrow flat rising from the level of high water to an elevation of twenty-five feet above the starting point. In places the ground is wet, caused by the soakage of water from the bordering hill which is about one thousand feet high and sloping at an angle of 25°. At one place this hill comes in close proximity with the river, and a spring causing a land slide which is one hundred feet long. By a skilful diversion of the water this slide will disappear entirely.

Four hundred feet from this flat there is a small stream to cross. This stream is surrounded by a muskeg not exceeding one hundred feet in length.

Next to the flat mentioned, the river is bordered by a fine terrace which has an elevation of eighty-five feet above the water. This terrace extends six hundred yards on the second mile, and is cut off by a high broken hill which slopes to the waters' edge, producing a gravel slide which is very hard except in the spring, when the frost is coming out of the ground.

In order to avoid an unnecessary grade, the railway could be built at a low cost on the side of this terrace up to the middle of the second mile where a low flat begins. This flat is two hundred feet wide for a distance of two thousand feet, then becomes much wider and is covered by a healthy growth of pine. It ends within two hundred yards of the beginning of the third mile, where the terrace just spoken of approaches the river again, and at this point it is much more broken and contains in its slope some conglomerate cliffs which might necessitate light side rock cuts for a distance of five hundred feet.

From this point for a distance of one thousand feet between the river and the rocky hill referred to, which is cut off straight in places, there is a low flat, partly covered by high water and wet and marshy in all seasons.

By locating the line at the foot of the hill the road-bed could be built above high water at a small cost as there is plenty of material close by.

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For the next mile and a half a fine flat about twenty feet above low water borders the river, and in places the width of this flat exceeds two thousand feet. At the beginning of this flat there is a short piece of muskeg, and then the ground which becomes hard and dry is covered with small pine.

From the end of the flat mentioned, for a distance of thirteen hundred feet there is a strip of level ground extending between the river and a much broken hill of over a thousand feet in height. This strip is really the continuation of the flat described and its elevation above the water is about the same.

We are now within four hundred feet of the seventh mile. For the next half mile a high broken hill approaches the river and several rock ledges from twenty to thirty feet high appear close to the water, otherwise the slope of the hill is very steep, being formed chiefly of conglomerate and sandstone. This half mile will without doubt occasion several side rock cuts of small importance.

Up to the middle of the ninth mile this broken hill continues to follow the river in close proximity, but at the foot of the slope, which is not now so steep, there is generally a strip of flat ground wide enough to build the road-bed of a railway line.

The slope of this broken hill is much undulated in places and there are four small land slides occasioned by springs, but none of these slides are of bad character.

Now begins a long stretch of flat ground which extends close to the end of the sixteenth mile. The land is dry and partly open, and nothing better could be desired for the construction of a railway.

Two important tributaries of the Stikine are crossed on this section, and so far are the only streams of importance and which will necessitate the building of steel bridges.

The first tributary is called the Ducker river by the Indians of Telegraph Creek. It is situated at the middle of the 11th mile, and has a general course of N. 60° E. It runs on a bed of compact gravel and has a mean fall of 20 feet per mile for at least the first 6 miles. Its width at high water is 250 feet, and could be bridged at a minimum cost a half a mile from its junction with the Stikine.

The Ducker river runs through a large valley of level ground in form of flats and terraces which are low for the first five miles, but then raise rapidly above the river. This important tributary seems to end in a flat country, surrounded by high mountains situated at a distance of about 50 miles from the Stikine.

Photograph No. 13 shows the valley of the Stikine looking up and No. 14 shows the valley looking down.

The other important stream referred to is situated at the end of the 16th mile, and is called by the Indians the San-a-bar river. This tributary of the Stikine is very crooked and runs through a low canyon of sandstone and conglomerate of a greenish colour. Its mean fall was found to be 106 feet for the first mile. At a distance of 5 miles it branches into two equal streams, one running in a southerly direction, while the other follows an easterly course. The length of either of these branches does not appear to exceed 30 miles and they seem to end in high flat ground. In order to cross this river it would be necessary to build a bridge 100 feet long and 12 or 15 feet above the water close to the junction with the Stikine.

Photograph No. 16 shows the San-a-bar close to its junction with the Stikine.

Photograph No. 17 shows the junction of the two rivers.

The rock that borders the San-a-bar river extends along the Stikine, and for a distance of 75 feet the high water goes over it and carries away the foot of a plateau causing a cut bank. As this plateau is not over 60 feet high, this cut bank will present no difficulty in the construction of a railway line.

Photograph No. 15 shows this cut bank.

For the next 4 miles that follows the ground in the immediate vicinity of the river is soft and marshy, being generally below the level of high water, but at a short distance from the river the ground is higher and drier. Fine flats covered with pine extend in places to the mountains, which are situated more than three miles from the river.

At the end of the 20th mile a little river has to be crossed and will require a span of 40 feet, 10 feet above the water.

The ground for the 21st mile is chiefly composed of terraces of unequal height and much broken by numerous horsebacks, but there is ample space for the construction of a railway at a small cost by following the foot of the terraces where the ground is generally dry and level.

From the beginning of the 22nd mile to the middle of the 25th mile, the country is practically level and very open, and looks like prairie ground covered with fine grass. Several short pieces of muskeg are in the vicinity of the river where the land is lower, but they could be avoided by constructing the line at a certain distance from the river.

At the beginning of the following mile the line will have to be constructed across a series of small plateaus and terraces from 20 to 40 feet high and then over still more broken ground and some large pieces of muskeg which might prove unavoidable.

From the last point described to the end of the 28th mile, the ground is generally high close to the river and much broken by small ravines. Few narrow flats are sometimes situated at the foot of high ground but are generally wet.

So far nothing has been said of the west side of the river, which was not examined so closely, yet a careful study of that side of the Stikine might prove to be still more suitable for the construction of a railway.

The river appears to be generally bordered by some fine and extensive flats, occasionally separated by short pieces of broken ground.

Only one slide extending about 400 feet was noticed. The streams are not so numerous as on the east side, there being only one important stream; its width might be 100 feet and its length should not exceed 6 or 7 miles. The general course of this stream is S. 26° W.

As the Stikine from the initial point of the exploration to the 28th mile describes a horse-shoe which is 12 miles across, the last stream referred to might be the means of a great saving in the mileage by cutting across the range of mountains that fill the horse-shoe. But if this should prove practical it will not be without the use of some heavy grades.

The Stikine river in the section just described is from 300 to 500 feet in width and contains a large number of islands, some of which are covered by thick bushes, spruce and balsam trees.

The water of the Stikine is muddy, although all the tributaries seen, so far, bring in perfectly clear water. The current is swift in places and becomes sluggish for a long stretch.

Taking for the base of the level the elevation 3,650 feet found by Mr J. S. O'Dwyre, C.E. at the end of his exploration of the river the previous year, the elevation at the end of the 28th mile was found to be 3,720 feet above sea level, giving a difference of only 70 feet in 28 miles. The difference of level is especially in the first sixteen miles, where the current has a mean velocity of about $3\frac{1}{2}$ miles per hour.

The river is navigable for a small stern wheel steamer of good power, as no serious obstacles to navigation exist for a long distance above and below the section under consideration. It is true there are a number of riffles some of which might be called rapids, though none are of a character to impede navigation.

For this stretch of country referred to, the valley is from 6 to 8 miles wide, and is bordered by high mountains of an elevation of 6 or 7 thousand feet above sea level. They are all bare for a long distance before the summit is reached, and large patches of snow can be seen in all directions.

A general summary of geology of the country will be given in a later page.

Beyond the 28th mile the valley runs in a general southerly direction, and at the 36th mile it is suddenly contracted. Before the 56th mile is reached its width in places does not exceed one mile.

The most remarkable feature of this part of the valley is a strip of swampy meadow, about one mile wide and extending from the 28th to the 56th mile. It is intersected throughout by the river and numerous lakes and channels. At one place the river describes a regular S over 4 miles long. A narrow strip of spruce trees border the river, while the remaining space between the curves of the S is occupied by swampy meadows of fine yellow green colour and small lakes and ponds. This, combined with the rugged

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snow peaks that border the valley produces scenery unsurpassable for its striking effect. Viewed from the top of a mountain the whole valley has an appearance of a park of great magnitude and beauty.

Photographs Nos. 25, 27 and 29, taken consecutively and at an altitude of nearly four thousand feet above the valley, give a good idea of the nature of this part of the country.

Following the east side of the river, the 29th mile will necessitate a certain amount of curvature in order to avoid some large muskegs and slews which extend along the river.

With the exception of one cut bank eight hundred feet long and sloping at an angle of 35° for an elevation of one hundred and thirty-five feet, the 30th mile does not differ materially from the 29th.

The valley of the Stikine looking up the river as it appears at the beginning of the 32nd mile, is shown by photograph 18.

The 31st and 32nd miles are much like the previous miles. The ground is flat along the river and wet in places—some high benches are at a distance from the river.

Photograph No. 19 illustrates the valley of the stream running west between the 31st and 32nd miles, and No. 32 shows the same valley viewed at an altitude of two thousand feet.

The valley of the Stikine looking down from the 31st mile, is shown by photograph No. 21, which was taken at an altitude of two thousand feet above the river.

From the 33rd mile for a distance of six hundred yards there is a low flat mostly composed of muskeg, it extends about three hundred feet back from the river. A hill sixty feet high extends at the rear of this flat for a distance of nine hundred yards. This hill becomes quite flat in places and extends really up to the end of the 38th mile. Its course is in close proximity of the river for a certain distance, but generally at the foot there is a narrow flat containing springs and muskegs. This high flat hill referred to is often cut off by small brooks which originate at the foot of the mountains.

Photograph No. 23 which was taken at the 34th mile, shows the valley of the Stikine and the bordering mountains on the west side as they look at a distance of two miles.

Photograph No. 24 shows the valley of a stream running west between the 36th and 37th miles.

Photograph No. 36 is a birds-eye view taken at an altitude of two thousand feet above the same valley. It shows the stream and a large lake situated on the same stream about three miles from the Stikine.

No. 30 is also a photograph of the same valley but taken at an altitude of three thousand nine hundred feet above the Stikine river.

No. 29 shows the valley of the Stikine as it appears at the 37th mile, as seen from an altitude of three thousand nine hundred and forty feet.

Between the 38th and 52nd mile the ground is wet and marshy close to the river, and in some places over a mile wide. At the foot of the mountains the ground is higher and there are some benches and terraces which are generally much broken. Here and there some round rocky hills protrude out of the valley which have the appearance of islands.

Close to the end of the 52nd mile there is another important tributary of the Stikine to cross. It will require a span of seventy-five feet long and ten feet above water, and will have to be built six hundred feet from its junction with the Stikine river. The stream referred to is called the Slate river on account of the colour of its water and the composition of the river bed which is also of slate colour. At a distance of a mile and a half from its mouth this river appears to be divided into two streams, the main one running in a southerly direction.

From Slate river to the end of the 56th mile the ground is still more broken and generally higher close to the Stikine.

There are numerous lakes nearly surrounded by high spurs of the mountains which border the valley.

In order to shorten the distance in the event of a railway line being built, this part will require a certain amount of curvature and necessitate the use of short pieces of heavy grade, and some spurs of the mountains might necessitate important earth cuts.

The following photographs give a good idea of this part of the country :—

No. 29 shows the valley of the Stikine going up as it appears from the 37th mile. Nos. 32 and 31 are also views of the same valley up and down as seen from the 47th mile. No. 33 represents a part of a lake close to the river at the 48th mile. Nos. 34 and 35 are views up and down the valley of the Stikine as it appears from the 48th and 49th miles. No. 36 is a view of the west side of the river at the 53rd mile, it also shows the Horn mountain which is very near the river on the west side.

On the section referred to there are 13 streams to cross, but with the exception of Slate river, which I have already described, there is only one important one which will require a span of 20 feet. This stream is situated at the 53rd mile.

With this section ends a long stretch of low wet ground, and it is also the terminus of possible navigation by small stern wheel steamers.

At the end of the 56th mile the shores of the Stikine are suddenly contracted to a width not exceeding 75 feet, and there is here an important rapid for a few hundred feet, but which would not impede navigation for a canoe.

Between the 56th and 68th mile there are again some stretches of sluggish water, but the riffles are more numerous than on the previous section. The fall of the river was found to be in the last 12 miles 91 feet. The 68th mile might be considered the extreme point of navigation on the Stikine river by canoes.

The valley is still more narrow between the bases of the mountains, being in places hardly more than three-quarters of a mile wide. The mountains do not seem to be so high as in the previous section, but the patches of snow are more numerous and more extensive.

The highest mountain in the vicinity of the river has an approximate elevation of 7,269 feet, and opposite the 40th mile one mountain was found to have an elevation of 7,665 feet above sea level.

The following photographs give a good idea of the mountains from the 40th to the 68th mile and the enormous quantity of snow which partly covers them :—

Nos. 25, 27, 28, 29, 34, 36, 71, 72, 73 and 77.

On the section referred to there are a few places where the ground is wet, but it is generally dry and the river is bordered for these twelve miles by flats and high benches more or less broken. At the beginning of the 57th mile there is a cut bank 300 feet long, the foot of it being composed of fragile rock with clay on top. The total height above the river is 40 feet.

From the 64th to the 68th mile the river is generally bordered on both sides by fine meadows, dry and very suitable for the construction of a railway.

In the vicinity of the beginning of the 57th mile it might be advisable to cross the Stikine should the line be located so far on the east side in order to make a big saving in the mileage as the river is very crooked and the west side might still be more suitable for the construction of a railway.

There are no important streams on this section, 6 small creeks are on the east side and only three on the west side.

This part of the valley of the Stikine is shown by photograph No. 50, which also shows the Stikine looking down as seen from the 63rd mile. Photograph No. 51 shows the same valley as viewed from the same point only in the opposite direction. No. 52 shows the valley of the Stikine looking down from the 63rd mile.

At the 68th mile the river branches into three streams, one branch called 'Tensasse Creek' which runs in a westerly direction, first through a short canyon 1,500 feet in length, and then through a valley 1 mile wide until it comes within 1 mile of a branch of the Clappen river, or third south fork of the Stikine, where it turns in a southerly direction and branches out into the mountains.

The second branch continues toward the south through several short and low canyons for a distance of 5½ miles and then branches off into two streams, one running in a westerly direction and is soon lost in the mountains; this branch is called the 'west branch.' The other runs towards the east across some high broken benches for a mile or so, and then through a very fine open valley 1 mile wide. This branch, which is called the 'glacier branch' continues through the valley for 3 miles and then

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touches a small lake which is the source of a branch of the Skeena river. From this lake the stream takes a bend towards the south and runs in that direction for about 2 miles, and then ends in a glacier which has been named the 'Bell glacier' on account of a black peak, which at a distance has the appearance of an enormous bell projecting out of the centre of the glacier.

From the 68th mile, and following the last branch referred to, the ground is broken at the 73rd mile; some high benches and terraces approach the river, causing some high slides or cut banks. At the beginning of the 75th mile the valley is open and there appears a long stretch of nearly level country which is generally wet. The valley continues to be open for many miles and at a short distance from the lake of the divide, between the waters of the Stikine and Skeena rivers, the valley becomes wider and drier. The continuation of this valley will be described by Mr. J. S. O'Dwyre in his report of the exploration of part of the Skeena river.

The elevation of the 68th mile was found to be 3,790 feet above sea level and 4,160 feet at junction of west branch with the glacier branch. The elevation of the divide is 4,335 feet.

Coming back to the 68th mile and taking the third branch which is called the East branch, the valley presents a more favourable appearance for the construction of a railway. The stream follows an easterly direction up to the middle of the 81st mile where it turns towards the north, but a short branch continues to run in an easterly direction up to the middle of the 85th mile, where there is a little lake which is the divide between this branch of the Stikine and another branch of the Skeena.

The two branches of the Skeena just referred to appear to meet at a distance of fourteen miles from the small lake mentioned. The junction of the two branches of the Skeena was seen from an elevation, the valley from all appearances does not present the least obstacle to the construction of a railway line.

The beginning of the 69th mile on this valley is more or less broken ground. The entrance to the valley of the East branch is closed by high benches or terraces which approach the river similar to the Glacier branch. These benches cause a small canyon one mile long, the walls being twenty-five feet high, and on top ends the slope of the benches which are in places one hundred and fifty feet high. A railway could easily be constructed on the side of the slope without necessitating a large expenditure of money.

From this canyon the valley opens up and is from two to five miles wide in places. The ground is composed chiefly of fine meadows having the appearance of a large prairie. The land is dry and presents no difficulty whatever to the construction of a railway.

The altitude of the divide of this branch of the Stikine was found to be four thousand one hundred and fifty feet, or one hundred and eighty-four feet lower than the elevation of the divide on the Glacier branch.

By looking at the profile of the river it shows that the grade of the East branch does not exceed 55 feet per mile while, on the Glacier branch there is one mile with a grade of 80 feet, and $5\frac{1}{2}$ miles with a grade of 67.27 feet per mile. The distance is at least $5\frac{1}{2}$ miles shorter by the East branch than by the Glacier branch.

Photograph No. 53 is a view of the beginning of the East Valley, it shows at the rear the high benches or terraces where the small canyon referred to is.

Photograph No. 72 is a birds-eye view of Tenasse Creek near its end.

Photograph No. 73 is a birds-eye view of the Glacier branch from its junction with the East branch toward the south, it also shows the valley of the West branch.

Photograph No. 71 shows a part of Tenasse Creek and at the rear the valley of the Clappan or third south fork of the Stikine river.

Photograph No. 69 shows the beginning of the high benches on the East branch.

Photograph No. 68 is a view of the East branch looking down from the same position as photograph No. 69.

Photograph No. 63 shows the Stikine going down from the 62nd mile.

Photograph No. 76 is a view taken from a point close to the West branch, it shows the valley of the Glacier branch above and below its junction with the East branch.

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Photograph No. 79 is a view taken $1\frac{1}{2}$ miles up the Glacier branch and looking down.

Photograph No. 80 is a view taken from the same point as No. 79 but looking towards the Skeena river.

Photograph No. 81 is a view taken on the north side of the divide lake showing the Glacier where the Glacier branch of the Stikine river ends.

Photograph No. 82 is in a view taken from the south-east end of the divide.

Photographs Nos. 83 and 84 are other views from the divide lake towards the glacier.

The profile of the Stikine shows from the initial point to the beginning of the east branch trifle grades and on the East branch it is a little above one per cent and only 1.53 per cent on the Glacier branch. These gradients can, however, be kept down to a maximum of less than one per cent without necessitating heavy work.

The question of economy in the construction will, without doubt, bring out a certain amount of short heavy grades which cannot be put in evidence in this kind of work. It might be necessary to introduce some sharp curves in places, but the amount of money appropriated for the construction of this railway will bear more on the details than the difficulties of the country to cross.

Taken on a whole the valley of the Stikine is well wooded considering its elevation and northern position. The most important tree is the white spruce, it frequently attains a diameter of two feet growing tall and straight on low ground and in sheltered places, and is abundant where the ground is wet. Jack pine from three to six inches in diameter predominates on all the flats and terraces that border the river. They are all second growth as there is unmistakable evidence of large tracts of country having been burnt over many years ago. Balsam of good diameter are generally abundant a few hundred feet below the timber line, poplars are also numerous but in no place were birch seen, and alder disappeared with the first mile.

From the 62nd mile to a certain distance on the branches of the Skeena the bottom of the valley is generally void of timber. Thick and low bushes are very common throughout the valley, being abundant near the timber line and open places, increasing the difficulty in travelling and rendering the walking very tiresome.

No devil club was noticed and good feed for animals is abundant at a suitable distance.

The climate, though very wet this season, must be a dry one. The grass is of a bunch grass character usually found in dry regions. The bunch grass itself is very abundant, and the absence of moss which clings to the trees in wet climates is a further proof of the dryness of the country referred to.

The absence of fruit, such as wild berries, is due probably to the frost which is by no means a rare occurrence, even in the bottom of the valley and at any time during the year. The patches of snow are numerous in the mountains and sometimes extend within one thousand feet above the bottom of the valley.

From the above statement it would be premature to draw any conclusions in regard to the agricultural features of the country. It is true there is some direct evidence that the country is cold, but it must be borne in mind, however, that the spring of 1899 in this part was exceptionally late, being fully a month behind. The area of land suitable for agricultural purposes is not very extensive, but there are some large flats here and there where the land is of good quality.

Referring to the mineral prospects of the country, the observations made were not sufficient to derive any definite conclusions. Colours of gold were found on the shores and bars of the Stikine mostly anywhere up to the 38th mile, where they disappeared entirely. At the 48th mile there is a red mountain which must be a part of a mineral belt extending practically east and west. According to some Indians some rich quartz has been found on this mountain.

The formation is chiefly conglomerate and sandstone up to the 56th mile, where limestone, slate and shale were first noticed. The veins of quartz are numerous, but not generally of working thickness.

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In the event of the construction of a railway, a discovery which might become important was made on Tenasse Creek, it is a vein of coal about 10 feet thick. The coal seems to be impure, but what was seen was at the surface and exposed to the action of the atmosphere. This vein also appears on the Glacier branch at a short distance from Tenasse Creek. Several indications of coal were also noticed in the surrounding gulleys, and even on top of the mountains, but in small quantities.

Wild animals are numerous, each kind seeming to have adopted their own mountain or runs. Photograph No. 20 shows the operation of skinning a cariboo that was killed by one of the axemen with a revolver (38 calibre). There are few beaver left, but they used to be plentiful in that low and level section extending from the 28th to the 56th mile. The numerous old Indian camps that are still visible on that section testify to the fact.

Some large gray wolves were seen and a few traces of bear. Porcupine are numerous nearly everywhere, and groundhogs were seen by hundreds in the valley and on the mountains in the vicinity of the junction of the East and Glacier branches.

The species of birds that live in that section during the summer are confined to very few. Only one bluejay and a few moose birds were noticed. Ducks and wild geese are not very numerous, but ptarmigan and grouse are plentiful. Fish are generally scarce in the Stikine, but some of the tributaries seem to contain a few. Salmon do not apparently ascend the Stikine above the Big canyon.

TRAILS.

From Telegraph Creek there are now two trails by which the head waters of the Glacier branch can be reached. The shorter one is the old cattle trail which starts from Telegraph Creek and cuts across the country in a north-easterly direction until the mouth of the Clappan or third south fork of the Stikine is reached, and then it follows the valley of the Clappan and runs through a gap close to the head of Tenasse Creek, and continues on high ground until the west branch of the Stikine is reached.

From the mouth of the Clappan there is a branch trail not used now that crosses the Stikine and connects on the divide between Ptarmigan and Gnat Creeks, with the trail followed by J. S. O'Dwyre in the summer of 1898, when making an exploration of the country between Dease lake and Stikine river.

The other trail starts from Dease lake, cuts across the country until the Stikine is reached and then follows the river to the crossing of the West branch, where it joins the old cattle trail referred to.

The distances are as follows :—

BY OLD CATTLE TRAIL.		Miles.
From Telegraph Creek to crossing of West branch.....		130
“ “ Dease Lake.....		72
		<hr/> 202
From Dease lake to crossing of West branch by following the valley of the Clappan.....		140

These distances were obtained from people who have travelled that trail, and from Indians who travel from Telegraph Creek to the head of Tenasse Creek every year in four days.

BY NEW TRAIL.		Miles.
From Telegraph Creek to Dease lake.....		72
“ Dease lake to crossing of West branch.....		181
		<hr/> 253

64 VICTORIA, A. 1901

Considering the distance of the old trail as being fairly approximate, the old trail will be 123 miles shorter than the new trail from the crossing of the West branch to Telegraph Creek and from the same point to Dease lake a distance of 41 miles is still in favour of the old trail.

The object in giving these distances is to show that a line much shorter might be obtained to Telegraph Creek or Dease lake by following the valley of the Clappan instead of the Stikine river and Gnat Creek to Dease lake.

No trouble will be experienced to pass from the East or Glacier branch, to the branch of the Clappan, shown on plan accompanying this report. The Indians describe the valley of the Clappan as being flat and wide.

The following is an approximate estimate of cost of railway line complete extending from the initial point of the exploration to the divide of the East and Glacier branches. It is plain that an estimate of the kind is only an imperfect one of the cost, as it might change considerably by locating the line properly. The time employed to complete the line, the degree of perfection of the construction, the changes in the cost of material and the wages are all factors which will regulate the cost. Therefore the estimates are based on eastern cost.

The work to be done could be classified as follows:—

From the initial point to the junction of the East and Glacier branches, a distance of 68 miles there are 62 miles of light work and 6 miles of medium work.

From the 68th mile to the divide on the East branch, a distance of 18 miles, there are 17 miles of light work and 1 mile of medium work.

From the 68th mile to the divide on the Glacier branch, a distance of 10 miles, there are 7 miles of light work and 3 miles of medium work.

No length of any importance from the initial point to the 68th mile could be classed as heavy work, and it is the same following the East or Glacier branches.

From the two divides by following one branch or the other of the Skeena river to their junction, the work will be very light for at least a distance of five or six miles.

COST OF PERMANENT WAY.

Steel rails, 70 lbs., 110 tons at \$33.....	\$ 3,630 00
Angles plates, 30 lbs., 704 plates = 21,120 lbs. at 2½c.	528 00
Bolts, 1 lb. each = 2,103 lbs. at 4c.....	84 12
Spikes 5½ x ⅞ = 6,500 lbs. at 3c.....	195 00
Ties, 2,640 at 25c.....	660 00
Washers and rubbers.....	25 00
Track laying, per mile.....	250 00
Ballasting, 2,000 cubic yards at 35c.....	700 00
	<hr/>
	\$ 6,072 12

COST OF CONSTRUCTION ONE MILE OF RAILWAY.

Light Work.

Clearing 12 acres at \$20.....	\$ 240 00
Close cutting, 2 acres at \$35.....	70 00
Grubbing, 2 acres at \$40.....	80 00
Earth work, 15,000 cubic yards at 22c.....	3,300 00
Rock work, 500 cubic yards at \$1.50.....	750 00
Under drain and small wooden bridges.....	1,500 00
Engineering, station, water supply, telegraph, siding... ..	1,500 00
	<hr/>
	7,440 00
Contingencies, 10 per cent.....	744 00
Permanent way.....	6,072 12
	<hr/>
Total.....	\$ 14,256 12

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Medium Work.

Clearing 12 acres at \$25.....	\$	300 00
Close cutting, 2 acres at \$40.....		80 00
Grubbing, 2 acres at \$40.....		80 00
Earth work, 50,000 cubic yards at 25c.....		12,500 00
Rock work, 2,000 cubic yards at \$1.50.....		3,000 00
Under drain and small wooden bridges.....		3,000 00
Engineering, station, water supply, telegraph, sidings..		1,500 00
Contingencies, 10 per cent.....		2,046 00
Permanent way.....		6,072 00

Total..... \$28,578 00

Bridge across	Length of bridge.	Cubic yards of masonry required.	Price per yard.	Total cost of masonry.	No. of span.	Length of span.	Total length of steel.	Cost per ten feet.	Total cost of bridge.
			\$	\$				\$	\$ cts.
Ducker river.....	250	3,000	1,200	36,000	3	75	50	10,250	46,250 00
San-a-bar river.....	100	500	1,200	6,000	1	100	60	6,900	12,000 00
Creek on 20th mile.....	40	500	1,200	6,000	1	40	35	1,400	7,400 00
Slate river.....	75	500	1,200	6,000	1	75	50	3,750	9,750 00
Total.....									875,670 00

From the initial point to the divide on the East branch the total mileage is 86 miles. The cost will be—

79 miles of light work at \$14,256.12 per mile..... \$1,126,233 00

7 " medium " \$28,578 " 200,046 00

Total..... \$1,401,949 00

Average, \$16,301.73 per mile.

By following the Glacier branch from the initial point to the divide, the distance will be 77 miles. The cost will be—

68 miles of light work at \$14,256.12 per mile..... \$ 969,416 16

9 " medium " \$28,578 " 257,202 00

Cost of permanent bridges..... 75,670 00

Total..... \$1,302,288 16

Average, \$16,912.83 per mile.

As previously stated the distance will be five miles longer to the point where the two branches of the Skeena meet by following the Glacier branch than by following the East branch.

Before closing this report, I might state that ballast of good quality is plentiful, also good sandstone for masonry work.

I have the honour to be, sir,

Your obedient servant,

V. H. DUPONT,

Engineer in Charge.

OTTAWA, January 8, 1900.

COLLINGWOOD SCHREIBER, Esq. C.M.G.,

Deputy Minister and Chief Engineer,

Dept. Rys. and Canals, Ottawa, Ont.

REPORT ON THE FIELD OPERATIONS PERFORMED DURING THE SEASON OF 1899, IN CONNECTION WITH EXPLORATIONS FOR A RAILWAY ROUTE FROM THE STIKINE RIVER TO AN OCEAN PORT IN BRITISH COLUMBIA.

MEMORANDUM.

Accompanying this report are the following:—

1. Map of explorations. Scale : 1 inch, 2 miles.
2. Profile of explorations.
3. Album of photographs.

The instructions of the Chief Engineer (written and verbal) given me on April 21, 1899, outlined the following operations in the field:—

1. An exploration of the Skeena river northward from Hazelton to the mouth of the east branch of the Skeena, thence along this branch to the vicinity of Fort Connolly.

At this point a junction should be made with the work of Mr. C. F. Dibblee who, during the winter of 1898-9, was expected to have made explorations westward from the mouth of the Omenica river towards Fort Connolly. A personal interview with Mr. Dibblee was to be had, if possible, and his co-operation obtained in the exploration of the east branch of the Skeena.

2. A continuation of the explorations of the Skeena river northward to its head, with the object of discovering a pass suitable for railway construction between its head waters and those of the Stikine river.

Before leaving Ashcroft, I received from the Chief Engineer a copy of Mr. Dibblee's report to him, dated April 1, 1899, in which Mr. Dibblee states:—'Have just finished explorations; getting back to headquarters the 30th ultimo; have found a favourable route via Omenica, Osilnca, headwaters of the Skeena waters, etc.'

Mr. Dibblee's headquarters, referred to above, being at the mouth of the Omenica river, the proposed personal interview with him was now out of the question, as was also the contemplated assistance from him in exploring the east branch of the Skeena.

In my preliminary report on the field operations, dated December 5, 1899, I have noted the circumstances deciding that programme of work for the season, which then seemed to promise the best results attainable, considering the ground to be covered and the information most essential to the work in hand.

Trip by Pack Trail From Ashcroft to Hazelton.

My pack train and party started from Ashcroft, B.C., on the Canadian Pacific Railway, on May 20, travelling via the Caribou road to Quesnelle, thence by the old telegraph trail to Hazelton at the head of navigation on the Skeena, a distance of 550 miles from Ashcroft.

We reached this, the initial point of my field operations, on June 30, having been delayed one day (June 5) at Quesnelle, shoeing horses, arranging packs, etc., and three days (June 27, 28, 29) at the crossing of the Sus-Kwa river, about 13 miles east of Hazelton.

On arriving at the crossing of this river we found the government bridge had been swept away by the early high water, and the river, now 180 feet wide, running at the rate of 8 to 10 miles an hour. As rafting the river was quite out of the question in such swift water, a temporary structure was thrown across it, having a total length of 177 feet, with a clear span of 67 feet over the swiftest water. This bridge was built sufficiently strong to carry loaded pack horses and occupied 3 days in its construction.

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On pages 24 and 25 of the album are photographs of this bridge in its different stages of construction. It might be classed as a cantilever of rather simple design and crude workmanship; however, it served to cross our pack train and two others—comprising 100 horses and mules—the morning after its completion. In the album, pages 1 to 25, are photographs taken during the trip from Ashcroft to Hazelton, giving views along the Caribou road and Frazer river, at Quesnelle village, and at points of interest on the old telegraph trail west of Quesnelle.

On reaching Hazelton, I found that my supplies, ordered at Vancouver and shipped from there on May 27, had not yet arrived, neither was there any certainty of their getting up to this point inside of three or four weeks; fortunately the manager of the Hudson's Bay Company at Hazelton was able to supply me with all the essential provisions, so that I could go on with the exploration without delay.

Explorations from Hazelton to the Skeena-Stikine Pass and North Thereof.

Hazelton, the initial point of my explorations, is situated on the left bank of the Skeena, at the head of navigation, and 180 miles above Port Essington, at the mouth of the Skeena.

At Hazelton the Skeena is joined by the Bulkley (Watson-quah) a large tributary from the east. In the valleys of these two rivers was projected the western portion of 'Route No. 1' of the original Canadian Pacific surveys, connecting Port Simpson, on the coast with Edmonton, in the North-west Territories, via the Skeena and Bulkley, the head waters of the Fraser, the Yellow Head Pass, and the head waters of the Athabaska and Saskatchewan rivers. (See Canadian Pacific Railway Report, 1880.)

Observations were obtained at Hazelton for variation of the magnetic needle and also for latitude, these latter agreeing fairly well with those recorded by Dr. Dawson. (See Geological Survey Report for 1879-80, page 164 B.)

Field Operations.

From Hazelton a track survey was carried throughout the season's work, with checks thereon by numerous observations for latitude, and an approximate profile of relative altitudes was obtained by continuous barometric readings.

A favourable route for railway construction was obtained from Hazelton, following the Skeena river to the Skeena-Stikine pass (216th mile) thence northward down a branch of the main Stikine river 14 miles to a point 230 miles from Hazelton, which was subsequently ascertained by Mr. Dupont to be 65 miles from the east end of my explorations of 1898 on the main Stikine river. This latter point being 111 miles from the head or south end of Dease lake, and approximately 135 miles from Telegraph creek (via the Stikine river) thereby making the distance from Hazelton to Dease lake 406 miles, and from Hazelton to Telegraph Creek about 430 miles (via the Skeena and Main Stikine river).

From Hazelton to the 230th mile of my explorations, the route forms part of the proposed railway line from Port Simpson, on the Pacific Ocean, to Lake Teslin at the head of navigation for light steamers, on the Teslin or Hootalinqua river, whose waters ultimately reach Dawson City via the Lewes and Yukon rivers, and thus give access to the Yukon district generally.

For descriptive purposes the route from Hazelton following the main Skeena river to its head, through the Skeena-Stikine Pass, and thence northward down the Stikine to the point where my explorations in that direction terminated, a distance of 230 miles, and which I will designate 'The Ocean Port Line' is divided into the following four sections:—

Section I.—Hazelton to the 55th mile

Section II.—55th to 125th mile.

Section III.—125th to 190th mile.

Section IV.—190th to 230th mile.

NOTE.—The remaining explorations do not appertain to the ocean port or main line, and are described under section V.

OCEAN PORT LINE.

SECTION I—55 MILES.

Hazelton to the 55th Mile.

The initial point of the projected line is placed on the terraces of the west or right bank of the Skeena, opposite Hazelton village, at an elevation of 40 feet above the ordinary water level. Thence the line follows on the terraces of the right bank to the $6\frac{1}{2}$ mile, opposite the mouth of the Kis-py-ok river, ascends this river by the right bank to the $7\frac{1}{2}$ mile, where it crosses the Kis-py-ok and passing north of the Indian village, again reaches the right bank of the Skeena near the $8\frac{1}{2}$ mile. From here the line follows the Skeena river to the 55th mile, keeping well up on the terraces at a height of 25 to 75 feet above the ordinary water level. The quantities in the construction work will, of course, depend on the alignment and grades adopted in location. But generally speaking reasonably light to medium work can be obtained throughout, with probably not more than two miles of heavy work, without introducing local grades of over 1 per cent, or curves in excess of 8 to 10 degrees. The profile of this section shows an average river grade of 9 feet per mile.

The banks of the river are generally well timbered with medium poplar and spruce, and considerable good cedar between Kis-py-ok and the vicinity of the Babine river mouth, so that ample timber for ties and temporary structures is near at hand.

The terraces show chiefly gravel, but sandy clay will be encountered at some points; ballast material is abundant.

Opposite the 34th mile the Babine river enters the Skeena river from the east by a deep rock walled canyon.

From the Indian village of Kit-kar-gasse on the Babine, five miles above its mouth, a foot trail leads across the Atna mountains to the south end of Bear lake.

The approximate cost of construction on this section may be estimated as follows:—

17 miles light work at \$14,000 per mile.....	\$ 238,000
30 " " to medium work at \$18,500 per mile..	555,000
6 " medium work at \$23,000 per mile.....	138,000
2 " heavy work at \$35,000 per mile.....	70,000
55 " work (average rate) at \$18,200 per mile...	1,001,000
Permanent structures, Kis-py-ok river bridge and Canoe creek crossing	29,000
Total.....	<u>\$ 1,030,000</u>

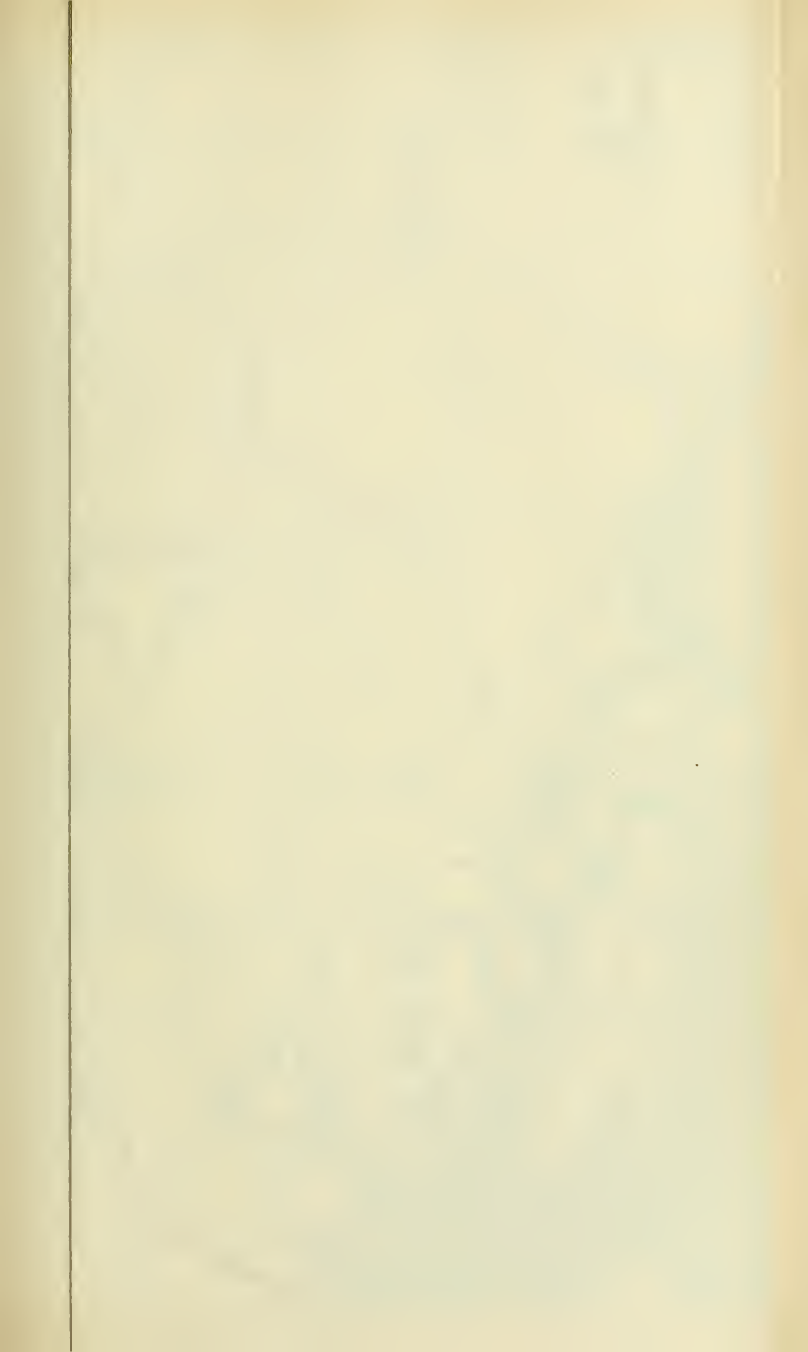
Alternative Line via the Kis-py-ok River.

An alternative route from the $7\frac{1}{2}$ to the $52\frac{1}{2}$ mile of the main line could be obtained via the Kis-py-ok river. It would leave the previously described line at the $7\frac{1}{2}$ mile, and keeping on the right bank ascend the river to the 18th mile, then crossing to the left bank follow the river to the 28th mile, where it turns from the river and gradually rises to the summit of the 40th mile. From here it would descend to the valley of Canoe creek, and by this valley reach the Skeena at the $52\frac{1}{2}$ mile of the main line with a saving of about $4\frac{1}{2}$ miles in distance.

This line would necessitate a summit of the 40th mile (some 700 feet higher than the Skeena at this mileage) which could be approached from the south by grades, approximating 1 per cent for 13 miles, while the descent north to the Skeena would demand 8 miles of $1\frac{1}{2}$ per cent.

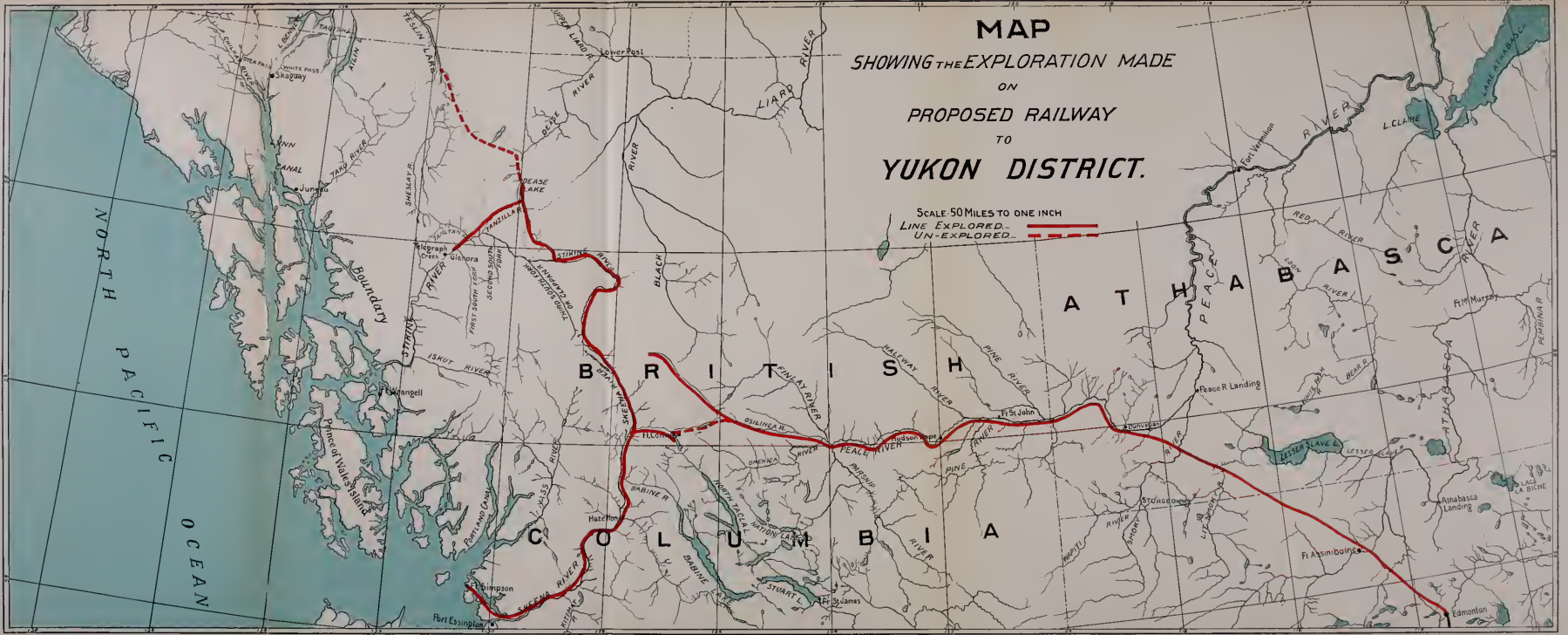
Suitable timber for temporary structures, ties, etc., can be had all along this line, and gravel for ballast at numerous points.

Stone for bridge abutments and piers will be found adjacent to the locality of the permanent structures.



MAP
SHOWING THE EXPLORATION MADE
ON
PROPOSED RAILWAY
TO
YUKON DISTRICT.

SCALE 50 MILES TO ONE INCH
LINE EXPLORED. ————
UN-EXPLORED. - - - - -



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The 48 miles from zero to the junction of the main line may be classed as:—

35 miles of light work at \$14,000.....	\$	490,000
11 " " medium work at \$23,000.....		253,000
2 " " heavy " at \$35,000.....		70,000
Total.....	\$	813 000

The permanent structures would be:—

Kis-py-ok river bridge.....	at 18th mile.
Canoe Creek crossing.....	at 44th "

For comparison with the main line the question of the permanent structures may be neglected as the first is of the same dimensions on each line, while the crossing of the Canoe creek will be somewhat shorter on the alternative line:—

Hazelton to 52½ mile, main line at \$18,200 per mile (page 8).....	\$	955,500
Hazelton to 52½ mile, via alternative line, 41 miles (page 9).....		813,000
Difference.....	\$	142,500

It would be advisable to have instrumental surveys made over each of these routes before finally accepting either of them.

Photographs on the following pages of the album illustrate points along the route of this section:

Page 26—

Nos. 366 and 367. Views of the junction of the Bulkley and Skeena rivers ('The Skeena Forks'), a half mile below Hazelton. No. 368. Looking up the Bulkley from same point of view as the above. No. 370 View over Hazelton to the terraces on the right bank of the Skeena, where the projected line is placed.

Pages 27, 28 and 29—

Views at Hazelton.

Page 30—

Nos. 171 and 172. Views down the Skeena from terraces above Hazelton, the snow tipped 'Rochers Deboules.' Nos. 339 and 340. 'Glen Meadow Ranch' on the left bank of the Skeena, 4 miles above Hazelton.

Page 31—

Nos. 337 and 338. Right bank of the Skeena below Kis-py-ok. Nos. 180 and 336. View of high and low water at the ferrying point of the Skeena, above Kis-py-ok village.

Page 32—

Upper picture. Indian village of Kis-py ok with the Skeena in the foreground. In the rear of this village lies the Kis-py-ok river, joining the Skeena at the extreme left of view. Lower picture. View of the Skeena from a point on the left bank opposite the Indian village, and just below the mouth of the She-gu-nia river, which here enters the Skeena from the east.

Page 33 and 34—

Views on the Kis-py-ok river, along the route of the alternative line.

Page 35—

No. 185. View across the Skeena from the 55th mile. No. 186. View down the Skeena from the upper terrace at the 55th mile.

OCEAN PORT LINE.

SECTION II.—FROM THE 55TH TO THE 125TH MILE—70 MILES.

This section covers the 70 miles intervening between section I and the mouth of Sestoot river (or East branch of the Skeena).

The projected line now enters what may be termed the canyon section of the Skeena, with river grades averaging 15 feet per mile. It is placed throughout this section, with few exceptions, on the terraces of the right bank of the river, which rise in generally well defined tiers from the water to the foot of the mountains hemming in the valley.

The line will vary in height from 25 to 75 feet above the ordinary water level.

After crossing the Alawkish River at the 58th mile, just below the Indian suspension bridge, it rises to the terrace on which Kuldo village is situated, 60 to 75 feet above the water, and thence maintains its position on the terraces with a varying altitude above the river.

At the 67th mile the site of the old Indian village of Kuldo is passed, now only marked by numerous graves and a few weather-beaten totem poles.

A mile above Old Kuldo the line passes around Pool Canyon (photograph 193, page 36), and is here thrown back into pretty heavy work of which a good portion will be rock, even at the height of 60 to 70 feet above the river, as the base of the hills crowd down to the river.

Apart from the crossing of several creeks in rather deep canyons which will necessitate high trestling, there is no new feature to remark on. A high grade line must be adopted, in my opinion, throughout this section in order to obtain good alignment and grades, and to avoid the rock work which a low one would necessarily entail.

Heavy work will be met with in a few places along canyons, but this can hardly be avoided without seriously affecting both grades and alignment.

Between the 124th and 125th mile a sharp bend of the river around a high rock point will necessitate a tunnel of 400 to 500 feet in length.

At the 125th mile the projected line passes opposite the mouth of Sestoot river (entering the Skeena from the east), and emerges from this section, which entails the heaviest work on the whole route examined.

APPROXIMATE COST.

23 miles light work at \$14,000.	\$ 322,000
40 " medium " 23,000.	920,000
7 " heavy " 35,000.	245,000
—	—
50 " average at \$29,740.	\$1,487,000
Permanent structures.	\$ 182,000
Tunnelling.	20,000
—	—
Total.	\$1,689,000

Average per mile—\$33,780 including structures and tunnelling.

PHOTOGRAPHS.

Page 35—

No. 187. The Alaw-Kish river, one-half mile above its junction with the Skeena.

Page 36—

No. 191. The Alaw-Kish river, near proposed crossing, showing Indian suspension bridge over canyon.

Nos. 188 and 189. Details of Indian bridge (built of poles secured by withes).

No. 193. Pool Canyon, at 68th mile, looking up stream from high banks below the pool.

Page 37—

Nos. 194 and 195. View down Skeena from bluffs above Trout creek.

Nos. 199 and 200. The Skeena at 92½ mile.

SESSIONAL PAPER No. 20

Pages 53 and 54.—

Views of the Skeena between the 100th and 125th mile, and of the mouth of Sestoot river at 125th mile.

OCEAN PORT LINE.

SECTION III.—125TH TO 190TH MILE—65 MILES.

In this section is comprised that portion of the Skeena river which I had not time to examine, owing to the advanced state of season, (as noted in my preliminary report.)

However, I was able to form a fairly accurate idea of the general character of this part of the Skeena from what I saw of the upper 15 miles and of the lower few miles near the Sestoot. My Indian guide was able to give me some information too in a general way, as he had been over this section several times.

It appears easier country for railway construction than Section III; the river grades are about $11\frac{1}{2}$ feet per mile and the valley well wooded throughout.

The work might be classed as 50 per cent light and 50 per cent medium, viz:—

32 $\frac{1}{2}$ miles at \$14,000	\$ 455,000
32 $\frac{1}{2}$ miles at 23,000	747,500
65 miles at 18,500 (average.)	
	<u>\$ 1,202,500</u>

PHOTOGRAPHS.

No. 299, page 54, and 300, page 55, are views looking up this section of the Skeena river from near the 125th mile.

SECTION IV.—190TH TO 230TH MILE (40 MILES.)

This section comprises the upper 26 miles of the Skeena river, reaching to the summit between it and the Stikine waters, and the upper 14 miles of the west branch and combined east and west branches of the main Stikine river.

This portion of the Skeena is a mountain stream, with an average grade of 54 feet per mile to the summit (at the 216th mile.)

It runs through a narrow valley, one to one and a half miles wide, running almost north and south. The projected line is on the low terrace that generally follows the river at a height of 15 to 25, and in some cases 40 feet above the water. The line crosses from the right to the left bank at the 193rd mile and remains on that side to the summit, and thereby avoids all but one of the large lateral tributaries of this upper portion of the Skeena.

The summit is at the 216th mile, with an altitude of 4,410 feet above the sea, and from here the projected line follows down the west branch of the Stikine to the 226 $\frac{1}{2}$ mile, where the east and west branches unite. At this point the line crosses over to the right bank of the united streams and remains there up to the 230th mile. Here my explorations northward terminated, and after erecting prominent reference posts for the information of Mr. Dupont, who was working up this branch of the Stikine river, and reached here a couple weeks later, I began our return trip southward to the Sestoot river.

APPROXIMATE COST.

The work in this section may be classed as follows:—

34 miles light work at \$ 14,000	\$ 476,000
6 miles medium work at 23,000	138,000
40 miles at average of 15,350	
	<u>614,000</u>
Permanent structures	36,000
Total	<u>\$ 650,000</u>

Mean rate per mile, \$16,250 (including structures.)

20—i—11 $\frac{1}{2}$

GRADES.

As noted before the average river grade to the summit is 54 feet per mile from the 190th to the 216th mile, thence on the north side of the summit a grade of 24 feet per mile for $2\frac{1}{4}$ miles, then one of 63 feet per mile to the 226 $\frac{1}{2}$ mile, and finally one of 8 feet per mile to the 230th mile.

Timber in this section is generally small to medium size spruce, jack pine and poplar, but is sufficiently large for ties and such temporary structures as are demaded.

BALLAST.

A supply can be had fairly convenient to the works.

PHOTOGRAPHS.

Pages 42 to 47, and 50 to 52 of the album give views taken along this section.

Exploration over the Clappan Summit to the Waters of the Clappan or 3rd South Fork of the Stikine.

These explorations were made to ascertain whether it were feasible to carry a railway line over this summit into the valley of the Clappan, which would give a shorter route to Dease lake and Telegraph creek than the one now being explored via the main Stikine river.

I found the summit to be 1 076 feet above the Skeena-Stikine summit at the 216th mile, and sufficiently distant to admit of a development reaching to 10 miles. Of this distance about $4\frac{3}{4}$ miles would be at a grade of 1 per cent and $5\frac{1}{4}$ (the upper portion) at 3 per cent.

From the summit northward to the Clappan valley a 2 per cent grade would be necessary for about 5 miles.

The work on the south approach to the summit would be heavy, the cuts chiefly in rock, with several high trestles and considerable sharp curvature.

The 15 miles from the Skeena-Stikine summit to the Clappan valley may be classed as 2 miles of medium work, and 8 miles of heavy on the south approach, and 5 miles of medium work on the north descent to the river valley.

On page 48 of the album, photographs Nos. 264, 266 and 270 are views on the south approach to the Clappan Summit.

On page 49, Nos. 267 and 268 give a view of the summit pass, a barren treeless expanse.

No. 269 is a view of the upper part of the Clappan valley.

It is possible, as these explorations show, to carry the railway line from the Skeena-Stikine summit (at the 216th mile) into the valley of the Clappan river, by way of the Clappan summit.

Thence it is most probable a route could be obtained by this valley to the junction of the Clappan and Main Stikine rivers, a point probably some 10 or 15 miles below where my line of last season from Dease lake first strikes the Stikine river valley (59 miles south-east of the lake). From the forks of the Clappan and main Stikine the line could no doubt be extended to Dease lake, connecting with last years explorations at some point in the valley of Gnat creek near the 25th mile, and thus eliminate the main summit and severe grades between the 25th and 49th miles, as noted on page 21 of my report of 1898.

The proposed line could also, no doubt, be carried down to Telegraph Creek by the valley of the Stikine from the forks above mentioned.

A route as outlined via the Clappan, would effect a considerable reduction in distance compared with that by the main Stikine, probably some 40 to 45 miles; although of this, and of the relative cost of construction nothing certain can be stated until explorations have been made over the suggested route.

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SECTION V.

Under this head are placed the explorations made eastward from the mouth of Sestoot river (on east branch of the Skeena), along this river to the mouth of Bear river, thence up this latter river and Bear lake to the divide separating these waters flowing to the Skeena, from the head waters of Driftwood river flowing into North Tacla lake, and eventually reaching the Fraser river. The explorations were extended south of this divide to the second or lower of the two lakes at the head of Driftwood river, in all a distance of 39 miles eastward from the 126th mile on the Skeena river, of the main or ocean port line.

These explorations pertain to the proposed railway line westward from Edmonton, N.W.T., via the Peace and Omenica rivers, to a junction with the ocean port line on the Skeena river. This proposed junction being by way of the lower Omenica, the Osilnca to its head waters (as has been already explored by Mr. Dibblee), thence over the divide, if practicable, and westward by Sestoot lake and river to the Skeena.

The practicability of getting over the divide from the Osilnca waters to those of the Sestoot being as yet undetermined, it is worthy of note here, that a feasible route can probably be obtained by following up the Omenica river to the mouth of Fall river, thence by this river to Hogen pass.

From this pass the line could descend to the valley of the Driftwood, reaching the latter either at Bulkley House or at some point further up the river.

MOUTH OF SESTOOT RIVER TO MOUTH OF BEAR RIVER—18 MILES.

This portion of the eastern explorations forms a link in the proposed line from Edmonton to the Skeena river, via Sestoot lake and river.

The line is projected eastward from the vicinity of the 126th mile of the ocean port line.

It crosses the Skeena at this point and ascends the Sestoot valley on the right bank of the river to the 12th mile (a half mile above the Indian suspension bridge), where it crosses to the left bank and remains on this side, to the mouth of Bear river, near the 18th mile.

Owing to the lateness of the season when we reached this point it was impracticable for me to attempt extending our work to Sestoot lake, although I was anxious to do this, expecting that there at least Mr. Dibblee's line would be found and a connection made with his work.

Since my return I have ascertained that Mr. Dibblee's explorations did not reach Sestoot lake, but after passing the summit at the head of the Osilnca river passed some distance to the north of this lake. Therefore, even had we been able to reach Sestoot lake, the expected connection could not have been made.

Sestoot river being the only outlet to the Skeena from Sestoot lake, it will necessarily have to be followed westward from the lake to the Skeena.

The Sestoot river from the 12th to the 18th mile may, from the information I was able to obtain of the Indians at Bear lake, be taken as a general type of the topography along the remaining upper part. A good deal of canyon country will likely be met with, but the line could probably be placed on terraces back from the immediate bank of the river.

The approximate cost of construction of these 18 lines may be estimated as follows:—

12 miles light work at \$14,000	\$	168,000
4 " medium work at \$23,000		92,000
2 " heavy " at \$35,000		70,000
18 " at an average of \$18,333	\$	330,000

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Permanent structures :—

Skeena river bridge\$	35,000	
Sestoot " "	20,000	
Bear " "	15,000	
			\$ 70,000
A total of	.....	\$	100,000

Averaging \$22,222 per mile, including permanent structures.

GRADES.

The river grades vary from 8 to 10 feet per mile for the first 9 miles, and from 33 to 35 feet per mile for the remainder. So that it need hardly be anticipated that local grades in excess of 1 per cent will be required at any point.

The alignment is good, with the exception of about half a mile just above the Indian bridge, where rather sharp curvature will be necessary in getting around a bend of the river.

From the 17th mile on the Sestoot river to the 39th mile the explorations pertain to the Driftwood line.

I may add in explanation that being obliged to extend our trip to Port Connolly (at the lower end of Bear lake) in order to obtain information of the Indians regarding the trails and country in this vicinity, the examination of Bear river and of Bear lake to its head, thence to the Driftwood waters, occasioned but two days delay. These explorations established the feasibility of this portion of the suggested route from the Omenica river via the Driftwood to the Skeena waters.

The projected line is placed on the left or east bank of Bear river, and the East shore of Bear lake.

The divide at the head of Bear lake is a low gravelly ridge, and offers no obstacle to good alignment and easy grades. The line is continued south along the east side of the small lakes forming the head of Driftwood river, near the 23th mile.

For an approximate estimate of cost, these 22 miles may be classed as :—

5 miles light work at \$14,000 per mile	..... \$	70,000
17 " medium work at \$23,000 per mile	.....	391,000
22 " at an average cost of \$20,955 per mile	..... \$	461,000

GRADES.

The grades of Bear river is approximately 40 feet per mile to its head at Bear lake. A maximum of 1 per cent may be demanded over portions of this line along the river. A generally level grade can be obtained without excessive work along Bear lake to the Driftwood river. The alignment on these 22 miles will be good.

TIMBER.

An abundant supply of timber for ties and temporary structures can be readily obtained along Sestoot river, Bear river and Bear lake.

BALLAST.

Material for ballast is to be had at sufficiently convenient places.

PHOTOGRAPHS.

On pages 54, 55 and 56 of the album are views illustrating this section.

NOTE. Before leaving this section, I would refer to the explorations made by Mr. Horetzky in 1879, from Bear lake via the Driftwood river, the head of Tacla lake (Buckley House), and the Hogen Pass to a point on the Omenica river, about 50 miles above its mouth (Report Canadian Pacific Railway, 1880, pages 78 and 82). From Mr. Horetzky's report it appears that a feasible route for a railway line can be obtained from the mouth of the Omenica river to Bear lake, as outlined above. From Bear lake to the Skeena river my explorations show that a favourable line can be obtained. This route to the Skeena via Hogen's Pass is certainly a longer one than that proposed by way of the Osilinka river and Sestoot lake, but it offers an alternative should further explorations demonstrate that the Sestoot lake route is not practicable.

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GENERAL REMARKS.

The description of the routes examined has now reached the end of my explorations of this season.

These explorations covered some 360 miles of actual survey and reconnaissance of which I have now reported on the following as feasible, viz:—

Ocean port line.....	230 miles.
Clappan summit line	15 “
Sestoot river and Bear lake line	39 “
Alternative line via Kis-py-ok river.....	41 “
Total.....	<u>325 miles.</u>

MATERIAL FOR CONSTRUCTION.

Timber suitable for ties and temporary structures can be had without difficulty along the entire line, excepting on the portion over the Clappan summit.

Ballast is available at sufficiently numerous points.

Stone for bridge abutments and piers can be obtained near the site of these structures.

APPROXIMATE ESTIMATE OF COST.

A summary of the approximate estimates, previously noted, of the cost of construction (road-bed and permanent way) is as follows, prices being based on the cost of similar works in Eastern Canada:—

OCEAN PORT LINE.	
Section I.....	\$ 1,030,000
“ II.....	1,689,000
“ III.....	1,202,500
“ IV.....	650,000
Total.....	<u>\$ 4,571,500</u>

That is 230 miles at an average cost of \$19,876 per mile.

The alternative line on section 1, via the Kis-py-ok river, would reduce this total by \$142,500 (See page 10).

HAZELTON TO PORT ESSINGTON.

This portion of the Skeena has been examined and reported on by the following engineers:—

Mr. H. J. Cambie, C.P.R. Report, 1878, page 38.
Mr. H. A. F. McLeod “ “ 1888, “ 58.
Mr. G. A. Keefer “ “ “ “ 71.

On pages 57 to 63 of the album of photographs are views taken at different points during the canoe trip from Hazelton to Port Essington. They give a fair idea of the nature of the river, and of the country immediately adjacent thereto.

FORT SIMPSON.

A general description of this harbour, conceded by all authorities to be the finest on the Pacific coast north of Vancouver's island, may be had by reference to the reports of the following engineers and officers of the navy:—

Mr. H. J. Cambie, C.P.R. Report, 1878 page 38.
Rear Admiral De Horsey “ “ “ “ 62.
Commander Hanmer “ “ “ “ 64 and 65
Mr. H. J. Cambie “ “ 1880 “ 38.
Mr. H. A. F. McLeod “ “ “ “ 57.
Mr. G. A. Keefer “ “ “ “ 71.

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On page 65 of the album of photographs are views taken in Work channel (called 'Wark Inlet' in some reports). A good view of Port Simpson and its harbour is shown on page 66, and detail views of the same on page 67.

CONCLUSION

In concluding this report I would state that the explorations were carried out without any accident of consequence. All members of my party gave satisfaction, more especially my assistant, Mr. F. J. Robinson, to whose energy and efficiency is largely due the success attending our season's work.

The whole respectfully submitted,

JOHN S. O'DWYER,

Mem. Can. Soc. C. E., Engineer in Charge.

March 1, 1900.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Chief Engineer, Department of Railways and Canals.

GRANBY, Que.,
March 1, 1900.

SIR,—I have the honour to transmit you herewith my report on the explorations in connection with a railway line from the Stikine river to an ocean port in British Columbia, carried out under your instructions during the season 1899.

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

JOHN S. O'DWYER,
Engineer in Charge.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Chief Engineer, Department of Railways and Canals,
Ottawa.

GRANBY, Que.,
March 23, 1900.

SIR,—I have the honour to transmit you herewith a 'resume of the results to date of explorations for a railway route to the Yukon district.'

Accompanying it is a map of the province of British Columbia, on which the explorations already made are shown by full red lines, and the unexplored routes by broken red lines.

This map is forwarded you by express.

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

JOHN S. O'DWYER.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Chief Engineer, Department of Railways and Canals,
Ottawa.

RÉSUMÉ OF THE RESULTS TO DATE OF EXPLORATIONS FOR A RAILWAY ROUTE TO THE YUKON DISTRICT.

The explorations carried out by the Department of Railways and Canals during the seasons of 1898 and 1899, had for object the examination of the two following lines, viz. :—

1. The Ocean port line, from Port Simpson to Lake Teslin.

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2. The Edmonton Yukon line, from Edmonton westward to a junction with the Ocean port line at some point on the Skeena river.

NOTE.—With this résumé is submitted a map of the province of British Columbia, on which the routes already examined and reported on, are indicated by a *full red line*, while those unexplored are shown by a *broken red line*.

THE OCEAN PORT LINE.

For convenience of description and reference this line may be subdivided as follows:—

Section 1. Port Simpson to Hazelton,

Section 2. Hazelton to the Skeena-Stikine summit.

Section 3. Skeena-Stikine summit to a point on the Stikine some miles above the Great Canyon, or upper portion of the main Stikine river.

Section 4. From the vicinity of the head of the Great Canyon to Teslin lake.

Section 1. Port Simpson to Hazelton. (A. B. on map).

This section was examined, reported on, and a portion instrumentally surveyed during the progress of the original surveys for the Canadian Pacific Railway. (See Can. Pac. Ry. Reports for 1878 and 1880).

Section 2. Hazelton to the Skeena-Stikine summit. (B. C. on map).

Examined, a good route found. (See report of explorations. J. S. O'Dwyer, 1899).

Section 3. Upper portion of the Stikine river.

Examined via the main branch of the Stikine river (C. D. E. on map), a feasible route found. (See report of explorations. J. S. O'Dwyer, 1898 and 1899, and V. H. Dupont, 1899).

This section was found quite practicable for railway construction, but, as a reference to the map will show, it is a circuitous route, whereas if the Clappan river valley were used, it would appear that a much more direct line could be obtained. (C. F. G. on map).

Section 4. Northern section from the vicinity of the head of the Great Canyon to Teslin lake.

This section offers two possible routes to Lake Teslin, viz.:

4a. Via Dease lake and the head of Tuya river. (G. H. K. L. M. on map).

4b. Via the main Stikine river to the mouth of the Tahltan river (G. N. O. on map), and thence to Teslin via the route explored by Mr. W. T. Jennings, C.E., in 1897 (O. P. M. on map.)

UNEXPLORED PORTIONS OF THE OCEAN PORT LINE.

Section 3. The suggested route, C. F. G., via the Clappan river as an alternative to that explored via the Stikine river (C. D. E.)

It has been found on examination that a railway line can be carried from the Skeena-Stikine summit (C) over the Clappan summit (F) into the head of the Clappan valley (Report, J. S. O'Dwyer for 1899, page 18).

This would involve rather severe grades, especially on the south approach. No other pass has, as yet, been found giving access to this valley from the Skeena; but in this connection an examination should eventually be made by way of 'Tenasse Creek,' which joins the main branch of the Stikine about 10 miles below the Skeena-Stikine summit (V. H. Dupont's report of 1899, page 12).

The valley of Clappan river is described by Indians to be wide and flat (V. H. Dupont's report, 1899, page 19).

Therefore, it may not at the present juncture be considered imperatively necessary to explore this valley, as its obstacles to railway construction, although unknown, would in all probability hardly exceed what has been encountered on the Skeena above Hazelton, while if statements of Indians referred to above are reliable, a fairly easy country may be met with.

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Section 4. Route 4a, via Dease lake. (G. H. K. L. M. on map). Explorations are required from the mouth of the Clappan, northerly to a connection with the line explored south from Dease lake towards the Stikine in 1898.)

This route (G. H.) would eliminate the main summit and severe grades encountered between the 25th and 49th miles of the Dease lake to Stikine line. (Report of 1898, page 21.)

Also explorations are necessary over the suggested line (K. L. M.) from Dease lake to Teslin lake, as nothing is known of this country beyond such slight information as was obtained at Telegraph Creek and referred to in report of J. S. O'Dwyer, 1898, pages 9 and 10.

Route 4b, via Stikine and Tahltan rivers. (G. N. O. P. M. on map).

By this route the line would be carried for some 45 miles along that portion of the Stikine called the 'Great Canyon.'

While this canyon section of the Stikine has been examined from Telegraph Creek to the mouth of the Tanzilla river (report J. S. O'Dwyer, 1898, pages 8 and 9), no explorations have been made over the remaining upper portion.

SUMMARY.

The unexplored portions are: (a) The Clappan Valley (C. F. G.); (b) Dease Lake Route (G. H. and K. L. M.); (c) Upper part of Stikine Canyon (G. N.)

NOTE.—The explorations of the (a) Clappan valley do not seem absolutely essential at present; but the ocean port line cannot be regarded as properly examined until explorations are made covering (b) the proposed route from Dease lake to Teslin, and (c) the upper portion of the Great Canyon of the Stikine.

THE EDMONTON-YUKON LINE.

For descriptive purposes this line may be divided as follows:—

Section (1) Eastern or Plateau Section.—From Edmonton to the mouth of d'Echafaud river. (R. S. on map).

Section (2) Middle or Peace River Section.—From mouth of d'Echafaud river to junction of Finlay and Parsnip rivers. (S. T. on map).

Section (3) Western Section.—From junction of Finlay and Parsnip rivers, across the Arctic-Pacific watershed to the Skeena river. (T. V. on map).

Section (1) Eastern or Plateau Section (R. S. on map).—The route outlined on the map from Edmonton to the mouth of the d'Echafaud river was examined and reported on during the progress of the original Canadian Pacific Railway surveys. (Can. Pac. Ry. Report of 1880).

Section (2) Middle or Peace River Section (S. T. on map).—This section was explored and reported on by V. H. Dupont, C.E., in 1898.

Section (3) Western Section (T. V. on map).—This section comprises the country lying nearly due east and west between the junction of the Finlay and Parsnip rivers to the east, and the junction of the Skeena and Sestoot rivers to the west.

The portion of this section lying east of the Arctic-Pacific watershed was explored by C. F. K. Dibblee, C.E., in the winter of 1898-9.

The intervening link, which would cross the watershed and connect the explorations already made on either side, remains as yet unexplored.

Should further explorations show that a practicable line across this divide cannot be had by the proposed route, (Sestoot lake and headwaters of the Osilnica river), an alternative route exists to the south via the main Omenica river, Fall river, (west branch of the Omenica), Hogem Pass, Driftwood river, Bear lake, Bear river and the Sestoot river,—which would make the connection between the Peace and Skeena rivers.

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The map shows this to be a circuitous route ; attention is drawn to it here solely as offering an alternative.

Nevertheless, although it will increase the mileage considerably in comparison with the Sestoot route, it has the advantage of a low summit at Hogen's Pass (3,438 feet elevation) and would traverse a section of country that is now being extensively developed by hydraulic mining.

Explorations were made over this route (in part) for the original Canadian Pacific Railway surveys by Mr. C. Horetzky, C.E., in 1879,—(see Canadian Pacific Railway Reports, 1880, pages 82 and 83).

This examination extended from the head of Driftwood river to Germansen Creek.

Between the Skeena river (mouth of Sestoot) and the head of Driftwood, the country was examined last season. (Report of J. S. O'Dwyer for 1899, pages 20 and 23.)

The remaining unexplored portion from Germansen Creek to the Peace river is thus reported on by Mr. Horetzky :—

Below Germansen Creek the Omenica preserves a nearly placid course through a wide valley, for 15 or 20 miles, after which it becomes rapid, and a canyon, formidable enough in high water, but passable for the frailest canoe when at a low stage, intervenes. This is the "formidable" Black Canyon of Butler's "Wild North Land." A miner informed me that he had ascended from the Findlay branch to Germansen Landing entirely alone in a very small canoe, and that the canyon walls are not high, probably not more than 75 feet, with ample room on either side for road purposes. Below the canyon, as the Findlay mouth is approached, the country is of very low and level character. It is therefore, quite apparent, that no obstacles of any importance would be met with. As regards the question of grades in this unexamined portion of the Omenica, it has been seen that, at Germansen Landing the elevation is 2,457 feet above the sea. Now, assuming the level altitude of the Peace river at the Findlay branch to be 1,700 feet above the sea (and I think this is to be an under-estimate), we obtain a difference of level equal to 757 feet which, evenly distributed throughout the intervening distance, gives a very moderate inclination say of 15 feet per mile, so that upon this score there can be very little room for doubt.

From the geological survey map of the Omenica river there would appear to be some 25 miles from Germansen Creek to the junction of the Omenica and Osilinea rivers, where Mr. Dibblee's line of exploration from the Peace river leaves the Omenica and ascends the Osilinea.

It seems quite safe from the above to assume that a feasible railway line can be had over the entire length of this suggested alternative route, should the necessity arise for abandoning the northern one via Sestoot lake.

FINALLY.

The salient features of the results of all explorations to date, bearing on the ocean port line and the Edmonton-Yukon line, have been herein noted, and such additional explorations outlined as would seem necessary to thoroughly complete the reconnaissance surveys already made over the proposed routes of these two lines.

A comparative mileage table, giving the distances via the different routes is appended.

The whole respectfully submitted.

JOHN S. O'DWYER

March 23, 1900.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,

Chief Engineer, Department of Railways and Canals,
Ottawa.

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COMPARATIVE MILEAGE TABLE.

PORT SIMPSON TO TESLIN LAKE.

(I) via Main Stikine River and Dease Lake.

	Miles.
Port Simpson to Hazelton	175
Hazelton to end explorations (J. S. O'D.) 1899	230
V. H. Dupont's explorations (Stikine) 1899	65
Dease lake to end explorations (J. S. O'D) 1898	111
Dease lake to Teslin (approx.)	136
Total	717

(II) via Clappan River and Dease Lake.

	Miles.
Port Simpson to Hazelton	175
Hazelton to Clappan summit	226
Clappan river (approx.)	85
Clappan mouth to Dease Lake (approx.)	50
Dease lake to Teslin (approx.)	136
Total	672

(III) via Clappan River, Canyon of Stikine and Tahltan River.

	Miles.
Port Simpson to Hazelton	175
Hazelton to mouth of Clappan (approx.)	311
Mouth of Clappan to Tahltan (approx.)	50
Tahltan to Teslin (approx.)	170
Total	706

Note. The route via the Clappan river will lessen the distance by 45 miles (approximately). The Clappan river portion being common to both routes II and III.

EDMONTON-YUKON LINE.

	Miles.
Edmonton to mouth d'Echafaud river (approx.)	400
Peace river section (approx.)	200
Mr. Dibblee's explorations to head Osilina river	90 m.
Unexplored section across Watershed (approx.)	57 m.
Explored east from mouth Sestoot river	18 m.
Edmonton to Skeena river	765
Thence to Teslin via Clappan River and Dease Lake (route II)	372
Total (approx.)	1,137

No. 3.

CANALS

SAULT STE. MARIE CANAL.

SAULT STE. MARIE CANAL, SUPERINTENDENT'S OFFICE,

SAULT STE. MARIE, August 6, 1900.

SIR,—I beg to submit the fifth annual report upon the operation of this canal for the fiscal year ending June 30 last.

The canal was closed for traffic on December 20, having been in continuous operation for 239 days with only one delay during that period, owing to the breaking of a valve rod, and this spring was reopened for traffic on April 23.

During the fiscal year just ended there has been made some 2,475 lockages, passing through 3,615 registered and unregistered craft with a total tonnage of 2,847,554 tons, with an average time to each lockage of 14.85 minutes, this time including all delays to vessels whilst in the lock. Of this tonnage some 574,459 tons was of Canadian bottoms, a gain of 115,942 tons in this item over the last year. In the general tonnage there was a gain over that of last year of 495,388 tons. From the opening of navigation this season (April 23, 1900) up to the end of the fiscal year (June 30) there has been a falling off of the tonnage passing through the canal as compared with the same period last year, of some 102,646 tons. This great falling off in the tonnage of vessels using this canal is the more marked on account of the general increase of the tonnage passing through the river, at this place. The reason, no doubt, of this great decrease (which for the month of July just past alone amounted to 156,007 tons) is accounted for by reason of the shallowness of the water in the lower approach to this canal, and owing to the several vessels having struck bottom in going out, and again another reason has been that a dredge and drill boat have been working in the channel, making it hard work for vessels to come into the lock.

In my last year's report I called attention to the fact that the lower channel of this canal was not deep enough, and that in case of an accident to the large American lock it would be necessary for some vessels to either wait for repairs to be made to the lock or otherwise secure a lighter and lighten their load, so as to be able to pass down through our channel in safety. There are any number of vessels loading down to 18 feet 6 inches, and in one case down to 18 feet 10 inches. In this latter case it would have been absolutely impossible to have taken this vessel down through our lower channel. There should be no delay in dredging the entire lower channel to at least 21 feet. During the season the small amount appropriated to dredging has been expended in starting to lower the grade to 21 feet, and the amount appropriated for this season's dredging is very much inadequate to the amount that will be necessary to do the work required to be done. The day of the large and deep draft vessel is to hand, there being now some 7 or 8 of the 500 foot class with 52 feet beam. As it is now there are several steamers towing schooners that neither the big American lock nor this one can accommodate the two at the same time. There is strong talk and very strong pressure being brought to bear upon the American Congress to have a new lock built on the site of their present old lock, and it is to be some 1,310 feet long and over 100 feet wide so as to be able to take in 4 of the 600 footers, if they are ever built, as it was supposed that the present large lock (called the Poe lock) would when built be large enough to take in at one time four of the largest boats on the lakes for a long time to come, whilst now it cannot take in two of them, and this within four years after its completion.

This is an additional reason that the dredging of our lower channel should be pushed so as to be finished before this new lock is started, otherwise there will be a delay to navigation.

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The mineral and timber resources of the north shore or Canadian side of Lake Superior are being developed in a very marked degree. Since the end of the fiscal year, but before this report was written (July 20, 1900) the first cargo of Canadian iron ore ever shipped from the North Shore was carried by the steamer *Theano* of the Algoma Central Railway Steamship Line, bound from Michipicoten to Midland down through this lock with a cargo of 2,173 tons.

This company, whose headquarters are situated at this place, have now four steamers owned by them and engaged in this ore carrying trade, and next season expect to increase their fleet. To show the increase of the Lake Superior traffic for the last forty years, or since the first opening of a canal at this point, I include a table giving some of the statistics, and I might add by way of remark that the amount of freight carried through the two canals during the month of June last was more than what was carried during the whole season of 1885.

STATISTICS.

Year.	Number of Vessel Passages.	Registered Tonnage of Vessels.	Total Freight Tonnage.	Cost of carrying per mile. Ton.	Estimated value of Freight carried.	Proportion of Freight carried in Canadian Vessels.	Number of Passengers.
1855.	No record	106,296	No system-atic record until 1881		No record kept until 1881.		4,270
1860	"	403,657	"		"		No record.
1865	997	409,962	"		"		19,777
1870	1,828	690,826	"		"		17,153
1875	2,033	1,259,534	"		"		19,685
1880	3,503	1,734,890	"		"		25,766
1885	5,380	3,035,937	3,256,628		"		36,147
1887	9,355	4,897,598	5,494,649	2 $\frac{3}{10}$	79,031,757	7	32,688
1888	7,893	5,130,659	6,411,423	1 $\frac{1}{10}$	82,156,019	6	25,558
1890	10,557	8,454,435	9,041,213	1 $\frac{3}{10}$	102,214,948	3 $\frac{1}{2}$	24,856
1891	10,191	8,400,685	8,888,759	1 $\frac{3}{10}$	128,178,268	4	26,190
1892	12,580	10,647,263	11,214,333	1 $\frac{3}{10}$	135,117,267	3 $\frac{8}{10}$	25,896
1893	12,008	8,949,754	10,796,572	1 $\frac{1}{10}$	145,436,957	4 $\frac{1}{10}$	18,869
1894	14,491	13,119,366	13,193,860	1 $\frac{30}{100}$	143,114,502	3 $\frac{3}{4}$	27,236
1895	17,956	16,806,781	15,062,580	1 $\frac{30}{100}$	159,575,129	3 $\frac{3}{4}$	31,656
1896	18,615	17,249,418	16,239,061	1 $\frac{30}{100}$	195,146,842	4	37,066
1897	17,171	17,619,933	18,982,755	1 $\frac{30}{100}$	218,235,927	3	40,213
1898	17,761	18,622,754	21,234,664	1 $\frac{30}{100}$	233,069,739	2 $\frac{2}{10}$	43,426
1899	20,255	21,958,347	25,255,810	1 $\frac{10}{100}$	281,364,750	3 $\frac{1}{10}$	49,082

The daily exchange of vessel reports with the American canal has been carried on as in former seasons. It is by means of these reports that the statistics given in the table above are secured. We are indebted to their officials for many little courtesies.

During the winter soundings of the greater part of the channels were taken by Mr. Fripp, the engineer in charge of the dredging, but owing to the poorness of the ice he was not able to secure all the necessary information requisite for an accurate plan to be made, but this can be finished next winter.

Extensive repairs were made to the lower main gates, but at the very best they can only be called temporarily repaired, and if they last out the balance of the season they will be doing well. A new pair must be built this winter and be ready for the opening of navigation. All the machinery has been thoroughly overhauled and necessary repairs were made. New valve rods were put in as the old ones were found to be too light for the work required of them. One of the pump shafts broke and upon examination it was decided that they were too small, so new and larger ones were put in both pumps and new brass collars were put on them so as to do away with any trouble with rusting in the bearings and so causing trouble as was in the present case.

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An extension of the lower south pier would be of great advantage to the convenience of vessels using the canal, but I should say that all but necessary repairs should be held in abeyance until the completion of the deepening of the lower channel to 21 feet.

The inside of all the buildings have been painted, and next year all the outside work will require to be done.

A small frame building should be erected for the use of the men when not actually required to be out on the lock wall at work.

Repairs to the south pier will be made as soon as the dredging alongside is completed.

Very little damage has been done to the lock walls or piers by vessels using the same.

I have the honour to be, sir,

Your obedient servant,

J. C. BOYD,

Superintendent.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,

Deputy Minister and Chief Engineer, Canals,

Ottawa.

SOULANGES CANAL.

COTEAU LANDING, September 12, 1900.

SIR,—I have the honour to state that as all the works connected with the completion of this canal are rapidly drawing to a close—the canal itself having been in use for some months—it may perhaps be well to describe, as briefly as possible, the results obtained by following the principles of location and construction advised in my annual report (printed) dated November 5, 1892, which were subsequently approved; and, in the main features at least, practically carried out.

The canal is 14 miles long, and is built on the location line of 1890. The rise of $82\frac{1}{2}$ to 84 feet between the lakes is overcome by four locks. Three of these, each of $23\frac{1}{2}$ feet lift, occur in the first mile from the Ottawa river. There is then a reach of some $2\frac{1}{2}$ miles to the fourth lock, which has a lift of 13 to 14 feet to mean level of Lake St. Francis.

The summit level is $10\frac{1}{2}$ miles long. The difference in height between Lake St. Francis and St. Louis is variable. Their fluctuations extend over a long series of years, the annual changes being comparatively small. The canal is, for all purposes of navigation, a straight line, there being only two curves in its whole length—each of very large radius.

Upper Entrance.—The line of approach from Lake St. Francis is arranged to suit the course steered by vessels taking the north or deep water channel to descend the rapids. To enter the canal a change of direction is made abreast of Coteau Landing light, from about N. E. by E. to N. E. by N.—in which latter line the range lights are placed. This course will be followed for nearly three-quarters of a mile, or until the opening between the piers is reached. The axis of the canal inland for about 2 miles being N. by E. $\frac{1}{2}$ E. or N. 17° 39' E. astronomical.

The range lights are cones of plate steel firmly set upon masonry foundations, with lanterns, railings, etc., complete. The focal plane of that on the head of the north pier is 30 feet over the mean surface of the lake. The inner light is about 1,500 feet inland, and 46 feet over the same plane. Both will show a fixed ruby red light, and will clearly indicate the line to be followed. They will also mark the north edge of the lake channel from the west, so that the slight current which runs diagonally across the entrance will not be sensibly felt on this range. As a matter of fact tows have so far experienced no difficulty from this cause, even though the tugs and barges now in use are wholly unsuited to the enlarged navigation.

The removal of extensive shoals outside has had the anticipated effect of both diffusing the current and diminishing its average velocity, so as to render the approach perfectly safe and easy. The dredging has also improved the steamboat channel to the north of McIntyre's Island. Between the head of this and the Canada Atlantic draw over the river the current increases quickly, and is a point of danger. At the bridge itself the rate is from 5 to 6 miles per hour.

Some rock excavation has been met with in forming the western channel of approach to the canal to the full width marked out. This rock is about to be removed.

From the angle of splay walls forming the head of the guard lock, the north pier is 12,500 feet long, and the south pier 1,650 feet. The width between these is 200 feet. They are formed of cribs 25 feet wide, resting on the clay, and having a concrete wall in front coped with cut stone. There is a line of oak fenders 1 inch x 18 inches secured by L shaped bolts built at intervals into the concrete so that the timbers may be easily renewed. The cribs when sunk were backed up with boulder clay from the dredging which was carried to full height (161) on top of them. This great weight brought the cribs in time to a solid bearing, so that when the face wall (some 8 feet high) was built, not the least change in line or level ensued. A similar plan of construction has been followed at the lower or Cascades Point entrance, which will be described further on.

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To the west of the guard lock the channel between the piers is lighted by electrical lamps of 2,000 candle power each, placed on both sides of the entrance, at intervals of 240 feet.

The mooring posts both here and throughout the canal are of cast iron firmly embedded in cubes of concrete.

Guard Lock, Supply Weir, &c.—The guard lock and auxiliary structures are found to answer the intended purposes satisfactorily. They all stand upon the rock, which also forms the bottom of the raceway to the south. Water is passed for feed through the 'stoney sluices' of the supply weir, and without creating strong currents. These have been guarded against at all points along the line as they are very objectionable, especially in a canal designed for vessels of about 2,400 tons. Through the four openings of this weir (each 9 ft. x 10 ft.) about 135,000 cubic feet of water per minute would enter the canal with a head of only one foot. The tops of these gates are submerged when fully raised even at periods of low water.

The guard lock is 280 feet between quoins and 46 feet wide. The water to fill or empty it is passed round the gate recesses by short tunnels in the side walls. The inverts are of concrete. There is no timber in the foundations of this or any other lock on the canal, except the mitre sills themselves. The lower wings are extended to receive the piers, &c., of a swing bridge, 180 feet long to carry the Canada Atlantic Railway over the canal. There is also a small road bridge over the upper wings. The lock (with extension walls) is 660 feet long.

By grouping these structures together, the minimum delay to navigation is experienced. When the guard lock and bridges are passed, vessels meet with no delay until lock No. 4 is reached, eastward about $10\frac{1}{2}$ miles.

As stated in previous reports there was a depth of 14.66 feet on the mitre sill of the guard lock during the lowest recorded stage of Lake St. Francis in November, 1895. At mean water this is 17.50 feet and at highest water 19.50 feet. All the heights on this canal are referred to mean tide at New York, lines of levels having been run for this purpose between Rouse's Point and Valleyfield. The coping of the guard lock is 161 feet above this plane, and also the top bank line of the summit level. The top of the protection lining is 158. Highest water above referred to is 157.50; which, it is therefore obvious, could not be judiciously admitted into the canal. The usual working level will be (as it is now) about 154.5 or 155.0, at which latter stage there is 17 feet on the m.s. of the guard lock—18 feet at the western end of the summit—and 19 feet at lock No. 4; the fall in the bottom of the canal between these points being about one-tenth of a foot per mile.

Summit Level.—To secure a depth of 14.66 on the head sills as above stated and at extreme low water, involved, however, an addition of at least \$500,000 to the originally estimated cost of the canal in order to lower the bottom plane of the summit level and the foundations of the structures along it from $1\frac{1}{2}$ to 2 feet. But the effects of this precautionary measure will doubtless prove invaluable in the future if, as is generally supposed, the surface of the great lakes and River St. Lawrence is being gradually lowered.

The benefits of the large cross section thus secured, is even now very evident in the navigation of the canal. The summit reach, represents 75 per cent of its entire length. At mean water (155) the area of the prism is over 2,500 square feet. The midships section of a propeller of 'Canadian Canal' dimensions, such as the s.s. *Strathcona* is, at full draught of 14 feet, say 570 square feet; or to that of the canal in the proportion of 1 to $4\frac{1}{2}$. Uniformity of area in the latter is almost secured by increasing the waterway at the bridges. Vessels can pass through at a fair speed without damaging the protection lining, and without danger of collision.

The question of resistance to the motion of vessels in restricted channels has not been fully investigated; but it is certain that with an extra depth under the keel of about 25 per cent of the navigation draught, and a wide channel, the passage of vessels of all kinds must be greatly facilitated and both the time and power required to maintain moderate speed greatly lessened. Steamers of light draught, such as those of the Richelieu, Ontario and Navigation Company, ordinarily pass through the summit reach ($10\frac{1}{2}$ miles) in $1\frac{1}{2}$ hours, or at a rate of over 7 miles per hour.

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Sides.—In the formation of the canal on sections Nos. 8, 9 and part of No. 10, great difficulty was experienced in the attempt to preserve the shape of the prism as originally designed, namely with a bottom width of 100 feet, and side slopes of 2 to 1. The material through which it was cut for a length of over two miles was, to a large extent, a soft greasy blue clay. The depth of this culminated to about 24 feet at the St. Emmanuel road, where, after the canal had been taken out to full dimensions, a slide occurred on October 26, 1897, which swept the north abutment of this bridge (weighing over 2,000 tons) bodily into the centre of the prism, where it sank into the soft clay, leaving only a few feet of its concrete walls above canal bottom line. The slide was over 1,200 feet in length, and a very large amount of blue clay had to be removed and replaced by good material. Minor slides, some of them of large extent, kept perpetually occurring. Various plans were resorted to remedy these, but many of them failed to a quite disheartening extent. However, by persevering in the free use of broken stone in the toes of the slopes—the formation of berms flattening of both sides of the prism, &c., &c., the slide district has at last been into shape—it is hoped permanently. The introduction of water to a considerable depth in the summit level last fall had of course the effect of lessening the number of these slides—indeed it was believed that they had ceased altogether. But subsequently some took place, and more may yet occur. The probability of this is, however, becoming continually less; especially as the banks have stood the severe test of the heavy rains of the early part of the season 1900: many of which were downpours almost tropical in character. It is probable that the repairs to these slides added from \$150,000 to \$200,000 to the originally estimated cost of the canal.

Both the protection lining and sodding of the sides have stood well throughout. It is believed that the plan adopted is both cheap and efficient.

A macadam road has been partly built on the north side of the canal and will likely be entirely finished this fall.

There are four road bridges across the summit level between the guard lock and lock No. 4, viz., at River Rouge, St. Emmanuel, St. Dominique and St. Fereol. These are now turned by hand, but will shortly be operated electrically. The pivot pier of all of them is on the south side of the prism; the canal arm gives the full bottom width of 100 feet for navigation. The bridges have proved quite satisfactory and do not cause any check to the speed of vessels. When open to the canal the road approach is shut to travel by automatic safety bars of simple design, and which answer the purpose effectually. At night the position of the bridge is clearly shown by an arrangement of red and green signal lights.

About midway of the summit level a power house has been erected. A description of this is given in my report of last year. The machinery has worked admirably and there has not been the least interruption to the required supply of electrical power. This has, so far, been confined to lighting—none having been applied to the working of the locks and bridges for reasons which will be given later on. The two sets of four 24 inch wheels give an aggregate of 720 h. p., under 18 feet head. There are two directly connected generators each of 200 k. w. One of these easily yield all the required power. About three-quarters of this—or 270 h. p.—is for the 219 closed arc lamps of 2,000 candle power each, which light the canal throughout its length of 14 miles. The remaining one-fourth will be ample to operate the locks and bridges. It will thus be seen that the whole work can be done by a single unit, the other being always in reserve. The water drawn from the canal for this power creates no perceptible current. The 26,250 cubic feet per minute required is only ten per cent of what might be permitted to flow through the prism without detriment to navigation. The ground around the power house will be planted with trees and levelled—that is on the side next the River à la Grasse, which forms a capacious tail race both for the wheels and waste weir. The foundations of the latter being a mass of concrete on piles pierced by six openings 6 ft. x 6 ft. through which the whole summit level can be emptied if so required.

It is satisfactory to be able to state that the culverts carrying the Rivers, Delisle, Rouge, and à la Grasse under the long reach have proved fully adequate to pass these streams without creating backwater—except of course temporarily during times of freshet—to which the River Delisle is very liable. On no occasion so far, however, has

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the head on this culvert been more than from 18 to 24 inches—which quickly disappears as the flood passes off. The structures themselves are of the most permanent character, being built of cut stone, concrete and iron, so that they will cost almost nothing for maintenance—at least for many years. It has been found that the floods clear the silt out of the ten foot tubes and give sufficient area to pass the diminished flow of the summer season.

It may also be stated here that no leaks have occurred on the summit level,—the eastern end of which is in heavy embankment for several miles.

Lock 4, Guard Gates, Weir, &c.—At the east or lower end of the long reach, on section No. 4, the first of the descending series of locks is met with. Before reaching this, however, there is some 800 feet west of its head, a pair of guard gates, the abutments of which are 46 feet apart and formed of concrete faced with cut stone. Alongside this structure and to the south of it there are two large 'stoney' sluices each 20 ft. x 22 ft with piers, abutments, &c. These control the admission of water for supply to the lower reaches and locks when the guard gates are closed as they always should be when the upper gates of lock No. 4 are open.

The guard gates, stoney sluices, wing walls, &c., on the upper reach are founded on the clay, which is here solid—and these structures have stood well.

The lock itself, however, and the regulating weir to the south of it, which forms practically an extension of the lower south wing at right angles to the line of the canal, are founded on piles driven through clay and hard material some 35 feet on an average either to the solid rock, or the stratum of boulders immediately overlying it. No perceptible change has taken place in the levels of these structures since they were built. The walls of the lock are about $36\frac{1}{2}$ feet high. The coping is 161 feet above datum and the lift is, at mean water, about 15 feet, or between the planes of 140 and 155. This will of course vary with the level of Lake St. Francis, or rather with the level the stage of the lake may indicate to be the proper height at which to hold the summit of the canal.

The side walls of this lock and its floor are formed entirely of concrete to the surface of the lower reach (140), also the arched side culverts, &c. Above the level of 140 there is a facing of cut stone. The quoins are also of cut stone throughout. In the group of structures at lock 4 (39,126 cubic yards) only one-eighth of the quantity is of cut stone, the balance being wholly of concrete, a method of construction that has been followed by the best results. The structures are well built, and the economy of adopting this plan is evident when compared with that carried out on sections Nos. 1 and 2 where, from various causes, some 25 per cent of the total volume of masonry and concrete is of cut stone, and the latter costing at that place about three times as much per cubic yard as the former.

Under ordinary circumstances a steamer can pass through lock 4 in 7 or 8 minutes. But in a canal of this kind the difference in time between fast and ordinary locking is of comparatively little importance. To illustrate this: an increase of speed on the summit level of 2 miles per hour, or a change in the rate from 4 miles to 6, would make more saving in the time of passing through the canal than it would take to make all the lockages on it.

Reach below Lock 4.—The reach below lock 4 is about $2\frac{1}{2}$ miles long. The surface of this is 140, and the bottom 124 feet above datum, giving a canal depth of 16 feet. This can be held at 17 feet if required. It is of great importance to increase the depth as much as possible under boats passing through a level of this length, where a fair speed may be attained without danger to navigation.

About 2,700 feet below lock 4 the St. Antoine road crosses the canal. This bridge is on precisely the same plan as those on the summit level. The application of electrical power to turning it has been already tried with success, the machinery being apparently under proper control. On this reach (3-4) there is a heavy embankment carrying the canal across what is called the 'Bissonnette Gully.' To convey the drainage of the comparatively small area of land south of the canal under it a line of cast iron pipe, 30 inches in diameter and 500 feet long was laid, the ends being provided

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with the usual masonry wells. This culvert was brought into use in 1894, and fully served the intended purposes until this spring. Last winter it was reported to me that the high bank above referred to had subsided. I visited the place immediately (Dec. 28, 1899) and drew attention to the fact that, although there was no immediate danger, careful attention was required to avoid trouble. Notwithstanding this warning the culvert was permitted to be blocked up by silt, &c., and I was not made aware of this fact until April 23 of this year, by which time there was a head of about 25 feet on the upper end of the pipe, and the water so raised had backed up into the south branch of the gully for over a mile, flooding a large amount of land. Some ineffectual attempts were made to clear the pipe, and then an arrangement was entered into with the Donnelly Co., of Kingston, Ont., to pump out the large volume of water which had accumulated and was further augmented by the spring rains. The pumps supplied by no means performed the duty guaranteed for them, but eventually the water was lowered to within about 10 feet of the top of the upper end of the culvert, when a wooden box was set up there and secured, and a diver employed to take out the silt and clear the pipe, which was done. The water then escaped and the usual state of matters was resumed. The accounts connected with this work and damages have not yet been paid.

On the north side of the canal between locks 3 and 4, the macadam road which was built by the contractors for section No. 3 was made use of as a bed for a rail track laid down for the purpose of hauling stone to the works of sections 1 and 2 during the winter of 1897-8. This had the effect of cutting up the road very badly and the bank was also deeply rutted by heavy wagons being hauled over it. This damage is now being repaired by day's labour and the work is well advanced.

Locks and reaches 1, 2, 3, and reservoirs.—The descent from the east end of the $2\frac{1}{2}$ mile reach to the Ottawa river is made by three locks, each of about $23\frac{1}{2}$ feet lift. At No. 3 there is a bridge over the upper wings to carry the Vaudreuil road, precisely similar to that of the guard lock, Coteau Landing.

The masonry of these locks have been completed for some time, but there is yet protection lining required to be done, sodding, &c., both in the canal and its flanking reservoirs before the work is fully finished. This should now be urged on. The backing up and masonry of the entrance piers are not quite completed at this date, but will be shortly. Last winter the south entrance pier suffered some damage at its outer end through the effects of an ice pack and shove which occurred in March. This was, I believe, quite unprecedented, and was perhaps partly owing to the position of the pier itself. However this may be, the whole area of the St. Lawrence and Ottawa rivers at their confluence was filled with anchor ice, which reaching the bottom where the depth is over 50 feet, dammed the water back so as to obliterate the 'faucilles' and the lower part of the Cascades rapids. The surface was raised to level 84 (or about 30 feet on the lower mitre sill of lock 1) and the current of the Ottawa river was reversed and flowed to a depth of about $2\frac{1}{2}$ feet over the top of the unfinished pier which then acted as a dam also. When matters were in this condition a heavy shove took place across the line of the entrance, carrying with it masses of ice from 7 to 10 feet thick, and tearing up the temporary track laid there by the contractor for the carriage of stone and other material. A heavy scour was also set up at the outer end of this pier and along the toe of the stone embankment behind it, sweeping out the boulder clay from under the heading crib so that it settled down considerably, together with the circular masonry which was partly in place. This damage has been repaired, and, to prevent its recurrence heavy blocks of stone have been deposited by a diver in the shape of a talus for protection to the bottom. The embankment, occupying as it does such an exposed position has been doubled in width, and the poles along it for electric light will have to be removed altogether during the winter, and are therefore placed in sockets embedded in masses of concrete prepared to receive them and to permit of this being done.

This ice shove afforded a useful lesson. The ten spare gates for the canal were moored in the angular space in the bay at the foot of lock No. 1, south side, and narrowly escaped injury. Instead, therefore, of placing them on this side as originally

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intended together with the repair shops, storehouses, &c., the whole will be located on the north side of the lower entrance near the Cascades wharf, where the position is greatly more sheltered, and a connection can be readily made between the shops and deep water at the outer end of the north pier. This pier is now being backed up and finished to receive a small steel lighthouse similar to that described for the head of the canal. The inner light will be placed about 1,500 feet inland. The temporary beacons which have hitherto marked the channel from the foot of the canal, to the junction of Lake St. Louis, a distance of about three miles will soon be removed and three gas buoys placed in line for a similar purpose. No difficulty has so far been experienced in navigating this channel. There is a good wide waterway for vessels drawing 14 feet, and the depths are 30-40, and even 60 feet long the whole line. Cascades bay is well sheltered from westerly winds, which are the most prevalent and often the most violent during the open season. I may state here that on September 19, last year, when the water was being hurriedly let into the canal to permit of the setting up of the new lock gates, so as to rush the opening of navigation, through some defective arrangements at Cascades Point the level between locks Nos. 1 and 2 was permitted to rise to such a height that the water overflowed the north bank immediately to the west of the head of lock 1, where a heavy breach was made, sweeping some 3,500 cubic yards of earth into the Ottawa river. The repairs to this simply consisted in replacing the earth washed out. This the assistant engineer there states cost \$1,472.68. No damage was done to any of the canal structures, but the occurrence delayed the opening of navigation for about a fortnight. This took place, however, on October 9, 1899.

Stony Sluices.—When the canal was brought into use it was found that the power required to operate these sluices greatly exceeded that reckoned upon. The cause of this was, after some time, and extended experiment, located and remedied by an alteration in the shape of the bottom of the gates. Some minor changes were also made, the result being that the power originally calculated upon has not been exceeded. The sluices are worked by two men under 25 feet head with ease and are constantly becoming easier to operate. The application of electrical power was partly delayed pending the solution of the above difficulty, but this does not satisfactorily explain the great loss of time which has taken place owing to the dilatory movements of the Canadian General Electric Co. who took the contract for this work in January, 1899. It is expected, however, that the canal will now soon be operated electrically as originally intended, and as required by the contract: that is, from a single point on each lock with slow motion and complete safety. This could not have been done on the plan at first submitted, as the speed of opening the sluices and operating the gate machines was dangerously fast considering that the former were subject to heavy water pressure. Besides the machinery was not under proper control, and the proposed arrangements were in many ways objectionable. Plans are, I understand, at last being prepared in conformity with the requirements of the specification attached to contract No. 13366, and the work will shortly be put in hand and completed. When this is done it will have the effect of greatly reducing the number of men at present employed on the operating staff. In this connection it is satisfactory to be able to state that the lighting of the canal is a success. Throughout the whole length on the north side closed arc lamps of 2,000 candle power each are placed 480 feet apart; whilst at the locks and entrance piers they are much closer and on both sides. The result is that the canal is easily navigable by night; and if no other benefit than this were secured it would fully justify the whole of the expenditure for electrical power; as it practically doubles the carrying capacity of this important link in the St. Lawrence navigation.

This is of special advantage at present, in view of the fact that about $6\frac{1}{2}$ millions of bushels of grain, and a large quantity of package freight, has already passed through the Soulanges Canal en route for Montreal, and in connection with the Canada Atlantic Railway from Parry Sound where large lake boats arrive from the west laden with grain for export. It is probable that if sufficient ocean tonnage can be had at Montreal this fall a very large amount of grain will pass this way in addition to the grain and coal descending the river from Kingston, which is, however, comparatively small. The

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Coteau elevator is only about a mile above the head of the canal, and since the channel to it has been deepened barges make the trip to Montreal in much shorter time and at considerably less cost than via the old Beauharnois Canal. This is another advantage of the north shore location.

The foregoing remarks will render it unnecessary to do much more than enumerate the existing contracts showing the amounts returned in the progress estimates up to August 31, 1900, as follows:—

Number of Section.	Name of Contractor.	Date of Letting.	Number of Contract.	Number of Progress Estimate.	Gross Amount to Aug. 31, 1900.
					\$ cts.
1 and 2	(1) Archibald Stuart	Sept. 24, 1892	11331	51	516,934 85
	(2) Ryan & MacDonell	Dec. 11, 1897	12961	29	581,625 22
3	J. & M. O'Leary	Mar. 27, 1893	11515	46 (F)	199,056 44
4, 5, 6 and 7	(1) George Goodwin	May 9, 1893	11518	31 (F)	326,246 75
	(2) Andrew Onderdonk	April 17, 1897	12701	33	578,601 11
8	Charles H. Raynor	Dec. 29, 1892	11419	63	328,759 21
Rep. Wks	"	Mar. 1, 1898	12996	15 (F)	43,916 74
9	Manning & MacDonald	Jan. 30, 1893	11421	62	188,788 99
10	Rogers & Taylor	Sept. 24, 1892	11423	59 (F)	297,047 26
11	(1) George Goodwin	May 11, 1892	11862		
	(2) Thomas Feeny	Transfer	11862		
	(3) Poupore & Fraser	"	11862	67	325,639 75
12	(1) Denis O'Brien & Son	April 8, 1892	11178	6 (F)	26,811 15
	(2) George Goodwin	May 9, 1893	11520	6 (F)	11,400 37
	(3) M. J. Hogan	April 5, 1897	12693	29 (F)	203,108 70
13	Manning & MacDonald	Sept. 24, 1892	11278	75	642,811 81
					4,270,747 85

On sections Nos. 1 and 2 but little remains to be done except the finishing of the outer end of the south entrance pier previously referred to; also some sodding and protection lining.

Section No 3 'final' has been sent in and the macadam road on the north bank is being reconstructed by day's labour. The work of sections Nos. 4, 5, 6 and 7 is furthest behind, there being a large amount of protection lining yet to be done on the summit level. The macadam road on these sections has not yet been begun. Stone is being hauled by scows from the spoil heaps on sections Nos. 11 and 12, which are rapidly disappearing. There are about 53,000 cubic yards in place, and say 25,000 yet to be put in. But the whole of the work, sodding included, can, if vigorously pushed on, be completed this season. The canal west of section No. 7 is practically finished with the exception of some trimming which will be done this month. The slides are all repaired and may stay so. A considerable amount has been expended at the head of the canal in levelling off the ground, planting trees, making roads, &c. This work will be continued along the canal. Final estimates of contract work have been made for sections 3, 10 and 12 and the regulating weirs on section No. 8. The rest are in progress and should be ready before next spring.

It will be seen from the following table that the total earth excavation (dredging included) is over seven millions and one-quarter cubic yards, embracing all kinds of material from quicksand to hard pan. The rock, of which there are about 350,000 cubic yards, is in the 'Potsdam formation' at the lower end of the canal. The 'Califerous' is found between the Delisle river and the Lake St. Francis entrance. This rock has been largely utilized in making concrete in forming the protection lining of the sides of the prism, also in forming toes for slopes where slides occurred in macadam roads, &c. The concrete was made of sand, cement and broken stone in proportions to suit the different positions it occupied in the work. Over 200,000 barrels of excellent Portland cement was purchased and used in the work after proper tests of its quality had been made. This cost about \$525,000. No gravel was used as specified. There

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are about 205,000 cubic yards of masonry and concrete. The use of timber in construction (except in cribs under water) is almost entirely discontinued. Sodding has been freely laid on all the slopes where practicable, as it soon pays for the outlay in the saving effected in the cost of maintenance and repairs.

The canal has an ample margin of land beyond the space occupied by the works. The cost of this land and the expenses of valutors, lawyers, &c., amounted to over three times the sum estimated for that item by me in 1890. Generally speaking the soil traversed by the canal is poor, but the amount paid was over \$350 per acre including damages.

QUANTITY AND VALUE OF PRINCIPAL ITEMS OF WORK.

Contracts Sec. 1-13 up to August 31, 1900. (Progress Estimates)

Sections.	Contractor.	EARTH.		ROCK.		MASONRY.		CONCRETE.	
		Quantity.		Value.		Quantity.		Value.	
		C. Yds.	\$	C. Yds.	\$	C. Yds.	\$	C. Yds.	\$
1 and 2.	Archibald Stuart.	377,600	69,256	53,950	60,450	4,650	65,700	18,300	51,240
"	Ryan & MacDonell.	371,400	96,564	42,600	42,600	15,126	247,274	57,422	183,750
3	J. & M. O'Leary.	598,790	121,185			199	4,185	3,423	7,791
1, 5, 6 and 7.	George Goodwin.	1,144,743	302,501					2,291	6,604
4, 5, 6 and 7.	Andrew Onderdonk.	883,873	259,008			5,148	72,972	38,902	116,706
8.	Charles A. Raynor.	884,105	205,897			406	5,740	5,967	14,467
Power House.	"	21,628	4,968			97	1,555	5,908	23,632
9.	Manning & MacDonald.	656,951	121,251						
10.	Rogers & Taylor.	643,649	184,147	3,151	6,302	1,498	10,606	7,282	17,640
11	Poopore & Fraser.	462,948	121,401	100,614	102,709	1,327	8,198	4,865	14,595
12.	D. O'Brien & Son.	107,358	24,691					15	34
12.	George Goodwin.	45,541	11,385	29	15				
12.	M. J. Hogan.	339,058	81,374	123,455	98,764				
13.	Manning & MacDonald.	*826,818	214,680	29,672	24,086	24,316	211,388	17,063	55,455
		7,264,457	1,818,308	343,862	334,926	52,707	626,718	161,048	491,524

* Including dredging.

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OPERATION.

The canal was open for navigation on May 1, and this has been almost uninterruptedly maintained to date, except on May 26 and 28, when some changes were made in the sluices at lock No. 1. So far, however, no vessel drawing 14 feet has passed through, nothing of greater draught than $13\frac{1}{2}$ feet. Only one steamer of full canal size, namely the *Strathcona*, built expressly for this route, went up to Lake Ontario with but half cargo from Scotland. It is probable, however, that this condition of affairs will undergo a change next year, especially if a large export trade in iron and steel should set in across the Atlantic from Lake Erie ports, in addition to the grain which will be carried this way when there are suitable vessels built for its transport, and proper means provided for handling it at Montreal. This year's canal business will for many reasons be small, but it is only a transition period before the beginning of a new era, as the St. Lawrence route must eventually prove a success.

The benefits which will arise from the electrical working of the various structures have not yet been realized, for reasons previously given. The canal has so far been entirely operated by hand. This will, however, soon cease, but the present organization cannot be continued when the machines are in use. The number of men (75) will be greatly reduced and it will in my opinion be impossible to entrust any electrical machine, no matter how simple, into such hands as those of the persons now engaged on the locks or bridges. Some mechanical knowledge and fair judgment are absolutely necessary or accidents will occur which may 'hang up' the canal for a considerable percentage of the navigation season. It is obvious that before giving the operation of the locks or bridges into the charge of any man, he should be examined and pronounced competent by some experienced and impartial electrician.

As previously stated, the machinery of the gates and sluices is now operated with ease. The sluices (6 ft. x 6 ft.) under 25 feet head can be rapidly raised by two men, although the pressure on one of these is then about 30 tons.

In working the canal it is found, as anticipated, that the filling and emptying of the locks causes very little movement in the chamber, the surging felt under the old system being almost eliminated. The face of the walls being either of concrete or stone smoothly dressed, the vessel fenders last much longer than if the walls were picked face only. There is a sufficient number of mooring posts, both at the locks and for some distance above and below them, at which barges or vessels waiting can tie up. The posts being of cast iron firmly fixed in cubes of concrete, are of great strength and permanence.

The size and style of tugs, barges, &c., now in use are entirely unsuited to the enlarged navigation, the benefits of which will obviously not be reaped until larger craft are built for this route. It is gratifying, however, to know that already about twenty propellers of 'Canadian canal size' are projected or being built at American or Canadian ship yards and some of these will be launched this fall.

Plans are now being prepared for a repair shop and storehouse at Cascades Point, together with those for some cribwork piers at the wharf there, required to form sheltered berths for the ten spare gates and also for the gate lifter. The position chosen now is suitable and easily accessible in case of accident on the canal. The shops will be connected with the outer end of the north entrance pier by a road formed in rear of the embankment between locks Nos. 1 and 2.

Generally speaking the canal is easily and safely navigable for vessels drawing 14 feet, both at night as well as by day, even during the lowest recorded stage of the River St. Lawrence, and the works have been carried out in such a permanent manner as, it is believed, will ensure a minimum of future expense in operation and repairs.

I have the honour to be, sir,

Your obedient servant,

THOMAS MONRO, M. Inst. C.E.,

Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,

Deputy Minister and Chief Engineer, Railways and Canals.

Ottawa, Ont.

QUEBEC CANALS.

SUPERINTENDING ENGINEER'S OFFICE,

MONTREAL, September 29, 1900.

SIR,—I have the honour herewith to submit my annual report on the works under my charge for the fiscal year ended June 30, 1900.

The canals in this division are the Lachine and the Beauharnois on the St. Lawrence route; the Ste. Anne, the Carillon and the Grenville canals on the Ottawa river, and the St. Ours lock and the Chambly canal 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 great export centre of the Dominion.

The traffic through it has rapidly increased of late years, owing to the development of industries and agriculture in western Canada and the Canadian North-west and it will certainly take a still greater importance with the completion of the deepened canals, especially when adequate facilities for handling freight and grain shall have been provided.

The Ottawa canals afford a most convenient route for the transportation of the produce of the extensive forests of the Ottawa valley, a large proportion of which finds its way to the United States through the Richelieu river canals.

LACHINE CANAL.

Length, $8\frac{1}{2}$ miles; 5 locks, 270 by 45 feet; 14 feet water on sills; total rise, 45 feet. Old locks 200 by 45 feet; still available with 9 feet of water on the sills.

There was no interruption to the navigation on this canal during the year.

The overseer, Mr. John Conway, having died suddenly on May 2, 1900, Captain George Yale, superintendent of the canal dredging fleet was put in charge and was still acting as overseer at the end of the fiscal year.

REPAIRS AND RENEWALS.

Repairs during the year were executed as follows:—The macadamizing of the farmer's road on the south side of the canal above Cote St. Paul bridge was continued, an additional length of 2,150 feet being done. Some of the stone and the sand for this work was brought to the ground by the farmers interested. The amount voted last year for this purpose was exhausted on June 30 last, when the work was only half completed.

The replacing of the planking around Wellington Basin with iron dross was completed during last fall and a similar change was made along the south side of New Basin No. 1.

Two small scows were built during the year for the canal service.

Three pairs of gates for the new locks were taken apart and rebuilt and butterfly valves substituted in them for the Townsend valves; the operating of which is considered too slow.

While the water was out of the canal in April the lower sills of the old locks at Cote St. Paul and St. Gabriel were overhauled and all the lock bottoms examined and repaired where necessary.

The buildings, bridges, fences, ditches, &c., along the line received the ordinary amount of attention during the year and all were kept in good order.

The electric lighting service was satisfactory throughout the season.

REGULATING WEIR AT LACHINE.

The object of this work is to permit of a large quantity of water being introduced into the canal.

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A number of mills situated between Cote St. Paul and Montreal use the canal water as propulsing power, and in consequence it was found impossible during periods of low water in the St. Lawrence, to keep the upper reaches at the proper level. This state of affairs was of no very serious importance until this year when the completion of the St. Lawrence canals to 14 feet was effected.

Vessels of from 12 to 14 feet draught are now using the canal and means had to be taken to ensure the proper depth over the sills at all times.

The new weir will have an area of water way twice that of the old one. It will be built of heavy cut stone masonry with side walls of rock face stone masonry along both sides of the head and tail race.

The work is being done under contract by Mr. M. J. Hogan. Operations were begun on the 18th April last, and at the close of the fiscal year the following work had been executed:—Earth excavation, 718 cubic yards; rock excavation 4,500 cubic yards; masonry, 440 cubic yards.

REPAIRS TO VESSELS.

The dredging fleet connected with the canals in this division but mostly used of late years in connection with the Lachine canal and the Lake St. Louis channel, consists of the following vessels: dredge No. 1, loaned four years ago to the Public Works Department; dredge No. 2, floating steam derrick, tug *Josephine*, house-boat used as office and lodgings by the engineers' staff of the Lake St. Louis channel, and eleven flat scows.

Besides the usual repairs to the various boats composing the fleet, the timber crane of dredge No. 2, was replaced by a steel one. The work was done in a very satisfactory manner by the Phoenix Iron Works, of Montreal, at a cost of six hundred dollars.

A new flat scow was also built during the year.

DEEPENING FOR 14 FEET NAVIGATION BETWEEN ST. GABRIEL AND LACHINE LOCKS.

The contract for this work was awarded to Messrs. McNamee & Mann in September 1894 and operations were commenced by them in the month of May following. The contract extended from lock No. 3, at St. Gabriel, to lock No. 5 at Lachine, a distance of $6\frac{1}{2}$ miles and the work consisted in the deepening of the prism of the canal to 15 feet, an average depth of 2 feet being excavated between the two points above mentioned.

The work was carried on night and day during season of navigation and completed at the end of April, 1899.

The quantity of materials removed to reach the grade line as per the final estimate furnished to you in July last were: earth, 199,102 cubic yards; rock, 194,605 cubic yards.

DEEPENING RIVER ST. PIERRE.

This work is intended to complete what has been termed the Lachine canal drainage system, the object of which is to dispose of the water leaking through the canal banks and incidentally to afford an outlet for the drainage of the town of Lachine, which is cut off from the St. Lawrence by the Lachine canal.

The present work, which is being done under contract by Messrs. Brewder & McNaughton, consists of the deepening $2\frac{1}{2}$ feet and the widening to 20 feet at grade line of the bed of the Little River St. Pierre, from a point 5,700 feet west of the culvert carrying the stream under the canal to a point on the city waterworks tail race, 4,100 feet below the outlet of the said culvert.

Little was done by the contractors during the summer of 1899. In November of that year some piling was done on a certain distance on both sides of the river where it crosses the property of Messrs Malette Bros. This piling will serve as a retaining wall and a foundation for certain buildings which had to be removed for the purpose of the deepening. The buildings were put up again later on.

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In April last the contractors were permitted to divert the river into the canal by cutting the north bank 75 feet above the syphon culvert. They were thus enabled to unwater the culvert, clean the wells and tunnels and lower the breast wall at the inlet and the sloping revetment wall at the outlet.

A considerable portion of the excavation between the syphon and Atwater Avenue was done at the same time, but it was found impossible to complete it before the opening of navigation, when the canal bank had to be reformed and the river turned back into its own channel.

Between May 1 and July 1, the contractors succeeded in unwatering the stream by means of a dam and pumps and proceeded with the work. However, some 3,000 cubic yards still remained to be excavated at the end of the fiscal year.

SLOPE WALLS ABOVE COTE ST. PAUL.

For a distance of $3\frac{1}{2}$ miles above Cote St. Paul lock the slopes of the Lachine canal are protected with a rip-rap revetment formed of small sized stones, which as previously reported, will have to be almost entirely rebuilt owing to the work of deepening the canal having disturbed it.

For this purpose a contract was awarded to Mr. J. B. de Lorimier on October 11, 1898, for the supply of 6,000 cubic yards of stone.

The work of rebuilding was begun in the spring of 1899, when some 1,800 cubic yards of wall were laid at various points, between the 12th and 30th April. This was done by day's labour.

On October 18, 1899 a contract was signed by Mr. J. B. de Lorimier for the rebuilding of some portions of the said walls and the contractor went to work in November following, rebuilding the damaged parts from the top to about two feet below the water line.

While the canal was unwatered in April last, some 1,600 cubic yards of masonry were laid under this contract, and the work above water continued during May and June.

Where built from the bottom these walls are 3 feet 9 inches wide at grade line and 1 to 10 inches at the top, the height being 17 feet. It is finished off with a course of headers 12 to 15 inches thick and 2 feet 6 inches depth of bed, let into the ground, the upper arris of which is kept at a uniform height of 2 feet above normal water level.

Above this a revetment of broken stone is laid to a slope of 2 horizontal to 1 vertical, and capped with a coping 7 to 8 inches thick and 20 inches depth of bed, also let into the bank and carried to a uniform height of 4 feet above normal water level.

REBUILDING WALL AT ATWATER AVENUE.

During the spring of 1898 a portion of the slope wall lining the south bank of the canal a short distance above Atwater Avenue, was noticed to be bulging out of line and sinking at the same time, while the ground in the bottom in front of the wall was raised 2 or 3 feet.

To prevent further deterioration a quantity of heavy stones were deposited by means of derricks, on the canal bottom immediately in front of the damaged wall. The collapse of the masonry and bank was thus retarded, but upon examination when the canal was emptied in April, 1899, it was found that the whole wall had moved fully 11 feet out of line and sunk about 5 feet into a bed of soft marl 8 to 10 feet deep. Originally this marl was covered over by a bed of peat full of roots and fallen trees which had made it hard enough to resist the outward pressure at the toe of the wall. However, the recent deepening of the canal having destroyed this crust, the result was as stated above.

The rebuilding was executed as follows:—

During the summer of 1899 a row of piles were driven through the bank about 10 feet from the coping of the wall down to the hard ground and connected by tie beams to a second row of shorter piles placed 25 feet further out. In November of the same year the ruined wall was dredged out, the stone being deposited on the bank near by for future use.

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In February, 1900, piles were driven from the surface of the ice in four parallel rows to form a foundation for the new wall and in the month of April these piles were sawed off to a uniform depth of 18 inches below the grade line of the canal, well tied together with longitudinal and cross-ties, and the wall started on the platform thus made.

The length of the new piece of wall is 120 feet at the base and 170 feet at the top; the filling behind consists of clay mixed with cinders and ashes.

REBUILDING WALL AT BASIN NO. 2.

The rebuilding of the wall above mentioned was begun last spring, but owing to the unusually long period of high water in the river, operations could only be commenced on April 20. On the other hand labourers were very scarce at the time, and only a very small amount of work could be done in consequence.

The new wall will consist of concrete built under the foundation of the present wall and brought up along the face of it to the level of the water, above which cut stone will be used as a facing. This will permit of dredging the canal along the new wall to the full depth of 20 feet.

DEEPENING BETWEEN LOCK NO. 2 AND LOCK NO. 3.

The deepening of this section of the canal was continued during the last fiscal year.

With the exception of the St. Gabriel and the Flour basins and a strip about 50 feet in width along the south wall of basin No. 2, the whole distance between the two locks mentioned is now excavated to the full depth required for the 14 feet navigation. In addition to this a channel 20 feet deep has been provided between lock No. 2 and Wellington basin, which is also 20 feet deep.

This work is being done by the canal dredging fleet.

LAKE ST. LOUIS CHANNEL.

This work, which was done under contract by the Weddell Dredging Co., has been brought to completion during the month of June last.

The cleaning of the channel, after the bulk of the excavation had been done proved very tedious, the contractors' two dredges being engaged at it during eight months.

The testing of the new channel as to the depth was done by means of the sweeping scow belonging to the Montreal Harbour Commissioners.

In connection with this work the Weddell Dredging Co. have removed a couple of shoals situated outside of the limits of their contract near lightship No. 2. This was done at schedule rates.

The total quantity of material dredged out in the five years over which the contract extended was 247,931 cubic yards.

Lighthouses.—The centre line of the new channel is marked by two lighthouses erected early in the spring of 1900. One of them stands on the west end of the Lachine wharf and the other about 900 feet back toward the east. They consist of steel towers resting on cribwork foundations. The light in the front lighthouse is 31 feet, and that in the rear tower 45 feet, above ordinary water in the lake.

The lamps used at present are ordinary locomotive headlight, but gas tanks have been ordered from the Pintsch's Patent Lighting Co., Ltd., and will be placed in the towers during the present summer. The lanterns are supplied with a flashing apparatus which will make those range lights readily distinguishable among the numerous arc lights in the vicinity.

The steel towers were built and erected under contract by Messrs Farand & Delorme, of Montreal.

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BEAUHARNOIS CANAL.

Length, $11\frac{1}{4}$ miles ; 9 locks, 240 by 45 feet ; 9 feet water on sills ; total size, $82\frac{1}{2}$ feet.

Two serious interruptions to navigation occurred on this canal during last year. The first was caused by the sudden collapse on August 1, 1899, of the waste weir at lock No. 10. Five days were employed making the necessary repairs, which consisted in the building of a temporary timber weir. The old stone weir was not rebuilt and owing to the probable permanent closing of the canal at short notice, it will not be necessary to rebuild it, at least on its old lines.

The second interruption was due to a washout which took place under the south recess wall and the gate platform at lock No. 12. On this occasion the canal had again to be closed to navigation from the 12th to the 17th October, 1899, both days inclusive. The work of repairs was made in a permanent manner and this lock is now perfectly safe.

REPAIRS AND RENEWALS.

The various structures on this canal as well as the buildings, fences, roads, ditches, &c., received considerable attention during the year. Even after the canal shall have been closed to navigation, some of the bridges, roads and dykes will have to be maintained by the Government, and it was in view of this fact that a pretty large amount of money was spent on them.

The most important repairs performed during the year were as follows : replacing in their proper positions, of the lower sills of locks Nos. 12 and 13 ; building of a temporary waste weir at lock No. 10, as mentioned above ; repairing lock gate platform and sill of lock No. 12 and filling under recess wall and platform, renewing stringers of swing bridge at lock No. 9 ; renewing the bridges over the waste weirs at locks Nos. 8 and 10 ; rebuilding of a pair of gates for lock No. 7.

A special piece of work was done here in connection with the highway bridge across the canal at St. Timothy. The old wooden swing bridge was replaced by a steel structure and a new pivot pier and new abutments were built. The new bridge is 4 feet wider and 10 feet longer than the old one. The wharfs on both sides of the abutments were also extensively repaired.

The steel superstructure was supplied and erected under contract by the Dominion Bridge Co.

SURVEYS AND DEFINING LAND BOUNDARIES.

During the summer of 1899, a survey was made of the land recently purchased from Mr. A. Langevin along both sides of the Hungry Bay dyke. Wooden posts were planted at the time to mark the sites of the boundary stones, which were to be placed last spring. However owing to continuous rains it was found impossible to complete the work before the end of the fiscal year.

The necessary boundary stones, 25 in number, have been purchased and delivered on the ground. They will be planted during the present season.

PROTECTION DYKE ALONG THE SOUTH SHORE OF LAKE ST. FRANCIS, IN THE PARISH OF STE. BARBE.

Work was resumed here on August 1, 1899, and continued for four months, when it had to be suspended owing to the flooding of the swamp across which the dyke is being built.

Towards the end of February, 1900, it again became possible to resume work, and fair progress was made during March and the early part of April. About the middle of the latter month the spring then set in and nothing more could be done until the end of the fiscal year.

The dyke is completed with the exception of about 700 lineal yards.

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PROTECTION WALLS ON THE NORTH SHORE OF LAKE ST. FRANCIS.

The object of this work is to prevent further damage being done by erosion to the lands fronting on Lake St. Francis in the parish of St. Zotique, and also between McKee's Point and Wood's Creek, in the county of Glengarry.

The wall at St. Zotique, 636 yards in length, was built under contract by Messrs. Quinlan, Phippen & Robertson. It is 3 feet in height, 4 feet wide at the base and 2 feet at the top. Its foundation consists of fascines, 5 feet long and 9 inches thick, deposited in a trench cut for the purpose to the required depth. The work was completed early last spring.

The contract for the wall between McKee's Point and Wood's Creek was awarded to Messrs. Dussault & Pageau on October 31, 1899. They failed to complete the work before the present fiscal year, having only built about 1,600 lineal yards, out of a total length of 3,200 yards contracted for, at the end of last June. An extension of time was, however, granted them and they are carrying on their work to completion at the time of writing.

This wall rests on a bed of fascines 4 feet wide and 9 inches thick. It is $3\frac{1}{2}$ feet high, $3\frac{1}{2}$ feet across the base and 12 inches wide at the top, the rear of it being built plumb. Along the rear side of the walls, slabs, overlapping one another 2 inches or more, were driven $1\frac{1}{2}$ feet into the ground and cut off at the top of the wall; their object is to prevent the filling behind the wall to be washed away by the action of the waves.

CHAMBLY CANAL.

Length, 12 miles; 9 locks, 118 by $22\frac{1}{2}$ feet; $6\frac{1}{2}$ feet water on the sills; total rise, 74 feet.

Navigation had to be interrupted for twelve hours in October, 1899, for the purpose of stopping a leak in the culvert under the canal at Little River des Iroquois, otherwise the working of the canal was perfect throughout the year.

REPAIRS AND RENEWALS.

Outside of the ordinary works of maintenance the following repairs were executed during the year.

REPAIRS TO LOCK NO. 1.

Preparations were made in November last for overhauling this lock. Coffer-dams were built at both ends and the chamber pumped dry in December. The two pairs of gates were then removed, the lock bottom cleaned and partly replanked and the two sills taken out and rebuilt. This work was completed in January.

Wood's Creek Bridge.—The old highway bridge over the new syphon culvert at this point was torn down and rebuilt. The cribwork abutments were replaced by heavy masonry walls, 26 feet long, 7 feet high and 5 feet thick, with dry masonry wings on both sides. The bridge proper consists of rolled iron I beams, and channel irons embedded into concrete pillars at each corner from the side of the bridge. Both approaches were carefully macadamized and the bridge handed over to the town of St. John for future maintenance.

Iroquois River Bridge.—The old bridge was removed and new abutments built of strong concrete resting on piles driven 9 to 13 feet into the ground. The abutments are 25 feet long, $9\frac{1}{2}$ feet high, 3 feet thick at base and 2 feet at top, with wing walls, also of concrete. Iron beams will be used for the flooring of this bridge and will be put in place during the present season, the present floor being a temporary one.

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Bridge No. 5.—The abutment on the tow-path side was taken down and rebuilt a couple of feet in rear of its former position, thus increasing the passage way for boats.

During the last few years most of the swing bridge abutments on this canal have been rebuilt and in every case the passage way which was formerly $23\frac{1}{2}$ feet, increased a feet, to the material benefit of the navigation. Bridge No. 1, which alone remains to be so remodelled, will be overhauled during the present season.

Wharf at Chambly.—The plank flooring of this wharf was replaced, on a length of 100 feet by a layer of river gravel. This wharf being submerged every spring, timber guards were placed on both sides to prevent the washing away of the gravel by the current.

Guide Pier at St. John.—A similar experiment was made at this point. The pier is 1,400 feet long, gravel was substituted to planking on a length of 800 feet, and an examination of the pier, after the last spring floods, showed that no damage had been done. The work will be completed at both points during the current year, and all wharfs will be similarly treated later on, where practicable.

As stated in previous reports, efforts have been made for the last few years, to substitute permanent materials for perishable ones in all structures above water on the canals in this division. In the present instance a considerable saving will be effected in future.

The wharf and pier have an aggregate area of 35,360 square feet, and the planking covering amounting to 106,100 ft. b. m., had to be renewed every eight or ten years, at a cost of over \$2,500, or from \$500 to \$600 per year.

Iroquois River Culvert.—A break occurred in this culvert in October last, and considerable work had to be done to put it again in working condition. It will be necessary to rebuild it entirely in a year or two.

Collector's Office at St. Johns.—The building occupied as an office by the Toll Collector at St. Johns had always been practically uninhabitable during winter owing to its cellar being constantly flooded by water percolating through the canal bank. This cellar was filled up during the year with good puddle clay, well pounded, and a layer of concrete, 10 inches thick, placed over it to receive the flooring. The house was entirely overhauled at the same time.

Collecting Drain and Syphon Culvert at St. Johns.—This work the contract for which was awarded to Messrs Napoleon Laporte & Co., in February, 1898, should have been completed long before the end of the fiscal year 1898-9. The drain and culvert are built entirely of concrete. The former is of horse-shoe shape, the shell being 8 inches thick. It is in two sections of different size, the upper one, 441 yards long is $3 \times 3\frac{1}{2}$ feet area and the lower, 827 yards long with a cross section $3\frac{1}{2} \times 4\frac{1}{2}$ feet. In the total length 12 manholes, also of concrete, are provided.

This drain connects at its lower end with a well from which start two arched conduits, 3×3 feet, similarly built of concrete. These stretch under the bottom of the canal to the Richelieu river where the sewage is to be discharged.

The work was completed on the last day of October, 1899.

ST. OURS LOCK AND DAM.

Length, $\frac{1}{8}$ mile; one lock, 200 by 45 feet; 7 feet of water on the sills; total rise, 5 feet.

Navigation was conducted without accident or interruption throughout the year.

Besides keeping the lock in working order and repairing some of the guide and mooring piers both above and below, the following works were executed here between July 1, 1899 and June 30, 1900.

Scows.—Two scows were built to replace two old ones. The layer is 84 feet long, 20 feet wide and $4\frac{1}{2}$ feet deep.

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It is provided with mast and sail. The other is 41 feet long, 18 feet wide and 4 feet 3 inches deep. It carries a strong derrick.

Lock Gate Suspension.—The old mode of suspension of the gates, with cumbersome anchor blocks on the lock coping, proved very objectionable. These blocks were removed from the lower gates and replaced by iron straps notched into and strongly bolted to the side walls. The top of the gates had to be remodelled in consequence. The upper gates will be treated in the same manner during next winter.

Dam.—An amount of \$10,000 was voted at last session towards staunching and repairing the submerged dam connected with this lock. At the time of writing tenders are being invited for this work, which, it is expected, will be completed on or before the opening of navigation next spring.

ST. ANNE LOCK.

Length, $\frac{1}{8}$ mile; one lock, 200 by 45 feet; 9 feet of water on the sills; total rise, 3 feet. Old lock still available, 200 by 45 feet; 6 feet of water on the sills; total rise, 3 feet.

Works other than ordinary repairs done here during the year consisted principally in the following:—

Stopping leak through south wall of old lock.—A trench 3 feet wide in the bottom and reaching to the foot of the wall was excavated on a length of 228 feet uncovering the rear face of the wall. This trench was lined on the south side with 3-inch plank and puddle deposited in the space 3 feet wide thus formed, up to the level of high water in the lock, the average height being 12 feet. The other side of the lock will require to be treated in a similar manner for a short length, after which it is expected that all leakages will have been stopped.

Scow.—The old repair scow was taken apart and a new one built provided with a strong derrick.

The whole year passed without any interruption to the navigation or accident of any kind.

CARILLON AND GRENVILLE CANAL.

Carillon Canal.—Length, $\frac{3}{4}$ mile; 2 locks, 200 by 45 feet; 9 feet water on sills total 16 feet.

Grenville Canal.—Length, $5\frac{3}{4}$ miles; 5 locks, 200 by 45 feet; 9 feet on sills; total rise, $43\frac{3}{4}$ feet.

Both these canals are under one superintendent.

They are separated by a stretch of navigable river about 5 miles long, and between them is to be found the old Chute à Blondeau lock which has been abandoned since the completion of the dam at the head of the Carillon canal in 1883, the rise at that point having been practically obliterated.

REPAIRS AND RENEWALS.

Carillon Canal.—The various structures on this canal as well as the towing-path and roads connected therewith, have been kept in good repair throughout the year. The most important items of work done were the following:—Taking down and rebuilding mooring pier at Fitzgeralds; repairing mooring pier at Bradford's Bay; rebuilding the top part of two pairs of spare gates; pointing walls of locks No. 1 and No. 2.

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Grenville Canal.—Outside of the ordinary repairs, some important work was done here during the year. The tow-path was raised on a distance of some 1,000 feet between locks No. 5 and No. 6; a new boom was built and placed on the north side of the lower entrance at Greece's Point; the swing bridge at Grenville was completely overhauled; a puddle wall, 3 feet thick, 20 feet high and 120 feet long was built at the back of the south wall of lock No. 6 to stop a leak; a piece of dry wall along the south bank above this lock, 125 feet long, was taken down and rebuilt; another piece of dry wall, about 150 feet in length was built along the south bank of the upper entrance to the same lock. This necessitated the removal of some 800 cubic yards of earth and rock. This work was left uncompleted, it will be finished at the close of navigation this fall. In connection with this three derricks were built.

Both the Carillon and Grenville canals are now in first-rate condition. Some parts of the banks, however, will shortly require to be protected by slope walls.

GRENVILLE CANAL ENLARGEMENT.

The contract for this work was awarded to Messrs. Pigott & Ingles in April, 1897.

On June 30, 1899, there still remained to be done about 800 lineal feet of dry masonry wall with the necessary excavation; some rock excavation in the canal prism, chiefly towards the west end of the contract; a considerable amount of unfinished rock excavation at various places in the upper section; earth excavation in prism of canal, chiefly the removal of accumulated silt; filling behind some portions of the slope walls; finishing up of tow-path and farm roads; ditching and fencing.

The contractors resumed operations on December 2, 1899, and continued until February 8, 1900, when a heavy fall of snow compelled them to suspend operations. The walls and the bulk of the excavation were completed at that date. Work was resumed on April 19, and carried to a finish on the last day of that month, with the exception of the portions on the banks, which were completed on May 16, 1900.

With the exception of the upper section from the guard lock to a point about half a mile further down, which is rather narrow and crooked, the Grenville canal is in a very satisfactory condition.

Following will be found tables showing the dates of opening and closing of the various canals in this division; the levels of high and low water at both ends of each canal, and the fines and damages collected during the fiscal years.

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

ERNEST MARCEAU,
Superintending Engineer, Q.C.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Chief Engineer and Deputy Minister,
Department of Railways and Canals,
Ottawa.

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QUEBEC CANALS.

Closing and opening of navigation, 1899-1900.

	Closing.		Opening.	
	1899.		1900.	
Lachine Canal.....	30th	November.....	2nd	May.....
Beauharnois Canal.....	1st	December.....	1st	May.....
St. Ours Lock.....	3rd	December.....	24th	April.....
Chambly Canals.....	4th	December.....	2nd	May.....
St. Anne's Lock.....	26th	November.....	24th	April.....
Carillon Canal.....	30th	November.....	1st	May.....
Grenville Canal.....	30th	November.....	1st	May.....

BEAUHARNOIS CANAL.

STATEMENT of Fines collected during the fiscal year ended June 30, 1900.

Date.	Name of Vessel.	Name of Owner.	Fines.	Total.
1899.				
July 10	Str. <i>Ocean</i>	Western Navigation Co. . .	5 00	8 cts.
" 22	Bge. <i>Maggie</i>	Capt. Monette.....	10 00	
" 29	Tug <i>Eddie</i>	Prescott Elevator Co.....	5 00	
" 29	Tug <i>Larosee</i>	Capt. Larosee.....	10 00	
Nov. 23	Str. <i>Lake Michigan</i>	Capt. Lefebvre.....	15 00	
1900.				
May 15	Merchandise left on canal bank.	Geo. Watterson & Co.....	4 00	39 00
				39 00

LACHINE CANAL.

STATEMENT showing the depth of the river water on mitre sills of the old Lock No. 1, at lower entrance and Lock No. 5, at upper entrance, during the fiscal year ended June 30, 1900.

MONTHS.	OLD LOCK NO. 1, LOWER SILL.				OLD LOCK NO. 5, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
1899.								
July.....	18	6	16	9	12	0	11	0
August.....	16	10	15	3	11	0	9	9
September.....	15	4	14	5	9	10	9	5
October.....	16	1	14	11	10	1	9	5
November.....	15	10	14	5	10	1	9	5
December.....	16	6	14	6	10	9	9	4
1900.								
January.....	30	8	19	0	11	11	10	1
February.....	31	3	26	0	11	11	9	6
March.....	28	3	26	0	10	10	9	5
April.....	30	9	22	5	14	0	10	3
May.....	22	4	19	0	13	8	12	2
June.....	20	2	17	3	13	4	11	4

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LACHINE CANAL.

STATEMENT showing the depth of the river water on mitre sills of new Lock No. 1, at lower entrance, and new Lock No. 5, at upper entrance, during the fiscal year ended June 30, 1900.

MONTHS.	NEW LOCK NO 1, LOWER SILL.		NEW LOCK NO. 5, UPPER SILL.					
	Highest.	Lowest.	Highest.	Lowest.				
1899.								
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
July.....	20	8	18	11	17	0	16	0
August.....	19	0	17	5	16	0	14	9
September.....	17	6	16	7	14	10	14	5
October.....	18	3	17	1	15	1	14	5
November.....	18	0	16	7	15	1	14	5
December.....	18	8	16	8	15	9	14	4
1900.								
January.....	32	10	21	2	16	11	15	1
February.....	33	5	28	2	16	10	14	6
March.....	30	5	28	2	15	10	14	5
April.....	39	11	24	7	19	0	15	3
May.....	24	6	21	2	18	8	17	2
June.....	22	4	19	5	18	4	16	4

BEAUHARNOIS CANAL.

STATEMENT showing the depth of the river water on mitre sills of Lock No. 6, at lower entrance, and Lock No. 14, at upper entrance, during the fiscal year ended June 30, 1900.

MONTHS.	LOCK NO. 6, LOWER SILL.		LOCK NO. 14, UPPER SILL.					
	Highest.	Lowest.	Highest.	Lowest.				
1899.								
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
July.....	11	8	10	5	11	10	11	11
August.....	10	4	9	9	11	6	10	10
September.....	9	7	9	4	11	2	10	6
October.....	9	9	9	6	11	1	10	4
November.....	9	11	9	4	11	0	10	3
December.....	9	10	9	4	11	0	10	2
1900.								
January.....	13	10	9	11	11	6	9	8
February.....	18	8	13	6	11	8	10	10
March.....	18	0	13	6	11	5	10	8
April.....	13	9	12	7	12	6	11	3
May.....	13	8	11	8	12	3	11	7
June.....	12	5	11	0	12	4	11	5

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CHAMBLY CANAL.

STATEMENT showing the depth of the river water on mitre sills of Lock No. 9, at lower entrance, and Lock No. 1, at upper entrance, during the fiscal year ended June 30, 1900.

MONTHS.	LOCK NO. 9, LOWER SILL.				LOCK NO. 1, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
1899.	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
July	10	0	9	0	8	8	7	0
August.....	8	10	7	11	8	0	7	3
September.....	8	3	6	10	8	7	7	0
October.....	8	3	6	10	9	1	7	0
November.....	10	3	8	5	8	9	7	0
December.....	12	9	9	1	9	3	7	5
1900.								
January.....	14	0	10	0	9	2	8	4
February.....	14	6	11	0	10	1	8	10
March.....	15	7	14	4	10	3	9	5
April.....	20	1	14	11	13	0	9	10
May.....	18	1	14	7	12	11	11	2
June.....	15	8	11	7	11	4	9	6

ST. OURS LOCK.

STATEMENT showing the depth of the river water on mitre sills of St. Ours Lock, during the fiscal year ended June 30, 1900.

MONTHS.	LOCK NO. 1, LOWER SILL.				LOCK NO. 1, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
1899.	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
July	10	1	8	10	8	11	8	2
August.....	8	8	7	3	8	1	7	0
September.....	7	8	6	3	7	9	6	8
October.....	8	8	7	0	8	0	6	10
November.....	8	11	6	10	8	11	8	0
December.....	11	0	7	5	11	0	8	2
1900.								
January.....	12	2	10	4	9	1	8	4
February.....	14	3	10	4	11	0	8	3
March.....	14	6	13	1	10	9	9	10
April.....	20	7	14	10	16	5	11	1
May.....	17	3	13	0	14	2	11	7
June.....	14	0	10	1	12	0	9	10

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ST. ANNE'S LOCK.

STATEMENT showing the depth of the river water on mitre sills of St. Anne's Lock, during the fiscal year ended June 30, 1900.

MONTHS.	LOCK NO. 1, LOWER SILL.				LOCK NO. 1, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
1899.								
July.....	11	11	11	0	13	9	12	6
August.....	10	11	9	10	12	5	11	1
September.....	9	10	9	4	11	3	10	4
October.....	10	3	9	5	12	4	11	5
November.....	10	0	9	5	11	9	11	0
December.....	11	4	9	5	12	5	10	10
1900.								
January.....	11	9	10	9	12	0	11	3
February.....	12	1	10	10	12	6	11	3
March.....	11	6	10	6	13	0	11	2
April.....	14	2	10	10	16	9	11	3
May.....	13	10	12	2	16	7	14	1
June.....	13	2	12	3	14	7	12	5

CARILLON CANAL.

STATEMENT showing the depth of river water on the mitre sills of Locks Nos. 1 and 2, Carillon Canal, during the fiscal year ended June 30, 1900.

MONTHS.	LOCK NO. 1, LOWER SILL.				LOCK NO. 2, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
1899.								
July.....	15	3	13	9	15	5	13	9
August.....	13	9	11	10	13	9	12	0
September.....	12	7	11	4	12	11	11	3
October.....	13	7	12	4	13	8	12	2
November.....	12	10	12	0	12	8	12	0
December.....	13	11	12	0	14	7	12	0
1900.								
January.....	13	10	13	0	16	8	13	9
February.....	13	7	13	2	14	3	12	8
March.....	14	6	12	8	12	8	11	2
April.....	18	9	12	8	19	6	11	4
May.....	18	5	15	7	19	2	16	0
June.....	16	1	13	4	16	6	13	5

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GRENVILLE CANAL.

STATEMENT showing the depth of the river water on mitre sills of Locks Nos. 3 and 7, Grenville Canal, during the fiscal year ended June 30, 1900.

MONTHS.	LOCK NO. 3, LOWER SILL.				LOCK NO. 7, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
1899.								
July	19	0	16	8	15	10	13	10
August	16	7	13	11	13	10	11	2
September	15	6	13	2	13	6	10	3
October	16	6	14	11	14	0	12	3
November	15	5	14	5	12	9	11	7
December	18	0	14	2	13	4	11	6
1900.								
January	19	8	16	5	13	0	11	8
February	19	3	16	10	13	0	11	5
March	18	0	15	0	12	0	11	0
April	23	7	15	4	20	3	12	0
May	23	4	19	7	20	0	16	7
June	20	3	16	4	17	6	13	8

TRENT CANAL.

SUPERINTENDING ENGINEER'S OFFICE,

PETERBORO', August 24, 1900.

SIR,—I have the honour to submit the annual report on the works on the Trent canal under my charge for the fiscal year ending June 30, 1900.

The Trent canal is a term applied to the several water stretches lying for the greater part along the valley of the Trent river, between the Bay of Quinté, on Lake Ontario, and Georgian Bay, on Lake Huron, which, however, in their present condition do not form a continuous line of navigation. The object of the works at present going on is to connect these several water stretches by short canals so as to form a continuous line of land-locked navigation from Lake Huron to Lake Ontario. A glance at the map of the district will show how comparatively small the length of waterway to make or improve is the length already provided by nature in the way of its beautiful and deep lakes and rivers. The total distance between Lake Huron and Lake Ontario is about 200 miles. By utilizing the numerous lakes and rivers, and taking advantage of the natural features of the land to make flooded reaches it is hoped that not more than 15 or 20 miles of the total length will be actual canal. 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 this 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 lands 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 a comparatively little extra cost.

MAINTENANCE.

Navigation closed on the upper reach December 2, 1899, and opened April 24, 1900. On the lower reach navigation closed November 27, 1899, and opened April 24, 1900.

The height of water on the mitre sills of the locks was very fair throughout the season, though there is still room for much improvement in regard to the regulation 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 Peterborough is, under the present circumstances very unsatisfactory. Owing to the mills at Lakefield using all the surplus water, any temporary stoppage in the mills almost stops the entire flow, in consequence of which the mills below are often stopped for a time. If the mill-owners at Lakefield were to notify the caretaker of the dam at Lakefield when it was 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

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over 50 dams at present constructed which control about 70,000 acres of water in which over 25 million cubic feet of water can be stored, not considering the large quantity that could also be stored by many new dams which could be constructed but which do not at present exist. The proper storing and regulating 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 total number of lockages for the season was 4,491, being about 20 per cent of an increase over those of last year, though 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 23 steamers engaged in commerce on the reach between Lakefield and Balsam lake, besides a like number of small steamers belonging to private individuals.

There are 7 steamers on the reach between Peterboro' and Heeley's Falls and several on Lake Simcoe. Many of the larger steamers are of considerable size; some of them carry as many as 450 passengers.

REPAIRS.

The following repairs were executed at the different stations :—

CHISHOLM'S RAPIDS.

The dam at this station is in a bad condition and a new dam should be built. It would be a useless expenditure to repair the present dam.

HEELEY'S FALLS.

The dam at this place is in a good state of repair. The dam is made up of two sluiceways and 451 feet of flat tumble dam. There should be four more sluiceways made in this dam in order to properly regulate the water level above.

HASTINGS.

A new pair of lock gates for the lower entrance were constructed. The guide booms leading to the dam were repaired and 200 feet of new three stick boom built. The flooring of the slide was rebuilt.

PETERBOROUGH.

New rails were placed on the dam as a track on which to move the stoplog winches. The platforms over the sluices were also repaired. The lock gates were repainted.

OTONABEE RIVER.

New buoys were placed in the river and the river was snagged.

LAKEFIELD.

New stoplog winches were provided for the dam. The channel on the west side of the island was dredged. The floor of the small slide was renewed.

YOUNG'S POINT.

Some new stoplogs were provided for the sluiceways.

* STONY LAKE.

A number of new buoys were placed in the several channels in this lake and the old buoys were repainted.

BURLEIGH.

The swing bridge was replanked and several new stoplogs were provided for the dam.

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LOVESICK.

A new lock house was built for the lockmaster to live in, the old house was too small and was in bad repair. New stoplogs were also provided for the dam.

BOBCAYGEON.

The wall of the west side of the dry dock was replanked. The floor of the lock was repaired, and was also the lock gates.

SCUGOG RIVER.

The beacons at the mouth of the river, which were injured by the ice, were repaired and painted.

FENELON FALLS.

New chains were put on the lock gates, the old ones having become so rusted that they were unsafe. New stoplog winches were also provided for the dam.

INCOME.

The following work chargeable to income was executed:—

HASTINGS.

The removal of rock from the navigation channel was continued and completed, and now there is a navigation channel 80 feet wide with over 6 feet of water through it. The length of the channel is 800 feet.

OTONABEE RIVER.

The shoal at the 'Yankee Bonnet' was removed and the new channel is greatly appreciated by the steamboat men. The channel is 80 feet wide and 700 in length, and has over 6 feet of water in it. From 3 to 4 feet of hard clay and hard-pan was removed from the bottom to make this channel.

BURLEIGH.

A new landing pier at the lower entrance to the lock was constructed. The substructure is cribwork and the upper work is of concrete. The piers are 150 feet long and 10 feet wide; the concrete superstructure is 7 feet base, 4 feet on top and 5 feet high. It is a great boom to navigation, as heretofore the snubbing ground was very inadequate.

LOVESICK.

A new landing pier 80 feet in length was constructed at the lower entrance to the lock. This pier was constructed wholly of concrete, and considerable of rock had to be blasted to provide a seat for this pier to rest on.

CAPITAL.

CONSTRUCTION.

Section No. 1, Simcoe-Balsam Lake Division.—The contract for this section was awarded to Andrew Onderdonk on April 22, 1895. The work on this section is almost completed but the finishing up has taken a very long time. The only work remaining to be done is the finishing of the small dam near Victoria Road Village, the placing of the concrete superstructure on the Victoria Road rest piers and some cleaning up of the bottom of the prism at several places. This work should be completed in a few weeks.

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Section No. 1, Peterboro'-Lakefield Division.—The contract for this section was awarded to Messrs. Brown, Love & Aylmer, on August 19, 1895. The work on this section is completed with the exception of completing the dredging of the channel for about 600 feet below the lock at Lakefield. This would have been completed sooner, but the dredge could not be obtained, as it was engaged by the Department of Public Works at Lindsay. This contract should be completed by the end of this season.

Section No. 2, Peterboro'-Lakefield Division.—The contract for this work was awarded to Messrs. Corry & Laverdure on May 21, 1896. Progress on this contract has been very slow. Up to the end of June the necessary excavation for the lock pit was not completed. Only one concrete mixer was working at the hydraulic lock, and if the work is not pushed ahead much faster this contract will not be completed before the end of next season. The excavation for the embankment leading to the lock is only fairly well started; it will take many months yet, at the present rate of working, to complete the excavation for this embankment. There are a number of points along this section at which the work is left unfinished. These unfinished pieces of work should be finished this season, and the only work remaining to be done will be the concrete walls and towers, and the excavation in connection with the hydraulic lock.

PRESS WELLS.

The contract for the excavation and the foundation of the press wells for the hydraulic lock was awarded to Messrs. Corry & Laverdure on January 15, 1900, and they were to be completed by the 1st of May last. Judging from the progress made up to June 30 it will be six months yet before the wells are completed.

HYDRAULIC LOCK.

The contract for steel work in connection with the hydraulic lock was awarded to the Dominion Bridge Company. The date of completion of the contract was May 1, 1900, but till the contracts for the concrete and press wells in connection with this lock is completed the work of erection cannot be gone on with. As stated above, the concrete walls and towers will not be completed much before the end of next season, therefore the work of erection of the steel work cannot go on till then. A considerable part of the steel work, including the cast steel sections for the press wells, has been delivered on the ground leased by the Government, and an advance has been paid to the contractors on the material delivered. The work of erection should not take over six months.

TRENTON DIVISION.

The surveys were made, the location of the works laid out, the plans and specifications prepared and the work advertised for letting, but the letting of the contract was postponed.

PORT HOPE ROUTE.

From instructions received, surveys are being made for a line between Port Hope and Rice lake with a view of a possible outlet for the canal into Lake Ontario. When the surveys are completed, plans and an estimate of the cost of this work will be made.

PLANT.

The dredge *Otonabee* with dump and drill scows was continuously employed throughout the year. Up to the end of July the dredge was leased to Andrew Onderdonk for dredging the entrance to the canal at Balsam lake. For about two months it was leased to Brown, Love & Aylmer for excavating the entrance to the canal at Lakefield. It was then employed till June 30 by the Department of Public Works in dredging the navigation channel in the Scugog river at Lindsay.

The stone lifter *Trent* was employed continuously in deepening the channels at Hastings and Yankee Bonnet.

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TUG 'EMPIRE.'

The tug *Empire* has been fully employed throughout the year at hauling scows from the dredge, buoying out the navigation channel, delivering timber, gravel and stone for the various works of repair along the route.

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

RICH'D B. ROGERS,
Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Railways and Canals.

RIDEAU CANAL.

SUPERINTENDENT ENGINEER'S OFFICE,
OTTAWA, July 16, 1900.

SIR,—I have the honour to submit herewith my annual report on the Rideau canal, under my charge, for the fiscal year ended June 30, 1900.

Navigation closed at Ottawa, November 30, 1899.

“ “ Kingston Mills, November 24, 1899.

“ opened at Ottawa, May 1, 1900.

“ “ Kingston Mills, May 1, 1900.

The depth of water maintained in the various levels throughout the whole season of navigation was excellent, no trouble from low water having occurred anywhere.

The freshet last April was not so violent as usual, and was passed through the various weirs without any damage worth mentioning, except at Black Rapids, where the ice slightly damaged the centre bent of a new stoplog bulkhead, that had been built last winter.

The principal works and repairs performed at the various lock stations along the line of the canal are as follows:—

OTTAWA.

The lock house was partially destroyed by fire on February 2, the fire originating from defective insulation of the electric light wires. The damage has been made good at a cost of about \$550. Two pairs of lock gates were renewed. Small repairs were made to the basin wharfs and to the roadway in rear of the same. The chambers and piers of two of the locks at this station were grouted with Portland cement, and the river lock was cleaned out by our diver. Ten of the manhole gratings, each 5 feet square, and which had hitherto always been of wood, were replaced by iron gratings. It will be noticed that this has been done at several stations, and is on account of an accident having occurred to myself at Long Island, last August, when one of the wooden gratings gave way under me, allowing me to drop 25 feet down the manhole. Fortunately the sluice was up at the time and I was carried by the water through the culvert in the lock wall out into the lock below. To prevent the possibility of a recurrence of a similar accident I am having the wooden gratings over the manholes taken up and replaced with iron ones.

STEWARTON BRIDGE.

The whole bridge was covered with 2-inch plank, which was laid over the old planking, and small repairs were made to the piers and to the turntable of the bridge. A small well was sunk for the bridge keeper's house.

BANK STREET BRIDGE.

Small repairs made to the machinery, and gravel placed on the approaches to the bridge.

HARTWELL'S.

The piers and chambers of both locks were grouted. Small repairs were made to the bridge, and sundry small repairs made to station. Three iron manhole gratings were put in place.

HOGSBACK.

Repairs were made to one of the guard posts in the new bulkhead, which had been damaged by ice. The planking between the old and new bulkheads was renewed, as well as repairs to the planking of the apron below. Small repairs were made to the cellar and porch of the lockhouse, and a tile drain laid from the former.

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BLACK RAPIDS.

Extensive repairs were made to this station, on account of the damage done to the works a year ago. The long dam was shortened by building a stoplog bent into the end of it : and two other weirs were rebuilt. The cribwork piers below the dam were repaired. A new ice breaker crib, 20 feet by 20 feet, was built above the new works, but it was badly damaged by ice this spring, in fact it was almost overturned. One of the new bents in the weir was shifted from its foundation by the ice, but it has been secured for the season, and will be repaired next winter. Two new iron manhole gratings put in place.

LONG ISLAND.

Twenty new stoplogs were made for the bulkhead. Two of the lock chambers were grouted. The upper wing walls of the upper lock will be rebuilt next winter, as well as the gates between them. Some clay was put in front of the weir, and small repairs made to the station. Four new iron manhole gratings put in place.

MANOTICK BRIDGE.

Trifling repairs were done here by the bridge keeper.

WELLINGTON BRIDGE.

The whole bridge was covered with 2-inch plank, laid over the old plank, excepting the swing, which was entirely replanked with 3-inch plank, and the approaches were graded up with gravel, the whole being done by contract with Mr. Butler, of Kars.

BECKETT'S LANDING BRIDGE.

Small repairs made to the planking by the bridge keeper.

BURRITT'S RAPIDS.

Small repairs made to the lock and to the swing bridge in the village.

NICHOLSON'S.

The bulkhead of the cut was rebuilt last winter. Sundry small repairs were made to the locks and bridge.

CLOWE'S.

One pair of footboards placed on lock gates, and small repairs, such as painting, pointing and grouting, &c.

MERRICKVILLE.

One pair of lock gates renewed. Five swing beams repaired, and four new chain blocks made. Portion of the south wall of the upper basin fell in this spring. Temporary repairs were made without delay to navigation, and the whole wall will be rebuilt next winter. Four new iron manhole gratings put in place.

KILMARNOCK.

A new stoplog bulkhead was built across the head of the upper cut, and a set of 40-foot stoplogs furnished therefor. The upper cut was blasted out and deepened, from the new bulkhead to the lock : the work being done by contract with Mr. Timothy Delaney, of Ottawa. This work was done under great difficulties ; as the extraordinary rainfall last winter kept the reaches so high that the work was constantly flooded with water and ice. A small portion of the excavation near the lock was unfinished, as the freshet drove the contractor's men out of the cut before they could reach that point ; but the amount left undone was so small, as to be practically of little detriment to

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navigation. A new stone wall of dry masonry was built on the north side of the cut, and mooring posts set therein to serve as a lay by place for boats. The usual small repairs were made to the station from time to time.

EDMOND'S.

Small repairs were made to the stone dam, and also to the lock and waste weir. A tile drain was put through the lock flat, between the lock and the lockhouse, and what was formerly a swamp, is now a dry lawn; the work having been done by the lock-master.

OLD SLY'S.

The wooden swing bridge across the lock was taken down, and a new one erected, by our own carpenters. Five new ice breaker cribs were built above the waste weir, and sundry small repairs made to the station. Four iron manhole gratings put in place.

SMITH'S FALLS COMBINED.

Small repairs made to locks and swing bridge. Four new chain blocks made, and four new iron manhole gratings.

SMITH'S FALLS DETACHED.

One pair of lock gates renewed. Four swing beams repaired, and four new chain blocks supplied.

POONAMALIE.

The bulkhead piers at the head of the upper cut were repaired from low water line up. The retaining dam was repaired and strengthened, and the platform of the stoplog bulkhead was rebuilt. Gravel was furnished and spread on the dam, and above the cut, and sundry small repairs made to the station generally.

PERTH BRANCH.

The abutment of the retaining dam that was burned last summer, was rebuilt. Repairs were made to the rip-rap and culverts in the cut between the upper and lower locks, and sundry small repairs made to the station generally.

In the town of Perth, the basin wharfs were repaired where the planking was worn out. Repairs were made to the steel swing bridges, and to the culverts on the tow-path road.

OLIVER'S FERRY BRIDGE.

The swing span of the long bridge was rebuilt, and small repairs made to the flooring of the bridge.

THE NARROWS.

Gravel was placed on the dam, and sundry small repairs made to the station generally.

NEWBORO'.

Some boulders were taken out of the cut. Two new 40 foot stoplogs were furnished for the bulkhead, and small repairs made to the lock and station generally.

CHAFFEY'S.

Small repairs made to the lock and waste weir, and to the station generally.

DAVIS'S.

Small general repairs made to the station.

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JONES'S FALLS.

The west wing wall of the upper lock on the lower side was taken down and rebuilt, and the upper sill of the basin lock had several new pieces of stone put in, and was thoroughly grouted. The whole station was grouted by our masons, who did the repairs above mentioned. Small repairs were made to the stone dam and to the swing bridge and station generally.

BREWER'S UPPER MILLS.

One pair of lock gates were renewed, and small repairs made to the locks, embankments and station generally.

BREWER'S LOWER MILLS.

The long piers above the lock were rebuilt. Gravel placed on dam, and small repairs made to the station generally.

KINGSTON MILLS.

One pair of lock gates renewed, and one pair of sluice frames and new foot boards framed and put on upper lock. The swing bridge was repaired, and gravel placed on the dam. The upper wing walls on the upper lock were rebuilt, and several new hollow quoin and coping stones put in at various parts of the locks.

BRASS'S POINT BRIDGE.

Small repairs made to the flooring and hand railing. The swing span will be rebuilt next winter.

GENERAL.

The pointing and grouting of the lock masonry was done, as usual, by the lockmen; the cement for which was furnished by contract with Messrs. Eyre & Gordon, of Ottawa. The painting of the houses, bridges, lock gates, &c., was also done by the lockmen: the paint being furnished by contract with Mr. W. G. Charleson, of Ottawa. The contract for the supply and delivery of the Douglas fir dimension timber required for the next winter's repairs, has been awarded to Mr. M. Ryan, of Smith's Falls.

DREDGING PLANT.

The dredge *Rideau* was employed last summer in dredging at Kingston Mills, and at Ottawa. She was entirely rebuilt last winter in the Canal basin in Ottawa, the boiler and machinery being placed in the new vessel. This work was done by contract with Mr. John Burns, of Ottawa, and was executed most satisfactorily. The tug *Shanly* was employed last season in attendance on the dredge, delivering stores, buoying out the channel, removing logs, stumps, &c., therefrom at various points, and also on inspection work. She was raised up this spring and thoroughly caulked and some of her lower planking renewed, and is now in first class shape.

Three of the dump scows were repaired this spring, and the whole of the fleet of scows, i.e., four dump scows and one flat coal scow are in fair order, although in a year or two new ones will be required altogether.

I append hereto, a table showing the highest and lowest water during each month of the year at Ottawa and Kingston Mills lock stations.

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

ARTHUR T. PHILLIPS, Mem Can. Soc. C.E.,
Superintending Engineer.

COLLINGWOOD SCHREIBER, 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 Sills of the Locks at Ottawa and Kingston Mills, respectively, from July 1, 1899, to June 30, 1900.

OTTAWA.				KINGSTON MILLS.			
Highest.		Lowest.		Highest.		Lowest.	
	Ft. In.		Ft. In.		Ft. In.		Ft. In.
July 12.....	14 8	July 31.....	11 6	July 21-31.....	8 1	July 1-20.....	8 0
Aug. 2.....	11 7	Aug. 31.....	7 11	Aug. 1.....	8 1	Aug. 28-31.....	7 4
Sept. 30.....	9 10	Sept. 16-20.....	6 11	Sept. 1-6.....	7 4	Sept. 18-23.....	7 0
Oct. 3.....	11 0	Oct. 19.....	9 2	Oct. 1.....	7 1	Oct. 24-31.....	6 8
Nov.....	9 10	Nov. 30.....	8 3	Nov. 1-21.....	6 8	Nov. 27-30.....	6 6
Dec. 27-31.....	12 2	Dec. 1-11.....	8 3	Dec. 28-31.....	6 9	Dec. 1-6.....	6 6
Jan. 1.....	12 1	Jan. 23-31.....	9 9	Jan. 29-31.....	7 0	Jan. 1-4.....	6 9
Feb. 15.....	10 1	Feb. 28.....	8 10	Feb. 17-28.....	7 1	Feb. 1-16.....	7 0
Mar. 1.....	8 10	Mar. 16-31.....	8 7	Mar. 24-31.....	7 6	Mar. 1.....	7 1
April 28.....	19 9	April 1.....	8 7	April 28-30.....	7 11	April 1.....	7 6
May 1.....	19 0	May 31.....	15 3	May 18-23.....	8 0	May 9.....	7 8
June 5.....	16 2	June 27.....	11 0	June 20-31.....	8 0	June 1-19.....	7 11

A. T. PHILLIPS,
Superintending Engineer.

RIDEAU CANAL OFFICE,
OTTAWA, July 16, 1900.

ST. LAWRENCE DISTRICT.

SUPERINTENDING ENGINEER'S OFFICE,

CORNWALL, July 1, 1900.

SIR,—I beg to submit my annual report upon work of construction, survey, &c., as connected with the enlargement of the St. Lawrence canals, for the year ending June 30, 1900.

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 Dickinson's Landing, a distance of $11\frac{1}{2}$ 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 weirs, 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 20, and the adaptation of the basin between old locks 16 and 17 to the purpose of a dry-dock, also dams, weirs, guard gates, and automatic dam at lock 20, rendered necessary by the adoption of the Sheik's Island channel, and the masonry superstructure with ice-breaker on the piers at the upper entrance.

The Sheik's Island channel does away with the imperfectly constructed embankments west of Mille Roches, embraced in contracts 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 $3\frac{1}{2}$ miles of very tortuous canal navigation, unfit for the class of vessels for which the enlarged canal system was intended and substitutes $2\frac{3}{4}$ miles of what can be classed as lake navigation, thus dividing the canal into two sections, the lower or eastern section 6 miles long, upper or western section $2\frac{1}{4}$ miles, with $2\frac{3}{4}$ miles of lake navigation between, and saving about $\frac{1}{2}$ 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 weir and headrace to the mills, which were afterwards completed under the contract for the 2nd section.

The next section to be let was No. 10 to Messrs. Jocks, Delorimier & Broder, who commenced work in 1884, and with the exception of the upper entrance, completed it in 1895.

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LIST OF CONTRACTORS.

Locality.	Section.	Contractors.	Date of Contract.
Cornwall.....	2	Wm. Davis & Sons	Nov. 5, 1888.
Lock No. 19.....	3	"	"
Maple Grove.....	4	"	"
Sheik's Island Dams		"	June 19, 1893.
Mille Roches.....	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		The Weddell Dredging Co	

NOTE.—Section No. 8 adjoins Section No. 10.

During the past year the work in connection with the protection, &c., of the guard gates above lock 20 was completed under contract for section 4, and the extension of the guide piers above and below the guard gates by contract entered into with Messrs. J. & R. Miller.

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 extending, 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. The contractors have had two dredges engaged on this work since last October, except during the period they were laid off for the winter, from December 30, 1899, to April 4, 1900. Between stations 37 and 71 the old channel has been completed, and the excavation of the north bank down to the bottom angle is well advanced. The fencing along the new canal limits is nearing completion.

The entrance to new lock 15 and the basin between locks 15 and 17 has been dredged to remove the large deposit of detritus that had accumulated after the accidents in July, 1898. Messrs. Manning & Macdonald's dredge having been employed on this work for 582 hours.

The old locks have been kept in a state of repair so that they could be used in case of accident to the new ones, by the class of vessels hitherto employed on the St. Lawrence, also for the purpose of admitting vessels requiring repairs to the dry-dock formed between locks 16 and 17.

FARRAN'S POINT CANAL.

(Opened for traffic 1847.)

This canal is situated about 5 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 $\frac{3}{4}$ mile long with a lockage of $3\frac{1}{2}$ feet. In the year 1847 the original canal, for 9 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 lockages 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.

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.

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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, (the lock extends 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 the 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 Queen'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 heavy draught vessels.

The work done during the past fiscal year was as follows:—

The contractor's dam at the eastern end of lock-pit was removed.

At the eastern entrance, the timber superstructure of the north pier is now well advanced and the first course of masonry has been laid on crib substructure of the south pier.

At the upper or western entrance, the north pier has been completed and the south pier is also complete except some stone filling at the back of the masonry superstructure.

The work of putting stone protection on the banks has been commenced.

All the masonry in connection with the lock has been completed and oak mooring posts placed on the north side. The excavation of the canal channel by dredging, &c., has been far advanced that more than 14 feet depth of water is available at the lowest stage of the river.

An agreement has been entered into with the contractors to further protect the banks by sodding. This work is now being proceeded with.

WILLIAMSBURG CANALS.

RAPIDE PLAT CANAL.

(Opened for traffic 1847.)

The lower entrance of the Rapide Plat or Morrisburg canal is situated about $9\frac{1}{2}$ miles west from the present head of the Farran's Point canal. It was designed to overcome the Rapide Plat, requiring a lockage of $11\frac{1}{2}$ and extends from the village of Morrisburg to Flagg's Bay, a distance of $3\frac{3}{4}$ miles.

This original canal for vessels of 9 feet draught, was opened for traffic in 1847.

The works 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, and regulating weir, &c., and the construction of a new road to replace the highway destroyed by the canal improvements.

The old lift lock was also put in thorough repair and the still lowered so as to admit of 9 feet navigation through it at lowest water.

For the purpose of enlargement the canal was divided into four sections, each lot as a separate contract as follows:—

Location.	Section	Contractors.	Date of Contract.
Morrisburg.....	1	Poupore & Fraser	January 26, 1851.
Mariatown.....	2	Weddell Dredging Co.....	" 12, 1891.
New Road.....	3	Poupore & Fraser	" 26, 1891.
Flagg's Bay	4	William Broder.....	April 2, 1884.

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The work on all the sections has been completed, and the final estimates have all been completed and forwarded to the department for approval.

The work of widening and straightening at Mariatown Point, once commenced but afterwards held in abeyance, will shortly be resumed by the Weddell Dredging Co., under their contract for section 2.

It is also proposed to widen and deepen the upper entrance so as to make a safer and better approach from the west. The necessary surveys, plans, &c., for this work have been made and tenders will be invited.

GALOPS CANAL.

(Opened for traffic in 1847.)

Between the head of the Rapide Plat canal and the foot of the Galops at the village of Iroquois, there is a $4\frac{1}{2}$ 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 9 feet of navigation in 1847. The lower, or easterly section called the Point Iroquois canal, commenced at the village of Iroquois and extended to Presque'île. It was 3 miles long and had a lockage of 5 feet 7 inches, which overcame the rapid of Pointe aux Iroquois.

The upper, or westerly section commenced at the village of Cardinal and extended up stream 2 miles to the head of the Galops rapids, it had a lockage of 6 feet 8 inches, and surmounted the Cardinal and Galops rapids. This was known as the Galops canal.

About ten years after the completion of these canals, they were connected by an embankment built in the river, and other improvements made, increasing the total length of canal to $7\frac{1}{2}$ miles and the lockages 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, connecting directly with the river immediately below the Galops rapids, and a new guard lock, both 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 to the new locks at Round Bay, a distance of about 1 mile.

This has all been completed except the pier below the guard lock, and the improvement of the channel at McLaughlin's Point.

In the year 1897 the Government advertised for tenders for the enlargement of the other portions of the canal, dividing it into two sections of contracts of about 3 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 the 31st January, 1899.

The time for completion has since been extended.

The scheme of enlargement contemplated the raising of the level of the reach between Iroquois and Cardinal 6 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.

The lift lock at Cardinal will be cut off from the canal and connected directly with the river and used only to accommodate the village of Cardinal, its industries and the coasting trade.

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, flotilla lock 800 feet long by 50 feet wide, weir, bridges, retaining walls, &c., and the straightening, deepening and widening of the canal for about 3 miles, also the reconstruction of the highway north of the old canal, &c.

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During the past fiscal year all the masonry in connection with lock, sluiceways, regulating and power weir, retaining walls, culverts, &c., was completed except two culverts and a short stretch of retaining wall between the north-west wing wall of old lock and the weir. The excavation at the entrance is practically finished, also the south-east entrance pier with its masonry superstructure. The north-east pier is complete for 500 feet east from the lock. The prism of the canal is all down to grade and of full width except at two or three points which are now being dredged. The inside slopes of the banks have been protected with broken stone for a few feet above and below the water line of the canal, and the inside crests of the banks are being sodded as a further protection, as is also the north slope of the north bank; considerable work has been done toward trimming up the banks. The swing and fixed bridges across the prism of the old canal and the head of the new lock have been placed in position, and the highway north of the Canal rebuilt. The right of way across Presqu'île has been fenced and considerable ditching done on the south side, and mooring posts have been placed in position around the lock.

The sluice gates for the lock, regulating weir and gates for the power openings in weir have been built and placed in position.

There remains to be done considerable trimming and sodding, the extension of the north-east pier for a further distance of 150 feet, the deepening of the Government ditch north of old canal, the removal of some portions of the old canal bank, the building of two culverts and other small items of work.

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 3 miles.

The work consists in the 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 deep at the highest point, requiring the excavation of about 2,000,000 c. yds. of material, of which 1,813,500 c. yds. have been removed, leaving 186,500 c. yds. still to take out, principally for the formation of the highway along the north side and for the removal of the dams at either end.

Deep Cut.—The quantity of earth removed during the year was 153,500 c. yds., up to August 25, 1899, three steam shovels were employed day and night at this excavation, and during the day only, from that date until November 2, 1899, when all had been accomplished that could be done by this method, the shovels were then removed from the cut.

Earth excavation east of Deep Cut.—This includes the widening of the old canal, the removal of a portion of old tow-path, and the dredging of new prism across Glasford's Bay, requiring the excavation of 228,000 c. yds. of material; of this 75,000 c. yds. have been excavated, leaving 153,000 c. yds. still to be removed. During the year 49,000 c. yds. were taken out, one dredge being employed up to December 12, 1899, resuming April 29, 1900; she still continues at this work. A steam shovel has also been at work here since May 19, 1900.

EARTH EXCAVATION WEST OF 'DEEP CUT'.

This consists of widening and deepening of the old canal at Gate's Point, removal of portions of the old south bank and the dredging of prism of new canal, and the seat of cribwork and embankment across Gate's Bay.

Total material to be excavated was about 324,000 cubic yards, of which 257,000 cubic yards have been taken out, leaving about 67,000 cubic yards to be removed. During the year 61,000 cubic yards were excavated. One dredge only was engaged on this work, working last season till December 12, 1899, resuming May 19, 1900 and continuing until July 1, 1900.

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About 430,000 cubic yards of the material excavated has been utilized in raising and widening of south bank of canal at east end of section, and forming of new banks across bays east and west of 'Deep Cut' and raising of highway on the north side of canal at east end of section. With the exception of the gap across the old canal at east end of 'Deep Cut' all the banks are practically finished and about 5,800 lineal feet at the east end of section has been protected with stone.

ROCK EXCAVATION.

About 10,000 cubic yards square of solid or ledge rock was encountered in the 'Deep Cut' and all excavated during the past year. The total quantity of solid rock and boulders excavated on section during the year was 11,000 cubic yards.

RAILWAY AND HIGHWAY SWING BRIDGE ACROSS 'DEEP CUT.'

The laying of masonry for this structure commenced June 29, 1899, and was completed September 15, 1899. The foundations of the pivot pier, east and west rest piers and the north abutment were on solid rock. The south abutment rests on a foundation of timber and concrete. The total masonry in these structures is 3,350 cubic yards. The erection of the steel superstructure of this bridge commenced September 28, and was completed and brought into use January 23, 1900. The masonry revetment walls on the rock in 'Deep Cut' were commenced July 1, 1899 and completed May 1, 1900. They are each 860 feet long and connect with the crib and masonry revetment walls at each end. These walls contain about 10,500 cubic yards of masonry.

The construction of the cribwork revetment along the sides of the 'Deep Cut' for a length of 5,500 feet was started August 3, 1899 and finished January 10, 1900, except a short length that cannot be built till the east dam is removed. The filling in, and behind the cribwork with stones was carried on as nearly simultaneously with its construction as was practicable, 300,000 cubic feet of timber, 267,000 lbs. of iron, and 42,000 cubic yards of stone were required for this structure.

The building of the masonry revetment wall on top of the cribs was commenced April 2, 1900 and continued until May 30. 1,200 lineal feet of wall at the west end of the 'Deep Cut' was completed and the space behind filled with stone. There still remains 4,200 lineal feet of this wall to construct, the cut stone for which is on the section.

All the work that could be done dry in the 'Deep Cut' having been finished, water was let in from the reach below the lock on June 1, 1900.

Several small slides from the face of the slopes of the $\frac{1}{4}$ 'Deep Cut' have occurred during the year, the most serious during the night of January 20, 1900, at station 273, north side, carrying about 60 feet of cribwork partly across the canal. This piece of cribwork had only been partly filled with stone, and the slide sheared off the upper portion; the lower portion 6 feet in height, that had been filled, remained intact. The slides always occurred after heavy rains and contain about 3,000 to 5,000 cubic yards each of material, the total not exceeding 25,000 cubic yards or about $1\frac{1}{4}$ per cent of the quantity taken out of the cut.

GALOP'S RAPID IMPROVEMENT.

This work consists in the excavation of a straight channel 200 feet wide and 17 feet deep through the shoals of the rapid, which are known by the following names, viz.:—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 has to be performed through the swift water of the rapid.

The work as originally designed was finished in November, 1888, but in view of the apparent permanent lowering of the water surface of the River St. Lawrence in the channel, 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 con-

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tract grade, an agreement was entered into in the year 1897 with the Gilbert Brothers 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 toward the south or Adam's Island.

The plant employed consists of a dredge, drill scow, tugs, scows, &c., all adapted to the special work in hand.

During the past fiscal year the dredge was employed from June 30, to July 8, in widening the entrance and from the last mentioned date to December 8, in sweeping and sounding on the lower bar; she was then laid up. The work of sweeping and sounding was resumed April 18, 1900 and the whole channel completed May 28. Since May 31, she has been dredging for the widening of the entrance. The soundings taken after the sweeping show that the channel through the shoals is all down to grade, except at three points on Island Shoal has been blasted.

The drill scow was engaged in drilling and blasting on the upper bar from July 1, to September 6, 1899, and on Island Shoal from September 12, to November 11, from November 14 to December 1, she was engaged in making a survey of the north point of Island Shoal and was then laid up. Work was resumed on Island Shoal May 14, 1900, and continued up to the end of the fiscal year.

The advisability of lowering the grade on Island Shoal from 6 inches to 1 foot, as recommended in former reports, is again submitted for immediate action by the department.

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 Chimnet Point, a distance of $2\frac{1}{3}$ miles.

It was constructed to avoid the sinuous natural channel passing through American waters, which is about $\frac{3}{4}$ 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 200 feet wide, 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 the building of entrance piers.

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.

In connection with this contract it is proposed to form a dam across the 'Gut' channel between Adams and Galops islands by utilizing the rock excavation from the east end of the 'North Channel.' This question awaits the decision of the department and is considered urgent.

At the lower entrance, below the dam a channel 175 feet wide and of the full depth has been made through the shoals and the subaqueous drilling and blasting necessary for the full width of 300 feet is well advanced. About 600 lin. ft. of crib-work pier has been built, ballasted and partially protected by a stone talus and a portion of the lower dam excavated.

At Drummond island a steam shovel was kept constantly at work during the season in excavating the prism.

At the upper entrance all the shoals obstructing the channel have been divedged out for the full depth and width.

About 360 lin. ft. of bank protection was built, also 3,000 lin. ft. of curbing or coping.

On September 4, 1899, the upper dam was cut and water admitted to the space temporarily dammed off from the river. During the fiscal year 324,000 cubic yards of earth have been excavated and about 21,000 cubic yards of rock. On May 12, 1900, the channel was formally opened for navigation and has since been in constant use by all classes of vessels.

SESSIONAL PAPER No. 20

RIVER REACHES.

IMPROVEMENT OF CHANNEL—LAKE ST. FRANCIS.

From head of Soulanges canal to 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.

During the previous fiscal year a channel has been located between the above mentioned points with a minimum depth of 16 feet at low water, and surveys had been made with a view to straightening and widening it at certain points.

ST. REGIS SECTION, $2\frac{1}{2}$ MILES EAST OF CORNWALL.

It 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.

The time has since been extended.

At the end of the last fiscal year, 1898-9, the channel was over 150 feet wide and the dyke and cribwork partly constructed.

The channel is now 275 feet wide, the dyke practically completed and the cribwork finished. The work remaining to be done will be fully completed by the end of the present season.

Hamilton Island section.—Between the 7th and 11th mile east of the foot of the Cornwall canal.

The work consists in the dredging of a channel through, or of the removal of the following shoals:

The Middle Ground	10	miles east of Cornwall.
The Highlander Shoal	$10\frac{1}{2}$	" " "
The Horseback	11	" " "

A contract was entered into with Messrs. Manning & Macdonald, May 24, 1898 to be completed November 30, 1898.

The time for completion has since been extended.

The work on the Middle Ground, 700 feet long, was completed during the past fiscal year, except the protection of the Island crib, which still remains in the same condition.

On Highlander shoal, 600 feet long, the work proving too difficult for the class of dredge employed there, the contractors decided to wait until they could bring their more powerful machine from St. Regis shoal.

The Horseback, it having been decided not to remove this shoal at present, Clark's Island shoal, 350 feet long, has been substituted for it. No work has yet been done here.

ST. LAWRENCE RIVER AND CANALS.

During the past fiscal year all the reaches of the River St. Lawrence between Coteau Landing and Prescott have been thoroughly examined and swept, and the location for the new series of buoys, required to increase the scale of navigation from nine feet to fourteen feet ascertained, which on the opening of navigation for 1900 were placed in position, and have proved a valuable aid to the navigation of the river.

It is proposed to supplement the spare buoys by gas buoys, four of which have been delivered at the north channel, and will be placed upon the completion of the buoy steamer.

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The following is a list of the positions and number of gas buoys ordered for delivery, in time for the Fall navigation of 1900 :—

North Channel and Upper Entrance Galops Canal	4 buoys.
Crossover Shoal	1 "
King William Shoal	1 "
Sparrowhawk's Point	1 "
Tousaints Island	2 "
Point Iroquois	1 "
Morrisburg East Shoal	1 "
Doran's Island	1 "
Weagan's Shoal	1 "
Jack Ass Shoal	2 "
Foot of Gooseneck Island	1 "
Crysler's Island	1 "
Weaver's Point	1 "
Cook's Point, East Williamsburg	1 "
The Cat Islands Channel	1 "
Baker's Point	1 "
The Brickfield Shoal	1 "
Hoople's Creek	1 "
Cornwall Island	1 "
Clark's Island	1 "
Squaw Island Shoal	1 "
Island Bank	2 "
Point Mouille Flats	1 "
Port Lewis Flats	1 "
Hay Point	1 "
St. Zotique	1 "
	32 "

A few isolated boulders or points of rock found in the channel have been removed, and the change to 14 foot navigation has been carried into effect without interruption or accident.

The building of a combination buoy and derrick steamboat to be employed in the maintenance of the St. Lawrence river navigation was authorized and the contract for the hull let to Messrs J. & R. Miller, and that for the engines and boiler to the Water-engine Works Company, to be completed by May 1, 1900.

The hull was ready to receive the engines at the opening of navigation, but up to the present they have not been delivered.

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, Railways and Canals,
Ottawa.

SESSIONAL PAPER No. 20

WELLAND CANAL.

ST. CATHARINES, Ont., Sept. 26, 1900.

SIR,—I have the honour to report upon the operation and maintenance of the Welland canal and its branches for the fiscal year ending June 30, 1900.

The Welland canal system is as follows:—

Main line of canal, from Port Dalhousie to Port Colborne.

Length in miles	26 $\frac{3}{4}$
No. of lift locks	25
“ guard “	2
“ aqueducts	1
“ highway bridges	17
“ railway “	6
“ ferries	3

Constructed for 14 feet of water upon the mitre sills.

Old canal, from Port Dalhousie to Allanburg; now used chiefly for water power.

Length in miles	12 $\frac{1}{2}$
No. of lift locks	25
“ guard “	1
“ highway bridges	13
“ railway “	1

Nine feet of water is available at present.

Welland canal feeder, from junction with main line of canal to Grand river at Dunnville.

Length in miles	21
No. of locks	2
“ highway bridges	9
“ railway “	2
“ ferries	1

Five feet of water available at present.

Stromness branch, from Stromness, on the feeder, to Port Maitland, on Lake Erie,

Length in miles	1 $\frac{3}{4}$
No. of locks	1
“ highway bridges	1

Five feet of water available at present.

Chippewa branch, from Port Robinson, on the main line of canal, to the Niagara River at Chippewa.

Length in miles	8 $\frac{1}{4}$
No. of locks	1
“ highway bridges	3
“ railway “	3

Nine feet of water available at present.

The operation of the canal has been uninterrupted during the navigation season; the canal having been opened April 27, 1900, for the passage of downward bound boats, prior to which date the entrance at Port Colborne was closed by heavy ice.

There was 14 feet of water, and upwards, on the mitre sill of the lock at Port Dalhousie throughout the season, and the same may be said of the condition of the water at Port Colborne except in the months of September, October, November and Decem-

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ber, 1899, when, occasionally and for short periods, the water fell a little below the 14 feet mark. On two days in November, 1899, during easterly gales, the water for a few hours fell to 13 feet 1 inch on the mitre sill.

The Welland lockmaster, James Foster, was superannuated at the age of 78 years, and was succeeded by a new man.

A bridge tender on the new canal, Thomas Welch, was drowned July 17, 1900, and a new man was appointed in his place.

There were also four deaths of superannuated employees:

James McCabe,	died	November 8,	1899,	aged	72.
William Ellis,	"	December 15,	"	"	73.
John Neill,	"	January 30,	1900,	"	66.
Celia Cook,	"	"	"	"	80.

An attempt was made on the evening of April 21, 1900, to blow up lock No. 24, new canal, explosives being placed below the upper and lower gates and there exploded by fuses.

The attempt failed, beyond some damage to the gates which was soon made good, and the offenders were arrested the same evening at Niagara Falls, Ontario, thanks to the intelligent exertions of the Thorold police force, the Niagara Falls police force, and other citizens who rendered good service.

The offenders were tried at the Welland County Assizes in May, 1900, and were sentenced to imprisonment for life in the Kingston Penitentiary on May 25. The names of the offenders were Carl Dullman, John Walsh and John Nolan.

For the protection of the works a police force has been established on the canal under the control of the Dominion Police officials.

During the season of closed navigation the Grand Trunk Railway Company constructed the masonry and fender works for a new double track swing bridge to cross the canal below lock No. 17 by an over crossing.

The arrangement under which the bridge was constructed provides that it is to be maintained and operated by the Grand Trunk Railway Company at its sole expense, vessels having the right of way at all times.

The usual minor repairs to locks, weirs, bridges, towing-paths, embankments and ditches, have been made as required, absorbing large quantities of material, and keeping the repair force fully employed.

The canal was closed December 15, 1899, and opened for navigation April 27, 1900.

CAPITAL ACCOUNT.

Under the item of capital account are included the works of improvement of Port Colborne Harbour, and the construction of a swing bridge across the canal on the line of the 4th concession of Humberstone.

In connection with the agitation for a 20 foot waterway from salt water to the upper lakes, it occurred to the writer that the trade and commerce of the Dominion might be more widely and permanently benefited with a comparatively small expenditure, by making Port Colborne a point of transhipment for the upper lake vessels drawing more than 14 feet of water.

A design for docks at Port Colborne in 22 feet of water was accordingly prepared and submitted to the department, and after full discussion and the preparation of plans and specifications, tenders were invited and a contract awarded to Messrs. Hogan, Macdonnell & Co., who commenced work in May, 1900.

The design provided for a depth of 22 feet of water from the south end of the west pier outwards to deep water in Lake Erie, and over a sufficient area to admit of the largest vessels on the upper lakes entering and tying up at docks to be constructed in extension of the west pier, which docks would be available for the construction of elevators to receive grain from the upper lake vessels too large to pass through the Welland canal and transfer it to canal size vessels or railway cars.

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It was understood that a breakwater was to be constructed at Port Colborne by the Department of Public Works to enable the largest upper lake vessels to approach and tie up, or leave the new docks in all weathers, as without such protection a satisfactory business could not be expected.

In addition to the new works at the south end of the west pier, the specifications also provided for the basin being docked on each side with cribwork and a concrete superstructure, to afford berths for canal size vessels.

Mr. J. S. Weller was appointed engineer in charge to see the contract carried out.

The necessity for a bridge across the canal on the line of the 4th concession of Humberstone has long been felt, and the bridge now in course of construction is being built so as to afford an unobstructed channel one hundred feet in width between fenders.

The piers and east abutment are founded on piles and are composed of concrete laid in layers inside cofferdams.

The contract for the structure and approaches was awarded to Messrs. Rowan & Elliott of St. Catharines, April 5, 1900, and is now nearly completed.

The contract for the steel superstructure, which is an equal arm swing bridge 249 feet in length, and a fixed span of 26 feet clear span, was awarded to the Hamilton Bridge Works Company of Hamilton, May 21, 1900, and should be completed October 30, 1900.

The state of the steel and iron trade made it difficult to obtain the required material, and it is uncertain whether the contract will be finished on time.

INCOME ACCOUNT.

Under income appropriations, 977 lineal feet of the west pier at Port Dalhousie was renewed by Mr. John Riley under his contract dated September 8, 1898, the old cribwork being removed to a foot below low water mark, and concrete blocks 4 ft. x 4 ft. x 6 ft. formed of Portland cement concrete placed on both faces of the pier, which was raised to the finished height with Portland cement concrete placed behind moulds.

The hearting of the pier was composed of concrete formed of natural hydraulic cement manufactured in the neighbourhood.

The pile protection and fender works at Allanburgh were renewed by the canal repair force, as also were the crib fender works at Allanburgh and Port Colborne bridges.

Under Messrs. A. H. Irvine & Company's contract dated September 23, 1898, certain slides in the deep cut, amounting to 11,538 cubic yards, were dredged out, scowed to Port Colborne and dumped to the east of the second reef east of Port Colborne.

On the old canal, in addition to innumerable minor repairs, the weir aprons at locks 5, 6, 7, 8, 9, 10, 13, 14, 16 and 21 were repaired, and the foot bridges on weirs 4, 8 and 14 were renewed.

New head gates were put in lock No. 5, the guard gates above lock No. 24 were renewed, two new head gates were put in the Port Robinson lock, and four new gates in the Welland lock. The Keefer bridge over lock 22 level was rebuilt.

The scow *Hamilton* and Tool-boat *Hanlon* were rebuilt and painted, and the scow *Chippewa* was caulked and repaired.

The bridge houses at Marlatts, Allanburgh, Port Robinson, and the Welland lock house were painted, also the Allanburgh bridge over the old canal, and the lock houses at the Junction.

COLLECTORS' OFFICES.

There are on the Welland canal system five offices for the collection of canal revenues, namely, Port Dalhousie, St. Catharines, Chippewa, Port Colborne and Dunnville, those at Port Dalhousie and Port Colborne being open day and night except during the daylight hours of Sunday when the canal is closed.

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The payment of hydraulic and other rents is not altogether satisfactory, the non-payment amounting to a discrimination against similar industries elsewhere. In some localities the non-payment appears to have been reduced to a system which is spreading, and increasing the difficulty of collecting rents. The remedy is not in the hands of the local officers.

Appended will be found a statement of damages to canal property, and amounts paid or due for the same, and to whom paid.

Also a statement of fines collected from vessels or canal employees for breaches of canal rules and regulations.

Also a statement of the highest and lowest recorded depths of water monthly on the mitre sills of the locks at Port Dalhousie and Port Colborne.

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

W. G. THOMPSON, M. Inst. C.E.,
Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer, Railways and Canals,
Ottawa.

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STATEMENT of Damages to Welland Canal property during the fiscal year ending June 30, 1900, and the amount paid and unpaid on account of said damages.

Date of Damage.	Name of Vessel.	AMOUNT OF DAMAGES.		Date Paid.	WHERE PAID.
		Paid.	Unpaid.		Collector's Office.
1898,		\$ cts.	\$ cts.	1900.	
Aug. 15.....	Steamer S. Langell.....	17 50	.....	May 24.	Port Dalhousie.
1899.					
June 1.	" St. Andrews		29 31	.....
				1899.	
Aug. 9.	Standard Oil Co. No. 52.....	9 75	.....	Sept. 9.....	"
" 30.....	Steamer Badger State.	5 87	.....	" 18.....	"
" 30.....	" Empire State.....	40 00	.....	" 18.....	"
Sept. 2.....	" Tecumseh.....	6 77	.....	Oct. 17.....	"
" 24.....	" Peshtige.....	9 00	.....	" 18.....	"
" 28.....	" Rosemont	8 50	.....	" 14.....	"
				1900.	
Oct. 25.	Brig Agustus.....	29 80	.....	May 19.	"
				1899.	
Nov. 10.	" Porto Rico.....	10 00	.....	Nov. 10.....	"
		137 19	33 61		

STATEMENT of Fines collected from Vessels and Shippers contravening Canal Rules and Regulations, for the fiscal year ending June 30, 1900.

Date of Fine.	Name of Vessel and Shipper.	AMOUNT OF FINE.		Date Paid.	WHERE PAID.
		Paid.	Unpaid.		Collector's Office.
1899.		\$ cts.	\$ cts.	1899.	
Oct. 10.	Steamer Lincoln.....	20 00	.....	Oct. 18.....	Port Dalhousie.
1900.					
Apl. 20.....	Tug Landford	5 00	.....	Apl. 20.....	Port Colborne.
May 15.	Schooner W. H. Rounds.....	5 00	May 15.....	"
	Shipper.				
Apl. 25.....	J. H. Kratz	15 00	" 11.....	St. Catharines.
		45 00		

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STATEMENT showing the Highest and Lowest Depth of Water on the Lower Mitre Sill of Lock No. 1, New Welland Canal, Port Dalhousie, for the fiscal year ending June 30, 1900.

MONTHS.	LOWER SILL.		MONTHS.	LOWER SILL.	
	Highest.	Lowest.		Highest.	Lowest.
1899.	Ft. In.	Ft. In.	1900.	Ft. In.	Ft. In.
July.....	16 1	15 7	January.....	14 7	14
August.....	15 9	15 3	February.....	15 1	14
September.....	15 6	14 8	March.....	15 2	14
October.....	14 10	14 5	April.....	16 0	15
November.....	14 10	14 4	May.....	16 3	15
December.....	14 6	14 1	June.....	16 1	15 8

STATEMENT showing the Highest and Lowest Depth of Water on the Upper Mitre Sill of Lock No. 27, New Welland Canal, Port Colborne, for the fiscal year ending June 30, 1900.

MONTHS.	UPPER SILL.		MONTHS.	UPPER SILL.	
	Highest.	Lowest.		Highest.	Lowest.
1899.	Ft. In.	Ft. In.	1900.	Ft. In.	Ft. In.
July.....	15 2	14 6	January.....	16 7	13 1
August.....	14 11	13 9	February.....	15 7	13 6
September.....	14 10	13 9	March.....	14 10	13 5
October.....	14 2	13 6	April.....	15 1	13 7
November.....	14 6	13 1	May.....	15 1	14 3
December.....	15 3	13 3	June.....	15 10	14 2

SESSIONAL PAPER No. 20

ST. LAWRENCE DISTRICT.

SUPERINTENDING ENGINEER'S OFFICE,
CORNWALL, July 1, 1900.

SIR,—I have the honour to report on the maintenance of the canals under my charge during the fiscal year ending June 30, 1900.

The St. Lawrence district includes the Cornwall, Farran's Point, Rapide Plat, Galops, North Channel, and Murray canals, the improvement of the rapids and channels of the navigable reaches of the River St. Lawrence and Lake St. Francis.

CORNWALL CANAL.

Navigation for the season of 1899, closed on December 8, 1899.

The canal was unwatered for usual repairs on April 9, 1900, and remained unwatered until April 22, when it was opened for traffic.

The locks at lower entrance were dismantled and are properly secured for winter. During the season of navigation the dry dock was almost constantly in use for repairs to steam vessels, barges and contractors' plant, and during the winter it was used to its full capacity by contractors' tugs and dredging plant undergoing repairs, and also by local steamboats and tugs.

The usual work in preparation for spring repairs was carried on during the winter at the workshops.

Watchhouses for guard gates, Cornwall swing bridge, and lock No. 15, were placed in position.

During the past year navigation was maintained without interruption, and the water supply to the mills not interfered with.

New chain-well machinery was put in at locks 19 and 20.

The guard gates above lock 20 have been completed and brought into use.

The dredging in basin between new locks 15 and 17 has been completed to fifteen feet, and also the entrance below lock 15.

A life chain 200 feet long was placed in front of retaining wall at foot of Pitt Street, Cornwall, also three electric lights placed on north bank between Cornwall swing bridge and east end of retaining wall.

The following repairs were proceeded with :—

Thirty snubbing posts renewed between locks 18, 19 and 20.

Worm gear placed on weir at lock 20.

Old locks 18, 19 and 20, put in good working order.

The storehouse, icehouse, and the lockmaster's house, lock 15, shingled.

The outbuildings at overseer's residence thoroughly repaired.

Floor of Mille Roches bridge renewed.

Top-bars and bridge plank renewed on upper gates, lock 19.

Top-bars placed on spare gates, lock 18.

Gate lifter caulked.

Rip-rap west of lock 17 weir, south bank renewed.

Fence built around the Government land, north of lock 19, also on north bank west of guard gates.

Safety latches were placed on all gates of locks 15, 17, 18, 19 and 20, also on automatic gates at guard gates.

The ice-breaker and piers at lower entrance require extensive repairs.

A new regulating and supply weir at the head-race to the lower mills at lock 17, and extensive repairs to north bank between Pitt and Amelia Streets, are urgently required.

There have been superannuations during the year.

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The following are the fines imposed during the year :—

1899.	July 1	Fine	Barge 'Alberta'	\$ 5 00	paid.
1899.	" 29	"	" 'Gaskin'	2 00	"
1899.	" 30	Damages	Str. 'Melbourne'	5 00	"
1899.	Aug. 9	Fine	" 'Persia'	5 00	"
1899.	" 22	"	Barge 'Fannie'	2 00	"
1899.	Sept. 1	Damages	" 'Fred Carney'	5 00	"
1899.	" 10	"	Tug 'Larkin'	20 00	"
1899.	" 23	Fine	Str. 'Ocean'	5 00	"
1899.	" 24	Damages	" 'Melbourne'	5 00	"
1899.	" 27	"	Tug 'W. J. Poupore'	15 00	"
1899.	Nov. 8	"	" 'Mary Ellen'	5 00	"
1899.	" 9	Fine	Str. 'Lake Michigan'	5 00	"
1899.	" 21	Damages	Barge 'Brighton'	5 00	"
1899.	" 22	"	" 'Richard'	10 00	"
1899.	" 23	Fine	Tug 'Spray'	5 00	"
1900.	May 14	"	Barge 'Delaware'	5 00	"
1900.	" 21	Damages	Str. 'Theano'	25 00	not paid.
1900.	" 30	Fine	Tug 'Kate'	5 00	paid.
1900.	June 18	Damages	Barge 'Richard'	5 00	"
1900.	" 20	Fine	" 'Alberta'	2 00	"
1900.	" 20	Damages	Sch. 'Moonlight'	8 00	} paid at Dalhousie.
1900.	" 26	"	" 'Bothina'	10 00		not paid.

The highest water recorded during the season of navigation at lock 15, lower entrance, was 10 ft. 7 in., and the lowest 8 ft. 8 in.

The highest water recorded during the season of navigation at lock 21, upper entrance, was 10 ft. 4 in., and the lowest 7 ft. 11 in.

The highest and lowest water during the year ending June 30, 1900, at locks Nos. 15 and 21, is as under :—

Lock 15, highest—21 ft. 2 in., March 1, 1900.

" 15, lowest—8 ft. 7 in., Dec. 30, 1899.

" 21, highest—12 ft., March 6, 1900.

" 21, lowest—7 ft. 7 in., Jan. 18, 1900.

The above levels are with reference to the mitre sill of old locks 15 and 21.

WILLIAMSBURG CANALS.

The several divisions of these canals, viz. : Farran's Point canal, Rapide Plat canal and the Point Iroquois, the Junction and the old Galops canal, collectively known as the 'Galops canal,' were closed on December 8, 1899, and re-opened for the season of 1900 on April 23, but the actual date on which the several locks were opened was varied to suit the requirements of the contractors for the enlargement.

Navigation was maintained in a fairly satisfactory manner during the past year, in view of the extensive works of enlargement now in progress.

No accidents have occurred during the year, and no fines have been imposed during the season.

The repairs staff has been chiefly occupied in maintaining the old locks in working order, and on the following repairs :—

Cleaning out old lock 22.

Snubbing posts renewed where required at locks 22, 24 and 25.

A new storehouse built at lock 26 to replace one destroyed at Glucose factory fire.

Cleaning out upper entrance to lock 26.

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General repairs to all locks, lock gates, buoys and buildings.

Buoy-boat and scow overhauled and repaired.

Spare buoys prepared and ironed.

The buoy service from Cornwall to Prescott was duly performed at the close of navigation in December, 1899, and again at the opening of navigation in April, 1900.

The lowest water on the mitre sill of old lock 23, formerly the governing point on the canals in this district, during the season of navigation was 6 ft. 4 in. on October 27, 1899.

The lowest water on the mitre sill of old guard lock No. 27, during navigation was 7 ft. 7 in. on October 28, 1899, and the highest 10 ft. 5 in. on June 29, 1900.

MURRAY CANAL.

Navigation closed on December 15, 1899, and opened again on April 13, 1900.

748 vessels passed through the canal from July 1, 1899, to June 30, 1900.

No accidents occurred during the year.

The tow-path ditches and back ditches were cleaned out.

Weeds and brush were cut.

Stone scow was repaired.

Eastern and western entrance piers were repaired where necessary.

Floors of all road bridges renewed where required.

600 yards of tow-path graded.

The rip-rap was repaired for a distance of 840 yards and 945 cubic yards of broken stone used.

A new culvert was put in west of Brighton road bridge on north side of canal.

A dry wall was built in rear of blacksmith's shop.

The overseer Mr. T. P. Keeler, whose services were dispensed with on April 15, 1900, was replaced by Mr. W. Bensley on May 3, 1900.

The highest water recorded during the season of navigation 1899-1900, was 13 ft. 3 in. on June 9, 1900, and the lowest 11 ft. 6 in. on November 20, 1899.

I append a statement showing the highest and lowest water during the past year on each of the canals in my district, also a condensed statement of the highest and lowest water during the season of navigation, from the year 1891 to 1899, both inclusive.

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, Railways and Canals,
Ottawa, Ont.

STATEMENT of the Highest and Lowest Water on the Canals in the St. Lawrence District, for the year ended June 30, 1900.

MONTH.	CORNWALL CANAL.						WILLIAMSBURG CANALS.						LAKE ONTARIO.			
	Lock 15.		Lock 21.		Lock 22.		Lock 23.		Lock 24.		Lock 25.		Lock 27.		Murray Canal.	
	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.
	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.
	1899.															
July	10 2	9 7	10 0	9 6	9 4	8 9	9 0	8 3	9 6	8 4	12 0	10 10	10 0	9 4	13 2	12 6
August	9 10	9 5	9 7	9 0	8 11	8 4	8 6	7 8	8 8	7 5	11 3	10 1	9 6	8 8	12 10	12 5
September	9 6	8 9	5 4	8 5	8 8	7 10	8 8	6 11	8 2	7 1	10 8	8 10	9 2	7 9	12 6	12 0
October	9 1	8 9	8 9	7 11	8 0	7 4	7 1	6 4	7 5	6 4	9 9	8 5	8 7	7 7	12 0	11 9
November	9 2	8 8	8 8	8 0	8 0	7 0	7 5	6 5	7 5	6 4	10 2	8 6	8 8	7 8	11 11	11 6
December	9 6	8 7	9 9	8 0	8 9	7 0	8 2	6 3	8 2	6 5	10 3	8 4	8 9	7 8	11 9	11 4
	1900.															
January	19 7	9 3	8 10	7 7	8 4	7 0	7 6	6 0	7 5	6 0	9 8	8 2	8 7	8 0	11 10	11 6
February	20 9	15 9	9 10	7 11	9 10	7 6	8 2	6 5	7 5	6 3	9 9	8 5	9 3	7 8	12 1	11 7
March	21 2	14 2	11 8	8 8	11 4	8 3	8 9	6 8	7 8	6 0	10 0	8 3	8 8	7 9	12 4	12 0
April	15 9	10 2	10 0	9 1	9 9	8 6	8 9	7 9	9 3	8 0	11 9	10 2	9 9	8 7	13 3	12 4
May	10 4	10 0	10 3	9 8	9 6	9 0	9 2	8 5	9 5	8 6	11 10	11 0	9 8	9 1	13 3	13 1
June	10 9	9 7	10 3	9 8	9 7	9 0	9 6	8 6	9 5	8 5	12 3	10 9	10 5	8 9	13 3	12 7

SESSIONAL PAPER No. 20

STATEMENT of the Highest and Lowest Water on the Canals in the St. Lawrence District, May to November in each year.

YEAR.	CORNWALL CANAL.						WILLIAMSBURG CANALS.							
	Lock No. 15.			Lock No. 21.			Lock No. 22.			Lock No. 23.				
	Highest.	Lowest.	Month.	Highest.	Lowest.	Month.	Highest.	Lowest.	Month.	Highest.	Lowest.	Month.	Highest.	Lowest.
1891	12 0	Nov	8 9 ³	11 11	Nov	8 2	May	7 6	May	11 1	Nov	7 0	Nov	7 0
1892	10 6	"	8 9	10 10	"	8 10	July	7 10	July	9 9	May	7 6	May	7 6
1893	11 2	August	9 4	11 9	"	9 0	May	11 2	May	11 1	Nov	7 1	Nov	7 1
1894	11 0	"	9 7	10 11	"	8 6	June	19 6	June	10 1	"	7 0	"	7 0
1895	9 10	"	8 6	9 4	"	7 4	May	8 9	May	8 0	"	4 10	"	4 10
1896	10 2 ³	Oct.	8 6 ³	9 11	"	7 8	"	9 4	"	8 11	"	5 9	"	5 9
1897	10 3	Nov	8 5	10 0	"	7 5	"	9 10	"	8 11	"	4 9	"	4 9
1898	10 4	"	8 9	10 2	Oct.	8 1	"	9 7	"	6 11	"	6 0	"	6 0
1899	10 7	"	8 8	10 4	"	7 11	"	9 6	"	9 4	Oct.	6 4	"	6 4

STATEMENT of the Highest and Lowest Water on the Canals in the St. Lawrence District, May to November in each year—Continued.

YEAR.	WILLIAMSBURG CANALS—Continued.						LAKE ONTARIO.							
	Lock No. 24.			Lock No. 25.			Lock No. 27.			Murray Canal.				
	Highest.	Lowest.	Month.	Highest.	Lowest.	Month.	Highest.	Lowest.	Month.	Highest.	Lowest.	Month.	Highest.	Lowest.
1891	12 0	Nov	6 9	13 11	Nov	9 0	May	12 0	Nov	8 0	May	14 9	Nov	11 5 ¹
1892	10 6	"	7 0	12 8	"	9 4	July	10 3	"	8 3	July	13 6	"	12 1
1893	11 2	August	7 4	13 10	"	10 0	May	11 6	"	8 2	June	14 9	"	12 2
1894	10 5	Nov	6 9	13 3	"	9 1	July	10 9	"	9 1	"	14 0	"	12 2
1895	8 3	"	4 5	10 10	"	6 8	May	9 10	"	6 9	May	12 5	"	12 4
1896	9 3	"	5 7	12 0	"	8 3	"	10 6	"	7 6	"	12 10	"	11 1
1897	9 3	"	4 8	11 8	"	6 6	June	10 0	"	6 6	July	13 5	"	11 2
1898	9 6	"	6 0	12 0	"	8 9	"	10 0	"	7 2	June	13 6	"	11 0
1899	9 9	"	6 4	12 3	Oct.	8 5	May	10 4	Oct.	7 7	"	13 5	"	11 6

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ST. PETER'S CANAL.

CANALS REVENUE BRANCH, CANAL OFFICE,

ST. PETER'S, June 30, 1900.

DEAR SIR,—I have the honour to submit my annual report on the work performed on the St. Peter's canal under my charge during the fiscal year ending June 30, 1900.

1. Replaced 25 hanging fenders.
 2. Fitting and placing 4 pieces of 12 x 10 timber, on west side of canal wall, 53 feet in length.
 3. Digging a ditch or drain at foot of slope above the lock on west side and a small box drain across the roadway to the face of canal wall, and levelled and gravelled tow-path between north and south gates and placing one warping post.
 4. Repairing the north-west end of the east side abutment of swing bridge.
 5. Re-roofing the kitchen, extension to the lockhouse, repairing porch and painting kitchen with two coats of paint and main building one coat paint.
 6. Painting bridge the second coat, and two coats to lock gates and winches.
 7. Repairing by marine divers the north low water gate that was leaking owing to the gates being too long and not mitreing properly.
 8. Inspecting and working four days at south low water gates by marine divers in order to get said gates to work lighter, but failed. According to marine diver's report the flooring of the lock has two holes that were cut through while repairing locks five years ago for placing water pumps, the lock leaks and the valves cannot carry off the water as freely as it comes in the lock through flooring, hence causing a pressure of water at all times against the gates when tide is on them. When the tide is off them they work as well as any other gates on the canal. We open them now by main strength, and it takes six men to do it.
 9. Repairing, by marine diver, toe roller on high water gate by putting a band of iron with bolts through the gate, said toe roller being loose and liable to come off at any time.
 10. The completion of the work included in last year's estimates, viz., section 4 of cribwork and three warping posts.
 11. The completion of section 3 from swing bridge southerly, length 150 feet, cribwork 6 feet, with necessary fenders.
 12. The completion of section 4, length 150 feet and crib 2 feet.
 13. The completion of section 5, starting from 275 feet south of swing bridge 150 feet long, 6 feet crib and finished on same principle and plan of section 3.
 14. There are required other necessary repairs on St. Peter's canal, as per report of E. V. Johnson, Esq., inspecting engineer; also main roads on Government property leading to canal requires immediate repairs.
 15. Navigation opened on April 24, 1899, and closed January 24, 1900. During that time 1,729 steamers and vessels passed through St. Peter's canal.
- The St. Peter's canal has four pairs of gates and one lock 200 feet by 48, and 18 feet of water at all tides on mitre sill. Meantime I have the honour to be,

Your obedient servant,

JNO. H. DEVEREAUX.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Ottawa, Ont.

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OTTAWA RIVER SURVEYS.

SPARKS' CHAMBERS, OTTAWA, March 10, 1900.

DEAR SIR,—I beg to ask for an advance of \$300 for current expenses, on the Ottawa River Surveys.

Of the \$500 advanced on November 15, I have put in accounts for \$387.39 and I have advanced besides, \$228.69 to the two parties. The total expenditure to the end of February is \$5,454.93 not including stationery which was supplied by the department.

Mr. Carre has surveyed the river for 8 miles below the Interprovincial Bridge, and made borings where necessary over 7 miles. He found no rock, at 16 feet under lowest water. Mr. Stanton has surveyed the greater part of the shoals, just west of Ste. Anne, and had closed no rock, at the same depth of water, mostly soft blue clay.

I am, yours truly,

HENRY F. MACLEOD.

COLLINGWOOD SCHREIBER, Esq., C.M.G.

SPARKS' CHAMBERS, OTTAWA, April 9, 1900.

DEAR SIR,—I beg to inclose accounts and pay-lists in duplicate for March, 1900, for the Ottawa River Surveys, amounting to \$1,705.65, of which \$436.27 is paid, and I would ask payment for \$1,269.38.

The surveys down to Ste. Anne were completed on the 27th ultimo, except the levels which will be closed to-day.

The calculations for the traverse tables for plotting are nearly completed, and the plans and soundings will be plotted soon. I think a scale of 5,000 feet to the inch will do for the plan from Ottawa to Ste. Anne and where excavation is required, 200 feet. I would like to get from Mr. Marceau, a copy of the plan and profile from Grenville to Carillon. Shall I send to have them traced?

The borings and soundings have turned out to be more favourable than anticipated, only about 200 lineal feet of limestone rock will have to be excavated about 6 feet deep, the rest is mostly sand and mud.

I am yours truly,

HENRY F. MACLEOD.

COLLINGWOOD SCHREIBER, Esq., C.M.G.

SPARKS' CHAMBERS, OTTAWA, May 31, 1900.

DEAR SIR,—I have to report, that the survey which you instructed me to make, in your letter of November 13, 1899, of that portion of the proposed 'Georgian Bay canal,' on the Ottawa river, between Lake Deschenes and Ste. Anne, has been completed.

It was commenced on November 15, from Deschenes to Ottawa Harbour—that on the north shore being made by Mr. Henry Carre, and on the south, by Mr. H. G. Stanton. They were finished on January 23.

While check lines of levels were being made between Ottawa and Britannia, on the south side,—Mr. Stanton made an examination of the river from Ottawa Harbour to Ste. Anne, omitting the portion occupied by the Grenville and Carillon canals. The channel of the river was swept by means of a steel rail, suspended from a steam tug, which struck the bottom when less than 16 feet below water, was reached. An experienced pilot was employed to keep the boat in the proper channel, and the positions of the shoals were noted.

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The making of plans, &c., was commenced on January 23, and continued until February 28.

To take advantage of the ice, for the purpose of making soundings, surveys were resumed, between Ottawa and Ste. Anne, on February 28—the part of the river from Ottawa to Montebello being surveyed by Mr. Carre, and that from Montebello to Ste. Anne, omitting the Grenville and Carillon canals, by Mr. Stanton.

These surveys were completed on April 10, when work on the plans and estimates was continued, until May 31.

The length of line surveyed from Deschenes to Ottawa at the mouth of the Government log slide, on the north side of the river, is 6·34 miles.

From the Government log slide to Montebello 43·72 miles.

From Montebello to Grenville 16·61 “

From Carillon to 2 miles west of Ste. Anne 23·60 “

in all 90·27 miles.

For the 2 miles west of Ste. Anne, a plan of recent surveys, made for the Government has been obtained, and reduced to the scale of 2,000 feet to an inch.

In addition to the above, three alternative lines, on the Deschenes and Chaudière section were surveyed, viz.—the line on the south side, from Britannia, to the mouth of the Government timber slide 7 miles.

The line passing over Table Rock 0·86 miles.

And the line through Brewery Creek 2·84 “

making a total, not including cross sections, traverses for land to be flooded and for other purposes, of 100·97 miles.

The proposed scale of the canal, is for 14 ft. navigation, with locks 280 feet long and 45 feet wide. In the open reaches the bottom will be 2 feet deeper, or 16 feet below lowest water. The width of the bottom to be 100 feet, with slopes in rock of $\frac{1}{4}$ to 1 in. earth and in other materials, 2 to 1.

Of the distance given above, 90·27 miles, with the 2 miles west of Ste. Anne added in making 92·27 miles, 74·31 miles are now navigable for vessels of the above draught, (14 feet)—14·52 miles can be excavated by dredging to the required depth, the material being composed of mud, sand and clay, and 3·44 miles are in rock excavation, in approaches to locks and in lock pits.

The entrance to the canal from Lake Deschenes, may be either on the north shore, near Deschenes mills, or on the south, at Britannia, and may again take either the north or south shore on approaching the Remoux rapids.

Before construction commences it will be well to verify the elevations of the highest and lowest water in the various reaches of the river.

On the north shore excavation commences at station 4, on the projected line, and extends 1,900 feet to station 23, where a lock is to be built. The cutting ranges from 8 feet to 13 feet deep in rock. On the south side of this cutting there will be 1,300 feet of cribwork, made water-tight by means of a core of puddle, with masonry above low water. There will be guide piers of cribwork and booms from station 4 to station 10. The lift of the lock will be from 10 feet to 18 feet in high water. The lower entrance will be 350 feet long to deep water at station 30. It will be in rock 15 to 18 feet deep. Cribwork and masonry guide piers, 350 feet long, will be built on each side of the lower entrance, and on the north side of the upper.

The water is deep for 2·37 miles from station 30 to station 155, on the north shore, where the excavation above the Remoux rapids begins.

From station 155 to station 218 there will be rock excavation 6,300 feet long, ranging from 0 to 13 feet deep. From station 218 to station 234 the water is deep for 1,600 feet. From station 234 to station 248 to the lock in the Little Chaudière rapids there will be rock excavation, 1,400 feet long, from 8 feet to 12 feet deep. The lift of this lock will be from 12 feet to 19 feet at high water. The lower entrance, from station 251 + 50 to station 253, will be in rock, 150 feet long, and from 0 to 15 feet deep. Cribwork and masonry guide piers, 400 feet long, will be built at the upper and lower entrances of the lock, three in number.

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It is not intended to interfere in any way with the usual fluctuations of the water surface between the Deschenes and Remoux rapids, and it is proposed to extend these levels beyond Remoux rapids till the lock is reached in the Little Chaudière rapids. To effect this it will be necessary to build a water-tight cribwork and masonry embankment, as described above, on the south side of the excavation from station 185 to the lock at station 248, 6,300 feet long, or to build a dam across the river, at the head of the Little Chaudière rapids, where the water is at a low stage, from 3 to 4 feet deep. The dam would be 2,300 feet long and about 6 feet high to top of stop logs. It would reduce the length of the cribwork and masonry embankment, 5,500 feet, making it 800 feet long, instead of 6,300 feet.

From station 253 to station 288 the water is deep for 3,500 feet. The Canadian Pacific Railway bridge is passed through the second span from the north shore at station 278, where a swing bridge will be required, with an opening of 100 feet, concrete and masonry pivot pier, abutments and rest piers. The depth of the water is from 40 to 50 feet, and the height of the piers 60 feet. By passing through the first span of the railway bridge the cost may be considerably reduced.

From station 288, eastward, three different routes may be taken: No. 2, by Table Rock, adjoining the suspension bridge, so-called; No. 3, through the E. B. Eddy Co's. mills and the Government log slide, and No. 4, by way of Brewery Creek.

Route No. 3.—Following No. 3 route through the Eddy mills the excavation for the approach begins at station 288 and extends to station 204 + 50, in rock 1,650 feet to the next lock, which is placed at Eddy's dam, or bulkhead. This dam will have to be maintained. The depth of this cutting is about 10 feet. This lock has a lift of from 0 to 10 feet in high water, and is placed in this position so as not to interfere with the level of water in the pond, from which numerous wheels take their supply. Entrance guide piers of cribwork and masonry, 400 feet long, will be built at the upper end.

From station 308 to station 312 + 50 will be a passing basin, 450 feet long, in rock excavation, 10 feet deep, the sides of which will be of dry masonry. Bridge Street is passed near the lower end of this basin: it will require a swing bridge, with an opening of 80 feet, with piers, abutments, &c., of concrete and masonry. The tracks of private sidings are crossed here, which will have to be diverted through the swing bridge, as well as the tracks of the Ottawa Electric Railway.

The lock at station 312 + 50 will have a lift of 15 feet.

From station 316 to station 320, there will be a passing basin, 400 feet long. Very little excavation will be required in this basin. There will be a dry masonry wall on the north side, and a cement masonry wall on the south, to provide an open channel for the tail race of the mills above.

The next lock is placed at station 320, with the object of getting rid of the water from the tail-race just mentioned, as soon as possible. The lift of this lock is from 15 feet to 25 feet at lowest water in Ottawa Harbour.

From station 323 to station 335, the lower entrance to the lock will be excavated in rock, 1,200 feet long, and averaging 18 feet deep. The expense would be reduced some \$50,000, by placing the lock at station 330, and extending the wall and the tail-race channel. Entrance guide piers of cribwork, 400 feet long will be placed at lower end of rock.

At station 328, a swing bridge will be required to carry the track of the Eddy railway. The opening will be 100 feet, the piers and abutments of concrete and masonry, the pivot pier being 45 feet high.

Regulating and supply weirs will be required on the north side of the two upper locks and a waste weir, on the north side of the lower lock.

The work required from station 330 in Ottawa Harbour to Grenville, and from Carillon to Ste. Anne, has been described above.

Route No. 2.—At station 288, above mentioned, route No. 2 begins, and diverges towards the south, passing over Table Rock. For 1,350 feet to station 301 + 50 at the lock, the entrance will be in rock, with an average depth of 7 feet. Guide piers of cribwork and masonry will be required on the south side from station 287 to the lock at station 301 + 50, 1,450 feet long and on the north side for 400 feet.

The lock will have a lift of from 15 feet to 25 feet in high water.

From station 305 to station 311, will be a passing basin, which will be inclosed on the north and south by water-tight cement and masonry walls. A similar water-tight wall is also required on the north side of the lock, to connect it with the dam now built.

Bridge Street is crossed at station 310. Here a swing bridge with an opening of 80 feet will be required, the piers, abutments, &c., of concrete and masonry. The pivot pier will be 30 feet high. The double tracks of the Ottawa Electric Railway will pass over this bridge.

The second and last lock will be at station 311, it will have a lift of from 25 feet to 0 at high water.

From station 314 + 50 to station 333 + 50, will be the lower entrance, 1,900 feet long in rock excavation, the surface here is irregular, and the depth of cutting from 0 to 35 feet. The present cribwork will also have to be removed. A pier of cribwork will be built on the south side from the lock at station 314 + 50 to station 333. It will be 30 feet wide and 35 feet high. A guide pier of cribwork and masonry, 400 feet long, will be required on the north side.

A channel for the tail-races of the mills nearly parallel to the lower entrance, will be excavated in rock, along the foot of the cliff. It will be 500 feet long, 50 feet wide and 34 feet deep.

A regulating and supply weir, will be required on the north side of the upper lock, and a waste weir on the north side of the passing basin.

Route No. 4.—The Brewery Creek route, No. 4, begins at station 288, which is equal to station 148 + 50 on the chainage of the Brewery Creek line.

This route diverges to the north, from route No. 3, and reaches the first lock at station 136. The entrance, which is 1,250 feet long, will be in rock, 10 feet deep.

An entrance guide pier of cribwork and masonry, 1,400 feet will be built along the south side, 400 feet long on the north, and 400 feet on the north and south sides of eastern entrance.

The lock will have a lift of from 0 to 10 feet in high water.

From this lock to the next at station 111 there will be excavation in rock, 2,150 feet long, from 10 feet to 15 feet deep.

Main Street is crossed at station 132, and will require a swing bridge, with an opening of 80 feet. The pivot pier of concrete and masonry will be 25 feet high—there will also be abutments and rest piers. The double tracks of the Hull Electric Railway will cross this bridge.

Wright Street, at station 125, will require a swing bridge, with an opening of 100 feet, with pivot pier, abutments, and rest piers of concrete and masonry. The pivot pier, 24 feet high.

Brewery Street will also require a swing bridge similar to that at Main Street. The track of the Hull Electric Railway will cross on this bridge.

The lock at station 111 will have a lift of 15 feet. There will be entrance guide piers on each side, above and below this lock, each 400 feet long.

From station 107 + 50 to station 25 + 50, at the last lock, the work will be partly in rock excavation and partly in embankment. The first cutting at the lower end of the lock is 100 feet long and from 12 feet to 0 deep—the next at station 105 is 200 feet long, from 5 feet to 0 deep—the next at station 100 is 800 feet long, from 13 feet to 0 deep—the next from station 89 to station 60 + 50 is 2,850 feet long, from 5 to 12 feet deep, and the next at station 47 is 300 feet long, from 2 feet to 0 deep. Water-tight embankment is required on the north side, from station 62 to the lowest lock at station 25 + 50. This embankment will be 4,400 feet long, 14 feet deep, 15 feet on top, with slopes of 2 to 1.

On the south side, about 75 acres of land which is now flooded in high water, will be permanently overflowed, to the same level.

At station 29, the Gatineau Point road, will require a swing bridge with an opening of 100 feet, with piers, abutments, &c. The pivot pier is 27 feet high.

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The lock at station 25 + 50 will have a lift of from 25 feet to 0 in high water.

The lower entrance, from the Ottawa river, will be from station 22 to station 2, in rock excavation, 2,000 feet long, from 10 feet to 15 feet deep. There will be entrance guide piers, 400 feet long at the upper end of the lock, on each side. At the lower end they will extend to station 10, in the river, 1,200 feet on each side, and will be from 25 feet to 30 feet high.

Regulating and supply weirs will be required on the north sides of the upper and middle locks, also a waste weir near station 58, with an off-take ditch.

SOUTH SHORE LINE, BRITANNIA TO OTTAWA HARBOUR.

The entrance to the lock, on the south or Britannia side, begins at station 0, of the projected line, and extends to the lock at station 24, in rock excavation, 2,400 feet long, from 6 feet to 20 feet deep. A quantity of loose rock spoil about 5 feet deep, will also require to be removed.

The north side of the excavation will require a water-tight embankment, 2,400 feet long, of cribwork, made water-tight with a puddle core, and masonry above low water. Four guide piers of cribwork, with booms, will also extend into the lake, to the west of station 0.

The lock will have a lift of from 10 feet to 18 feet in high water.

The lower entrance from station 27 + 50 to station 32 + 50, will be in rock, from 0 to 16 feet deep, 500 feet long. Three guide and entrance piers of cribwork and masonry, 400 feet long, will be built, one above the lock on the south side, and two below the lock, north and south.

Deep water is found for 2.53 miles from station 32 + 50 to station 165, where work begins on the south shore above the Remoux rapids.

Route No. 1.—From station 165, being the upper end of route No. 1, to station 236 + 50 at the next lock, there will be rock excavation, 7,150 feet long,—from 5 feet to 15 feet deep. As on the North Shore, a water-tight cribwork and masonry embankment will be required. It will extend from station 180 to the lock, 5,650 feet, and will be from 12 to 25 feet high.

In place of this water-tight embankment, a dam may be built across the river as described for the North Shore route, which would cost considerably less. The excavation would also be reduced by changing the route, so as to pass through the centre of the Remoux rapids, but the alignment would not be so good.

The lock at the Little Chaudière rapids will have a lift of from 12 to 19 feet in high water. Entrance guide piers, 400 feet long, one at the upper end, and two below, are required.

From station 240 to station 300 + 70, at the next lock is in rock excavation, except for 500 feet, where it is sufficiently deep. The first cutting, 50 feet long, 0 to 16 feet deep—the second, 1,400 feet long, from 5 feet to 15 feet deep—the third 2,700 feet long, from 5 feet to 13 feet deep, and the fourth, 1,330 feet long, 25 feet deep.

The Canadian Pacific Railway bridge is passed, in the second span from the South Shore. A swing bridge will be required here, with an opening of 100 feet, with piers, abutments, &c., of concrete and masonry. The pivot pier will be 40 feet high.

The Ottawa Water Works intake pipe, 3 feet 6 inches diameter, must be crossed at station 279, by excavating a trench in the rock, and constructing a siphon culvert or pipe below the bottom of the prism.

Water-tight masonry and cement walls will be required on each side of the cutting, from station 292 at the present dam or bulkhead, to the lock station 300 + 30, 830 feet long, and from 6 to 8 feet high.

At station 299, Bridge Street is crossed, requiring a swing bridge of 80 feet opening, with piers, abutments, &c., of concrete and masonry. The pivot pier will be 30 feet high. The double tracks of the Ottawa Electric Railway will cross this bridge.

The lock will have a lift of from 15 feet to 25 feet in high water. Guide piers of cribwork and masonry, 400 feet long, on each side, at the upper entrance are required.

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From station 303 + 70 to station 310 + 30, there will be a passing basis, 660 feet long; excavation, from 13 feet to 30 feet in rock. Cement masonry walls will be built on each side, north and south.

At station 310, a swing bridge will be required, with an opening of 80 feet, with piers, abutments, &c., of concrete and masonry. The height of the pivot pier, is 20 feet.

The lowest lock at station 310 + 30, will have a lift of from 25 feet to 0 at high water.

The lower entrance of the Ottawa river, extends from station 313 + 70 to station 325, being 1,130 feet long, in rock, from 0 to 17 feet deep. A guide entrance pier on the north side, 28 feet high and 600 feet long, will be required,

A regulating and supply weir will be required on the north side of the lock at station 300 + 30, and a waste weir, for the passing basin, above the lowest lock.

Borings.—The nature of the material to be excavated, and the surface of the rock has been ascertained by borings.

Plans, &c.—Plans and profiles of the various lines have been prepared, and tracings of the same are inclosed.

Cost.—The estimated cost of the canal, from Lake Deschenes to Ste. Anne, not including the Grenville and Carillon canals, following the North Shore, and route No. 3, through the Eddy mills, is \$3,215,000.

Following the South Shore, and route No. 1, the estimated cost is \$41,000 less than the North Shore.

The line which would cause the least inconvenience to local interests, is that by the North Shore and Table Rock, route No. 2. It would cost \$65,000 more than No. 3 through the Eddy mills. It requires only one highway bridge, which would also carry the Ottawa Electric Railway tracks.

The Brewery Creek route, No. 4, would cost \$415,000 more than route No. 3. A large quantity of land is flooded on this route. Two projected railways, and four high ways, two of them with electric railways, will require bridges.

The South Shore and route No. 1, intersects the Ottawa Water Works intake pipe, requires two highway bridges, one of them carrying the Ottawa Electric Railway, and interferes with sidings of the Canada Atlantic Railway. It is, however, the line best adapted to the interests of the city of Ottawa.

Estimates.—Appendices A to F, give the cost in detail of the various lines on the North Shore, from Deschenes lake to Montebello. Appendices G to K give the same on the South Shore, from Deschenes Lake to Ottawa Harbour, and from Montebello to Ste. Anne, excepting the Grenville and Carillon canals. Appendix L, is a summary of the lines on the North Shore, showing the difference in cost of each route. Appendix M is a summary of the cost of the South Shore line.

The work of surveying was considerably interrupted by stormy weather on the lake and river, and by the depth of snow upon the ice

I am, yours truly,

HENRY F. MACLEOD, M. Inst. C.E.

SESSIONAL PAPER No. 20

APPENDIX A.—NORTH SHORE.

DESCHENES RAPIDS.

ESTIMATE of cost of Lock and Canal, from station 4 to 30, Lake Deschenes to foot of Deschenes Rapids.

No.	Item.	Quantity.	Unit.	Rate.		Cost.
				§	cts.	
1	Rock excavation	87,697	C. yds.	1	00	87,697
2	" " in lock pit.....	21,842	"	1	50	32,763
3	Lock, 18 ft. lift		18 ft. lift.			128,000
4	Lock gates, 18 ft. lift.....		"			9,500
4	" " 8 "		8 "			6,200
5	Culvert sluices.....					1,200
6	Lock gate machinery.....					1,000
7	Masonry on cribwork above and below locks.....	4,550	C. yds.	5	00	22,750
8	Cribwork for masonry.....	5,593	"	4	00	22,372
9	Stone filling between walls	4,044	"	0	50	2,022
10	1,300 ft. cribwork with puddle wall.....	5,533	"	4	00	22,132
11	Masonry on cribwork.....	3,226	"	5	00	16,130
12	Puddle for wall.....	3,959	"	0	60	2,375
13	Cribs for booms.....	1,615	"	4	00	6,460
14	Booms.....	57,600	Ft. B.M.	30	00	1,728
15	Braces (6 in. x 8 in.).....	22,880	"	20	00	458
16	Planking.....	89,700	"	20	00	1,794
17	Tinber for puddle walls.....	6,500	"	20	00	130
18	Upright planking.....	3,120	"	20	00	62
19	Cleaning out crib foundations.....			1	00	1,400
20	Coffer dam.....					1,000
21	Bolts for booms.....	5,210	Lbs.	0	07	365
	Add for engineering and contingencies.....			15	p. c.	55,462
						423,000

(Sgd.) HENRY F. MACLEOD.
HENRY CARRE.

APPENDIX B.—NORTH SHORE.

REMOUX AND LITTLE CHAUDIÈRE.

ESTIMATE of cost of Lock and Canal, from station 155 to 252+75, head of Remoux to foot of Little Chaudière Rapids.

No.	Item.	Quantity.	Unit.	Rate.		Cost.
				§	cts.	§
1	Rock excavation	256,669	C. yds.	1	50	385,000
2	Lock, 19 ft. lift		19 ft.			132,000
3	Lock gates		"			9,700
3	"		"			6,200
4	Lock machinery					1,000
5	Culvert sluices					1,200
6	Masonry entrance walls	3,000	C. yds.	5	00	15,000
7	Masonry	10,100	"	5	00	50,500
8	Canadian Pacific Railway bridge					80,000
9	Crib for masonry	28,850	C. yds.	5	00	144,250
10	Crib entrances	13,500	"	4	00	54,000
11	Outside crib	17,750	"	3	50	62,125
12	Stone filling	138,800	"	0	30	41,640
13	Puddle	18,150	"	0	60	11,250
14	Boarding	506,000	Ft. B. M.	20	00	10,120
15	Braces	500,000	"	20	00	10,000
16	Cleaning out foundation for cribs	7,000	"	1	00	7,000
17	Drowned land		33 acres.	400	00	13,200
	Add for engineering and contingencies			15	p. c.	154,815
						1,189,000

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HENRY CARRE.

SESSIONAL PAPER No. 20

APPENDIX C.—NORTH SHORE.

ROUTE No. 3, THROUGH EDDY'S YARDS, CHAUDIÈRE.

ESTIMATE of cost of Locks and Canal, from station 288 to station 335, from head to foot of Chaudière Falls.

No.	Item.	Quantity.	Unit.	Rate.		Cost.
				\$	cts.	
1	Rock excavation.....	150,555	Cubic yds.	1	00	150,555
2	" " in lock pits.....	87,534	"	1	50	131,300
3	1 25-ft. lift lock and wing walls.....	1	25 feet.	156,000	00	156,000
4	1 15-ft. " ".....	1	15 "	116,000	00	116,000
5	1 10-ft. " ".....	1	10 "	99,400	00	99,400
6	Masonry in supply weirs and gates, and 2 waste weirs.....					22,000
7	Masonry in cement walls between locks.....	3,555	Cubic yds.	7	00	24,885
8	Masonry in walls on crib above lock.....	7,800	"	5	00	30,000
9	Stone filling between walls above lock.....	6,900	"	0	50	3,450
10	1 pair lock gates.....	1	25 feet.	11,000	00	11,000
10	1 " ".....	1	"	5,000	00	5,000
11	1 " ".....	1	15 feet.	7,700	00	7,700
11	1 " ".....	1	"	5,000	00	5,000
12	2 " ".....	2	10 feet.	6,500	00	13,000
13	Culvert sluices for 3 locks.....	12	"	300	00	3,600
14	Lock gate machinery for 3 locks.....	3	"	1,000	00	3,000
15	Masonry and superstructure for bridge at Bridge Street.....					35,000
16	Masonry and superstructure for Ry. bridge.....					46,000
17	Pumping prism and lock pit.....					10,000
18	Cribwork in guard pier above locks.....	9,300	Cubic yds.	4	00	37,200
19	" " " below locks.....	14,815	"	4	00	59,260
20	1 dry stone masonry on north side between locks.....	3,555	"	4	00	14,220
21	Excavation for tail-race in gully.....	4,300	"	1	00	4,300
22	Right of way.....					200,000
	Add for engineering and contingencies.....				15 p.c.	179,130
						1,376,000

(Sgd.) HENRY F. MACLEOD,
HENRY CARRE.

64 VICTORIA, A. 1901

APPENDIX D.—OTTAWA TO MONTEBELLO.

Earth and rock excavation, in the Ottawa River, from Ottawa Harbour to Montebello.

Location.	Cubic Yards.	Rate.	Cost.
		8 cts.	8
Kettle Island— Earth excavation	127,363	0 15	29,104
East Templeton— Earth excavation	228,328	0 15	34,249
Rock " "	17,083	1 00	17,083
Blanche River— Earth excavation	159,890	0 15	23,983
Lièvre River— Earth excavation	86,647	0 15	12,999
Isle Ronde— Earth excavation	96,899	0 15	14,534
Add for engineering and contingencies		15 p.c.	20,048
			132,000

(Sgd.) HENRY F. MACLEOD.
HENRY CARRE.

SESSIONAL PAPER No. 20

APPENDIX E.—NORTH SHORE.

ROUTE No. 2, TABLE ROCK LINE.

ESTIMATE of cost of Locks and Canal, from station 298 to 334.

No.	Item.	Quantity.	Unit.	Rate.	Cost.
				\$ cts.	\$
1	Rock excavation in prism.....	233,661	C. yds.	1 00	233,661
2	" " in lock pit.....	51,688	"	1 50	77,532
3	Bridge St. excavation.....	3,852	"	1 50	5,778
4	Excavation in tail race.....	33,000	"	1 00	33,000
5	Masonry walls.....	14,600	"	5 00	73,000
6	Coffer-dams.....				10,000
7	Ribwork (upper level).....	17,800	C. yds.	4 00	71,200
8	" (lower level).....	77,778	"	4 00	311,112
9	Foundations.....				3,850
10	Swing bridge.....				35,000
11	2 locks (25 ft. lift).....	2	25 lift	156,000 00	312,000
		2	Sets	11,000 00	22,000
12	Lock gates.....	1	"	5,000 00	5,000
		1	"	6,600 00	6,600
13	Masonry and excavation in supply weir, waste weir and gates.....				11,000
14	8 culvert sluices.....	8		300 00	2,400
15	Right of way, Table Rock.....				40,000
	Add for engineering and contingencies.....			15 p.c.	187,867
					1,441,000

(Sgd.) HENRY F. MACLEOD.
HENRY CARRE.

64 VICTORIA, A. 1901

APPENDIX F.—NORTH SHORE.

ROUTE No. 4, BREWERY CREEK LINE.

CHAUDIÈRE.

Estimate of cost of Locks and Canal, from station 283, Chaudière to deep water in Ottawa River, foot of Brewery Creek.

No.	Item.	Quantity.	Unit.	Rate.	Cost.
			§ cts.	§ cts.	§
1	Rock excavation.....	345,000	C. yds.	1 25	431,250
2	Earth embankment.....	83,000	"	0 25	20,750
3	Lock, 25 ft. lift.....	1	25 ft.	156,000 00	156,000
4	" 15 ft. lift.....	1	15 ft.	116,000 00	116,000
5	" 10 ft. lift.....	1	10 ft.	99,400 00	99,400
6	Lock gates.....	1	Set	11,000 00	11,000
7	".....	1	"	5,000 00	5,000
8	".....	1	"	7,700 00	7,700
9	".....	1	"	5,000 00	5,000
10	".....	2	"	6,500 00	13,000
11	12 culvert slices.....	12	"	300 00	3,600
12	Lock machinery.....				3,000
13	2 regulating weirs.....				20,000
14	Waste weir.....				1,000
15	Crib entrances.....	94,700	C. yds.	4 00	378,800
16	Masonry walls, entrances..	13,500	"	5 00	67,500
17	Gatineau Valley Ry. bridge ..				35,000
18	Brewery Street bridge.....				28,000
19	Main St. bridge.....				28,000
20	Wright St. bridge.....				25,000
21	Pontiac Pacific Junction Ry. bridge.....				35,000
22	Gatineau Road bridge.....				30,000
23	Flooded lauds.....	75	Acres.	500 00	37,500
	Add for engineering and contingencies.....			15 p.c.	233,500
					1,791,000

(Sgd.) HENRY F. MACLEOD.
HENRY CARRE.

SESSIONAL PAPER No. 20

APPENDIX G.—SOUTH SHORE.

DESCHENES RAPIDS.

ESTIMATE of Cost of Lock and Canal at Britannia, South Shore, from head to foot of Deschenes Rapids.

No.	Item.	Quantity.	Unit.	Rate.	Cost.
				\$ cts.	\$
1	Earth excavation.....	17,298	C. yds.	22	3,806
2	Rock ".....	131,134	"	1 00	131,134
3	" " in lift lock.....	17,433	"	1 50	26,150
4	18 feet lift lock and wing walls.....				123,000
5	Masonry weir.....	150	C. yds.	5 00	750
6	Masonry in retaining walls on top of water-tight embankment.....	7,824	"	5 00	39,120
7	One pair lock gates.....	1 pair	9 lift	6,400 00	6,400
8	" ".....	"	18 "	9,500 00	9,500
9	Culvert sluices.....	4		300 00	1,200
10	Lock gate machinery.....				1,000
11	Puddle in trench.....	4,568	C. yds.	0 60	2,741
12	Cribs under wall.....	13,859	"	4 00	55,436
13	Cribs for puddle trench.....	17,356	"	3 00	52,068
14	Timbers in braces.....	165,760	Ft. B.M.	18 00	2,984
15	1-in. sheeting in puddle trench.....	124,800	"	15 00	1,872
16	Cleaning bottoms for cribs.....	3,000	Ft. lin.	1 00	3,000
17	Stone filling behind walls.....	10,591	C. yds.	0 30	3,177
18	Coffer-dams.....	1,500	Sum.	1,500 00	1,500
19	Pumping in prism and lock pit.....	5,000	"	5,000 00	5,000
20	Iron in spikes, &c.....	8,000	Lbs.	0 07	560
21	Guide piers.....	5,000	C. yds.	3 00	15,000
	Glance booms.....	200	Lin. ft.	3 00	600
	Add for engineering and contingencies.....			15 p. c.	74,002
					565,000

(Sgd.) HENRY MACLEOD.
H. G. STANTON.

64 VICTORIA, A. 1901

APPENDIX H.—SOUTH SHORE.

REMOUX AND LITTLE CHAUDIÈRE RAPIDS.

ESTIMATE of cost of Lock and Canal, from head of Remoux to foot of Little Chaudière Rapids.

No.	Item.	Quantity.	Unit.	Rate.		Cost.
				§	cts.	§
1	Rock excavation	243,337	C. yds.	1	00	243,337
2	" in lock pit	32,600	"	1	50	48,900
3	Old cribwork excavation	4,045	"	1	00	4,045
4	19 feet lift lock and wing walls					135,000
5	Masonry in weir	150	C. yds.	5	00	750
6	Masonry in retaining wall on top of water tight embankment	12,904	"	5	00	64,520
7	One pair lock gates	1 pair	8 lift			6,200
7	"	1 pair	19 lift			9,700
8	Culvert sluices	4		300	00	1,200
9	Lock gate machinery			1,000		1,260
10	Puddle in trench	13,025	C. yds.	60		7,817
11	Cribs under wall	25,349	"	4	00	101,396
12	Cribs for puddle trench	11,134	"	3	00	33,402
13	Timber in braces	778,960	Ft. B. M.	18	00	14,021
14	1-in. sheeting in puddle trench	371,200	"	15	00	5,568
15	Cleaning bottoms in crib	5,800	Ft. Lin.	1	00	5,800
16	Stone filling in embankment	78,750	C. yds.	30		23,625
17	Riprapping embankment	6,967	"	1	50	10,450
18	Cofferdam					3,000
19	Pumping prism and lock-pit					10,000
20	Iron in spikes, &c.	6,000	Lbs.		07	420
21	Land damaged by flooding	88	Acres.	200	00	17,600
	Add for engineering and contingencies			15	p.c.	112,249
						860,000

(Sgd.) HENRY A. F. MACLEOD.
H. G. STANTON.

SESSIONAL PAPER No. 20

APPENDIX I.—SOUTH SHORE.

LITTLE CHAUDIÈRE RAPIDS TO CHAUDIÈRE FALLS.

ESTIMATE of cost of deepening Channel from foot of Little Chaudière Rapids to head of Timber Slide, Chaudière Falls.

No.	Item.	Quantity.	Unit.	Rate.	Cost.
				\$ cts.	\$
1	Masonry in pivot and rest piers, C.P.R. bridge.	2,171	C. yds.	10 00	21,710
2	Timbers in piers	1,055	"	4 00	4,220
3	Swing bridge superstructure.		100 ft. op'gs.	...	20,000
4	Rock excavations under water.	161,765	C. yds.	2 00	323,530
5	Trench and syphon pipes for Ottawa Waterworks				7,000
	Add for engineering and contingencies			15 p.c.	56,540
					433,000

(Sgd.) HENRY A. F. MACLEOD.
H. G. STANTON.

64 VICTORIA, A. 1901

APPENDIX J.—SOUTH SHORE.

CHAUDIÈRE FALLS.

ESTIMATE of cost of two Locks and Canal from head of Timber Slide, Chaudière Falls, to deep water in Ottawa Harbour.

No.	Item.	Quantity.	Unit.	Rate.	Cost.
				\$ cts.	\$
1	Rock excavation	246,918	C. yds.	1 00	246,918
2	" in lock-pit	87,766	"	1 50	131,649
3	(2) 25 ft. lift locks and wing walls				312,000
4	Masonry and excavation in weir and gate				10,000
5	Masonry in walls above and between locks	7,798	C. yds.	5 00	38,990
6	2 pairs 25 ft. lock gates	2	Each.	11,000 00	22,000
7	1 " "	1			5,000
8	1 " "	1			6,500
9	Culvert sluices	8		300 00	2,400
10	Lock gate machinery	2	Each.	1,000 00	2,000
11	Masonry and superstructure in bridge at Bridge Street				35,000
12	Masonry and superstructure in bridge at Montreal Street				25,000
13	Pumping prism and lock-pit				10,000
14	Guide pier below lock, Ottawa Harbour	12,000	C. yds.	4 00	48,000
15	Crib under wall at upper entrance	4,740	"	4 00	18,960
16	Right of way, &c.				30,000
7	Removing C. A. Ry. sidings				3,000
	Add for engineering and contingencies			15 p.c.	141,583
					1,089,000

(Sgd.) HENRY F. MACLEOD.
H. G. STANTON.

SESSIONAL PAPER No. 20

APPENDIX K.—GRENVILLE, STE. ANNE.

EARTH excavation in Ottawa River above Grenville Canal. Earth and rock excavation in Lake of Two Mountains from Carillon to Ste. Anne.

Location.	Cubic Yds.	Rate	Cost.
		\$ cts.	\$
Grenville Bay—			
Earth excavation	4,911	0 20	982
Jones' Island—			
Earth excavation	102,922	0 15	15,438
Cadioux Island—			
Earth excavation	168,665	0 15	25,299
From deep water to Ste. Anne—			
Earth excavation	112,009	0 15	16,800
Rock excavation	6,766	1 00	6,766
Add for engineering and contingencies.		15 p.c.	9,715
			75,000

(Sgd.) HENRY F. MACLEOD.
H. G. STANTON.

64 VICTORIA, A. 1901

APPENDIX L.—NORTH SHORE.

SUMMARY of cost of canal and locks, North Shore, from Deschenes to Ottawa Harbour, and Ottawa Harbour to Ste. Anne, omitting Grenville and Carillon canals.

Deschenes Rapid.....	\$ 423,000
Remoux and Little Chaudière Rapids.....	1,189,000
Chaudière, No. 3, Eddy's.....	1,376,000
	<hr/>
	\$ 2,988,000
Ottawa to Montebello.....	152,000
At Grenville and Carillon to Ste. Anne.....	75,000
	<hr/>
	3,215,000

ALTERNATIVE LINES—CHAUDIÈRE FALLS.

Chaudière, No. 2, Table Rock.....	\$ 1,441,000
Chaudière, No. 4, Brewery Creek.....	1,791,000

(Memo.)—

- No. 2 costs \$65,000 more than No. 3.
 No. 4 costs \$415,000 more than No. 3.

H. F. MACLEOD.

APPENDIX M.—SOUTH SHORE.

SUMMARY of cost of canal and locks, South Shore, from Deschenes Lake to Ottawa Harbour, and Ottawa Harbour to Ste. Anne, omitting the Grenville and Carillon canals.

Deschenes Rapids.....	\$ 565,000
Remoux and Little Chaudière Rapids.....	860,000
Little Chaudière to Chaudière Falls.....	433,000
Chaudière Falls.....	1,089,000
	<hr/>
	\$ 2,947,000
Ottawa to Montebello.....	152,000
At Grenville and Carillon to Ste. Anne.....	75,000
	<hr/>
	\$ 3,174,000

H. F. MACLEOD.

SESSIONAL PAPER No. 20

OTTAWA RIVER SURVEYS.

193 SPARKS STREET,

OTTAWA, November 27, 1900.

DEAR SIR,—Since my last letter to you, of October 19, on the subject of the surveys of the Ottawa river, now being made, I beg to say that they have been continued on the Rocher Fendu and Calumet channels, and on the channels surrounding the Allumette island, in the paquette rapids, and up the Culbute channel.

Mr. Carre's party has completed the survey of the Rocher Fendu channel, and of the lake of that name to the foot of the Sable rapids, at the east end of the Calumet island. He has also made a survey of the Grand Calumet rapids, near Bryson, which is at the head of the obstructed waters, between Chats lake and Bryson.

Check levels have been carried from the Sable rapids to the head of the Grand Calumet. The distance surveyed is about ten miles, besides traverses, triangulations and cross sections.

On the lower portion of the Rocher Fendu channel, from Long rapids to the Rocher Fendu chute, the shores are flatter than they are above. The water is deep to the chute, a sudden pitch of four or five feet, the banks of which are bold and rocky.

In the Rocher Fendu lake the water is deep to the lower end, where there are islands, with shoals between and swift water.

The Sable rapids are the last, in the Calumet channel.

Its waters flow into those coming from the Rocher Fendu lake. The rapids are short, with a fall of about 5 feet.

Going up the Calumet channel, there are two other rapids, the Mountain rapids, and Dargis rapids, between the Sable and the Grand Calumet.

From the head of the Grand Calumet, to the foot of the Sable rapids, is about five miles, and the fall, in that distance, about 84 feet. The fall in the Grand Calumet rapids is about 56 feet, in about $\frac{3}{4}$ of a mile.

The rest of the Calumet channel, to the head of the island of that name, at La Passe, is reported by the captain of a steamboat, plying on these waters, to be deep, except for a few short shoals of sand.

Mr. Stanton's party completed the survey of the East channel of the Paquette rapids, and made a careful survey of the West, or Log channel, with cross sections, and contour lines, to fix the position of dams, intended to reduce as much as possible, the quantity of land to be flooded. As the level of the Allumette lakes cannot be raised without flooding valuable lands, there will be a considerable amount of excavation towards the upper ends of the rapids, in limestone rock and drift.

A survey with micrometer and transit, has been made of the small lake at the foot of Paquette rapids, and the same kind of survey has been extended up the Culbute channel to Indian, or Hicobar Point, with more careful measurements where shallow water is found.

The distance surveyed is about 8 miles, not including triangulations, cross sections, &c.

There has been a great deal of broken weather, with high winds, rain and snow which interfered a good deal with the progress of the work.

It is expected to get surveys completed, before the work ceases, of the rest of the Culbute channel, of some shoals about two miles east of Fort William, of the river from Paquette rapids to Black's Falls, where the first party commenced, of the upper part of the Calumet channel, from La Passe to Bryson, and the lower portion from the Grand Calumet to the Sable rapids. Also of the river from Sable rapids towards the Chats rapids, leaving out Chats lake of which we already have sufficient information.

There are a few miles of Lake Deschenes at the upper end from the Chats rapids to Crown Point, where soundings are required.

The rest of the lake, as I learned last summer from the captain of a steamboat, on which I sailed, is deep, to the Deschenes rapids.

As the water is low just now in the river, it is easier to make surveys, and the rapids can be examined more closely.

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The above would complete the information required, from the upper end of our surveys made last winter at Deschenes rapids, up to the Des Joachims rapids, including both the Rocher Fendu and the Calumet channels, the Allumette and Culbute channels, being a distance of about 130 miles.

I made a trip on a steamboat from Pembroke to the Des Joachims rapids via the Allumette lake, and Deep river, and ascertained from the captain of the boat, that the water was deep all the way, except at the shoals near the head of Allumette island, which I mentioned to you in my former letter, where a dredge was at work when I passed; also at another shoal and group of islands, where there are two sharp curves in the channel, with only eight feet of water, situated some two miles east of Fort William.

I have not yet discovered, whether these shoals extend to the line, which will pass up from the Culbute channel.

I am, yours truly,

HENRY F. MACLEOD.

COLLINGWOOD SCHREIBER, Esq., C.M.G.

REPORT
OF THE
SECRETARY OF THE RAILWAY COMMITTEE
OF THE
PRIVY COUNCIL

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 November 1, 1899, to October 1, 1900, and the decisions arrived at.

They are as follows:—

Petition of the Lake Erie and Detroit River Railway Company for running powers over the Canada Southern Railway, between Ridgeville and St. Thomas, a distance of about 44 miles. Order issued to the effect, that as adequate and sufficient running rights could not be assured the Lake Erie and Detroit River Railway Co., recommends that a contract be entered into for the subsidy in accordance with the Railway Subsidy Act, 62-63 Victoria, chapter 7, section 2, and subsection 49.

Application of the Corporation of the City of Toronto for permission to have a temporary crossing, at rail level, over the tracks of the Canadian Pacific and Grand Trunk Railway Companies, at Lansdowne Avenue, until a decision has been given as to a permanent crossing.—Granted, subject to certain terms and conditions.

Application of the Kingston, Napanee and Western Railway Company for permission to cross the Canadian Pacific Railway, at rail level, at Tweed.—Under consideration.

Petition of the County of Frontenac, asking that the Grand Trunk Railway Company be compelled to place protection at the crossings at Cataragui and Perth Roads and at the Outer Station, Kingston.—Under consideration.

Application of the Portage and North-western Railway Company for an extension of time to cross the Manitoba and North-western Railway, at Portage la Prairie, before the installation of the interlocking appliances.—Granted.

Application of the Portage and North-western Railway Company for an extension of time to cross the Canadian Pacific Railway at Portage la Prairie, before the installation of the interlocking appliances.—Granted.

Application of the Pontiac Pacific Junction Railway Company for permission to cross the Hull Electric Railway at Aylmer, before the installation of the interlocking appliances.—Granted.

Application of the Montreal Island Belt Line Railway Company (now Montreal Terminal Company), for certain modifications to be made in the Order, dated September 28, 1897, approving of the Chateaugay and Northern Railway Company crossing with its railway the tracks of the Montreal Street Railway, at rail level, on Ontario Street, in the City of Montreal.—Granted.

Application of the Montreal Street Railway Company for a variation of the Order, dated March 29, 1899, granting authority to the Montreal Island Belt Line Company (now Montreal Terminal Company) to run a branch of its railway along Davidson Street, in the City of Montreal.—Granted.

64 VICTORIA, A. 1901

Application of the Montreal Island Belt Line Company (now Montreal Terminal Company), for permission to cross, at rail level, the Montreal Street Railway, on St. Catherine Street, Montreal.—Granted.

Application of the Montreal Belt Line Railway Company (now Montreal Terminal Company,) for permission to cross, at rail level, the Montreal Street Railway, on Notre Dame Street, Montreal.—Granted.

Application of the Grand Trunk Railway Company for approval of overhead bridge across the tracks of the Central Ontario Railway Company at Trenton, Ontario.—Approved.

Application of the Midland Railway Company of Nova Scotia for permission to use its junction with the Intercolonial Railway at Truro, Nova Scotia, before the installation of the interlocking appliances.—Granted.

Application of the Midland Railway Company of Nova Scotia for permission to use its junction with the Dominion Atlantic Railway at Windsor, before the installation of the interlocking appliances.—Granted.

Application of the Rutland and Noyan Railway Company for permission to cross, at rail level, the Canada Atlantic Railway at Noyan Junction.—Granted.

Complaint of Messrs. Thomas Conant and E. R. Mothersill, that the Oshawa Electric Railway Company's tracks are too near their property at East Whithy, and ask that the Railway Company be compelled to remove the said tracks.—Dismissed.

Complaint of Mr. John Campbell, that the Canadian Pacific, Grand Trunk and other railway companies have discriminated against him in freight rates on flour.—Dismissed.

Application of the Grand Trunk Railway Company for permission to lay certain tracks and sidings in the town of Goderich.—Granted.

Complaint of Mr. George M. Lay, *re* Canada Atlantic Railway Company's crossing on Grand Ile Line Road, Valleyfield, being in a dangerous condition.—Settled by parties interested.

Application of the Corporation of the City of Toronto for authority for the Toronto Railway Company to extend its tracks along Bloor Street across the tracks of the Grand Trunk Railway, (Northern Division), the Toronto, Grey and Bruce Railway, Grand Trunk Railway and the Canadian Pacific Railway, and for protection of the Northern Railway crossing by gates and watchmen.—Dismissed.

Application of the Corporation of the City of Toronto for an order directing that gates and watchmen be placed at the crossing of Dunn Avenue by the Grand Trunk Railway, Toronto.—Under consideration.

Application of the Corporation of the City of Toronto for an order directing that gates and watchmen be placed at the crossing of Cherry Street by the Grand Trunk Railway, Toronto.—Under consideration.

Application of the Corporation of the City of Toronto, for an order directing that gates and watchmen be placed at the crossing of Dowling Avenue by the Grand Trunk Railway, Toronto.—Under consideration.

SESSIONAL PAPER No. 20

Application of the Corporation of the City of Toronto for an order directing that gates and watchmen be placed at the crossing of Jamieson Avenue by the Grand Trunk Railway, Toronto.—Under consideration.

Application of the Corporation of St. Andrews, P.Q., for an order compelling the Great Northern Railway Company to operate the Lachute and St. Andrews Railway without delay.—Withdrawn.

Application of the Corporation of the City of St. Henri, *re* opening of Gareau Street across the tracks of the Grand Trunk Railway.—Under consideration.

Application of the Corporation of the Town of Galt for permission to make a crossing over the track of the Canadian Pacific Railway at Myrtle Avenue.—Under consideration.

Application of the Winnipeg Street Railway Company for permission to cross, at rail level, the Canadian Pacific Railway at Main Street and Higgins Avenue, in the City of Winnipeg.—Under consideration.

Petition of the Toronto, Hamilton and Buffalo Railway Company asking that order No. 7447, *re* highway crossing at station 100+12, be rescinded, and that the matter be reconsidered.—Under consideration.

Re protection to be provided at the crossing of the Intercolonial Railway by the St. John Electric Street Railway, in St. John, N.B.—Under consideration.

Application of the Central Ontario Railway Company for permission to remove the packing from the frogs and wing rails from the month of December to the month of April of each year, both months included.—Under consideration.

Complaint of the Sun Oil Refining Company and the Gall Schneider Oil Company against the Grand Trunk and Canadian Pacific Railway Companies, with regard to freight rates upon petroleum and its products.—Order fixing the rates, as per schedule annexed the said order.

Application of the Municipal Council of the County of Richmond, P.Q., for a highway crossing over the track of the Grand Trunk Railway on the town line road between the Townships of Melbourne and Durham, at Gore Station.—Granted.

Application of the Great Northern Railway Company for approval of three proposed crossings, at rail level, of the Canadian Pacific Railway, at point, north of Joliette, south of St. Jerome, and west of Lachute.—Approved.

Application of the Great Northern Railway Company for approval of proposed crossing, at rail level, of the Carillon and Grenville Railway, near Grenville.—Approved.

Application of the Canadian Pacific Railway Company for permission to construct a branch line from the line of the Ontario and Quebec Railway to the Marl Quarry, in the Township of Holland, County of Grey.—Granted.

Application of the Quebec Railway, Light and Power Company for approval of the crossing, at rail level, of the Canadian Pacific Railway, by its electric railway on St. Valier Street, Quebec.—Approved.

Application of the St. Thomas Street Railway Company for a further extension of time for putting in the interlocking appliances at the crossing of the London and Port Stanley Railway, directed to be installed by the Order of June 29, 1899.—Granted.

64 VICTORIA, A. 1901

Application of the Canadian Pacific Railway Company for approval of certain proposed road diversions on School Sections in Manitoba and the North-west Territories.—Approved.

Application of the Grand Trunk Railway Company for a rehearing in the matter of the crossing of the Grand Trunk Railway by a branch line of the Canada Southern Railway, leading to the Canada Peat Fuel Company's Works.—Granted.

Application of the Toronto, Hamilton and Buffalo Railway Company for approval of plan, profile and book of reference of a proposed branch line, northerly and westerly from its main line on Lot 7, Concession 3, Township of Barton, to a point a short distance west of Wellington Street and north of Simcoe Street, Hamilton.—Approved.

Application of the Toronto, Hamilton and Buffalo Railway Company for approval of plan and profile of proposed crossings of Great Western and Northern and North-western Divisions of the Grand Trunk Railway, by its proposed branch line.—Approved.

Application of the Toronto, Hamilton and Buffalo Railway Company for approval of plan and profile of proposed crossing of the Hamilton Radial Electric Railway, by its proposed branch line.—Approved.

Application of the Toronto, Hamilton and Buffalo Railway Company for approval of plan and profile of proposed crossing, at rail level, of the Hamilton, Grimsby and Beamsville Electric Railway, by its proposed branch line.—Approved.

Application of the Toronto, Hamilton and Buffalo Railway Company for approval of plan and profile of proposed crossing, at rail level, of the Hamilton Street Railway on Barton Street, in the city of Hamilton, by its proposed branch line.—Approved.

Application of the Toronto, Hamilton and Buffalo Railway Company for approval of plans and profiles of certain highway crossings, by its proposed branch line.—Approved.

Petition from the Parish of St. Jerusalem d'Argenteuil asking that the Great Northern Railway Company be compelled to provide gates and watchmen at the proposed crossing of the front road on south side of the North River near Lachute.—Under consideration.

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 at York Street, Toronto, across the tracks of the Grand Trunk and Canadian Pacific Railway Companies.—Under consideration.

Complaint of the Municipal Council of the Village of Lennoxville, that the Canadian Pacific Railway Company have laid a new siding across College street, which is already crossed by tracks of the Grand Trunk, Canadian Pacific and Boston and Maine Railway Companies; and asks the Committee to prevent sidings being laid across this street, or to compel the railway companies to adopt measures of protection to the public.—Under consideration.

Application of the Niagara, St. Catharines and Toronto Railway Company for permission to run along certain highways in the city of St. Catharines, the townships of Grantham and Louth and the village of Port Dalhousie.—Granted.

Application of the Canadian Pacific Railway Company for approval of a plan of a tramway from the North Star Branch of the British Columbia Southern Railway, said plan having been filed under section 5 of Act 61, Victoria, chap. 60.—Approved.

SESSIONAL PAPER No. 20

Application of the Corporation of the City of Fredericton for permission to extend Church Street across the Canada Eastern and the Canadian Pacific Railways.—Under consideration.

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.

Petitions from the Municipal Council of the County of Peterboro' and the Township of Woodhouse, South Norfolk and others, asking that the various railway companies be compelled to observe the Railway Act by building cattle-guards that will effectually safeguard the interests of the farmers and the travelling public.—Under consideration.

Application of the Canada Atlantic Railway Company for permission to extend their line across Bridge Street and the tracks of the Ottawa Electric Railway Company thereon, in the city of Ottawa.—Granted.

Application of the Canadian Pacific Railway Company for permission to run a track along Wolfe Street, Peterborough, also to cross three other tracks on the said street, and to divert a portion of the street, the said siding to extend easterly across George Street.—Under consideration.

Application of the Corporation of the Town of Woodstock, Ontario, for permission to extend Walter Street across the Port Dover branch of the Grand Trunk Railway.—Granted.

Application of the Montreal Terminal Railway Company for approval of plan, profile and book of reference of proposed branch line through part of the parish of Longue Pointe and the village of Beaurivage, County of Hochelaga.—Approved.

Application of the Toronto, Grey and Bruce Railway Company (C. P. Ry.) for permission to build a branch line from a point on their line near Queen's Wharf, Toronto, to a point on the south limit of Fraser Avenue.—Under consideration.

Application of the Township of Nepean for an order directing that a subway or overhead crossing be constructed under or over the tracks of the Canadian Pacific and Canada Atlantic Railways, a few rods south of the Richmond Road, or near Elm Street.—Under consideration.

Application of the Municipal Council of the Corporation of the Township of Metcalfe, County of Middlesex, for permission to clean out and deepen the Moore drain across the land of the Canada Southern Railway Company.—Granted.

Application of the Rutland and Noyan Railway Company for approval of plans and profiles of two highway crossings, at rail level, in the parish of St. Thomas, one being at station 154 + 50, section 6, and the other being at station 187 + 14, section 6.—Approved.

Application of the Rutland and Noyan Railway Company for approval of plan showing slight change in the crossing of the Canada Atlantic Railway by its railway at Noyan Junction, and that said plan be substituted for the plan already approved of.—Under consideration.

Application of the Canada Southern Railway Company for power to extend its branch line at Ruscombe (constructed under the order dated June 22, 1895, file No. 5826) a distance of about 3,700 feet further south, through lots 28, 29 and 30, in concession four of the Township of Rochester, and into lot 23 in 11th concession of the Township of Gosfield, County of Essex, Ontario.—Granted.

64 VICTORIA, A. 1901

Application of the Grand Trunk Railway Company for permission to construct a branch line from its main line at Cardinal station to the Edwardsburg Starch Company's works in the village of Cardinal, County of Grenville, Ontario.—Granted.

Application of the Columbia and Western Railway Company for approval of plan and proposed site of a bridge to be built across the Columbia River below Robson, British Columbia.—Approved.

Application of the Toronto, Hamilton and Buffalo Railway Company for approval of plan and profile of its crossing of Victoria Avenue, in the city of Hamilton.—Approved.

Application of the Grand Trunk Railway Company for permission to construct a branch line from its line from a point at or near the Town of Meaford to the harbour at the Town of Meaford, County of Grey, Ontario.—Granted.

Application of the Corporation of the Town of St. Louis for an order directing that a street may be made across the tracks of the Canadian Pacific Railway Company on the line of the Pacific Avenue in the said town.—Granted.

Application of the Montreal Terminal Railway Company for approval of the place and mode of crossing, at rail level, by a branch line of its railway of Darling Street and a portion of Davidson Street in Hochelaga ward of the city of Montreal.—Approved.

Application of the Grand Trunk Railway Company for permission to construct a siding along Jefferson Avenue, Toronto.—Granted.

Order permitting the engines and trains to pass over the crossing of the Jacques Cartier Union Railway by the Canadian Pacific Railway at Western Junction without stopping.

Application of the Municipality of the Village of Warwick for an order directing that a highway crossing, at rail level, may be made across the track of the Grand Trunk Railway on the street running from the Powers Town Road on lot 131, Township of Warwick, through lots 135, 144, 143 and 142 to the Provincial Road.—Granted.

Application of the Grand Trunk Railway Company for permission to construct a siding from its tracks on Ferguson Avenue, in the city of Hamilton, along the south side of Rebecca Street to Wellington Street.—Granted.

Application of the Corporation of the City of Toronto for an order authorizing the extension of Vine Street, in the City of Toronto, from Front Street southerly to Mill Street, across the tracks of the Canadian Pacific Railway Company, and the laying down of a sewer and a water main thereon or therein.—Granted.

Application of the Ontario and Quebec Railway Company for approval of the change in location of the line of its railway, situate in the township of South Sherbrooke, in the County of Lanark, Ontario, in the following lots, viz.: lot No. 10 in the 10th concession; lots Nos. 10 and 11, in the 8th concession, and lot No. 11 in the 7th concession in the said township.—Approved.

Application of the Grand Trunk Railway Company for permission to construct a siding from its tracks, South Wharfe Street, across Bain (or Oneida) Street, and along and across Wharfe Street to the premises of Messrs. Wood Brothers, Millers, in the city of Brantford.—Granted.

SESSIONAL PAPER No. 20

Application of the Ontario and Rainy River Railway Company for approval of the plan and proposed site of a bridge to be built across the Rainy River, in the Province of Ontario.—Approved.

Application of the South Shore Railway Company for approval of the plan and proposed site of a bridge to be built across the St. Francis River at St. Francis, P.Q.—Under consideration.

Application of the Hamilton Radial Electric Railway Company for approval of the plan and proposed site of a bridge to be built across the Grand River at Freeport, Ontario.—Under consideration.

Application of the Quebec Bridge Company for approval of an amended plan showing the channel span of the proposed bridge over the St. Lawrence, near Quebec, from 1,600 to 1,800 feet.—Under consideration.

Application of the Montreal Street Railway Company for permission to cross with its railway the tracks of the Montreal Terminal Railway Company, on Valois Avenue, Montreal, and La Salle Avenue, Maisonneuve.—Under consideration.

Complaint of the Yarmouth Steamship Company against the Dominion Atlantic Railway Company, *re* unjust discrimination in rates by the Dominion Atlantic Railway Company in favour of their own steamers, and also in the connection of the trains with the Yarmouth Steamship Company's boats.—Under consideration.

Application of the Grand Trunk Railway Company for permission to construct a branch, or siding, along Charles Street, in the town of Berlin.—Under consideration.

Complaint that the crossings of the Grand Trunk Railway on Wentworth Street, Victoria Avenue and Wellington Street, in the city of Hamilton, are dangerous, and should be protected by gates and watchmen.—Under consideration.

Application of the Corporation of the Town of Peterborough, for an order directing that gates and watchmen be established by the Grand Trunk Railway Company at its crossings at Charlotte Street and Simcoe Street, in the said town.—Under consideration.

Application of the Pontiac Pacific Junction Railway Company for approval of plan and profile of proposed overhead crossings of Alma, Inkerman, Britannia, Albion, Kent and Lake streets, in the city of Hull.—Under consideration.

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 ending June 30, 1900.

Name of Work.	Chargeable to Capital.	Chargeable to Income.	Chargeable to Revenue.	
			Staff.	Repairs.
	\$ cts	\$ cts.	\$ cts.	\$ cts.
CANALS.				
Beanharnois.....		4,950 22	20,147 59	14,505 30
Carillon.....				
Grenville.....	22,802 27	4,476 50	13,657 06	14,666 71
Chambly.....		5,448 88	18,397 58	13,995 00
Cornwall.....	169,889 51	18,547 50	18,798 10	13,998 29
Culbute.....	3,085 00			
Lachine.....	125,009 41	12,210 88	56,791 45	31,988 81
Lake St. Louis.....	11,765 70			
Lake St. Francis.....	15,431 46	12,288 39		
Murray.....			5,613 83	2,777 60
Rideau.....	2,750 00	11,780 41	30,623 27	30,237 09
Sault Ste. Marie.....	27,157 98		13,901 40	13,219 87
Soulanges.....	693,806 24		6,711 84	5,000 00
Ste. Anne's.....			1,840 51	2,679 21
St. Lawrence.....	225,000 00			
North Channel.....	50,000 00			
Galops Channel.....	72,484 41			
River Reaches.....				
St. Ours.....		1,596 88	2,181 43	2,681 10
St. Peters.....			2,833 24	1,483 30
Trent.....	334,583 01	8,043 39	5,131 52	9,989 26
Welland.....	18,167 29	37,164 84	84,888 36	59,507 64
Williamsburg: Galops.....	752,799 27			
" Rapide Plat.....	14,298 74	4,137 04	11,092 06	10,897 79
" Farran's Point.....	100,534 64			
Total.....	2,639,564 93	120,653 93	292,609 24	227,626 97
GENERAL ON CANALS.				
Arbitrations and awards.....		566 85		
Dredge vessels, Lachine.....				2,000 00
" Rideau.....				6,998 41
Miscellaneous.....			250 56	3,681 43
Salaries and contingencies, canal officers.....			30,706 37	
Sunday labour.....			15,199 80	
Surveys and inspections.....		1,311 60		
Ottawa River surveys.....		9,994 90		
Total.....		11,873 35	46,156 73	12,679 84
RAILWAYS.				
Canadian Pacific.....	236 11			
Drummond County.....	1,459,000 00			
Intercolonial.....	1,796,348 29		4,431,404 69	
Prince Edward Island.....	53,546 02		220,931 81	
Windsor Branch.....			12,891 56	
Total.....	3,309,130 42		4,665,228 06	
GENERAL ON RAILWAYS.				
Exploratory survey Stikine River and ocean port, B. C.....		24,457 50		
Railway statistics.....		34 91		
Railway subsidies.....		725,720 35		
Carried forward.....		750,212 76		

64 VICTORIA, A. 1901

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.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Brought forward.....		750,217 76		
GENERAL ON RAILWAYS—<i>Concluded.</i>				
System of electric light to Governor General's car "Victoria".....		1,400 00		
Reporting evidence before Railway Committee of the Privy Council.....		488 30		
Subscription to Railway Congress, Brussels.....		194 66		
Surveys and inspections.....		6,921 62		
Total.....		759,217 34		
MISCELLANEOUS.				
Costs of litigation.....		644 78		
Salaries of engineers, draughtsmen, &c.....		19,464 04		
" extra clerks, &c.....		2,693 36		
Total.....		22,802 18		
RECAPITULATION.				
Total on Canals.....	2,639,564 93	120,653 93	292,609 24	227,626 97
" " general.....		11,873 35	46,156 73	12,679 84
Total on Canals.....	2,639,564 93	132,527 28	338,765 97	240,306 81
Total on Railways.....	3,309,130 42		4,665,228 06	
" " general.....		759,217 34		
Total on Railways.....	3,309,130 42	759,217 34	4,665,228 06	
Grand Total, Railways and Canals, including Miscellaneous.....	5,948,695 35	914,546 80	5,003,994 03	240,306 81

Total amount expended, \$12,107,542.99.

S. LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

SESSIONAL PAPER No. 20

No. 2.

STATEMENT showing the amount expended on Construction, Renewals, Ordinary Repairs and Working Staff of the Canals of the Dominion of Canada, up to June 30, 1900.

ST. PETER'S CANAL.

	Year ending June 30.	Capital.		Renewals, Chargeable to Income.		Staff.		Repairs.	
		\$	cts.	\$	cts.	\$	cts.	\$	cts.
Government expenditure prior to Confederation		156,523	32						
" since	1868	21,519	72						
"	1869	79,719	80						
"	1870			46,193	57				
"	1871					225	36	555	78
"	1872					280	00	6,122	67
"	1873					343	32	6,539	58
"	1874					725	93	1,558	57
"	1875	20	97			560	00	889	35
"	1876	11,125	00			641	55		
"	1877	63,330	18			600	00	17	45
"	1878	26,511	51			600	00		
"	1879	107,337	75			631	50		
"	1880	89,120	54			400	00		
"	1881	69,434	76			959	58		
"	1882	484	00			1,920	54	200	63
"	1883					2,089	19	232	42
"	1884	2,471	40			2,601	47	367	85
"	1885	16,820	15			1,929	11	183	11
"	1886	2,316	85			2,360	67	297	81
"	1887	1,087	75	750	00	2,777	13	343	23
"	1888					3,217	77	1,588	40
"	1889			500	00	3,085	29	353	38
"	1890					3,110	15	255	34
"	1891	972	65	510	53	3,255	30	312	02
"	1892	14,387	00	30,936	82	3,007	70	1,461	24
"	1893	811	59	9,987	78	2,938	15	1,856	30
"	1894	437	05	3,852	21	2,935	94	1,986	70
"	1895	868	44	26,222	46	2,499	81	353	55
"	1896	1,455	21	16,743	64	2,182	04	260	90
"	1897					2,728	38	1	20
"	1898			111	70	2,785	25	453	85
"	1899					2,819	86	456	01
"	1900					2,833	24	1,483	30
		648,755	64						
LESS—Refunds of previous years.		208	50						
Total		*618,547	14	135,808	71	57,044	23	28,130	64

* Expenditure as above. \$ 648,547 14
 Less expenditure prior to Confederation 156,523 32

Agreeing with Public Accounts, 1900, page xvi. . . . \$ 492,023 82

S. LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
 OTTAWA, October 31, 1900.

64 VICTORIA, A. 1901

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

BAIE VERTE CANAL.

	Year ending June 30.	Capital.		Income.	
		\$	cts.	\$	cts.
Government expenditure prior to Confederation.....					
" since	1868				
" " "	1869				
" " "	1870				
" " "	1871			17,929	34
" " "	1872			6,399	41
" " "	1873			14,943	83
" " "	1874			4,018	90
" " "	1875			443	00
" " "	1876			110	75
" " "	1877			22	30
" " "	1878				
" " "	1879				
" " "	1880				
" " "	1881			520	00
" " "	1882				
" " "	1883				
" " "	1884				
" " "	1885				
" " "	1886				
" " "	1887				
" " "	1888				
" " "	1889				
" " "	1890				
" " "	1891				
" " "	1892				
" " "	1893				
" " "	1894				
" " "	1895				
" " "	1896				
" " "	1897				
" " "	1898				
" " "	1899				
" " "	1900				
Total				44,387	53

S. LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

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.	
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	
" ".....	1869	2,000	00			14,209	02	
Cost of original construction and enlargement of 1843 to 1848..				2,589,532	85			
Expenditure by Dominion Government.....	1870					15,834	49	
" ".....	1871			12,231	40	17,478	52	
" ".....	1872	36,708	15			16,076	93	
" ".....	1873	7,824	28	35,158	21	23,601	03	
" ".....	1874	158,618	35			25,811	07	
" ".....	1875	197,420	52			28,592	01	
" ".....	1876	327,769	39			33,797	73	
" ".....	1877	1,439,375	73			33,148	86	
" ".....	1878	1,484,619	63			39,062	97	
" ".....	1879	958,053	30			42,338	84	
" ".....	1880	369,566	74			38,950	00	
" ".....	1881	292,165	51			39,027	99	
" ".....	1882	252,821	33	2,978	66	41,158	90	
" ".....	1883	396,496	96	1,859	68	45,554	91	
" ".....	1884	188,266	18			48,624	51	
" ".....	1885	111,215	23			49,004	85	
" ".....	1886	210,509	42			50,969	10	
" ".....	1887	28,772	52	12,981	59	53,113	97	
" ".....	1888	19,414	34	7,996	38	52,229	61	
" ".....	1889	76,032	96	972	71	54,110	67	
" ".....	1890	7,448	03	8,238	46	53,114	34	
" ".....	1891	217	53	16,155	75	50,721	69	
" ".....	1892	87,852	35	27,480	80	52,729	37	
" ".....	1893	445,983	21	50,937	40	53,185	00	
" ".....	1894	64,345	14	17,152	48	60,174	03	
" ".....	1895	189,944	36	32,405	20	56,337	44	
" ".....	1896	184,998	25	8,193	15	58,342	96	
" ".....	1897	282,052	48	14,664	21	57,533	20	
" ".....	1898	216,717	44	819	62	57,282	50	
" ".....	1899	162,351	83	3,103	99	55,990	00	
" ".....	1900	125,009	41	12,210	88	56,791	45	
Cost of enlargement.....				8,322,570	57			
Total.....				10,912,103	42	266,097	53	
						1,388,640	91	
							812,613	29

Total expenditure on capital account as above \$ 10,912,103 42

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, 1900, page xvi. \$ 7,921,999 27

S. LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

64 VICTORIA, A. 1901

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.
Government expenditure prior to Confederation		1,611,424 11						
" " since	1868		63,193	75	9,349	99	6,216	98
" " " " " "	1869		55	00	9,636	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				15,045	86	10,370	71
" " " " " "	1880	266 15			15,392	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		1,636	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	20,428	59	12,299	49
" " " " " "	1896				20,725	47	15,050	85
" " " " " "	1897		9,813	15	21,012	64	14,862	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	14,565	30
Total		\$1,636,690 26	198,908	59	562,356	62	129,088	48

* See page 9 for total cost of St. Lawrence River and Canals.

S. LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

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		16,282 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	
		858,316 15	383,561 36	763,192 63	2,232,278 27	98,378 46

ST. LAWRENCE RIVER AND CANALS.

St. Lawrence River and Canals, as above ..	\$ 2,232,278 27
Beauharnois Canal, see page 8	1,636,690 26
Cornwall Canal " 12	6,732,897 51
Williamsburg Canals " 14	8,038,224 91
Lake St. Louis " 10	261,832 18
Soulanges Canal " 26	5,792,066 07
Lachine Canal, from prior to Confederation to June 30, 1875, see page 7....	2,950,104 15
Lake St. Francis, see page 11.....	41,961 46

Agreeing with Public Accounts Balance Sheet, 1900, page xvi. \$27,686,654 81

S. LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

64 VICTORIA, A. 1901

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

LAKE ST. LOUIS.

	Year ending June 30.	Chargeable	Chargeable
		to Capital.	to Income.
		§ cts.	§ cts.
Government expenditure prior to Confederation.			
" " since "	1868		
" " " "	1869		
" " " "	1870		
" " " "	1871		
" " " "	1872		
" " " "	1873		
" " " "	1874		
" " " "	1875		
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" " " "	1890		
" " " "	1891		
" " " "	1892		
" " " "	1893		
" " " "	1894		
" " " "	1895	4,753 14	
" " " "	1896	49,969 31	
" " " "	1897	73,300 41	
" " " "	1898	64,495 83	
" " " "	1899	57,607 79	
" " " "	1900	11,765 70	
Total.		*261,832 18	

* 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, 1900.

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		
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" " " "	1894		
" " " "	1895		
" " " "	1896		
" " " "	1897		
" " " "	1898	3,420 00	
" " " "	1899	23,110 00	
" " " "	1900	15,431 46	12,288 39
Total		*41,961 46	12,288 39

* 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, 1900.

64 VICTORIA, A. 1901

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.	§ cts.	§ cts.
Government expenditure prior to confederation		1,933,152 69				
Government expenditure since Confederation ..	1868			2,786 00	11,244 47	3,774 18
" " ..	1869	10,692 04			10,347 91	3,859 14
" " ..	1870			17,780 05	10,368 16	7,145 42
" " ..	1871			7 50	11,848 39	8,891 61
" " ..	1872			10,090 21	10,594 30	8,163 70
" " ..	1873			1,011 75	13,042 25	12,467 65
" " ..	1874				13,405 20	7,610 70
" " ..	1875	1,780 00			13,351 91	7,097 34
Cost of original construction ..			1,945,624 73			
Expenditure by Dominion Govern- ment ..	1876				13,320 61	6,423 67
" " ..	1877	49,211 37			13,375 70	6,440 54
" " ..	1878	145,015 45			13,825 50	4,935 21
" " ..	1879	143,032 05			13,817 96	4,983 15
" " ..	1880	109,454 95			14,440 33	9,735 76
" " ..	1881	53,948 14			15,173 60	5,524 10
" " ..	1882	44,577 61			15,052 29	6,634 62
" " ..	1883	21,728 93			18,283 67	8,361 71
" " ..	1884	22,018 13			18,475 48	9,907 73
" " ..	1885	62,034 90		16,298 96	15,988 96	12,368 51
" " ..	1886	57,820 83		6,960 95	15,994 80	11,832 83
" " ..	1887	46,966 43			17,520 54	12,100 29
" " ..	1888	67,945 74			16,938 54	13,942 64
" " ..	1889	163,993 85			17,890 55	58,205 26
" " ..	1890	363,038 01		2,000 00	17,063 49	12,758 18
" " ..	1891	599,001 85		1,459 98	16,077 72	9,830 05
" " ..	1892	398,555 25		2,345 26	15,596 66	9,864 36
" " ..	1893	352,536 13			15,173 01	9,668 14
" " ..	1894	404,990 22			15,344 02	7,733 54
" " ..	1895	450,689 65		21,497 74	15,414 56	13,053 55
" " ..	1896	448,408 31		2,175 00	15,472 26	25,259 56
" " ..	1897	438,487 51			15,540 43	16,438 32
" " ..	1898	133,208 96			15,011 50	15,431 02
" " ..	1899	37,649 00		15,960 80	16,000 00	14,623 90
" " ..	1900	169,889 51		18,547 50	18,798 10	13,998 29
Cost of enlargement ..			4,787,272 78			
Total ..			*6,732,897 51	118,831 70	489,792 78	378,164 67

* 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, 1900.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—Continued.

WILLIAMSBURG CANALS.

	Year ending June 30.	Capital.						Repairs.
		Farran's Point.	Gadops.	Rapide Plat.	Total.	Renewals Chargeable to Income.	Staff.	
		%	%	%	%	%	%	
Government expenditure prior to Confederation being amount of original construction.....	1868				1,324,655.51		5,745.97	6,442.41
Government expenditure since Confederation.....	1869						5,769.81	5,670.88
"	1870						5,575.13	6,546.16
"	1871						6,382.17	3,308.41
"	1872				1,077.06		5,542.94	3,230.07
"	1873						6,424.49	7,347.75
"	1874						6,857.19	7,395.92
"	1875						6,547.62	4,110.29
"	1876						7,418.39	11,690.98
"	1877						7,388.68	10,053.61
"	1878						4,449.11	4,449.78
"	1879						7,517.20	3,549.71
"	1880						7,590.15	3,999.77
"	1881						7,572.35	5,020.73
"	1882						7,580.41	7,447.69
"	1883				13.19		7,423.48	7,249.39
"	1884				2,473.44		7,757.04	7,349.37
"	1885				163,237.12		7,696.67	8,198.07
"	1886	70,764.07	32,473.05	71,820.79	149,835.71		7,671.54	7,847.05
"	1887	32,862.02	82,990.98	115,853.00	70,128.29		7,635.54	7,904.76
"	1888	16,628.95	53,499.34	69,807.26	1,613.67		7,646.79	8,190.13
"	1889	37,661.15	22,206.11	59,807.26			7,485.28	8,794.61
"	1890	126,417.42	12,660.95	139,078.37	230,670.00		8,954.53	8,191.69
"	1891	172,779.88	55,036.96	230,670.00			8,987.40	7,987.40
"	1892	218,511.17	158,034.15	376,545.32	797.83		9,458.33	8,651.32
"	1893	154,324.01	217,669.28	372,103.29	3,675.00		8,676.03	8,347.97
"	1894	223,992.81	274,397.42	498,390.23	10,230.69		7,629.45	7,629.45
"	1895	118,464.53	228,892.70	347,357.23	13,730.36		9,675.09	7,371.37

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Concluded.*WILLIAMSBURG CANALS—*Concluded.*

Year ending June 30.	Capital.						Renewals Chargeable to Income.	Staff.	Repairs.	
	Farran's Point.		Galops.		Rapid-Plat.					Total.
	\$	cts.	\$	cts.	\$	cts.				
Government expenditure since Confederation	1896	4,980 00	150,714 16	286,396 96	412,121 12	8,607 04	9,588 51	9,036 00		
"	1897	231,321 44	292,795 78	205,480 55	468,274 33	3,880 76	8,697 54	8,210 71		
"	1898	346,556 54	734,492 07	116,072 55	1,081,886 06	.....	10,708 66	8,632 84	
"	1899	100,534 61	987,186 44	57,869 18	1,392,012 16	7,410 00	9,960 64	10,000 00		
"	1900	.....	752,799 27	14,298 74	867,032 65	4,137 04	11,092 06	10,897 79	
Total	.....	686,646 38	4,138,636 65	1,889,799 71	8,038,224 91	41,918 70	290,385 11	241,504 54	

* Original construction
Cost of Enlargement

\$ 1,320,655 54
6,717,569 37

Total

\$ 8,038,224 91

Included in total cost of St. Lawrence River and Canals, page 9.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

WELLAND CANAL.

	Year ending June 30.	Capital.		Renewals Chargeable to Income.		Staff.		Repairs.	
		\$	cts.	\$	cts.	\$	cts.	\$	cts.
Imperial Government.....		222,220	00						
Government expenditure prior to Confederation		7,416,019	83						
" " since	1868	12,067	84			37,679	05	38,852	96
" " " "	1869	43,486	36			39,060	61	50,773	03
" " " "	1870			22,173	72	40,340	45	65,009	19
" " " "	1871			48,569	10	42,383	33	53,381	02
" " " "	1872	53,680	32	6,022	44	37,085	37	50,276	90
" " " "	1873	82,282	20	47,876	27	45,382	99	66,550	73
" " " "	1874	746,420	61			50,966	48	103,666	99
" " " "	1875	1,047,119	91			52,595	00	88,539	99
" " " "	1876	1,569,478	19	700	00	57,623	31	81,376	12
" " " "	1877	2,199,962	61			59,963	47	49,783	93
" " " "	1878	2,138,392	99			60,138	59	66,393	53
" " " "	1879	1,552,697	41			59,912	23	56,755	57
" " " "	1880	1,252,924	75			63,198	10	76,535	25
" " " "	1881	1,242,943	37	6,593	19	56,398	04	69,249	53
" " " "	1882	608,402	17	13,664	80	74,641	51	84,374	97
" " " "	1883	549,433	29	5,979	03	109,207	21	72,707	62
" " " "	1884	432,336	21			113,276	87	90,926	97
" " " "	1885	463,505	38	6,150	21	112,670	00	91,534	66
" " " "	1886	215,380	75	1,359	00	111,660	22	69,507	48
" " " "	1887	1,071,073	87	3,828	67	109,371	69	77,440	80
" " " "	1888	429,720	94	10,740	86	110,806	01	86,518	97
" " " "	1889	225,910	21	48,803	80	113,587	05	77,547	77
" " " "	1890	117,633	22	51,648	28	109,202	02	72,686	19
" " " "	1891	36,371	03	19,767	73	107,662	63	82,548	30
" " " "	1892	29,541	21	9,068	80	104,673	73	73,771	87
" " " "	1893	8,259	94	25,103	13	104,926	73	65,016	84
" " " "	1894	1,571	78	13,430	20	102,018	80	53,053	71
" " " "	1895	3,809	35	24,245	02	90,438	07	48,270	94
" " " "	1896	1,677	67	18,768	99	87,988	11	62,542	64
" " " "	1897	2,282	35	22,283	06	88,095	20	41,247	81
" " " "	1898			34,803	25	84,806	54	59,571	66
" " " "	1899			30,099	84	86,110	88	56,270	60
" " " "	1900	18,167	20	37,164	84	84,888	36	59,567	64
Total		*23,789,893	05	503,784	23	2,608,788	65	2,242,192	18

*Total expenditure as above \$ 23,789,893 05
Less expenditure by Imperial Government..... 222,220 00

Agreeing with Public Accounts Balance Sheet, 1900, page xvi. \$ 23,567,583 05

Original cost of construction, including first enlargement. \$ 7,693,824 03
Enlargement, including new Welland Canal..... 16,065,979 02

Total expenditure as above..... \$ 23,789,893 05

S. LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,

OTTAWA, October 31, 1900.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

CARILLON AND GRENVILLE CANAL.

	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Imperial Government..		*			
Government expenditure prior to Confederation		63,053 64			
" " " since	1868		19,817 22	6,301 88	8,911 28
" " " "	1869			6,549 38	10,157 42
" " " "	1870		4,167 96	6,617 81	9,852 09
" " " "	1871		23,119 37	8,676 90	8,218 24
" " " "	1872	165,257 28		8,324 51	17,235 31
" " " "	1873	133,199 10	3,051 38	10,068 28	8,781 50
" " " "	1874	245,258 38		10,710 88	10,605 82
" " " "	1875	339,864 76		10,378 57	18,520 44
" " " "	1876	326,203 16		10,764 38	11,475 96
" " " "	1877	245,738 04		11,050 27	10,304 06
" " " "	1878	22,676 20		11,401 30	5,082 72
" " " "	1879	243,141 24		11,501 22	7,629 98
" " " "	1880	281,514 27		11,959 14	7,625 54
" " " "	1881	336,707 53		13,059 18	8,076 91
" " " "	1882	433,084 39		14,387 49	7,582 68
" " " "	1883	433,575 10		17,479 58	8,310 02
" " " "	1884	399,267 16		17,393 91	7,918 42
" " " "	1885	157,187 72		19,702 30	10,429 26
" " " "	1886	164,973 24	75 00	20,597 82	9,303 31
" " " "	1887	20,747 11		20,011 36	10,554 41
" " " "	1888	38,996 29		21,531 12	10,036 62
" " " "	1889	298 17		22,098 88	10,135 66
" " " "	1890	17 58	4,523 61	15,896 16	7,582 38
" " " "	1891		4,395 25	21,230 22	10,796 68
" " " "	1892	34,585 64	15,036 48	17,458 69	8,020 15
" " " "	1893	207 00	42,298 74	16,762 71	10,669 28
" " " "	1894	385 55	20,034 94	14,144 98	11,620 09
" " " "	1895		5,963 76	15,453 21	12,303 25
" " " "	1896	3,850 31		13,995 69	12,161 10
" " " "	1897	1,908 44	4,939 20	13,780 29	11,607 95
" " " "	1898	82,663 37	5,082 03	11,697 81	10,993 61
" " " "	1899	39,999 37		11,919 27	11,478 88
" " " "	1900	22,802 27	4,476 50	13,657 06	14,666 71
Total		†4,177,162 31	156,984 44	456,562 55	339,247 73

* Expenditure not given—records relating to same were kept in Ordnance Office at Montreal and were destroyed by fire in 1852.

† Included in total cost of Ottawa River Works, see page 19, cost of enlargement \$4,114,108.67.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

64 VICTORIA, A. 1901

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	29,597 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	745 25	499 91
" " " "	1892		1,546 25	
" " " "	1893		1,420 65	749 00
" " " "	1894		2,540 14	730 00
" " " "	1895		1,475 26	436 05
" " " "	1896			
" " " "	1897			
" " " "	1898			100 00
" " " "	1899			
" " " "	1900	3,085 00		
Total.....	*382,579 46	55,328 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, 1900.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

RIDEAU CANAL.

	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Imperial Government.....		3,911,701 47			
Government expenditure prior to Confederation since		153,062 60			
" " " " " "	1868	166 50	7,298 12	18,397 28	16,475 21
" " " " " "	1869			19,250 71	13,140 77
" " " " " "	1870		3 16	20,022 37	19,469 33
" " " " " "	1871		11,732 98	22,814 58	18,120 52
" " " " " "	1872		4,967 50	22,139 48	14,005 32
" " " " " "	1873		18,070 97	22,841 51	26,074 49
" " " " " "	1874		5,793 16	26,815 44	22,957 40
" " " " " "	1875	9,310 85		26,553 37	19,699 81
" " " " " "	1876	2,163 96		26,430 77	14,428 25
" " " " " "	1877	214 11		25,959 56	14,198 18
" " " " " "	1878			26,651 51	11,034 22
" " " " " "	1879	7,703 88		26,042 52	7,134 55
" " " " " "	1880			26,463 88	11,434 05
" " " " " "	1881		133 50	26,024 71	8,627 00
" " " " " "	1882			26,915 29	13,860 28
" " " " " "	1883		70 65	27 322 81	23,524 84
" " " " " "	1884		4,597 50	26,938 95	19,245 02
" " " " " "	1885		2,098 76	26,971 32	18,189 55
" " " " " "	1886		550 00	27,045 95	35,648 04
" " " " " "	1887		20,823 96	29,440 46	18,565 34
" " " " " "	1888		18,889 48	33,458 83	25,478 87
" " " " " "	1889		6,665 22	33,891 77	18,106 36
" " " " " "	1890		21,124 10	34,270 57	18,025 21
" " " " " "	1891		20,967 25	34,641 98	21,537 56
" " " " " "	1892		31,363 23	35,500 82	21,507 16
" " " " " "	1893		24,274 71	35,022 49	18,789 50
" " " " " "	1894		14,485 11	34,943 35	16,939 47
" " " " " "	1895		31,559 48	33,827 68	19,897 32
" " " " " "	1896		21,452 29	34,052 77	30,196 38
" " " " " "	1897		19,079 11	31,461 55	29,535 94
" " " " " "	1898		13,608 39	30,759 05	26,599 93
" " " " " "	1899		700 29	30,751 20	28,199 49
" " " " " "	1900		11,780 41	30,623 27	30,237 09
Total.....		4,084,323 37	312,099 33	934,157 20	650,882 45

* Ottawa River Works.

Ste. Anne's Lock, page 16.....		\$ 1,170,215 63
Carillon and Grenville Canals, page 17.....		4,177,162 31
Culbute Canal, page 18.....		382,579 46
Rideau Canal as above.....	\$ 4,084,323 37	
Less expenditure by Imperial Government.....	3,911,701 47	
		172,621 90
Total Ottawa Works (Capital).....		\$ 5,902,579 30
Add expenditure on slides and booms prior to Confederation.....	\$ 719,247 13	
Since Confederation.....	7,243 60	
Add expenditure on Chats Canals prior to Confederation.....	482,950 81	
Add expenditure in 1881, charged to Miscellaneous, <i>see</i> page 229, part ii Public Accounts.....	1,136 84	
Add amount transferred, <i>see</i> page xxxvi Public Accounts, Balance Sheet, 1881.....	233,555 85	
		1,444,134 23
Less expenditure prior to Confederation, transferred to Income Accounts.....	\$ 320,618 28	\$ 7,346,713 53
Less expenditure, 1872, on Carillon and Grenville Canal, as shown in Public Accounts Balance Sheet, page xx, under Miscellaneous....	165,257 28	
		485,875 56
Agreeing with Balance Sheet, Public Accounts, 1900, page xvi.....		\$ 6,860,837 97

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.S. LEONARD SHANNON,
Accountant.

64 VICTORIA, A. 1901

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	1,066 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 13	2,681 10
Total		*121,537 65	96,625 50	64,429 79	59,303 28

* Included in the total cost of Chambly Canal and River Richelieu, *see* page 21.

S. LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,

OTTAWA, October 31, 1900.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

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			8,312 90	9,355 70
" " " "	1869			8,437 22	13,120 97
" " " "	1870			8,934 41	20,180 73
" " " "	1871		2,839 85	10,214 71	22,426 33
" " " "	1872		1,906 40	9,628 50	22,327 99
" " " "	1873		759 00	10,390 44	11,789 27
" " " "	1874		2,810 00	11,675 67	16,427 19
" " " "	1875	2,415 00		12,201 99	16,306 91
" " " "	1876			10,593 14	13,273 56
" " " "	1877	80 00		10,281 78	10,111 32
" " " "	1878			10,413 99	6,022 96
" " " "	1879			11,301 53	8,809 77
" " " "	1880			11,516 22	12,377 74
" " " "	1881			13,950 47	20,705 17
" " " "	1882		31,796 41	16,686 78	16,843 60
" " " "	1883		21,332 36	15,904 38	15,182 24
" " " "	1884		41,640 77	18,448 85	12,003 34
" " " "	1885		21,049 23	18,378 55	13,046 95
" " " "	1886		14,547 27	19,501 28	11,999 77
" " " "	1887		17,911 17	19,053 62	20,071 37
" " " "	1888		65,536 64	20,073 60	11,823 74
" " " "	1889		51,137 87	19,679 22	19,392 18
" " " "	1890		23,221 48	19,655 38	14,399 93
" " " "	1891		43,344 41	19,204 76	11,399 93
" " " "	1892		38,353 99	19,665 22	12,976 48
" " " "	1893		21,127 65	19,310 29	12,451 63
" " " "	1894		8,567 78	19,040 93	11,920 74
" " " "	1895		6,147 63	19,325 49	11,779 12
" " " "	1896		3,694 63	19,349 65	11,801 12
" " " "	1897		12,665 88	18,754 17	13,128 55
" " " "	1898		13,184 68	17,992 90	12,466 51
" " " "	1899		15,255 42	18,396 50	11,997 51
" " " "	1900		5,448 88	18,397 58	13,995 00
Less proceeds of sale of piece of land.....		637,206 76 150 00			
Total		*637,056 76	464,579 40	504,612 12	461,914 72

* Chambly Canal and River Richelieu.

Chambly Canal as above.....	\$ 637,056 76
St. Ours Lock, <i>see</i> 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, 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, 1900, page xvi.....	\$ 436,152 83
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S. LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,

OTTAWA, October 31, 1900.

64 VICTORIA, A. 1901

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

MURRAY CANAL.

	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		§ cts.	§ cts.	§ cts.	§ cts.
Government expenditure prior to Confederation					
" " since " "	1868		400 00		
" " " "	1869				
" " " "	1870				
" " " "	1871				
" " " "	1872				
" " " "	1873				
" " " "	1874				
" " " "	1875				
" " " "	1876				
" " " "	1877				
" " " "	1878				
" " " "	1879				
" " " "	1880				
" " " "	1881				
" " " "	1882	7,135 63			
" " " "	1883	84,071 68			
" " " "	1884	118,187 43			
" " " "	1885	148,902 66			
" " " "	1886	179,704 52			
" " " "	1887	142,563 66			
" " " "	1888	146,754 37			
" " " "	1889	215,326 46			
" " " "	1890	106,760 35		494 31	
" " " "	1891	61,260 49		5,137 03	173 53
" " " "	1892	5,964 22		5,803 48	3,505 15
" " " "	1893	30,838 79		5,499 62	5,341 34
" " " "	1894			5,667 52	5,295 57
" " " "	1895			5,354 97	5,063 49
" " " "	1896			5,409 10	5,410 33
" " " "	1897			5,526 87	3,966 41
" " " "	1898			5,799 94	4,710 23
" " " "	1899			5,073 70	3,533 68
" " " "	1900			5,613 83	2,777 60
Total		*1,247,470 26	400 00	55,380 37	39,777 33

* Agreeing with Public Accounts Balance Sheet, 1900, page xvi.

S. LEONARD SHANNON,
*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

64 VICTORIA, A. 1901

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		*	*
Total		489,599 23	748 65	*	*

* Included in Rideau Canal.

† Agreeing with Public Accounts, 1900, page xvi.

S. LEONARD SHANNON,
*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

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
Total		*3,769,671 67	949 35	77,020 58	38,278 32

* Agreeing with Public Accounts, 1900, page xvi.

S. LEONARD SHANNON,
*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

SESSIONAL PAPER No. 20

STATEMENT showing amount expended on Construction and Enlargement of Canals,
to June 30, 1900.

Canal.	Construction.		Enlargement.		Total.	
	\$	cts.	\$	cts.	\$	cts.
St. Peters.....	248,762	84	399,784	30	648,547	14
Lachine.....	2,589,532	85	8,322,570	57	10,912,103	42
Beauharnois.....	1,636,690	26			1,636,690	26
St. Lawrence River and Canals.....	18,442	85	2,213,835	42	2,232,278	27
Lake St. Louis.....			261,772	18	261,772	18
Lake St. Francis.....			41,961	46	41,961	46
Cornwall.....	1,945,624	73	4,787,272	78	6,732,897	51
Williamsburg	{ Farran's Point. Galops. Rapide Plat. Williamsburg.		686,646	38	8,038,224	91
			4,138,636	65		
			1,889,799	71		
			1,320,655	54		
Welland.....	7,693,824	03	16,095,979	02	23,789,803	05
St. Anne's.....	134,456	51	1,035,759	12	1,170,215	63
*Carillon and Grenville.....	63,053	64	4,114,108	67	4,177,162	31
Culbute.....	382,579	46			382,579	46
Rideau.....	4,097,793	87			4,097,793	87
St. Ours.....	121,537	65			121,537	65
Chambly.....	637,056	76			637,056	76
Murray.....	1,247,470	26			1,247,470	26
Trent.....	2,877,823	48			2,877,823	48
Tay.....	476,128	73			476,128	73
Sault Ste. Marie.....	3,769,671	67			3,769,671	67
Soulanges.....	5,792,066	07			5,792,066	07
	35,053,171	20	43,990,612	89	79,043,784	09

* 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, 1900.

* RECAPITULATION—EXPENDITURE on Canals, also showing Revenue received.

Year ending June 30.	Government expenditure prior to Confederation, including Imperial Government expenditure since Confederation	Capital.		Income.		Staff.		Repairs.		Revenue received.		
		\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
1868		20,593,866	13		98,378	46	113,084	50	101,046	44	403,879	131
1869		33,784	06		95,347	79	116,069	76	118,573	51	404,253	32
1870		126,898	20		55	00	129,403	02	150,176	70	448,538	76
1871					90,355	96	135,040	81	140,457	25	466,847	52
1872		255,645	75		116,429	54	124,137	09	152,080	25	484,433	26
1873		186,547	27		33,289	27	148,581	18	186,573	13	510,755	99
1874		1,199,591	91		127,369	55	167,194	40	203,226	85	414,979	59
1875		1,714,830	37		479	00	168,401	21	190,578	04	390,337	04
1876		2,388,733	46		810	75	178,411	80	188,448	51	373,815	17
1877		4,131,374	30		22	30	179,661	40	192,251	60	331,568	17
1878		3,843,338	62				187,521	31	175,319	99	347,675	13
1879		3,064,098	61				191,822	41	147,167	52	311,508	14
1880		2,123,366	34				135,069	33	134,653	63	301,368	17
1881		2,075,891	65		7,246	69	137,573	62	187,339	02	253,231	54
1882		1,593,174	09		55,025	03	224,572	61	178,617	86	361,604	01
1883		1,763,001	97		62,503	14	239,415	01	312,219	38	372,561	69
1884		1,577,295	42		60,993	99	280,657	29	201,708	47	321,289	47
1885		1,504,621	47		58,297	59	280,226	20	282,323	63	328,977	43
1886		1,333,324	80		31,984	02	285,172	62	198,251	97	321,784	88
1887		1,783,698	16		65,983	06	292,458	76	198,888	84	317,902	04
1888		1,033,118	34		162,015	59	301,040	23	240,261	36	333,188	90
1889		972,918	43		105,843	87	290,516	63	176,089	00	354,816	92
1890		1,026,361	24		146,833	54	294,569	12	204,768	45	349,431	90
1891		1,318,692	15		165,843	87	293,115	58	231,089	51	324,475	24
1892		1,147,149	30		194,129	61	291,588	97	204,759	39	357,080	87
1893		2,063,573	30		196,185	84	294,496	34	179,630	13	339,890	49
1894		3,027,164	19		103,276	33	281,477	05	164,033	71	339,588	72
1895		2,452,273	65		216,037	58	292,121	05	209,321	00	384,780	53
1896		2,298,778	97		85,829	49	287,970	36	178,385	47	404,652	81
1897		3,311,016	16		101,295	74	280,872	44	203,478	86	349,944	38
1898		3,297,249	79		82,400	55	280,628	57	202,312	36	322,642	86
1899		3,899,877	31		82,205	60	292,609	24	227,628	97		
1900		2,639,564	93		120,653	93						
Total		79,036,223	34		2,738,758	35	7,618,786	56	5,915,581	07	13,401,917	32

This does not include expenditure which has been charged to Canals,—General—but amounts expended on specified canals.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

S. LEONARD SHANNON,
Accountant.

SESSIONAL PAPER No. 20

HYDRAULIC AND OTHER RENTS.

Balances due July 1, 1899.	Accrued during the Year ended June 30, 1900.	Totals.	1899 1900.	Abatement.	Deposited to the Credit of the Receiver General.	Paid into hands of the Collectors.	Balance due June 30, 1900.	Totals.
§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.
31,263 06	12,041 43	43,304 49	Welland Canal	17 92	2,080 00	9,427 26	31,779 31	43,304 49
1,394 00	708 00	2,102 00	Williamstown Canal			509 00	1,393 00	2,102 00
3,427 50	5,314 50	8,742 00	Cornwall			6,164 50	2,577 50	8,742 00
7,668 33	2,692 67	10,361 00	Beauharnois "	240 00		1,357 00	8,164 00	10,361 00
17,117 65	28,250 88	45,368 53	Laclache	704 58		28,020 64	16,973 31	45,368 53
350 84	123 00	473 84	Chambly			98 00	375 84	473 84
2,155 04	2,967 65	5,122 69	Rideau	108 33		1,746 80	3,267 56	5,122 69
72 00	80 50	152 50	Trent Valley			69 50	83 00	152 50
2,110 00	50 00	2,160 00	South Side, Mario			50 00	50 00	50 00
8 00	2,136 00	2,144 00	Carillon and Grenville Canal			28 00	4,218 00	4,246 00
65,506 42	54,354 63	119,861 05	Sundry Canals.				8 00	8 00
			Totals	1,070 83	2,080 00	48,070 70	68,739 52	119,861 05

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

REVENUE STATEMENT.

CANAL REVENUE.				Total Canal Revenue Accrued.		Hydraulic and other Rents.		Total.		COLLECTION DIVISION.		DEPOSITS TO THE CREDIT OF THE RECEIVER GENERAL.		Total.		Cost of Staff, Repairs and Offices of Collection, Chargeable to Revenue.	
Tolls.	Wharfage and Storage.	Fines.	Other Receipts.	Total Canal Revenue Accrued.		Hydraulic and other Rents.		Total.		COLLECTION DIVISION.		DEPOSITS TO THE CREDIT OF THE RECEIVER GENERAL.		Total.		Cost of Staff, Repairs and Offices of Collection, Chargeable to Revenue.	
				cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.
79,711 62		10 00	51 24	79,772 86	1,084 00	80,856 86	79,772 86	1,084 00	80,856 86	149,690 85		3,388 12	149,690 85		3,388 12		
26,260 94		30 00	29 26	26,320 20	654 00	26,974 20	26,320 20	654 00	26,974 20	Port Colborne.....		654 00	26,974 20		654 00		
375 96				375 96	780 96	780 96	375 96	780 96	780 96	Port Parhousse.....		780 96	780 96		780 96		
289 28		15 00	32 08	336 36	7,415 62	7,752 00	336 36	7,415 62	7,752 00	Dumville.....		7,415 62	7,752 00		7,415 62		
28 07				28 07	5 00	33 07	28 07	5 00	33 07	St. Catharines.....		5 00	33 07		5 00		
					2,080 00	2,080 00		2,080 00	2,080 00	Chippawa.....		2,080 00	2,080 00		2,080 00		
106,660 47		55 00	112 58	106,834 05	11,507 26	118,341 31	106,834 05	11,507 26	118,341 31	Account.....		11,507 26	118,341 31		11,507 26		
										Totals.....							
2,250 74				2,250 74	1,957 00	4,207 74	2,250 74	1,957 00	4,207 74	St. Lawrence Canals.							
31,882 47		49 00		31,931 47	4,164 50	36,096 00	31,931 47	4,164 50	36,096 00	Coteau Landing.....		7,821 34	44,917 84		7,821 34		
392 46		31 00		423 46	369 00	792 46	31,613 47	6,164 50	37,777 97	Bouchard.....		1,957 00	44,917 84		1,957 00		
23,150 82	3 39		1,730 39	24,884 60	28,020 64	52,905 24	3,892 46	5,093 00	8,985 46	Cardinal.....		5,174 60	14,159 90		5,174 60		
26,228 98	2,105 97		7,621 35	36,256 30	28,020 64	64,276 94	5,174 60	36,256 30	41,431 54	Lachine.....		28,020 64	69,457 48		28,020 64		
15,079 13				15,079 13	15,079 13	30,158 26	15,079 13	15,079 13	30,158 26	Montreal.....		15,079 13	45,237 61		15,079 13		
87,056 94	2,109 36	80 00	9,341 74	98,588 04	36,651 14	135,239 18	98,588 04	36,651 14	135,239 18	Kingston.....		98,588 04	233,827 66		98,588 04		
										Totals.....							
11,439 41		10 00		11,449 41	98 00	11,547 41	11,449 41	98 00	11,547 41	Chambly Canal							
13,388 34				13,388 34	98 00	13,486 34	13,388 34	98 00	13,486 34	Chambly.....		11,449 41	24,935 85		11,449 41		
686 22				686 22	686 22	1,372 44	686 22	686 22	1,372 44	St. Johns.....		13,388 34	26,324 29		13,388 34		
										St. Ours.....		686 22	1,372 44		686 22		
25,513 97		10 00		25,523 97	98 00	25,621 97	25,523 97	98 00	25,621 97	Totals.....							
										Chambly Canal							
22,257 89				22,257 89	5 00	22,262 89	22,257 89	5 00	22,262 89	Ottawa Canals.							
38 53		10 00		48 53	23 40	72 93	7,172 94	5 00	7,177 94	Ottawa.....		22,257 89	29,439 83		22,257 89		
1,038 17				1,038 17	1,038 17	2,076 34	1,038 17	1,038 17	2,076 34	Grenville.....		7,172 94	9,251 77		7,172 94		
										Carleton.....		48 53	71 53		48 53		
										St. Anne's Lock.....		1,038 17	1,038 17		1,038 17		
30,507 55		10 00		30,517 55	28 00	30,545 55	30,517 55	28 00	30,545 55	Totals.....							

SESSIONAL PAPER No. 20

4,314 80	26 46	300 00	4,641 26	1,450 25	6,091 51	60,860 36
1,152 53		15 00	1,152 53	230 00	1,382 53	2,422 04
684 43			679 93	66 55	746 48	447 16
6,132 25	26 46	315 00	6,473 72	1,746 80	8,220 52	387 85
3,340 29			3,340 29		3,340 29	64,067 41
711 12			711 12		711 12	8,881 03
711 12			711 12		711 12	389 17
76 50						9,280 29
536 70		1 20	77 70	1 00	78 70	15,120 78
160 65		74 00	610 70	51 00	610 70	
43 27			160 65	51 00	211 65	
302 27			43 27	17 50	43 27	10 00
108 44			302 27	17 50	319 77	25 58
			108 44		108 44	
1,227 83		75 20	1,303 03	69 50	1,372 53	15,156 36
				50 00	50 00	28,502 17
						8,998 41
						94 04
						757 65
						3,301 49
						13,754 59
261,156 41	2,135 82	155 00	273,291 75	50,150 70	323,442 45	579,972 78
			273,291 75	41 66	799 59	
						322,642 86
						579,972 78

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900,

64 VICTORIA, A. 1901

INTERCOLONIAL RAILWAY.

(Including amounts paid to Nova Scotia Railway and European and North American Railway, N.B.)

	Year.	Construction.	Income.	Working Expenses including Windsor Branch Ry.	Revenue received, including Windsor Branch Ry.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Expenditure prior to Confederation.....		10,766,725 54			
" since " 1868	1868	483,353 65		359,961 08	420,752 58
" " 1869	1869	282,615 18		387,548 47	455,022 76
" " 1870	1870	1,729,381 49		445,208 75	471,245 09
" " 1871	1871	2,916,782 13		442,993 31	565,713 52
" " 1872	1872	5,131,141 51		595,076 22	622,900 56
" " 1873	1873	5,201,450 37		1,011,892 60	703,458 26
" " 1874	1874	3,614,898 81		1,847,175 24	893,430 17
" " 1875	1875	3,426,099 55		1,532,589 62	861,593 43
" " 1876	1876	1,108,321 59		1,277,197 79	848,861 46
" " 1877	1877	1,318,352 19		1,661,673 55	1,154,445 35
" " 1878	1878	408,816 74		1,811,273 56	1,378,946 78
" " 1879	1879	226,639 19		2,010,183 22	1,294,099 69
" " 1880	1880	2,948,014 60		1,607,956 70	1,520,310 45
" " 1881	1881	608,732 80		1,780,353 53	1,777,856 76
" " 1882	1882	585,568 79		2,080,592 37	2,100,315 85
" " 1883	1883	1,616,632 96		2,383,477 20	2,395,034 99
" " 1884	1884	1,405,377 52		2,366,719 95	2,376,666 19
" " 1885	1885	1,195,363 08		2,460,229 87	2,382,605 00
" " 1886	1886	514,958 17		2,598,473 10	2,406,858 88
" " 1887	1887	823,070 86		2,854,158 91	2,621,337 41
" " 1888	1888	742,203 09		3,300,481 94	2,937,337 40
" " 1889	1889	675,228 13		3,174,785 19	2,923,736 46
" " 1890	1890	365,246 48		3,590,455 80	2,958,243 38
" " 1891	1891	79,929 34		3,691,273 65	3,007,630 51
" " 1892	1892	168,101 77		3,458,891 39	2,978,950 82
" " 1893	1893	228,984 79		3,062,207 45	3,069,815 20
" " 1894	1894	166,362 43		2,999,317 07	3,020,485 74
" " 1895	1895	327,034 51		2,964,940 98	2,979,795 59
" " 1896	1896	259,105 23		3,029,304 08	2,994,201 93
" " 1897	1897	145,142 00		2,936,789 71	2,906,631 25
" " 1898	1898	252,367 20	70,000 00	3,275,830 14	3,154,896 49
" " 1899	1899	1,081,929 94	210,000 00	3,478,559 30	3,775,558 08
" " 1900	1900	1,796,348 29		4,444,296 25	4,599,423 14
Total		*51,710,279 92	280,000 00	74,741,867 99	68,598,161 17

* Including \$296,872.90 charged to "Consolidated Fund."

Total cost of construction as above \$ 51,710,279 92

LESS amounts transferred from Capital to Consolidated Fund as follows:—

	Nova Scotia Ry.	European and North American Ry.
1868.....	\$ 16,800 99	\$ 11,302 89
1870.....	24,403 45	1,749 21
1871.....	50,405 69	
1873.....	106,899 59	75,311 08
	\$ 208,509 72	\$ 88,363 18
		208,509 72

296,872 90

Cape Breton Railway, page 35	\$ 51,413,467 02
Oxford and New Glasgow Railway, page 36.....	3,860,679 14
Eastern Extension Railway, page 33	1,949,063 21
Montreal and European Short Line Railway, page 37	1,324,042 81
Drummond County Railway, page 41	333,942 72
	1,459 000 00

Total Capital cost of Intercolonial Railway system..... \$ 60,340,134 90

Governor General's car "Victoria"..... 1,290 31

Agreeing with Public Accounts, 1900, page xvi..... \$ 60,341,425 21

S. LEONARD SHANNON,

DEPARTMENT OF RAILWAYS AND CANALS,

Accountant.

OTTAWA, October 31, 1900.

SESSIONAL PAPER No. 20

EASTERN EXTENSION RAILWAY.

Year.	Capital.		Working Expenses.		Revenue received.	
	\$	cts.	\$	cts.	\$	cts.
Government expenditure prior to Confederation.....						
" " since "	1868					
" " "	1869					
" " "	1870					
" " "	1871					
" " "	1872					
" " "	1873					
" " "	1874					
" " "	1875					
" " "	1876					
" " "	1877					
" " "	1878					
" " "	1879					
" " "	1880					
" " "	1881					
" " "	1882					
" " "	1883					
" " "	1884	1,284,311	97	10,033	77	30,767 66
" " "	1885	2,055	92	78,273	65	73,050 01
" " "	1886	183	79	94,756	06	66,893 11
" " "	1887			94,254	04	64,107 10
" " "	1888			90,954	73	70,552 20
" " "	1889	34,235	73	90,719	04	72,436 65
" " "	1890			79,102	77	84,658 95
" " "	1891	3,255	40	*		†
" " "	1892			*		†
" " "	1893			*		†
" " "	1894			*		†
" " "	1895			*		†
" " "	1896			*		†
" " "	1897			*		†
" " "	1898			*		†
" " "	1899			*		†
" " "	1900			*		†
Total	† 1,394,042	81		538,094	06	462,465 68

* Included in Intercolonial Railway working expenses. † Included in Intercolonial Railway revenue.
 ‡ Included in total cost of Intercolonial Railway system, page 32.

S. LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
 OTTAWA, October 31, 1900.

64 VICTORIA, A. 1901

CARLETON BRANCH RAILWAY.

	Year.	Capital.	Working Expenses.	Revenue received.
		§ cts.	§ cts.	§ cts.
Government expenditure prior to Confederation.....	1868			
" since " "	1869			
" " " "	1870			
" " " "	1871			
" " " "	1872			
" " " "	1873			
" " " "	1874			
" " " "	1875			
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" " " "	1878			
" " " "	1879			
" " " "	1880			
" " " "	1881			
" " " "	1882			
" " " "	1883			
" " " "	1884			
" " " "	1885			
" " " "	1886	85,610 69		
" " " "	1887	2,299 62		
" " " "	1888	500 17		
" " " "	1889			
" " " "	1890			
" " " "	1891			
" " " "	1892			
" " " "	1893			
" " " "	1894			
" " " "	1895			
" " " "	1896			
" " " "	1897			
" " " "	1898			
" " " "	1899			
" " " "	1900			
Total.		*88,410 48		

*56 Victoria, cap. 6, transferred the Carleton Branch Railway to the city of St. John, N.B., for the sum of \$40,000, which sum was paid in March, 1893, to the Receiver General.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

SESSIONAL PAPER No. 20

CAPE BRETON RAILWAY.

	Year.	Capital.	Working Expenses.
		§ cts.	§ cts.
Government expenditure prior to Confederation	1868		
" " " since	1869		
" " "	1870		
" " "	1871		
" " "	1872		
" " "	1873		
" " "	1874		
" " "	1875		
" " "	1876		
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" " "	1879		
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" " "	1881		
" " "	1882		
" " "	1883		
" " "	1884		
" " "	1885		
" " "	1886		
" " "	1887	76,501 89	
" " "	1888	689,450 50	
" " "	1889	1,083,276 60	
" " "	1890	1,170,523 62	
" " "	1891	521,441 62	
" " "	1892	99,936 96	
" " "	1893	59,982 74	
" " "	1894	158,770 61	
" " "	1895	*	
" " "	1896	*	
" " "	1897	405 00	
" " "	1898	389 60	
" " "	1899		
" " "	1900		
Total.....		\$3,860,679 14	†

* Included in Intercolonial Railway capital. † Included in Intercolonial Railway working expenses.
 § Included in total cost of Intercolonial Railway system, see page 32.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
 OTTAWA, October 31, 1900.

64 VICTORIA, A. 1901

OXFORD AND NEW GLASGOW.

—	Year.	Capital.	Working Expenses.
		\$ cts.	\$ cts.
Government expenditure prior to Confederation.	1868		
" since " 	1869		
" " " " 	1870		
" " " " 	1871		
" " " " 	1872		
" " " " 	1873		
" " " " 	1874		
" " " " 	1875		
" " " " 	1876		
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" " " " 	1883		
" " " " 	1884		
" " " " 	1885		
" " " " 	1886		
" " " " 	1887		
" " " " 	1888	280,932 35	
" " " " 	1889	840,553 57	
" " " " 	1890	434,074 60	
" " " " 	1891	220,886 39	
" " " " 	1892	48,745 23	
" " " " 	1893	7,922 80	
" " " " 	1894	112,382 75	
" " " " 	1895	*	
" " " " 	1896	*	
" " " " 	1897	3,565 52	
" " " " 	1898		
" " " " 	1899		
" " " " 	1900		
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, 1900.

SESSIONAL PAPER No. 20

MONTREAL AND EUROPEAN SHORT LINE RAILWAY.

	Year.	Construction.	Working Expenses.
		\$ cts.	\$ cts.
Government expenditure prior to Confederation	1868		
" " " since "	1869		
" " " "	1870		
" " " "	1871		
" " " "	1872		
" " " "	1873		
" " " "	1874		
" " " "	1875		
" " " "	1876		
" " " "	1877		
" " " "	1878		
" " " "	1879		
" " " "	1880		
" " " "	1881		
" " " "	1882		
" " " "	1883		
" " " "	1884		
" " " "	1885	49,587 45	
" " " "	1886	135,214 38	
" " " "	1887	24,157 32	
" " " "	1888	397 35	
" " " "	1889		
" " " "	1890		
" " " "	1891	124,568 23	
" " " "	1892		
" " " "	1893		
" " " "	1894	17 99	
" " " "	1895		
" " " "	1896		
" " " "	1897		
" " " "	1898		
" " " "	1899		
" " " "	1900		
Total		*333,942 72	

* Included in total cost of Intercolonial Railway system, page 32.

S. LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

64 VICTORIA, A. 1901

PRINCE EDWARD ISLAND RAILWAY.

	Year.	Construction.	Working Expenses.	Revenue received.
		§ cts.	§ cts.	§ cts.
Government expenditure prior to Confederation.....		3,114,735 11		
" since "	1874		750 00	
" " "	1875	46,086 63	49,344 62	24,493 99
" " "	1876	42,546 10	219,930 43	118,060 96
" " "	1877	200,000 00	228,595 25	130,664 92
" " "	1878	6,551 86	221,599 49	135,899 60
" " "	1879	40,129 05	223,313 12	125,855 91
" " "	1880	16,539 82	164,640 55	113,851 11
" " "	1881		203,122 88	131,131 43
" " "	1882	402 03	228,259 97	137,267 54
" " "	1883	57,186 02	252,808 41	146,170 42
" " "	1884	130,663 38	236,428 13	144,504 12
" " "	1885	76,956 56	211,207 01	158,588 06
" " "	1886	4,668 33	216,744 34	155,584 36
" " "	1887	5,800 00	204,237 45	155,303 37
" " "	1888		229,639 95	158,363 62
" " "	1889		247,559 44	171,369 56
" " "	1890		266,485 85	160,971 78
" " "	1891		257,990 08	174,258 05
" " "	1892	8,300 49	289,706 38	157,442 69
" " "	1893		226,422 17	162,690 42
" " "	1894		226,891 06	158,533 83
" " "	1895		232,905 19	149,654 78
" " "	1896		225,138 56	146,476 54
" " "	1897		240,489 90	153,443 13
" " "	1898	17,541 88	231,418 74	158,950 61
" " "	1899	22,000 00	218,053 01	165,012 03
" " "	1900	53,546 02	220,931 81	174,738 73
Total.....		*3,843,653 28	5,774,613 79	3,769,281 56

* Agrees with Public Accounts Balance Sheet, 1899-1900, page xvi.

S LEONARD SHANNON,
*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

SESSIONAL PAPER No. 20

CANADIAN PACIFIC RAILWAY.

	Year.	Construction, including Subsidy of \$25,000,000.	Working Expenses.	Revenue received.
		\$ cts.	\$ cts.	\$ cts.
Government expenditure prior to Confederation				
" since	1868			
" "	1869			
" "	1870			
" "	1871	30,148 32		
" "	1872	489,428 16		
" "	1873	561,818 44		
" "	1874	310,224 88		
" "	1875	1,546,241 67		
" "	1876	3,346,567 06		
" "	1877	1,691,149 97		
" "	1878	2,228,373 13		
" "	1879	2,240,285 47		
" "	1880	4,044,522 72	78,892 01	104,975 69
" "	1881	4,968,503 93	236,944 98	291,498 06
" "	1882	(1) 4,589,075 79	1,786 20	
" "	1883	(2) 10,033,800 04	266 09	
" "	1884	(3) 11,192,722 02	327 02	
" "	1885	(4) 9,900,281 53		
" "	1886	(5) 3,672,584 81		
" "	1887	(6) 915,057 49		
" "	1888	52,098 65		
" "	1889	86,716 07		
" "	1890	40,980 54		
" "	1891	37,367 00		
" "	1892	66,211 39		
" "	1893	413,836 49		
" "	1894	146,539 87		
" "	1895	49,209 77		
" "	1896	65,669 49		
" "	1897	14,064 50		
" "	1898	692 17		
" "	1899	8,418 53		
" "	1900	236 11		
Total		*62,742,816 01	318,216 30	396,473 75

* Agrees with Public Accounts Balance Sheet, 1899-1900, page xx.

(1) Including	\$ 2,210,000 00	on account subsidy.
(2) "	5,323,076 60	"
(3) "	7,254,208 27	"
(4) "	6,862,201 00	"
(5) "	2,890,427 00	"
(6) "	460,087 13	"

* \$25,000,000 00

* See also Statement No. 3, page 47, for this expenditure.

S. LEONARD SHANNON,
*Accountant*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

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ANNAPOLIS AND DIGBY RAILWAY.

	Year.	Capital.		Working Expenses.	
		§	cts.	§	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		9,847 27		
" " ".....	1890		381,942 75		
" " ".....	1891		196,869 36		
" " ".....	1892		26,189 89		
" " ".....	1893		2,190 62		
" " ".....	1894		1,675 36		
" " ".....	1895		570 55		
" " ".....	1896				
" " ".....	1897		41,457 29		
" " ".....	1898				
" " ".....	1899				
" " ".....	1900				
Total			*660,683 09		

* Of this amount Parliament voted under 52 Vic., chap. 8, the sum of \$500,000 as a subsidy to the Western Counties Railway, which is also shown in the statement of subsidies, page 47.

S. LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

SESSIONAL PAPER No. 20

DRUMMOND COUNTY RAILWAY.

	Year.	Construction.	Working Expenses.
		\$ cts.	\$ cts.
Government expenditure prior to Confederation..	1868		
" since	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		
Total.....		1,459,000 00	
		*1,459,000 00	

Included in total cost of Intercolonial Railway system, page 22.

S. LEONARD SHANNON,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,

OTTAWA, October 31, 1900.

64 VICTORIA, A. 1901

STATEMENT showing amount expended on Capital Account on Railways.

Railways.			
		\$	cts.
Intercolonial	51,413,407	02	
Cape Breton	3,860,679	14	
Oxford and New Glasgow	1,949,063	21	
Eastern Extension	1,324,042	81	
Carleton Branch			58,547,192 18
Montreal and European Short Line			48,410 48
Prince Edward Island			333,942 72
Canadian Pacific			3,843,653 28
Annapolis and Digby			62,742,816 01
Governor General's car "Victoria"			660,683 09
Drummond County			1,290 31
Total			127,636,988 07
<i>Memo. re Recapitulation—Railways.</i>			
Total cost as per statement above			127,636,988 07
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 43			127,933,860 97

S. LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

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RECAPITULATION—RAILWAYS AND CANALS.

EXPENDITURE.

Railways—Capital Account, <i>see</i> statement page 42	\$ 127,636,988 07
Canals— " " " 27	79,043,784 09
Total cost of Government Railways and Canals, Capital Accounts	\$ 206,680,772 16
Railway Subsidies, chargeable to Consolidated Fund as per Statute, No. 3, page 47	\$ 48,727,562 51
Less subsidies already included in Railways Capital Account (statement page 42) to Canadian Pacific Railway	\$ 25,000,000 00
Western Counties Railway	500,000 00
	<u>25,500,000 00</u>
Total expenditure on Railways and Canals, Capital Account, and Railway Subsidies	\$ 229,908,334 67

REVENUE.

Canals, revenue received from July 1, 1867, to June 30, 1900. (For details <i>see</i> page 28)	\$ 12,401,917 32
Railways, revenue received from July 1, 1867, to June 30, 1900. (For details <i>see</i> page 43)	73,225,382 16
Total revenue received to July 1, 1900	\$ 85,627,299 48
Memo. of cost of operating and maintaining Railways and Canals to June 30, 1900 :—	
Canals chargeable to income, <i>see</i> page 28	\$ 2,738,758 35
Less prior to Confederation	98,378 46
	\$ 2,640,379 89
From Confederation (July 1, 1867) to June 30, 1900 :—	
Staff, <i>see</i> page 28	7,618,786 56
Repairs " "	5,915,581 07
Total Canals	\$ 16,174,747 52
Railways, Working expenses, <i>see</i> page 43	81,391,472 11
Total	\$ 97,566,219 63

* This amount does not include the annual payment of \$119,700 to the Provincial Government of Quebec, being interest at the rate of 5 per cent on the sum of \$2,394,000 granted by 47 Vic. ch. 8 (1884), for the line between Ottawa and Quebec, which sum has now been transferred to the public debt as a liability. (*See* Public Accounts, 1898-99, p. x.1) This item is dealt with by the Finance Department.

S. LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 31, 1900.

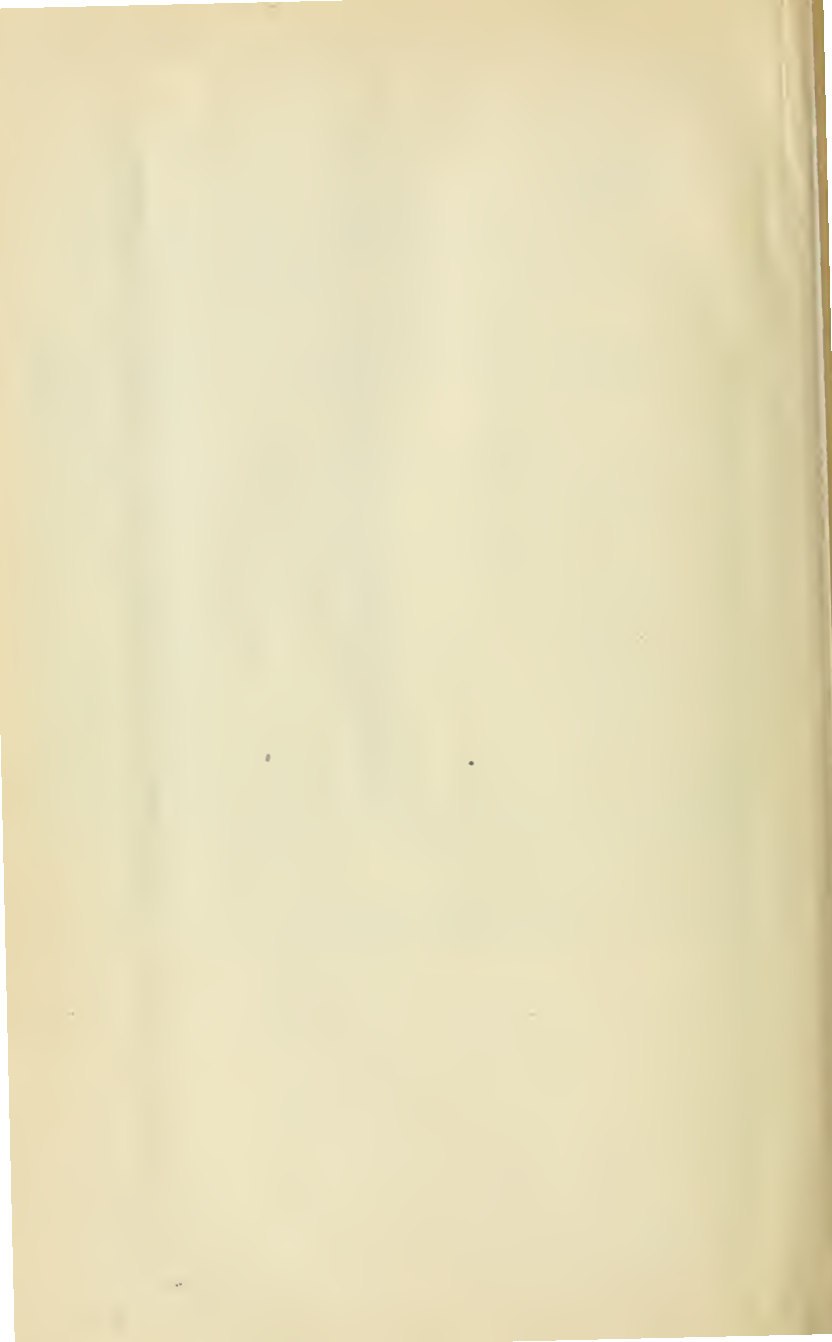
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MISCELLANEOUS expenditure, not included in preceding Statements.

	Year ending June 30.	Chargeable	Chargeable	Chargeable
		to Capital.	Income.	to Revenue.
		\$ cts.	\$ cts.	\$ cts.
1868			6,305 66	14,416 66
1869			8,367 52	13,000 00
1870			7,853 03	26,378 67
1871			34,773 72	12,018 98
1872			20,049 50	12,208 76
1873			36,891 74	18,988 64
1874			40,098 84	18,388 23
1875			35,579 24	17,667 60
1876			42,920 10	5,776 36
1877				43,691 84
1878			1,860 00	34,944 59
1879				
1880			2,561 55	323 16
1881			2,338 41	5,535 22
1882				9,826 23
1883			11,781 27	6,978 54
1884			69,743 20	8,305 41
1885			27,728 85	1,210 61
1886			30,707 21	776 30
1887			44,418 55	649 04
1888			57,431 97	5,799 83
1889			26,644 51	5,207 64
1890			68,136 43	49,550 21
1891			33,239 72	56,922 05
1892			25,603 00	65,074 07
1893			41,453 07	63,965 54
1894			24,780 27	60,265 22
1895			43,221 62	60,769 56
1896		1,290 31	41,359 50	70,340 22
1897			33,199 36	63,374 51
1898			38,089 75	57,684 42
1899			90,409 84	66,850 29
1900			68,173 02	81,638 75
		1,290 31	1,015,720 45	958,527 15

S. LEONARD SHANNON,

*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA October 31, 1900.



No. 3.

STATEMENT showing Subsidies voted for Railways as to which contracts have been entered into and payments made up to June 30, 1900.

Table with columns: Authority, Amount, Railway, and Payments (1883-84 to 1899-00). Includes a 'Total June 30, 1900' column. Lists various railway lines such as International Railway, Quebec and Lake St. John, and Grand Trunk.

* In 41 Victoria, Cap. 4 and 42-43 Victoria, Cap. 3, authorities \$130,000 per mile subsidy if the cost does not average more than \$15,000 per mile, if over that amount a further one of fifty per cent as much of the average cost of the mileage subsidised as is in excess of \$15,000 per mile, such subsidy not exceeding in the whole the sum of \$50,000.

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.	ON FOLLOWING NAMED RAILWAYS.				
		No. of miles built up to June 30, 1900.	No. of miles paid and provided for.	Subsidy paid and available at June 30, 1900.	Subsidy paid to June 30, 1900.	Subsidy paid to Nov. 1, 1900.
				\$ c.	\$ c.	\$ c.
2	Albert Southern.....	16	16	50,460 00	50,460 00	50,460 00
3	Baie des Chaleurs.....	70	70	620,000 00	620,000 00	620,000 00
3	Beauharnois Junction.....	19 50	19 50	62,400 00	62,400 00	62,400 00
4	Belleville and North Hastings.....	6 84	6 84	21,888 00	21,888 00	21,888 00
5	Brantford, Waterloo and Lake Erie.....	18	18	57,600 00	57,600 00	57,600 00
6	Brockville, Westport and Sault Ste. Marie.....	44 50	44 50	105,200 00	105,200 00	105,200 00
7	Bustouche and Moncton.....	31 75	31 75	101,600 00	101,600 00	101,600 00
8	Canada Atlantic.....	54 05	54 05	282,355 20	282,355 20	282,355 20
9	Canada Central.....	120	120	1,525,250 00	1,525,250 00	1,525,250 00
10	+Canada Eastern.....	107	107	350,400 00	350,400 00	350,400 00
11	+Canadian Pacific.....	1,905	1,905	25,000,000 00	25,000,000 00	25,000,000 00
12	" (extension)*.....	476 55	476 55	5,370,000 00	4,696,250 00	4,789,050 00
13	Caraquet.....	67	67	224,000 00	224,000 00	224,000 00
14	Central (of New Brunswick).....	44 50	89 50	281,100 00	142,400 00	142,400 00
15	Cornwallis Valley.....	14	14	44,800 00	44,800 00	44,800 00
16	Columbia and Kootenay.....	27 75	27 75	88,800 00	88,800 00	88,800 00
17	Cumberland.....	14	14	39,850 00	39,850 00	39,850 00
18	Dominion Lime Co.....	4 80	4 80	15,360 00	15,360 00	15,360 00
19	Dominion Coal Co.....	27 44	27 44	87,808 00	87,808 00	87,808 00
20	+Drummond Counties.....	133 03	133 60	423,936 00	423,936 00	423,936 00
21	Elgin, Pettocodiac and Havelock.....	12	12	38,400 00	38,400 00	38,400 00
22	Erie and Huron.....	30	30	96,000 00	96,000 00	96,000 00
23	Esquimaux and Nanaimo.....	71	71	750,000 00	750,000 00	750,000 00
24	Fredericton and St. Mary's Bridge Co.....	1 33	1 33	30,000 00	30,000 00	30,000 00
25	Grand Trunk, Georgian Bay and Lake Erie.....	12 42	12 42	39,744 00	39,744 00	39,744 00
26	Great Eastern.....	12 50	12 50	40,345 00	40,345 00	40,345 00
27	+Great Northern.....	64 59	143 59	750,413 00	174,688 00	440,519 00
28	Guelph Junction.....	15 25	15 25	46,000 00	46,000 00	46,000 00
29	Harvey Branch.....	3	3	5,553 57	5,553 57	5,553 57
30	Hereford.....	48 50	48 50	155,200 00	155,200 00	155,200 00
31	Irondale, Bancroft and Ottawa.....	45	50	160,000 00	144,000 00	144,000 00
32	International.....	49	49	156,800 00	156,800 00	156,800 00
33	Joggins.....	12	12	37,500 00	37,500 00	37,500 00
34	Kingston and Pembroke.....	15	15	48,000 00	48,000 00	48,000 00
35	Kingston, Napanee and Western.....	61 35	61 35	208,732 80	208,732 80	208,732 80
36	L'Assomption.....	3 50	3 50	11,200 00	11,200 00	11,200 00
37	Lake Erie and Detroit River.....	84 05	84 05	338,731 00	338,731 00	338,731 00
38	Lake Temiscamingue Colonization.....	45 84	45 84	310,335 95	310,335 95	310,335 95
39	Leamington and Lake St. Clair.....	16	16	51,200 00	51,200 00	51,200 00
40	Lotbiniere and Mégantic.....	30	30	96,000 00	96,000 00	96,000 00
41	Montreal and Sorel (now South Shore Ry.).....	44 67	126 67	441,157 57	124,647 76	163,047 76
42	Montreal and Lake Champlain.....	83	83	103,600 00	103,600 00	103,600 00
43	Montreal and Western.....	70	70	361,270 00	361,270 00	361,270 00
44	Montreal and Lake Maskinongé.....	12 90	12 90	41,280 00	41,280 00	41,280 00
45	Montreal and Ottawa.....	60	60	192,000 00	192,000 00	192,000 00
46	Montfort Colonization.....	32 20	33	171,600 00	167,440 00	167,440 00
47	Nakusp and Slocan.....	36 90	38	117,760 00	117,760 00	117,760 00
48	New Brunswick and P.E.I.....	35 45	35 45	113,440 00	113,440 00	113,440 00
	Carried forward.....	4,209 16	4,424 68	39,665,070 09	38,034,002 85	38,447,178 28

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TABLE of per mile Cash Subsidies granted and paid in aid of Railway Construction, &c.—*Concluded.*

Number.	Name of Railway.	ON FOLLOWING NAMED RAILWAYS.				
		No. of miles built up to June 30, 1900.	No. of miles paid and provided for.	Subsidy paid and available at June 30, 1900.	Subsidy paid to June 30, 1900.	Subsidy paid to Nov. 1, 1900.
				§ cts.	§ cts.	§ cts.
	Brought forward.	4,209 16	4,424 63	39,665,070 09	38,034,002 85	38,447,178 28
49	New Glasgow Iron and Coal Co.	12 45	12 45	39,840 00	39,840 00	39,840 00
50	Northern Pacific Junction.	110	110	1,320,000 00	1,320,000 00	1,320,000 00
51	Nova Scotia Central	73 50	73 50	235,200 00	235,200 00	235,200 00
52	Ontario, Belmont and Northern.	9 60	10	30,720 00	30,720 00	30,720 00
53	Ontario and Quebec.	61 25	61 25	196,000 00	196,000 00	196,000 00
54	Oxford Mountain.	26 50	26 50	84,800 00	84,800 00	84,800 00
55	Oshawa Railway and Navigation Co.	7	7	22,400 00	22,400 00	22,400 00
56	Ottawa and Gatineau Valley.	54	86	396,800 00	284,128 00	284,128 00
57	†Ottawa, Arnprior and Parry Sound.	159 58	163	779,712 00	779,712 00	779,712 00
58	Parry Sound Colonization.	47 75	47 75	152,800 00	152,800 00	152,800 00
59	Pontiac and Pacific Junction.	70	70	331,850 00	193,578 00	193,578 00
60	†Phillipsburg Junction.	7 41	7 41	23,712 00	23,712 00	23,712 00
61	Pontiac and Renfrew.	4 25	4 25	13,600 00	13,600 00	13,600 00
62	Port Arthur, Duluth and Renfrew.	84 75	81 75	271,200 00	271,200 00	271,200 00
63	Quebec Central.	74 86	74 86	348,342 00	348,342 00	348,342 00
64	Quebec and Lake St. John.	245 85	245 85	1,006,743 50	1,006,743 50	1,006,743 50
65	Quebec, Montmorency and Charlevoix	30	30	96,000 00	96,000 00	96,000 00
66	Shuswap and Okanagan.	51	51	163,200 00	163,200 00	163,200 00
67	South Norfolk.	17	17	54,400 00	54,400 00	54,400 00
68	St. Catharines and Niagara Central.	12	12	38,400 00	38,400 00	38,400 00
69	St. Clair Frontier Tunnel.	2 23	2 23	375,000 00	375,000 00	375,000 00
70	St. Lawrence and Lower Laurentian.	38 85	38 85	217,600 00	217,600 00	217,600 00
71	St. Louis, Richibucto and Buctouche.	7	7	22,400 00	22,400 00	22,400 00
72	†St. Lawrence and Adirondack	33 51	33 51	149,481 60	149,481 60	149,481 60
73	Temisouata.	112 95	112 95	645,950 00	645,950 00	645,950 00
74	†Thousand Island.	4 33	4 33	24,400 00	24,400 00	24,400 00
75	†Tilsonburg, Lake Erie and Pacific.	19 41	19 50	140,800 00	69,271 48	69,271 48
76	Tobique Valley.	27 88	27 88	134,016 00	134,016 00	134,016 00
77	Toronto, Grey and Bruce.	4 58	4 58	14,656 00	14,656 00	14,656 00
78	†United Counties.	59	65	188,816 00	188,816 00	188,816 00
79	Waterloo Junction.	10 25	10 25	32,800 00	32,800 00	32,800 00
80	Western Counties.	20	20	500,000 00	500,000 00	500,000 00
81	West Ontario Pacific.	18 75	18 75	60,000 00	60,000 00	60,000 00
82	Cap de la Madeleine.	2 32	2 32	7,424 00	7,424 00	7,424 00
83	†Gulf Shore.	16 78	17 50	56,000 00	53,699 20	53,699 20
84	†St. Stephen and Milltown.	4 64	4 64	14,848 00	14,848 00	14,848 00
85	†Coast (of Nova Scotia).	28 25	61	195,200 00	90,400 00	90,400 00
86	Grand Trunk.	Bridge	Bridge	500,000 00	271,628 25	500,000 00
87	†Ottawa and New York.	53 87	53 87	262,384 00	172,384 00	262,384 00
88	†Hestigouche and Western.	10	40	128,000 00	46,930 00	46,930 00
89	†East Richelieu Valley.	21 86	24	76,800 00	69,952 00	69,952 00
90	†Pembroke Southern.	20	20	64,000 00	64,000 00	64,000 00
91	†Massawippi Valley.	1 68	2 50	5,376 00	5,376 00	5,376 00
92	†Inverness and Richmond.	53	53	169,600 00	132,800 00	132,800 00
93	†Canadian Northern.	290	290	1,632,000 00	537,600 00	537,600 00
94	†Central Ontario.	21	21	67,200 00	32,000 00	32,000 00
95	†Midland (Nova Scotia).	58	58	185,600 00	170,264 00	170,264 00
	Total.	5,886 05	6,631 86	51,141,741 19	46,520,657 31	48,130,264 49

† Add subsidy of used rails as per statement, part iii, page 6, \$152,305.20, and Atlantic and North-Western, \$2,052,600, which will then agree with statement of subsidies in part ii, page 46, viz., \$48,725,562.51.

* Includes the mileage of the North Shore Railway, 160 miles.

† By 60-61 Vic., cap. 4, 62-63 Vic., cap. 7, and 63-64 Vic., cap. 8, 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 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, and 63-64 Vic., cap. 8, 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	0 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 Southern.....	40
Massawippi Valley	2 50
Inverness and Richmond.....	93
Canadian Northern.....	490
Central Ontario.....	41
Midland (Nova Scotia).....	58
Pontiac Pacific Junction.....	9
Canada Eastern.....	2 25
Canadian Pacific (Extension).....	70

STATEMENT showing Railways receiving Cash Subsidies of fixed amounts, payable Annually or Semi-annually for fixed period of years.

No.	Name of Railway.	Miles Subsidized.	Amount of Instalment.	Amount paid up to June 30, 1900.
				\$
1	International (Atlantic and North-west) Railway Co.....	252	\$93,300 per $\frac{1}{2}$ year for 20 years	2,052,600
2	Kingston, Smith's Falls and Ottawa Railway Co.....	56	\$3,136 " 21 "	Nil
	Total.....	308		2,052,600

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 inused Rail 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	4,235 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 Lands.

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. 2 }	Alberta Railway and Coal Co.—Main line, Dunmore to Lethbridge.....	109·50	6,400	700,800
2	{ 52 Vic., c. 4 } { 52 Vic., c. 3 }	Alberta Railway and Coal Co.—From Leth- bridge to the International Boundary..	64·62	6,400	413,568
3	53 Vic., c. 4....	Calgary and Edmonton Railway.....	340·00	6,400	2,176,000
4	44 Vic., c. 1....	Canadian Pacific Railway—Main line.....			18,206,986
5	53 Vic., c. 4....	C. P. R.—Deloraine and Napinka Branch	18·01	6,400	115,264
6	53 Vic., c. 4....	C. P. R.—Glenboro' and Souris Branch..	45·24	6,400	289,536
7	{ 53 Vic., c. 4 } { 54 Vic., c. 10 }	C. P. R.—Kennay and Estevan Branch..	156·86	6,400	1,003,904
8	57-58 Vic., c. 6....	C. P. R.—Pipestone Branch.....	31·30	6,400	200,320
9	49 Vic., c. 11....	Great North-west Central Railway.....	50·00	6,400	320,000
10	48-49 Vic., c. 60..	Manitoba and North-western Railway— Main line.....	430·00	6,400	2,918,400
11	49 Vic., c. 11....	Manitoba and North-western Railway— Branch from Biscarth.....	26·60	6,000	
12	53 Vic., c. 4....	Manitoba and South-eastern Railway Co.	98·00	6,400	627,200
13	{ 54-55 Vic., c. 10 } { 48-49 Vic., c. 10 }	Manitoba South-western Colonization Co.	218·25	6,400	1,396,800
14	{ 48-49 Vic., c. 60 } { 50-51 Vic., c. 23 }	Qu'Appelle, Long Lake and Saskatchewan Railway and Steamboat Co.....	253·96	6,400	1,625,344
15	{ 52 Vic., c. 4 } { 54 Vic., c. 9 }	Red Deer Valley Railway and Coal Co...	55·00	6,400	352,000
16	57-58 Vic., c. 6...	Saskatchewan and Western Railway Co..	15·47	6,400	99,008
17	62-63 Vic., c. 57..	Canadian Northern Railway.	1,025·00	{ Div. A., 6,400 do B., 12,800 do C., 6,400 }	9,280,000
			2,937·21		39,725,130

NOTE.—By 62-63 Victoria (Session of 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*) :—

- 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 Métopediac, on the Intercolonial Railway, to Paspébiac, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 320,000

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7.	To the Caraquet Railway Company, for 36 miles of their railway, from a point near Bathurst to Caraquet, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$115,200
8.	To the Gatineau Valley Railway Company, for the first 50-mile section of their railway, from Hull station, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	160,000
9.	To the Great American and European Short Line Railway Company, for 80 miles of their railway, from Canso to Louisburg or Sydney, in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	256,000
10.	To the International Railway Company, for 49 miles of their railway, from Sherbrooke, in the province of Quebec, to the international boundary line, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	156,800
11.	To the Northern and Western Railway Company, for 32 miles of their railway, from the Intercolonial Railway, near the Miramichi, to Moran's, near Demphy village, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	102,400
12.	To the Montreal and Western Railway Company, for the first 50-mile section of their railway, out of St. Jérôme, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	160,000
13.	To the Napanee, Tamworth and Quebec Railway Company, for 28 miles of their railway, from Napanee to Tamworth, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	89,600
14.	To the Quebec and Lake St. John Railway Company, for 25 miles of their railway, from St. Raymond to Lake St. John, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
	In addition to the subsidy granted by the Act forty-fifth Victoria, chapter fourteen.	
15.	For a railway from the International Railway at Petitcodiac to 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 Kazabazua 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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28.	To the Montreal and Western Railway Company, for a line of railway from the end of the line subsidized in the now last session of Parliament, towards Le Désert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$160,000
29.	To the Northern and Western Railway Company, for a line of railway from Fredericton to the Miramichi River, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole (instead of the subsidy proposed in 1883).....	128,000
30.	To the Erie and Huron Railway Company, for a line of railway from Wallaceburg to Sarnia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
31.	To the Ontario and Pacific Railway Company, for a line of railway from Cornwall to Perth, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	262,400
32.	To the Kingston and Pembroke Railway Company, for a line of railway from Mississippi to Renfrew, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
33.	To the Great Northern Railway Company, for that portion of their railway between St. Jérôme and New Glasgow, in the county of Terrebonne, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
34.	For a line of railway and bridge between the Jacques Cartier Union Railway Junction with the Canadian Pacific Railway and St. Martin's Junction connecting the Jacques Cartier Union Railway with the North Shore Railway proper, a subsidy not exceeding in the whole.....	200,000
35.	For a line of railway from Richibucto to St. Louis, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
36.	For a line of railway from Hopewell to Alma, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	51,200
37.	For a line of railway from St. Andrew's to Lachute, in the county of Argenteuil, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
38.	For a line of railway from the Grand Piles, on the River St. Maurice, to Lake Edward, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	217,600
39.	For a line of railway from Annapolis to Digby, in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
40.	For a line of the Central Railway, from the head of Grand Lake to the Intercolonial Railway between Sussex and St. John, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	128,000
41.	To the Caraqueet Railway Company, for the extension of their line of railway from Caraqueet to Shippegan Harbour, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	76,800
42.	For a branch of the Intercolonial Railway, from Metapediac eastward towards Paspébiac, twenty miles, in the province of Quebec, a sum not exceeding in the whole.....	300,000
43.	For a branch of the Intercolonial Railway, from Derby Station to 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.

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51. To the Montreal and Champlain Junction Railway Company, for a line of railway from Brosseau's to Dundee, a subsidy not exceeding \$500 per mile, nor exceeding in the whole	\$30,000
52. To the Thunder Bay Colonization Railway Company, for a line of railway from the Murillo station of the Canadian Pacific Railway to the east end of Whitefish Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	92,000
53. To the Central Ontario Railway Company, for a line of railway from Coe Hill or Rathbun, to Bancroft, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
54. To the Belleville and North Hastings Railway Company, for a line of railway from the village of Madoc to the junction with the Central Ontario Railway at Eldorado, a subsidy not exceeding \$1,500 per mile, nor exceeding in the whole	10,500
55. For a line of railway from Long Sault to the foot of Lake Temiscamingue, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	25,600
56. For a line of railway from a point on the Canada Southern Railway near Comber, to Lake Erie, at or near the village of Leamington, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	44,800
57. To the Napanee, Tamworth and Quebec Railway Company, for a line of railway from Tamworth towards Bogart and Bridgewater, 16 miles, in lieu of the subsidy granted by 47 Vic., chap. 8, a subsidy of.....	70,000
58. To the Gatineau Railway Company, for a line of railway from Hull station towards Le Désert, a distance of 62 miles, in lieu of the subsidies granted by 46 Vic., chap. 25, and 47 Vic., chap. 8, a subsidy of....	320,000
59. For a line of railway from the Grand Piles, on the River St. Maurice, to its junction with Lake St. John Railway, a distance of about 50 miles, in lieu of the subsidy granted by 47 Vic., chap. 8, for a line of railway from the Grand Piles, on the River St. Maurice, to Lake Edward, a subsidy of.....	217,600
60. To the Canada Atlantic Railway Company, for a line of railway from Valleyfield to a point one and a half miles west of Johnston's, a subsidy not exceeding \$1,600 per mile, and from one and a half miles west of Johnston's to Lacolle; also from the present terminus at Ottawa, to the Chaudiere Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
61. For a line of railway from Indiantown via the Miramichi Valley, to its junction with the Northern and Western Railway at or near Boiestown, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	140,800

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies, respectively; the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways, respectively. All the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council; and shall also be constructed according to descriptions, specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also, of every line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister.

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“ Provided always, that the granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connected with those so subsidized, as the Governor in Council may determine.”

By the Act 48-49 Vic., cap. 58, 1885 (*Assented to 20th July, 1885*):—

- 62.** For a railway from a point on the Intercolonial Railway at Rivière du Loup or Rivière Ouelle, in the province of Quebec, to Edmundston, in the province of New Brunswick, a subsidy not exceeding two thousand eight hundred dollars per mile for seventy-five miles, and six thousand dollars per mile for eight miles, nor exceeding in the whole two hundred and fifty-eight thousand dollars; the said subsidy to be in addition to the subsidy authorized to be granted in aid of the construction of the said railway by the Act forty-fifth Victoria, chapter fourteen, and constituting with the subsidy so authorized, a subsidy not exceeding in the whole four hundred and ninety-eight thousand dollars, and to be granted for the said railway upon the terms and conditions specified in the said Act, and payable out of the Consolidated Revenue Fund of Canada; and for the purpose of incorporating the persons undertaking the construction of the said railway and those who shall be associated with them in the undertaking, the Governor may grant to them, under such corporate name as he shall deem expedient, a charter conferring upon them the franchises, privileges and powers requisite for the said purposes, which shall be similar to such of the franchises, privileges and powers granted to railway companies during the present session as the Governor shall deem most useful or appropriate to the said undertaking; and such charter being published in the *Canada Gazette*, with any Order or Orders in Council relating to it, shall have force and effect as if it were an Act of the Parliament of Canada.
- 63.** For a line of railway from the south bank of the St. Lawrence river, opposite or near Montreal, to the harbours of St. Andrew's, St. John and Halifax, via Sherbrooke, Moosehead Lake, Mattawankeag, 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*):—

65.	For a railway from a point at or near Moncton, to Buctouche, in the province of New Brunswick, thirty miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 96,000
66.	For a railway from Ingersoll via London to Chatham, in the province of Ontario, eighty miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	256,000
67.	To the Northern and Western Railway Company, for ten miles of their railway, intervening between the termini of the portions of their railway for which subsidies are already granted, the one from Fredericton and the other from Indiantown, and an extension of two miles down to deep water at Chatham, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	32,000
68.	To the Caraquet Railway Company, for ten miles of their railway, from the end of the present subsidized portion at Lower Caraquet to Shippegan, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
69.	To the Erie, Essex and Detroit River Railway Company, for thirty-seven miles of their railway, from Windsor to Leamington, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	118,400
70.	To the Thunder Bay Colonization Railway Company, for fifty-six miles of their railway, from the end of the present subsidized section to a point near Crooked Lake, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	179,200
71.	To the Parry Sound Colonization Railway Company, for forty miles of their railway, from the village of Parry Sound to the village of Sundridge, on the line of the Northern Pacific Junction Railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	128,000
72.	For a railway from a point at or near New Glasgow or St. Lin, to or near to Montcalm, in the province of Quebec, eighteen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
73.	For a railway from Hereford to the International Railway, in the township of Eaton, in the province of Quebec, thirty-four miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	108,800
74.	For a railway from St. Félix to Lake Maskinongé, parish of St. Gabriel in the province of Quebec, ten miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
75.	For a railway from Glenannan to Wingham, in the province of Ontario, five miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	16,000

76. For a railway from a point at or near the McCann Station, on the Intercolonial Railway, to the Joggins, on Cumberland Basin, in the province of Nova Scotia, twelve miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 38,400
77. For a railway from L'Assomption to L'Épiphanie, in the province of Quebec, three miles and a half, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	11,200
78. To the Montreal and Western Railway Company, for seventy miles of their railway from St. Jérôme, north-westerly towards Désert, in the province of Quebec, a subsidy of \$5,161 per mile, in lieu of the subsidies granted by 46 Vic., chap. 25, and 47 Vic., chap. 8, not exceeding in the whole.....	361,270
79. For a railway from St. Andrew's to the Canadian Pacific Railway at or at any point east of the town of Lachute, in the county of Argen-teuil, in the province of Quebec, seven miles, in lieu of the subsidy granted by 47 Vic., chap. 8, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
80. To the Canada Atlantic Railway Company, for twelve miles of their railway from Clark's Island to Valleyfield, and from Lacolle, in the province of Quebec, to the international boundary, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
81. For a railway from Truro to Newport, in the province of Nova Scotia, forty-nine miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	156,800
82. To the Quebec and Lake St. John Railway Company, for ninety-five miles of their railway, from a point fifty miles north of St. Raymond to Lake St. John, in the province of Quebec, a subsidy not exceeding \$1,961 per mile, nor exceeding in the whole (in addition to the subsidy granted by 45 Victoria, chapter 14, and 46 Victoria, chapter 25, of \$3,200 per mile).....	186,295
83. To the Cap Rouge and St. Lawrence Railway Company, for twelve miles of their railway from Lorette via Cap Rouge to Quebec, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
84. For the construction of wharfs and landing stages on the line of the railway from Long Sault to the foot of Lake Temiscamingue, a subsidy of.....	6,000
85. To the Gananogue, Perth and James Bay Railway Company, seventeen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	54,400
86. For a railway from St. Eustache to St. Placide, county of Two Mountains, eighteen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
87. For a railway from a point on the Intercolonial Railway through the Stewiacke Valley, on the line which will afford facilities of communication with the Iron Mines, Spring Side, Upper Stewiacke and Musquodoboit settlements, twenty-five miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
88. For a railway from Yamaska to the River St. Francis, in the province of Quebec, ten miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
89. For a railway from Perth Centre station, on the New Brunswick Railway, to a point near Plaister Rock Island, in the province of New Brunswick, twenty-eight miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	89,600
90. For a railway from Fredericton to the village of Prince William, in the province of New Brunswick, twenty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400

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91. For a railway from a point on the Intercolonial Railway near Newcastle or via Douglastown to a point on the River Miramichi, opposite the town of Chatham, in the province of New Brunswick, six miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$19,200
92. For a railway from a point on the Canadian Pacific Railway to Eganville, in the province of Ontario, twenty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	70,400
93. To the Belleville and North Hastings Railway Company, for seven miles of their railway, from the village of Madoc to the junction with the Central Ontario Railway at Eldorado, in the province of Ontario, a subsidy (in addition to the subsidy of \$1,500 per mile granted by 48-49 Victoria, chapter 59), not exceeding \$1,700 per mile, nor exceeding in the whole.	11,900
94. To the Napanee, Tamworth and Quebec Railway Company, for eighteen miles of their railway from Tamworth to Tweed, in lieu of the subsidy granted by 48-49 Victoria, chapter 59, a subsidy of.	70,000
95. To the Albert Railway Company, for their railway from Salisbury to Hopewell, in the province of New Brunswick, which is a feeder to the Intercolonial Railway, in the form of a loan, repayable at such time and secured in such manner as the Governor in Council determines, a subsidy of.	15,000

"The subsidies hereinbefore mentioned as to be granted to the companies named for that purpose shall be granted to such companies respectively; the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to construct and complete the said railways respectively. All the lines for the construction of which subsidies have been granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall be so constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in the agreement to be made in each case by the company to the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council, and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister: Provided always, that the granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements, and other rights, as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council may determine."

By section 2 of this Act authority was given for the grant of a charter by the Governor in Council for the purpose of constructing a railway from Long Sault to the foot of Lake Temiscamingue.

By the Act 50-51 Vic., cap. 24, 1887 (*Assented to 23rd June, 1887*).

96. To the St. Catharines and Niagara Railway Company, for twelve miles of their railway from the city of St. Catharines to the bridge over the Niagara River, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$ 38,400
97. To the Vaudreuil and Prescott Railway Company, for thirty miles of their railway from Vaudreuil towards Hawkesbury, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	96,000
98. To the Richmond Hill Junction Railway Company, for five miles of their railway from Richmond Hill Junction, on the Northern Railway of Canada, to Richmond Hill village, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	16,000

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99.	To the Drummond County Railway Company, for thirty miles of their railway from Drummondville towards Nicolet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96 000
100.	To the Jogins Railway Company, for one and a quarter miles of their railway extending from the southern end of the portion subsidized by the Act 49 Victoria, chapter 10, to the wharfs, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	4,000
101.	To the Moncton and Buctouche Railway Company, for two miles of their railway from the west end of the portion subsidized by the Act 49 Victoria, chapter 10, to Moncton, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	6,400
102.	To the Beauharnois Junction Railway Company, for thirty miles of their railway from St. Martin's towards St. Anicet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
103.	To the Harvey Branch Railway Company, for three miles of their railway from the southern terminus of the Albert Railway to Harvey Bank, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	9,600
104.	To the Brantford, Waterloo and Lake Erie Railway Company, for eighteen miles of their railway from the town of Brantford to the village of Hagersville or the village of Waterford, or some intermediate point on the Canada Southern Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
105.	To the Guelph Junction Railway Company, for sixteen miles of their railway from its junction with the Canadian Pacific Railway to the town of Guelph, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	51,200
106.	To the Massawippi Railway Company, for ten miles of their railway from a point on the Atlantic and North-western Railway near the village of Magog, to Ayer's Flat station, on the Massawippi Valley Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
107.	To the Napanee, Tamworth and Quebec Railway Company, for four miles of their railway from the north end of the section subsidized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, to Tweed, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	12,800
108.	To the Dominion Lime Company, for seven miles of their railway from a point on the Quebec Central Railway, in the township of Dudswell, to the Dudswell Lime Company's quarries, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
109.	To the South Norfolk Railway Company, for seventeen miles of their railway from Port Rowan to the town of Simcoe, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	54,400
110.	To the Jacques Cartier Union Railway Company, extending and completing their railway, a subsidy of.....	20,000
111.	For a line of railway from Mount Forest to Walkerton, twenty-four miles in length, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	76,800
112.	To the Oshawa Railway and Navigation Company, for seven miles of their railway from Port Oshawa towards Raglan, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
113.	To the Saguenay and Lake St. John Railway Company, for thirty miles of their railway from Lake St. John towards Chicoutimi, or from Chicoutimi towards Lake St. John, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000

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114.	To the Great Eastern Railway Company, for thirty miles of their railway from the River St. Francis to the Arthabaska Railway, at St. Grégoire station, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$96,000
115.	To the Ontario and Pacific Railway Company, for six miles of their railway from the northern end of the portion subsidized by the Act 47 Victoria, chapter 8, to the town of Perth, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200
116.	To the 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
117.	To the St. Lawrence and Lower Laurentian and Saguenay Railway Company, for the section of this railway from Grand Piles, on the St. Maurice River, to its junction with the Quebec and Lake St. John Railway, in lieu of the subsidy granted by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, for a line of railway from Grand Piles, on the St. Maurice River, to its junction with the Lake St. John Railway, a distance of about fifty miles, a subsidy of.....	217,600
118.	To the St. John Valley and River du Loup Railway Company, for twenty-two miles of their railway from the village of Prince William towards the town of Woodstock, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
119.	To the Lake Temiscamingue Railway Company, for four short sections of railway, in all about two miles in length, to overcome the rapids of the Ottawa River, known as "La Mi-Charge," "La Cave," "Les Erables," and "La Montagne," and for the construction of wharfs and landing stages at these rapids, to connect the Canadian Pacific Railway at Mattawa with Lake Temiscamingue by steamboats, railways and other works (in lieu of a portion two miles in length, out of the eight miles of railway subsidized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, under which about six miles of railway have already been built from the foot of Long Sault proper to the foot of Lake Temiscamingue, and in lieu also of the subsidy granted by the Act 49 Victoria, chapter 10), a subsidy of.....	12,400
120.	To the Carillon and Grenville Railway Company, for twelve miles of their railway from St. Eustache to Sault au Récollet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
121.	To the Minudie Branch Railway Company, for five and a half miles of their railway from its junction with the Joggins Railway, near the River Hébert railway bridge, to the village of Minudie, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	17,600
122.	To the Lake Temiscamingue Colonization and Railway Company, for ten and a half miles of their railway from the Long Sault to Lake Kippewa, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	33,600
123.	To the Leamington and St. Clair Railway Company, for two miles of their railway from the north end of the section subsidized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, to the village of Comber, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	6,400
124.	To the Cumberland Railway and Coal Company for fourteen miles of their railway from a point on the Spring Hill and Parrsboro' Railway, near Spring Hill, to a point on the railway between Oxford and New Glasgow, near Oxford village, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	44,800

125.	To the Montreal and Champlain Junction Railway Company, a subsidy of.....	\$ 64,000
126.	To the Quebec and Lake St. John Railway Company, for nine miles of their railway, the distance which the previous subsidies granted are short of covering from the city of Quebec to Lake St. John, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	28,800
127.	To the Temiscouata Railway Company, for thirty miles of a branch of their railway from Edmundston towards the St. Francis River, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	96,000
128.	To the Cornwallis Valley Railway Company, for thirteen miles of their railway from Kentville to Kingsport, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	41,600
129.	To the Nova Scotia Central Railway Company, for thirty-four miles of their railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	108,800
130.	To the Tobique Valley Railway Company, for fourteen miles of their railway from Perth Centre station towards Plaister Rock Island, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, for a railway from Perth Centre station, on the New Brunswick Railway, to a point near Plaister Rock Island, a subsidy of.....	89,600
131.	For a railway from Woodstock towards Centreville, twenty miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	64,000
132.	For a railway bridge over the St. Lawrence River, at Coteau Landing on the line of the Canada Atlantic Railway, a subsidy of fifteen per cent on the value of the structure, not to exceed.....	180,000
133.	To the Lake Erie, Essex and Detroit River Railway Company, for twenty-seven miles of their railway, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding.....	118,400

“For the purpose of granting corporate powers to persons or companies undertaking the construction of railways or parts of railways, mentioned in the next preceding section, for the construction of which no corporate powers exist at the time of the passing of this Act, the Governor in Council may grant to them, under such corporate name as he shall deem expedient, a charter conferring upon them the franchises, privileges and powers requisite for the said purposes, as the Governor in Council shall deem most useful or appropriate to the said undertaking; and such charter being published in the *Canada Gazette*, with any Order or Orders in Council relating to it, shall have force and effect as if it were an Act of the Parliament of Canada.

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies respectively; the other subsidies, including subsidies granted for railways over a line extending beyond a point to which any company hereinbefore mentioned by name is authorized to construct their railway, shall be granted to such companies as shall be approved by the Governor in Council, as having established, to his satisfaction, their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council; and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon completion of the work subsidized, except as regards the subsidy for the bridge over the

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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*):—

134. To the Ottawa and Parry Sound Railway Company, for 22 miles of their railway from a point on the Canadian Pacific Railway to Eganville, in lieu of the subsidy granted by 49 Victoria, chapter 10, for a railway from a point on the Canadian Pacific Railway to Eganville, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 70,400 00
135. To the Nova Scotia Central Railway Company, for 46 miles of their railway, in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	147,200 00
136. To the Montreal and Champlain Junction Railway Company, for 3 miles of their railway from the end of the present subsidized section, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	9,600 00
137. To the Massawippi Junction Railway Company, for their railway from a point on the Atlantic and North-west Railway, near the village of Magog, to Ayer's Flat station, on the Massawippi Valley Railway, in lieu of the subsidy granted by 50-51 Victoria, chapter 24, a subsidy of.....	32,000 00
138. To the Pontiac Pacific Junction Railway Company, for bridging the several channels of the Ottawa River at Culbute and west thereof, a subsidy of \$31,500, to be paid out monthly as the work progresses, upon the certificate of the Chief Engineer of Government railways, in the proportion which the value of the work executed bears to the value of the whole work undertaken, and for three miles of their railway extending from a point three miles east of Pembroke to Pembroke, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$9,600, provided that the entire work subsidized upon this railway shall be completed within four years from the passing of this Act, the subsidy granted by this Act not to exceed in the whole.....	41,100 00
139. To the Port Arthur, Duluth and Western Railway Company, for 84½ miles of their railway from Port Arthur towards Gun Flint Lake, in lieu of the subsidies granted by 48-49 Victoria, chapter 59, and 49 Victoria, chapter 10, for the construction of a railway from Murillo Station to Crooked Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	271,200 00
140. To the Quebec and Lake St. John Railway Company, for 30 miles of their railway from Lake St. John towards Chicoutimi, or from Chicoutimi towards Lake St. John, being a transfer made at the request of the Saguenay and Lake St. John Railway Company of the subsidy granted to them by 50-51 Victoria, chapter 24, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000 00

141.	To the Temiscouata Railway Company, for 20 miles of their branch railway from Edmundston towards the St. Francis River, in the province of Quebec, in lieu of the subsidy granted by 50-51 Victoria, chapter 24, a subsidy of	\$100,000 00
142.	To the Quebec Central Railway Company, for the construction and completion of a line of railway from St. Francis Station to a point on the Atlantic and North-west Railway near Moose River, 90 miles, in lieu of the balance of the subsidy, unearned, granted by 47 Victoria, chapter 8, a subsidy not exceeding \$21,191.54 per annum for twenty years, or a guarantee of a like sum for a like period as interest on the bonds of the company, such annual subsidy for twenty years representing a grant in cash of	288,000 00
143.	To the Central Railway Company of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 4,052 tons of used iron rails and fastenings, loaned to the St. Martin's and Upham Railway Company, now forming part of the Central Railway, which rails and fastenings stand in the Public Accounts as an asset for.....	83,612 54
144.	To the Elgin, Petitcodiac and Havelock Railway Company of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 2,201 tons of used iron rails and fastenings loaned to the Elgin Branch Railway, now forming part of the Elgin, Petitcodiac and Havelock Railway, which rails and fastenings stand in the Public Accounts as an asset for	44,252 82
145.	To the Kent Northern Railway Company of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 2,549 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for.....	58,334 27
146.	To the Halifax Cotton Company of Nova Scotia, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 233 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for.....	4,335 00
147.	To the Steel Company of Canada, in Nova Scotia, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 597 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for.....	11,964 66
148.	To the Albert Railway Company of New Brunswick, a grant as a subsidy (the section of road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 726 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for.....	14,665 45

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- 149.** To the Chatham Branch Railway of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 958 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for. \$24,439 84

“ All the lines, for the construction of which subsidies are granted, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications, and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make ; the location also of every such line of railway shall be subject to the approval of the Governor in Council ; and also the said subsidies respectively, payable in cash, shall be payable out of the Consolidated Revenue Fund of Canada by instalments, on the completion to the satisfaction of the Minister of Railways and Canals of each section of the railway of not less than 10 miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon completion of the work subsidized.”

By the Act 52 Vic., chap. 3, 1889. (*Assented to 2nd May, 1889*).—

- 150.** To the Ontario and Pacific Railway Company, for a line of railway from Cornwall to Ottawa, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. \$172,400 00
- 151.** To the Ottawa and Gatineau Railway Company, for a line of railway from Hull station towards Le Désert, a distance of sixty-two miles, a subsidy not exceeding in the whole. 320,000 00
- 152.** To the Cap Rouge and St. Lawrence Railway Company, for twelve miles of their railway, from Lorette via Cap Rouge to Quebec, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 38,400 00
- 153.** To the Parry Sound Colonization Railway Company, for forty miles of their railway, from the village of Parry Sound to the village of Sundridge, or some other point on the line of the Northern and Pacific Junction Railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole 128,000 00
- 154.** For a railway from St. Andrew's to the Canadian Pacific Railway, at or at any point east of the town of Lachute, in the county of Argenteuil, in the province of Quebec, seven miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 22,400 00
- 155.** For a railway from Truro, or a point between Truro and Stewiacke, to Newport or to Windsor, in the province of Nova Scotia, forty-nine miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 156,800 00
- 156.** For a line of the Central Railway from the head of Grand Lake to the Intercolonial Railway, in the province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 128,000 00
- 157.** To the Albert Southern Railway Company, the balance remaining unpaid of the subsidy granted by the Act 47th Victoria, chapter 8, not exceeding in the whole 31,771 43
- 158.** To the Baie des Chaleurs Railway Company, the balance remaining unpaid of the subsidy mentioned in the Act 49th Victoria, chapter 17, not exceeding in the whole 244,500 00

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159.	To the Irondale, Bancroft and Ottawa Railway Company, for a line of railway from the Victoria Branch of the Midland Railway to the village of Bancroft, in the county of Hastings, the balance remaining unpaid of the subsidy granted by the Act 47th Victoria, chapter 8, not exceeding in the whole.....	\$145,000 00
160.	To the Northern and Pacific Junction Railway Company, for a railway from Gravenhurst to Callander, the balance remaining unpaid of the subsidies granted by the Act 45th Victoria, chapter 14, and 46th Victoria, chapter 25, not exceeding in the whole..	35,000 00
161.	For a railway from some point on the Joggins Railway, near the Hébert River, to Young's Mills, in the province of Nova Scotia, a distance of five miles, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	16,000 00
162.	To the St. Clair Frontier Tunnel Company, for the construction of a tunnel under the St. Clair River, from a point at or near Sarnia, to a point at or near Port Huron, a subsidy not exceeding in the whole.....	375,000 00
163.	To the Pontiac and Renfrew Railway Company, for six miles of their railway from the north bank of the Ottawa River, opposite Braeside, or from Bristol Iron Mines, to the Pontiac Pacific Junction Railway, near the Quyon River, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	19,200 00
164.	To the Quebec, Montmorency and Charlevoix Railway Company, for thirty miles of their railway, from the east bank of the St. Charles River, to or near to Cap Tourmente, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	96,000 00
165.	To the Fredericton and St. Mary's Bridge Company, for a bridge over the St. John River, at Fredericton, in the province of New Brunswick, a subsidy not exceeding in the whole.....	30,000 00
166.	To the Napanee, Tamworth and Quebec Railway Company, for seven miles of their railway, from a point at or near Yarker to a point at or near Harrowsmith, and to a company for three miles of railway from a point at or near Harrowsmith to a point at or near Sydenham, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	32,000 00
167.	For a railway from a point near Sicamous, on the Canadian Pacific Railway, to a point on Lake Okanagan for fifty-one miles of such railway, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	163,200 00
168.	To the Cornwallis Valley Railway Company, for one mile of their railway, from the end of the line subsidized by the Act 50-51 Victoria, chapter 24, to Kingsport, in the province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	3,200 00
169.	To the Lake Témiscamingue Colonization and Railway Company, for fifteen miles of their railway, from Mattawa station on the Canadian Pacific Railway, towards the Long Sault, or from the Long Sault towards the said Mattawa station, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
170.	To the Maskinongé and Nipissing Railway Company, for fifteen miles of their railway, from a point on the Canadian Pacific Railway at or near Maskinongé or Louiseville, towards the parish of Saint-Michel des Saints, on the River Mattawin, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00

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171. To the Kingston, Smith's Falls and Ottawa Railway Company, for twenty miles of their railway, from the city of Kingston towards Smith's Falls, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$	64,000 00
172. To the South Ontario Pacific Railway Company, for forty-nine and one-half miles of their railway, from Woodstock to Hamilton, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....		158,400 00
173. For a railway from St. Césaire to St. Paul d'Abbotsford, in the province of Quebec, five miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....		16,000 00
174. To the Great Eastern Railway Company, for twenty miles of their railway, from the east end of the line subsidized by the Act 50-51 Victoria, chapter 24, at St. Grégoire, towards the Chaudière Junction station on the Intercolonial Railway, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....		64,000 00
175. To the Drummond County Railway Company, for four and one-half miles of their railway, from the end of the line subsidized by the Act 50-51 Victoria, chapter 24, to Ball's Wharf, on the St. Lawrence River, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....		14,400 00
176. To the St. Catharines and Niagara Central Railway Company, for twenty miles of their railway, from the end of the line subsidized by the Act 50-51 Victoria, chapter 24, at St. Catharines, towards the city of Hamilton, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....		64,000 00
177. To the Quebec and Lake St. John Railway Company, for twenty miles of their railway, from the end of the section of thirty miles from Lake St. John towards Chicoutimi, subsidized by the Act 51 Victoria, chapter 3, towards Chicoutimi, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....		64,000 00
178. To the Grand Trunk, Georgian Bay and Lake Erie Railway Company, for fifteen miles of their railway, from the village of Tara or some point between Tara and Hepworth, to the town of Owen Sound, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....		48,000 00
179. To the Hereford Railway Company, for fifteen miles of their railway, from Cookshire to a junction with the Quebec Central Railway at Dudswell, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....		48,000 00
180. To the Massawippi Junction Railway Company, for fifteen miles of their railway, from Ayer's Flat to Coaticook, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....		48,000 00
181. To the Brockville, Westport and Sault Ste. Marie Railway Company, for twenty miles of their railway, from a point at or near Newboro', towards Palmer's Rapids, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....		64,000 00
182. To the Thousand Islands Railway Company, for four miles of their railway, from a point near the St. Lawrence River, in Gananoque village, to Gananoque Junction of the Grand Trunk Railway, and for thirteen miles of their railway, from Gananoque Junction of the Grand Trunk Railway to a junction with the Brockville, Westport and Sault Ste. Marie Railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....		54,400 00

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183. For a railway from Cape Tourmente towards Murray Bay, twenty miles, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$64,000 00
184. To the Amherstburg, Lake Shore and Blenheim Railway Company, for twenty miles of their railway, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000 00

“So much of the subsidy of three thousand two hundred dollars per mile, which under the provisions of the Act forty-ninth Victoria, chapter seventeen, and of this Act, may be paid to the Baie des Chaleurs Railway Company in respect of the thirty miles of their railway, from the seventieth to the hundredth mile, eastward from Metapediac, shall be applicable to the section of the said railway, comprised between the fortieth and the seventieth mile thereof, eastward from Metapediac, instead of to the said first mentioned section of thirty miles, making six thousand four hundred dollars per mile applicable to the secondly mentioned section of thirty miles; but the foregoing provision shall be subject to the condition that the said company undertake to complete the thirty miles of their railway from the seventieth to the hundredth mile eastward from Metapediac within a reasonable time, not to exceed four years, to be fixed by Order in Council, and without any further subsidy from the Government of Canada, and that they deposit with the Minister of Railways and Canals, as security to the Crown that they will well and truly carry out their undertaking, their bonds to the amount of two hundred thousand dollars.

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose, shall be granted to such companies respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized, except as respects the tunnel under the St. Clair River, in which case there shall be paid fifteen per cent of the value of work done on monthly progress estimates, certified by the Chief Engineer, and upon the approval of the Minister of Railways and Canals.

“The granting of such subsidies, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights, as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

“And for the removal of doubts it is hereby declared and enacted that the provision in the Act passed in the fifty-first year of Her Majesty's reign, and chapter 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*) :—

186.	To the Montreal and Ottawa Railway Company, for thirty miles of their railway, from the western end of the thirty-six miles subsidized by the Act 50-51 Victoria, chapter 24, towards Ottawa, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	\$ 96,000
187.	To the Waterloo Junction Railway Company, for eleven miles of their railway, from Waterloo to Elmira, a subsidy not exceeding \$3,200 per mile, and not exceeding in the whole.....	35,200
188.	To the Northern and Pacific Junction Railway Company, for a railway from Gravenhurst to Callander, the balance remaining unpaid of the subsidies granted by the Acts 45 Victoria, chapter 14, and 46 Victoria, chapter 25, not exceeding in the whole...	600
189.	For a railway from Woodstock via London to Chatham, in the province of Ontario, thirty miles in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, for a railway from Ingersoll via London to Chatham, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	256,000
190.	To the St. Catharines and Niagara Railway Company, for fourteen miles of their railway, from the end of the twenty miles subsidized by the Act 52 Victoria, chapter 3, to Hamilton, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	44,800
191.	To a railway from Ottawa to Morrisburg, fifty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	166,400
192.	To the Erie and Huron Railway Company, for twenty-two miles of their railway from Petrolia via Oil Springs to Dresden, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
193.	To the Brockville, Westport and Sault Ste. Marie Railway Company, for a railway from Brockville to Westport, the balance remaining unpaid of the subsidy granted by the Act 48-49 Victoria, chapter 59, not exceeding in the whole.....	83,000
194.	To the Manitoulin and North Shore Railway Company, for thirty miles of their railway from Little Current to the Algoma Branch of the Canadian Pacific Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
195.	To the Port Arthur, Duluth and Western Railway Company, for five miles of their railway, being a branch of the main line of railway to the Kakabeka Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	16,000
196.	To the Lake Erie and Detroit River Railway Company, for fifty miles of their railway, on a line to be fixed by the Governor in Council, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	160,000

- 197.** To the Lindsay, Bobcaygeon and Pontypool Railway Company, for sixteen miles of their railway, from Bobcaygeon to the Midland Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. \$ 51,200
- 198.** To the Kingston, Smith's Falls and Ottawa Railway Company, for thirty-six miles of their Railway, from the north-east end of the twenty miles subsidized by the Act 52 Victoria, chapter 3, to Smith's Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 115,200
- 199.** To the Ottawa and Parry Sound Railway Company, for thirty miles of their railway, from Eganville to Barry's Bay, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 96,000
- 200.** To the Belleville and Lake Nipissing Railway Company, for thirty miles of their railway, from Belleville to Tweed and thence to Bridgewater, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 96,000
- 201.** To the Cobourg, Northumberland and Pacific Railway Company, for thirty miles of their railway from Cobourg to the Ontario and Quebec Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 96,000
- 202.** To the St. Stephen and Milltown Railway Company, for three and a half miles of their railway, from the town of St. Stephen to the town of Milltown, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 11,200
- 203.** To the Woodstock and Centreville Railway Company, for six miles of their railway, from the western end of the twenty miles subsidized by the Act 50-51 Vic., chap. 24, to the International boundary between the province of New Brunswick and the state of Maine, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 19,200
- 204.** For a railway from a point at or near Fredericton, via Oromocto and Gagetown, to a point on the New Brunswick Railway west of Westfield station, for thirty miles thereof, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 96,000
- 205.** To the Central Railway Company of New Brunswick, for four and a half miles of their railway, the distance which the previous subsidy granted is short of covering, from the head of Grand Lake to the Intercolonial Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 14,400
- 206.** To the Montreal and Western Railway Company, for seventy miles of their railway, from St. Jérôme, north-westerly towards Désert, in the province of Quebec, in lieu of the subsidy granted by the Act 49 Vic., chap. 10, a subsidy not exceeding \$5,161 per mile, nor exceeding in the whole. 361,270

"Provided, that the subsidy hereby granted to the Montreal and Western Company may be paid by instalments on the completion of each section of the railway as follows, that is to say :—

SECTIONS.	Approximate length in miles.
St. Jérôme to Shawbridge.	8
Shawbridge to St. Sauveur.	4
St. Sauveur to Ste. Adèle.	6
Ste. Adèle to Lac à la Fourche.	6
Lac à la Fourche to Ste. Agathe.	6½
Ste. Agathe to St. Faustin.	14
St. Faustin to St. Jovite.	7½
St. Jovite to Summit Lake.	8
Summit Lake to La Chute aux Iroquois.	7
La Chute aux Iroquois towards Désert.	3

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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."

207.	For seventy-five miles of the railway from Shelburne, in the county of Shelburne, and from Liverpool, in the county of Queen's towards Annapolis, in the province of Nova Scotia, to be so contracted for as to secure the construction to both Shelburne and Liverpool, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 240,000
208.	To the Inverness and Richmond Railway Company, for fifty miles of their railway from Port Hawkesbury to Broadcove, a subsidy not exceeding \$1,000 per mile, nor exceeding in the whole.....	50,000
209.	To the International Railway Company, for a railway from Sherbrooke to the international boundary, the balance remaining unpaid of the subsidy granted by the Act 46 Vic., chapter 25, not exceeding in the whole.....	3,840
210.	For completing the Montreal and Sorel Railway from St. Lambert to Sorel.....	40,000
211.	To the Pontiac Pacific Junction Railway Company, for seven and a half miles of their railway, from Hull to Aylmer, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	24,000
212.	To the Montreal and Lake Maskinongé Railway Company, for three and a half miles of their railway, the distance which the subsidy granted by the Act 49 Vic., chapter 10, is short of covering from St. Félix to Lake Maskinongé, in the parish of St. Gabriel, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	10,200
213.	To the Great Eastern Railway Company, for a bridge over the Nicolet River, and also a bridge on the St. Francis River, a subsidy of 15 per cent on the value of the structure, not to exceed.....	37,500
214.	To the Drummond County Railway Company, for twenty-four miles of their railway, from Drummondville to Ste. Rosalie, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	76,800
215.	To the Great Northern Railway Company, for fifteen miles of their railway, from, at or near Montcalm to the Canadian Pacific Railway, between Joliette and St. Félix de Valois, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
216.	To the Lake Temiscamingue Colonization Railway Company, for twenty miles of their railway, from the northern end of the fifteen miles subsidized by the Act 52 Vic., chapter 3, to the Long Sault, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
217.	To the Maskinongé and Nipissing Railway Company, for fifteen miles of their railway, from the northern end of the 15 miles subsidized by the Act 52 Victoria, chapter 3, towards the parish of St. Michel des Saints, on the River Mattawa, in the province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
218.	To the St. Lawrence and Adirondack Railway Company, for eighteen miles of their railway, from Valleyfield to Huntingdon, on the Montreal and Champlain Junction Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
219.	To the Quebec Central Railway Company, for ninety miles of their railway, from St. Francis Station, on the Quebec Central Railway, to a point on the Atlantic and North-western Railway,	

	near Moose River, or from a point on the Quebec Central Railway between the Chaudière River and Tring Station, to a point on the International Railway at or near Lake Megantic, in lieu of the subsidy granted by the Act 51 Victoria, chapter 3, a subsidy not exceeding \$21,191.54 per annum for twenty years, or a guarantee of a like sum for a like period, as interest on the bonds of the company, such annual subsidy for twenty years representing a grant in cash of.....	\$288,000
220.	To the Quebec and Lake St. John Railway Company, for a railway bridge over the St. Charles River, to give access to the city of Quebec, a subsidy not to exceed in the whole \$30,000; also for twelve miles of their railway from Lorette via Charlesbourg to Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$38,400.....	68,400
221.	For a railway from Summerside to Richmond Bay, in the province of Prince Edward Island, three miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	9,600
222.	To the Columbia and Kootenay Railway Company, for thirty-five miles of their railway, from the outlet of Kootenay Lake to a point on the Columbia River as near as practicable to the junction of the Kootenay and Columbia Rivers, a subsidy not exceeding \$3,200 per mile, nor to exceed in the whole.....	112,000
223.	For a railway from a point on the Intercolonial Railway through the Stewiacke Valley on a line which will afford facilities of communication with the Iron Mines, Springside, Upper Stewiacke and Musquodoboit settlements, twenty-five miles, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
224.	For a railway from Fredericton to the village of Prince William in the province of New Brunswick, twenty-two miles, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
225.	To the St. John Valley and Rivière du Loup Railway Company, for twenty-two miles of their railway from the village of Prince William towards the town of Woodstock, in lieu of the subsidy granted by the Act 50-51 Victoria, chapter 24, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
226.	To the Témiscouata Railway Company, for sixteen miles of their railway, from the west end of the twenty miles of their branch railway from Edmundston, subsidized by the Act 51 Victoria, chapter 3, towards the St. Francis River, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	51,200
227.	For a railway from the north end of the fourteen miles for which a subsidy was granted by the Act 50 and 51 Victoria, chapter 24, to the Tobique Valley Railway Company, from Perth Centre towards Plaister Rock Island, eleven miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	35,200
228.	To the Orford Mountain Railway Company, for thirty-one miles of their railway, between Eastman and Kingsbury, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	99,200
229.	For a railway from Lachine Bank, on a line of the Grand Trunk Railway, to a point at or near Rivière des Prairies, a distance of fifteen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000

"The subsidies hereinbefore mentioned as to be granted to companies named for that purpose, shall be granted to such companies respectively; the other subsidies,

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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, intitled: An Act to enable the county of Inverness to borrow money—except, also, as regards the subsidies to the Great Eastern Railway Company for bridges over the Nicolet and St. Francis Rivers, and to the Quebec and Lake St. John Railway for the bridge over the St. Charles River, upon which shall be paid fifteen per cent of the value of work done, on monthly progress estimates certified by the Chief Engineer and upon the approval of the Minister of Railways and Canals—and except also the subsidy granted to the Quebec Central Railway Company, the first annual payment upon which shall be made at the end of twelve months from the date of the Chief Engineer's certificate of the completion of the work, and each subsequent payment at the end of each twelve months thereafter, for the term of twenty years.

“The granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing running powers or traffic arrangements or other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those subsidized, as the Governor in Council determines.”

By the special Act 53 Vic., ch. 5, 1890 (*Assented to 16th May, 1890*):—

230. In order to enable the Calgary and Edmonton Railway Company to construct so much of their railway as reaches from a point on the line of the Canadian Pacific Railway Company within the town of Calgary to a point on the North Saskatchewan River near Edmonton, the Governor in Council may enter into a contract with such company for the transport of men, supplies, materials and mails for twenty years, and may pay for such services during the said term, eighty thousand dollars per annum, in manner following, that is to say: the sum of eighty thousand dollars to be paid annually on the construction of the railway from Calgary to a point on the North Saskatchewan River near Edmonton,—such payment to be computed from the date of the completion of the railway between such points: Provided that the Governor General in Council may order such sums to be paid in semi-annual instalments, and may permit the company to assign the same by way of security for any bonds or securities which may be issued by the company in respect of the company's undertaking.

By 54-55 Victoria, ch. 8, 1891 (*Assented to 30th Sept., 1891*):—

231. To the Great Northern Railway Company, for a railway from a point at or near New Glasgow or St. Lin to or near to Montcalm, in the province of Quebec, eighteen miles, the balance

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	remaining unpaid of the subsidy, not exceeding \$3,200 per mile, granted by the Act forty-ninth Victoria, chapter ten, nor exceeding in the whole.....	\$ 28,100 00
232.	To the Quebec and Lake St. John Railway Company, for the railway bridge over the St. Charles River to give access to the city of Quebec, the difference between the amount already paid to the company and the sum of \$30,000 mentioned as not to be exceeded by the Act fifty-third Victoria, chapter two, a subsidy not exceeding.....	5,250 00
233.	To the Oshawa Railway Company, for seven miles of their railway from Port Oshawa towards Raglan, in lieu of the subsidy for a like amount granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400 00
234.	To the St. Lawrence, Lower Laurentian and Saguenay Railway Company, for the section of their railway from Grand Piles, on the St. Maurice River to its junction with the Quebec and Lake St. John Railway, the balance remaining unpaid of the subsidy granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, not exceeding in the whole.....	92,784 00
235.	To the Great Eastern Railway Company, for thirty-miles of their railway, from the River St. Francis to the Arthabaska Railway at St. Grégoire station, the balance remaining unpaid of the subsidy, not exceeding \$3,200 per mile, granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, not exceeding in the whole.....	79,700 00
236.	To the South Ontario Pacific Railway Company, for forty-nine and one-half miles of their railway from Woodstock to Hamilton, in the province of Ontario, in lieu of the subsidy for a like amount granted by the Act fifty-second Victoria, chapter three, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	158,400 00
237.	To the Montreal and Ottawa Railway Company (formerly the Vaudreuil and Prescott Railway Company), for thirty miles of their railway from Vaudreuil towards Hawkesbury, the balance remaining unpaid of the subsidy granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, not exceeding in the whole.....	46,040 00
238.	To the Tobique Valley Railway Company, for fourteen miles of their railway from Perth Centre station towards Plaister Rock Island, in lieu of the subsidy for a like amount granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, a subsidy not exceeding \$6,400 per mile, nor exceeding in the whole....	89,600 00
239.	To the Kingston, Smith's Falls and Ottawa Railway Company for fifty-six miles of their railway from the city of Kingston to Smith's Falls, in lieu of the subsidies, not to exceed \$179,200, granted by the Acts fifty-second Victoria, chapter three, and fifty-third Victoria, chapter two, a subsidy not exceeding \$12,534 per annum, to be paid in semi-annual instalments of \$6,267 each, for twenty years, which represents a grant in cash of.....	179,200 00

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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-

ments have been recommended, and copies of all contracts between the Government and the company under which the said subsidies are authorized to be paid.

"The granting of such subsidies respectively shall be subject to such conditions for securing such running power or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

By the Act 55-56 Victoria, chap. 5, 1892 (*Assented to 9th July, 1892*):—

241. To the Lake Erie and Detroit River Railway Company, for fifty-eight miles of their railway from a point at or near Cedar Creek to the town of Ridgetown, in lieu of the subsidies granted to the Lake Erie and Detroit River Railway Company by the Act 53 Victoria, chapter 2, and to the Amherstburg, Lake Shore and Blenheim Railway Company by the Act 52 Victoria, ch. 3.	\$224,000 00
242. To the Ottawa, Arnprior and Parry Sound Railway Company, for fifty-five miles of their railway from Barry's Bay towards the Northern Pacific Junction Railway, a subsidy not exceeding \$6,400 per mile on the first twenty-seven and a half miles out from Barry's Bay, and not exceeding \$3,200 per mile on the second twenty-seven and a half miles, nor exceeding in the whole.....	264,000 00
243. To the Canadian Pacific Railway Company or to the Columbia and Kootenay Railway and Navigation Company, for a railway from a point on the Canadian Pacific Railway at or near Revelstoke to the head of Arrow Lake, for twenty-five miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000 00
244. To the Tobique Valley Railway Company, for a railway from the north end of the eleven miles for which a subsidy was granted by the Act 53 Victoria, chapter 2, to Plaister Rock Island, for 3 miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	9,600 00
245. To the Monfort Colonization Railway Company, for twenty-one miles of their railway from Lachute, St. Jérôme or a point at or near St. Sauveur, on the line of the Montreal and Western Railway, to Monfort and westward, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	67,200 00
246. To the Ontario, Belmont and Northern Railway Company, for ten miles of their railway from the Belmont iron mines to the Canadian Pacific Railway and the Central Ontario Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000 00
247. To the Montreal and Champlain Junction Railway Company, the balance remaining unpaid of the subsidies granted by the Acts 50-51 Victoria, chapter 24, and 51 Victoria, chapter 3, a subsidy of.....	15,100 00
248. To the Buctouche and Moncton Railway Company, for thirty-two miles of their railway from Moncton to Buctouche, the balance remaining unpaid of the subsidy, not exceeding \$3,200 per mile, granted by the Acts 49 Victoria, chapter 10, and 50-51 Victoria, chapter 24, not exceeding in the whole.....	35,480 00
249. To the Cobourg, Northumberland and Pacific Railway Company, for nineteen miles of their railway from Cobourg to the Ontario and Quebec Railway (in addition to the subsidy granted by the Act 53 Victoria, chapter 2), a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	60,800 00

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250.	For a railway from the parish of St. Rémi, in the county of Napierville, to St. Cyprien in the said county, for twelve miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 38,400 00
251.	To the Inverness and Richmond Railway Company (or any other company undertaking the work), for twenty-five miles of their railway from a point on the Cape Breton Railway, at or near Orangedale, to Broadcove, a subsidy not exceeding \$3,200 per mile, in lieu of the subsidy of \$50,000 granted to the said railway company by 53 Victoria, chapter 2, and on the same conditions, not exceeding in the whole.....	80,000 00
252.	To the Nicola Valley Railway Company, for twenty-five miles of their railway from a point on the Canadian Pacific Railway at or near Spence's Bridge towards Nicola Lake	80,000 00
253.	To the Lotbinière and Megantic Railway Company, for fifteen miles of their railway from a point at or near St. Jean Deschailons towards Glen Lloyd, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
254.	To the Stewiacke and Lansdowne Railway Company, for a railway from a point on the Intercolonial Railway, through the Stewiacke Valley, on a line which will afford facilities of communication with the iron mines at Springside, Upper Stewiacke and Musquodoboit settlements, twenty-five miles, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000 00
255.	To the Philipsburg Junction Railway and Quarry Company, for six and seven-hundredths miles of their railway from Stanbridge Station to Philipsburg, in the county of Missisquoi, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	21,600 00
256.	To the Kingston, Napanee and Western Railway Company, for three miles of their railway from a point at or near Harrowsmith to a point at or near Sydenham, in lieu of the subsidy granted for this section of road by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	9,600 00
257.	For a railway from Cape Tourmente towards Murray Bay, in the province of Quebec, twenty miles, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	64,000 00
258.	To the Stewiacke and Lansdowne Railway Company, for a railway from Truro, or a point between Truro and Stewiacke, to New- port or to Windsor, in the province of Nova Scotia, for forty-nine miles of such railway, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	156,800 00
259.	To the Restigouche and Victoria Railway Company, for fifteen miles of their railway from Campbellton towards Grand Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
260.	For a railway from St. Johns to Ste. Rosalie, thirty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	102,400 00
261.	For a railway from St. Placide to St. Andrew's, eight miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..	25,600 00
262.	For a railway to complete the connection between Sydney and Louisburg, in the county of Cape Breton, for twenty-eight miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	89,600 00

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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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266. To the Woodstock and Centreville Railway Company, for a railway from Woodstock towards Centreville, twenty miles, in lieu of the subsidy granted by 50-51 Victoria, chapter 24, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. . . .	\$64,000 00
267. To the Brockville, Westport and Sault Ste. Marie Railway Company, for the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding \$3,200 per mile, and also for the balance remaining unpaid of the subsidy granted by the Act 53 Victoria, chapter 2, nor exceeding in the whole.	96,800 00
268. To the New Glasgow Iron, Coal and Railway Company, for a railway from Eureka Junction on the Intercolonial Railway to a point at or near Sunnybrae, including a branch line to the charcoal iron furnace at Bridgeville, for twelve and a half miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	40,000 00
269. To the Thousand Island Railway Company, for an extension of their railway to connect with the Brockville, Westport and Sault Ste. Marie Railway, the Kingston, Napanee and Western Railway, the Kingston, Smith's Falls and Ottawa Railway, or the waters of the Rideau Canal, and an extension across the mouth of the Gananoque River, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole.	44,000 00
Payable, \$14,000 on the completion of the last named or southern extension, and the balance of said subsidy, being \$30,000, on the completion of the first named or northern extension of their railway.	
270. To the Manitoulin and North Shore Railway Company, for thirty miles of their railway from Little Current to the Algoma Branch of the Canadian Pacific Railway, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$96,000 00
271. To the Lindsay, Bobcaygeon and Pontypool Railway Company, for sixteen miles of their railway from the end of the line subsidized by the Act 53 Victoria, chapter 2, at the junction with the Midland Railway, to Pontypool, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	51,200 00
272. For seventy-five miles of the railway from Sand Point, Shelburne Harbour, in Nova Scotia, to Annapolis Royal, in the county of Annapolis and to a junction at or near New Germany on the Nova Scotia Central Railway, with a view to future construction to Liverpool, in lieu of the subsidy of a like amount granted by the Act 53 Victoria, chapter 2, for the same length of railway from Shelburne and from Liverpool, towards Annapolis, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	240,000 00
273. To the Kingston, Napanee and Western Railway Company, for twenty miles of their railway, being extensions or branches in the counties of Peterborough, Hastings, Addington, Frontenac or Leeds, towards iron deposits, a subsidy not exceeding \$3,200 per mile, payable in instalments regulated by the length of each of the said extensions, additions or branches, the subsidy not exceeding in the whole.	64,000 00
274. To the St. John Valley and Rivière du Loup Railway Company, for ten miles of their railway from the north end of the line subsidized by the Act 53 Victoria, chapter 2, towards the town of Woodstock, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	48,000 00

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275.	To the Cobourg, Northumberland and Pacific Railway Company, for thirty miles of their railway from Cobourg to the Ontario and Quebec Railway, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 96,000 00
276.	To the Ottawa, Arnprior and Parry Sound Railway Company, for thirty miles of their railway, from Eganville to Barry's Bay, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000 00
277.	To the Ottawa, Arnprior and Parry Sound Railway Company, for twenty-two miles of their railway from a point on the Canadian Pacific Railway to Eganville, in lieu of the subsidy granted by the Act 51 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400 00
278.	To the Lake Témiscamingue Colonization Railway Company, for thirty-five miles of their railway from Mattawa to the Long Sault, in lieu of the subsidies granted by the Acts 52 Victoria, chapter 3, and 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	112,000 00
279.	To the Témiscouata Railway Company, for twelve miles of their railway from the north end of the section of the St. François Branch subsidized by the Act 51 Victoria, chapter 3, being the first twelve miles on the section subsidized by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$1,800 per mile, in addition to the subsidy already granted, and not exceeding in the whole.....	21,600 00
280.	To the Tilsonburg, Lake Erie and Pacific Railway Company, for sixteen miles of their railway from Port Burwell to Tilsonburg, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	51,200 00
281.	To the Woodstock and Centreville Railway Company, for six miles of their railway from the west end of their twenty miles subsidized by the Act 50-51 Victoria, chapter 24, to the international boundary between the province of New Brunswick and the state of Maine, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200 00
282.	To the Lake Témiscamingue Colonization Railway Company, for 15 miles of their railway from the Long Sault to the crossing of the Kippewa River, a subsidy not exceeding \$3,200 per mile—and a subsidy of fifteen per cent on the value of a wooden truss bridge over the Ottawa River near Mattawa, not exceeding \$15,000,—nor exceeding in the whole.....	63,000 00
283.	To the Goderich and Wingham Railway Company, for thirty-one miles of their railway from Goderich to Wingham, via Port Albert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	99,200 00
284.	To the Joliette and St. Jean de Matha Railway Company, for eight miles of their railway from St. Félix de Valois to St. Jean de Matha, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	25,600 00
285.	To the Bracebridge and Baysville Railway Company, for fifteen miles of their railway from Bracebridge towards Baysville, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
286.	To the Nipissing and James Bay Railway Company, for twenty-five miles of their railway from, at or near North Bay station on	

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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
287.	For a railway from a point on the Intercolonial Railway between Ste. Flavie and Little Métis station to Matane, for fifty miles of such railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	160,000 00
288.	To the Ontario and Pacific Railway Company, for fifty-three and eighty-seven hundredths miles of their railway from Cornwall to Ottawa, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	172,400 00
289.	For a railway from a point on the line of the Canadian Pacific Railway on the Isle Jésus, in the county of Laval, towards St. Eustache, for twelve miles of such railway, in lieu of the subsidy granted by the Act 50-51 Victoria, chapter 24, to the Carillon and Grenville Railway Company, for twelve miles of their railway, from St. Eustache to Sault au Récollet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400 00
290.	For a railway from St. Eustache to St. Placide, in the county of Two Mountains, for eighteen miles of such railway, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600 00
291.	To the Port Arthur, Duluth and Western Railway Company, the balance remaining unpaid of the subsidy granted by the Act 51 Victoria, chapter 3, not exceeding, with the amount already paid, \$3,200 per mile, nor exceeding in the whole.....	114,125 00
292.	To the Drummond County Railway Company for four and six-tenths miles of their railway from Bull's Wharf, on the St. Lawrence River, near Nicolet, to Ste. Rosalie Junction, an excess of distance by the constructed line over the subsidies heretofore voted for a railway between the said points, \$3,200 per mile, not exceeding in the whole.....	14,720 00
293.	To the St. Lawrence and Adirondack Railway Company, for five and forty-two hundredths miles of their railway, from Huntingdon towards the international boundary, which, with the distance between Valleyfield and Huntingdon, twelve and fifty-eight hundredths miles, makes up the distance of eighteen miles named in the 53 Vic., chap. 2, granting a subsidy to this company, and for five and forty-hundredths miles from the east end of the eighteen miles referred to the international boundary, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	25,024 00

“ The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall, if granted by the Governor in Council, be granted to such companies respectively ; the other subsidies may be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively ; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications, and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make ; the location also of every such line of railway shall be subject to the approval of the Governor in Council ; and all the said subsidies respectively shall be payable out of the Consolidated

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Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized,—except as to subsidies with respect to which it is hereinbefore otherwise provided, and except also as to the subsidy granted to the Kingston, Smith's Falls and Ottawa Railway Company, and the subsidy granted to the St. Catharines and Niagara Central Railway Company, the first semi-annual payments upon both of which shall be made at the end of six months from the date of the Chief Engineer's certificate of the completion of their railways respectively, and each subsequent payment at the end of each six months thereafter, for the term of twenty years or less.

“The granting of such subsidies respectively shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.”

- 294.** Notwithstanding the expiration of the time limited by the Act 47 Victoria, chapter 8, and by the contract entered into with the Pontiac Pacific Junction Railway Company, the Governor in Council may pay the balance remaining unpaid of the subsidy granted by the said Act to the said company, according as it becomes due and payable in accordance with the said contract, and subject to the terms and conditions applicable to the said subsidy under the terms of the said Act.
- 295.** Notwithstanding the expiration of the time limited by the Act 52 Victoria, chapter 3, and by the contract entered into with the Quebec and Lake St. John Railway Company, the Governor in Council may pay the balance remaining unpaid of the subsidy granted by the said Act to the said company, according as it becomes due and payable in accordance with the said contract, and subject to the terms and conditions applicable to the said subsidy under the terms of the said Act: and notwithstanding anything contained in the Act 50-51 Victoria, chapter 24, the Governor in Council may also pay to the said company the balance remaining unpaid of the subsidy granted to the company by the said Act, amounting to \$12,800, on the four miles of their road from the north end of the main line subsidized towards Roberval.
- By the Act 56 Vic., chap. 2, 1893 (*Assented to 1st April, 1893*):—
- 296.** To the Great Eastern Railway Company, for twenty miles of their railway, from the east end of the line subsidized by the Act 50-51 Victoria, chapter 24, at St. Grégoire, towards the Chaudière Junction station on the Intercolonial Railway, in the province of Quebec, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... \$ 64,000 00
- 297.** To the United Counties Railway Company, for thirty-two miles of their railway, from a point at or near the town of Iberville to St. Hyacinthe, and thence towards Sorel, in lieu of the subsidy granted by the Act 55-56 Victoria, chapter 5, for a railway from St. Johns to Ste. Rosalie, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 102,400 00
- 298.** To the Ontario, Belmont and Northern Railway Company, for ten miles of their railway, divided into two sections: first, from the Belmont Iron Mines to Marmora village; second, from Marmora village to the junction with the Ontario Central Railway, in lieu of the subsidy granted by the Act 55-56 Victoria, chapter 5, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 32,000 00
- 299.** To the Central Ontario Railway Company, for twenty miles of their railway, from Coe Hill or Gilmore, or some point between

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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
300.	To the Quebec and Lake St. John Railway Company, for thirty miles of their railway, from Lake St. John towards Chicoutimi, the balance remaining unpaid of the subsidy granted by the Act 51 Victoria, chapter 3, not exceeding in the whole.....	81,040 00
301.	To the Irondale, Bancroft and Ottawa Railway Company, for fifty miles of their railway, from the Victoria branch of the Midland Railway to the village of Bancroft, in the county of Hastings, the balance remaining unpaid of the subsidy granted by the Act 47 Victoria, chapter 8, and again granted by the Act 52 Victoria, chapter 3, not exceeding in the whole.....	145,000 00
302.	To the Beauharnois Junction Railway Company, for thirty miles of their railway, from Ste. Martine towards St. Anicet, the balance remaining unpaid of the subsidy granted by the Act 50-51 Victoria, chapter 24, not exceeding in the whole.....	3,500 00
303.	To the St. Stephen and Milltown Railway Company, for three and a half miles of their railway, from the town of St. Stephen to the town of Milltown, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	11,200 00
304.	To the Quebec, Montmorency and Charlevoix Railway Company, for thirty miles of their railway, from the east bank of the River St. Charles, to or near to Cape Tourmente, in the province of Quebec, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole..	30,400 00
305.	To the Ottawa and Gatineau Valley Railway Company, for sixty-two miles of their railway, from Hull station towards Le Désert, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole.....	89,248 00
306.	To the Grand Trunk, Georgian Bay and Lake Erie Railway Company, for fifteen miles of their railway, from the village of Tara, or some point between Tara and Hepworth, to the town of Owen Sound, in the province of Ontario, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000 00
307.	To the Nova Scotia Central Railway Company (or to such person or persons or company as in the opinion of the Minister or acting Minister of Justice are entitled to the same) for eighty miles of their railway, from Lunenburg, on the east coast of Nova Scotia, westward to a point in the district of New Germany, together with a spur about three-fourths mile long to Bridgewater railway wharf, and from a point thirty-three and a half miles from Lunenburg and running to Middleton on the Windsor and Annapolis Railway, of unpaid subsidies granted by the Acts 50-51 Victoria, chapter 24, and 51 Victoria, chapter 3, an amount not exceeding in the whole.....	4,500 00
308.	To the Great Northern Railway Company, for eighteen miles of their railway, from a point at or near New Glasgow or St. Lin, to or near to Montcalm, in the province of Quebec, the balance remaining unpaid of the subsidy granted by the Act 54-55 Victoria, chapter 8, not exceeding in the whole.....	25,600 00
309.	To the Great Northern Railway Company, for fifteen miles of their railway, from, at or near Montcalm to the Canadian Pacific	

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	Railway between Joliette and St. Félix de Valois, in lieu of the subsidy granted by the Act 53 Victoria, chap. 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$ 48,000 00
310.	To the Montfort Colonization Railway Company, for twenty-one miles of their three-foot gauge railway from Lachute, St. Jérôme, or a point at or near St. Sauveur, on the line of the Montreal and Western Railway, to Montfort and westward, in lieu of the subsidy granted by the Act 55-56 Victoria, chapter 5, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	67,200 00
311.	To the Maskinongé and Nipissing Railway Company, for fifteen miles of their railway, from a point on the Canadian Pacific Railway at or near Maskinongé or Louiseville, towards the parish of St. Michel des Saints, on the river Mattawa, in the province of Quebec, and for fifteen miles of their railway from the north end of the fifteen miles above referred to, towards the parish of St. Michel des Saints on the river Mattawa, in the province of Quebec, in lieu of the subsidies granted by the Acts 52 Victoria, chap. 3, and 53 Victoria, chap. 2, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	96,000 00
312.	To the Parry Sound Colonization Railway Company, for forty miles of their railway, from the village of Parry Sound to the village of Sundridge, or some other point on the Northern Pacific Junction Railway, in the province of Ontario, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole.	97,600 00
313.	To the Jacques Cartier Union Railway Company, for extending and completing their railway, in lieu of the subsidy granted by the Act 50-51 Victoria, chapter 24, a subsidy of.	20,000 00
314.	To the Oshawa Railway Company, for seven miles of their railway and branches as follows: from Port Oshawa to a point at or near Edmondson's Falls mill site, near Mill Street, in the town of Oshawa (this portion being known as the "Lake" section of the said railway); thence to a point at or near the town hall in the town of Oshawa, and thence to the Oshawa station of the Grand Trunk Railway Company of Canada (this portion being known as the "Town" or "Northern" section of the said railway)—in lieu of the subsidy granted by the Act 54-55 Victoria, chapter 8, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	22,400 00

"All the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council.

"The granting of such subsidies respectively shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

"All the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed

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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*):—

315.	To the Bracebridge and Baysville Railway Company, for fifteen miles of their railway from Bracebridge towards Baysville, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	\$ 48,000
316.	To the Brockville, Westport and Sault Ste. Marie Railway, the balance remaining unpaid of the subsidy granted by chapter 3 of 1889, not exceeding \$3,200 per mile, and also the balance remaining unpaid of the subsidy granted by chapter 2 of 1890, which was re-granted by chapter 5 of 1892; the whole not exceeding	86,800
317.	To the Tilsonburg, Lake Erie and Pacific Railway Company, for sixteen miles of their railway, from Port Burwell to Tilsonburg, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	51,200
318.	To the Brantford, Waterloo and Lake Erie Railway Company, for eighteen miles of their railway, from the town of Brantford to the village of Hagersville or the village of Waterford, or some intermediate point on the Canada Southern Railway, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, not exceeding \$3,200 per mile, nor exceeding in the whole	4,790
319.	To the St. Catharines and Niagara Central Railway Company, for 34 miles of their railway from the city of St. Catharines to the city of Hamilton, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	108,800
320.	To the Montreal and Ottawa Railway Company (formerly the Vaudreuil and Prescott Railway Company), for thirty miles of their railway from Vaudreuil towards Hawkesbury, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887; and for 30 miles of their railway from the western end of the 30 miles first mentioned towards Ottawa, the balance remaining unpaid of the subsidy granted by chapter 2 of 1890, not exceeding \$3,200 per mile; the whole not exceeding	118,400
321	Notwithstanding the expiration of the time limited by chapter 2 of 1890, and by the contract entered into with the Quebec Central Railway Company, and notwithstanding anything otherwise in the said chapter 2 contained, the Governor in Council may pay the subsidy granted by the said chapter to the said company at the present worth of the twenty annual payments mentioned in the said chapter (interest computed at four per cent), for and upon the completion of its railway extending from a point between the Chau-lière 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

322.	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
323.	To the Joliette and St. Jean de Matha Railway Company, for 8 miles of their railway from St. Felix de Valois to St. Jean de Matha, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	23,600
324.	To the Lake Temiscamingue Colonization Railway Company, for their railway from Mattawa to the foot of the Kippewa Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$160,000,—also 15 per cent on the value of a wooden truss bridge over the Ottawa River near Mattawa, not to exceed \$15,000 in all, in lieu of the subsidies granted by chapter 5 of 1892,—also the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, for their railway from Long Sault to Lake Kippewa, a subsidy not exceeding \$3,200 per mile of railway and 15 per cent on the value of the bridges,—also, a sum of \$1,750 additional per mile on their said railway from Mattawa to the foot of the Kippewa Lake; the whole not exceeding.....	274,940
325.	For a railway from St. Placide to St. Andrews, 8 miles, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	25,600
326.	For a railway from St. Eustache to St. Placide, in the county of Two Mountains, for 18 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	57,600
327.	For a railway from a point on the line of the Canadian Pacific Railway on Isle Jésus, in the county of Laval, towards St. Eustache, for 12 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, to the Carillon and Grenville Railway Company, for 12 miles of their railway, from St. Eustache to Sault au Récollet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
328.	For a railway from the parish of St. Rémi, in the county of Napierville, to St. Cyprien, in the said county, for 12 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
329.	To the Pontiac Pacific Junction Railway Company, for bridging the several channels of the Ottawa River at Culbute and west thereof, a subsidy of \$31,500, to be paid out monthly as the work progresses, upon the certificate of the chief engineer of government railways, in the proportion which the value of the work executed bears to the value of the whole work undertaken; and for 3 miles of their railway extending from a point 3 miles east of Pembroke to Pembroke, in the province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole \$9,600, in lieu of the subsidy granted by chapter 3 of 1888; provided that the entire work subsidized upon this railway shall be completed within 4 years from the passing of this Act; the subsidy granted by this Act not to exceed in the whole.....	41,100

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330. To the Pontiac Pacific Junction Railway Company, for the construction or acquisition of $7\frac{1}{2}$ miles of railway, from Hull to Aylmer, in lieu of the subsidy granted by chapter 2 of 1890, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.	\$ 24,000
331. To the Pontiac Pacific Junction Railway Company, for 85 miles of their railway from Aylmer to Pembroke, the balance remaining unpaid of the subsidy granted by chapter 8 of 1884, less the subsidy granted for the line from Hull to Aylmer, provided the Ottawa River is crossed at some point not east of Lapasse, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	73,172
332. To the Harvey Branch Railway Company, for 3 miles of their railway from the southern terminus of the Albert Railway to Harvey Bank, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, not exceeding \$3,200 per mile, nor exceeding in the whole.....	4,046
333. For a railway from a point on the Intercolonial Railway near Newcastle via Douglastown, to a point on the River Miramichi opposite the town of Chatham, in the province of New Brunswick, 6 miles, in lieu of the subsidy granted by chapter 10 of 1886, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200
334. For a railway from some point on the Joggins Railway, near the Hebert River, to Young's Mills, in the province of Nova Scotia, a distance of 5 miles, in lieu of the subsidy granted by chapter 3 of 1889, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	16,000
335. To the Woodstock and Centreville Railway Company, for a railway from Woodstock to the international boundary between the province of New Brunswick and the state of Maine, 26 miles, in lieu of the subsidies granted by chapter 24 of 1887 and chapter 2 of 1890 a subsidy not exceeding \$3,200 per mile nor exceeding in the whole.....	83,200
336. For 90 miles of the railway from Newport or Windsor to Truro, or to a point between Truro and Stewiacke, and from a point on the said railway to a point at or near Eastville, and from Eastville through the valley of the Musquodoboit River towards a point on the proposed Dartmouth branch of the Intercolonial, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile; and also for a railway bridge over the Shubenacadie River on the line of the said railway, a subsidy of 15 per cent on the value of the structure; the whole not exceeding.....	300,000
337. To the Nipissing and James Bay Railway Company, for 25 miles of their railway from, at or near North Bay Station on the Canadian Pacific Railway towards James Bay, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile; also for 43 miles of their railway from North Bay towards Lake Tamagaming, a subsidy not exceeding \$3,200 per mile; the whole not exceeding.....	217,000
338. To the Lotbinière and Mégantic Railway Company, for 15 miles of their railway, in addition to the 15 miles already subsidized and built, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
339. To the Drummond County Railway Company, for 30 miles of their railway from St. Leonard northerly towards a junction with the Intercolonial Railway at Chaudière Junction, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000

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340.	For a railway from Lime Ridge, in the county of Wolfe, in the province of Quebec, northerly through the county of Wolfe and into the county of Megantic, a distance not exceeding 50 miles from Lime Ridge, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 160,000
341.	To the Strathroy and Western Counties Railway Company, for 25 miles of their railway from St. Thomas through the counties of Elgin and Middlesex, towards Forest Station or Park Hill, on the Grand Trunk Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
342.	To the Parry Sound Colonization Railway Company, for 20 miles of their railway east from Parry Sound, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
343.	To the Manitoulin and North Shore Railway Company, for 10 miles of their railway from Little Current to Nelson, on the Algoma Branch of the Canadian Pacific Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	32,000
344.	To the United Counties Railway Company for 32 miles of their railway from Iberville to Sorel, in addition to the 32 miles already subsidized, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	102,400
345.	To the Joliette and St. Jean de Matha Railway Company, for 12 miles of their railway from St. Jean de Matha to Ste. Emelie de L'Energie, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	38,400
346.	To the Great Northern Railway Company, for 22 miles of their railway, from the eastern end of the 15 miles subsidized by chapter 2 of 1893 to a point between Joliette and St. Félix de Valois, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
347.	To the Quebec and Lake St. John Railway Company, for 2 miles of the Chicoutimi branch of their railway, from the east end of the 50 miles already subsidized and built eastward to deep water at Chicoutimi, a subsidy not exceeding \$3,200 per mile; also for 12 miles from the 52nd mile on the Chicoutimi branch to Ha Ha Bay, a subsidy not exceeding \$3,200 per mile; the whole not exceeding.....	44,800
348.	To the Pontiac and Ottawa Railway Company, for 23 miles of their railway from the point of divergence from the Pontiac Railway to Ferguson's Point, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	73,600
349.	To the Ottawa and Gatineau Valley Railway Company, for 20 miles of their railway from the eastern end of the 62 miles already subsidized towards Désert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000
350.	To the Canada Eastern Railway Company for 6 miles of their railway from the town of Chatham to Black Brook, a subsidy not exceeding \$3,200 per mile; also for 4 miles of their railway for a branch to the village of Nelson, a subsidy not exceeding \$3,200 per mile; the whole not exceeding.....	32,000
351.	For a railway from Cross Creek Station, on the Canada Eastern Railway to Stanley village, in the county of York, in the province of New Brunswick, 6 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	19,200
352.	To the Restigouche and Victoria Railway Company, for 20 miles of their railway from the western end of the 15 miles subsidized by chapter 5 of 1892, towards Grand Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	64,000

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353.	To the Central Railway Company of New Brunswick, for 15 miles of their railway from Chipman station to the Newcastle coal fields, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	\$ 48,000
354.	To the Tobique Valley Railway Company, for 15 miles of their railway from the present terminus at Plaister Rock easterly, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	48,000
355.	Towards the restoration or renewal of the railway bridge on the South-eastern Railway over the Yamaska River at Yamaska, a subsidy equal to one-third of the actual cost of the renewal of the bridge, but the grant not to exceed in the whole.....	50,000
356.	To the Boston and Nova Scotia Coal and Railway Company, for 10½ miles of their railway from the north end of the section already subsidized to Broad Cove, a subsidy not exceeding \$3,200 per mile; also for 25 miles of their railway from a point on the Cape Breton Railway at or near Orangedale towards Broad Cove, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile; the whole not exceeding	113,600
357.	For a railway from Port Hawkesbury towards Cheticamp, 25 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	80,000
358.	To the Manitoba North-western Railway Company, for 100 miles of the extension of their main line from its present western terminus towards Prince Albert,—the company relinquishing 3,200 acres of the land grant per mile, and the whole road to be operated as a continuous line of railway under one management, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	320,000
359.	For a line of railway from the junction of the Elk and Kootenay Rivers to Coal Creek, a distance of 34 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	108,800
360.	For a railway from Abbotsford Station on the Mission Branch of the Canadian Pacific Railway to the town of Chilliwack, 21 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	67,200
361.	To the Nicola Valley Railway Company, for 28 miles of their railway from the western end of the section of their road subsidized by chapter 5, of 1892, towards Nicola Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	89,600
362.	To the Nakusp and Slocan Railway Company, for 38 miles of their railway from the town of Nakusp to a point at or near the Forks of Carpenter Creek, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	121,600
363.	To the Pontiac and Kingston Railway Company, for 22 miles of a railway from Portage du Fort to Upper Thorne Centre, via Shawville, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	70,400
364.	To the New Glasgow Iron, Coal and Railway Company, for 5 miles of their railway, from Sunnybrae to Kerrogare, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole....	16,000 00
365.	To the South Shore Railway Company, for 35 miles of their railway from Yarmouth towards Shelburne and Lockport, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	112,000 00
366.	To the Cape Breton Railway Extension Company, for 30 miles of railway from Port Hawkesbury to St. Peter's, on their line of railway from Port Hawkesbury to Louisbourg, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000 00

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367. For a railway from a point on the Intercolonial Railway between Norton and Sussex Stations towards Havelock, 20 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	\$ 64,000 00
368. For a railway from St. John to Barneville, for a distance of 10 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	32,000 00
369. For a line of railway from Cap de la Magdeleine to connect with the Piles Branch of the Canadian Pacific Railway, 3 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	9,600 00
370. To the Canada Eastern Railway Company, for an extension of one mile from the western end of their railway, to connect with the Canadian Pacific Railway, a subsidy not exceeding	3,200 00
371. To the Great Northern Railway Company, for 30 miles of their railway from its junction with the Lower Laurentian Railway near St. Tite, in the vicinity of the River St. Maurice, westward, in lieu of the subsidy granted to the Maskinongé and Nipissing Railway Company by chapter 2 of 1893, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	96,000 00
372. To the Lindsay, Bobcaygeon and Pontypool Railway Company, for 16 miles of their railway from Bobcaygeon to the Midland Railway, and for another 16 miles from the end of the first mentioned 16 miles to Pontypool, in lieu of the subsidies granted by chapter 2 of 1890, and chapter 5 of 1892, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	102,400 00
373. To the Montfort Colonization Railway Company, for 12 miles of their railway from the end of the 21 miles already subsidized westward to a point on the Rouge River, in the county of Argenteuil, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	38,400 00
374. For a railway from a point on the Caraquet Railway, at or near Pokemouche siding, towards Tracadie village, 12 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole	38,400 00

The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railway and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council.

The granting of such subsidies respectively shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

The said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized,—except as to subsidies with respect to which it is hereinbefore otherwise provided, and except also as to the

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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'Énergie Railway Company, for 15 miles of their railway from St. Gabriel to Ste. Emélie de l'Énergie, 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 $3\frac{5.0}{10.0}$ 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 $\frac{6.0}{10.0}$ 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 $1\frac{14}{100}$ 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 :—

407. 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
408. 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
409. 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
410. 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
411. 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
412. 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
413. 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
414. 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 :

(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 Dunnmore 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 $\frac{6.6}{100}$ 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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- 431.** 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 Nominigine, 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 :—

466.	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
467.	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
468.	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
469.	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
470.	Towards the construction of a bridge across the St. Francis River, 15 per cent of the amount expended thereon, not exceeding. . .	50,000 00
471.	Towards the construction of a bridge across the Nicolet River, 15 per cent upon the amount expended thereon, not exceeding. . .	15,000 00
472.	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
473.	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
474.	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
475.	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

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 Charlemange, 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

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(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.

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.

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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.

* The land grant subsidy to the Brandon and South-western, the Lac Seul and North-western Coal and Navigation railways has lapsed.

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The lands by this Act authorized to be granted to the Canadian Pacific Railway Company shall be taken and held, and may be disposed of, free and clear of any 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.

*The land grant subsidy to the Rocky Mountain Railway and Coal Company has lapsed.

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- 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.

*The land grant subsidy to the Brandon and South-western Railway Company has lapsed.

PART IV

MISCELLANEOUS STATEMENTS

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No.

SUBSIDY Agreements for the Construction of Railways

Number of Contract.	Date of Signature.	Name of Railway.	Line of Railway to be Constructed.	Acts of Canada granting Subsidies.
13568	July 29, 1899.	Ontario and Rainy River Ry. Co.	From Port Arthur, Duluth and Western Ry. to Rainy Lake.	60-61 V., c. 4
13569	" 29, 1899.	St. Gabriel de Brandon and Ste. Emilie de l'Energie Ry. Co.	From St. Gabriel to Ste. Emilie de l'Energie, and from a point on main line to St. Jean de Matha.	60-61 V., c. 4
13570	" 29, 1899.	Schomberg and Aurora Ry. Co.	From a point on Grand Trunk Ry. Co. between stations known as King and Newmarket to Schomberg, Ont.	60-61 V., c. 4
13580	" 29, 1899.	Ottawa and Gatineau Ry. Co.	From Hull northward towards Le Desert, Que.	60-61 V., c. 4
13581	" 29, 1899.	" " "	From eastern end of 62 miles already subsidized towards Desert, Que.	60-61 V., c. 4
13582	" 29, 1899.	Pontiac Pacific Junction Ry. Co.	From Hull to Aylmer, Que.	60-61 V., c. 4
13600	" 29, 1899.	" " "	From Aylmer to Pembroke, and also for bridging the Ottawa River.	60-61 V., c. 4
13617	Oct. 12, 1899.	Great Northern Ry. Co.	From Ste. Jérôme, Que., to Hawkesbury, Ont.	60-61 V., c. 4
13677	Nov. 23, 1899.	York and Carleton Ry. Co.	From Cross Creek Station to Stanley Village, N.B.	62-63 V., c. 7
13678	Dec. 5, 1899.	Philipsburg Railway and Quarry Co.	From a point on Co.'s line to government wharf at Philipsburg.	62-63 V., c. 7
13688	" 23, 1899.	South Shore Ry. Co.	Bridge over Richelieu River at Sorel.	62-63 V., c. 7
13689	" 21, 1899.	Great Northern Ry. Co.	Steel bridge and viaduct at Maskinonge River.	62-63 V., c. 7
13690	" 21, 1899.	" " "	Bridge across Rivière du Loup.	62-63 V., c. 7
13691	" 21, 1899.	" " "	" St. Maurice River.	62-63 V., c. 7
13695	Sept. 21, 1899.	Pontiac Pacific Junction Ry. Co. and Ottawa and Gatineau Ry. Co.	Interprovincial Bridge, Nepean Point, Ottawa River.	60-61 V., c. 4
13718	Jan. 27, 1900.	Nova Scotia Southern Ry. Co.	From a point on Central Ry., at or near New Germany, to town of Liverpool.	62-63 V., c. 7
13719	" 27, 1900.	" " "	From Indian Gardens, Queen's Co., N.S., to Shelburne.	62-63 V., c. 7
13732	" 29, 1900.	Canada Eastern Ry. Co.	Branch from Nelson to main line, N.B.	62-63 V., c. 7
13734	Dec. 18, 1899.	Canadian Pacific Ry. Co.	From a point near Arthur Station to a point near Moose Mountain, Man.	62-63 V., c. 7
13737	Feb. 14, 1900.	Ontario and Rainy River Ry. Co.	From Fort Francis to a point at or near the mouth of Rainy River.	62-63 V., c. 7
13738	" 14, 1900.	" " "	From a point 80 miles west of Stanley Station, on the Port Arthur, Duluth and Western Ry., to Fort Francis.	62-63 V., c. 7
13739	Dec. 7, 1899.	Midland Ry. Co.	From Windsor, N.S., to Truro, via the township of Clifton.	62-63 V., c. 7
13757	Feb. 8, 1900.	Central Ry. Co. of New Brunswick.	From Newcastle Coal Fields to Gibson, N.B.	62-63 V., c. 7
13760	" 28, 1900.	Great Northern Ry. Co.	Bridge over Ottawa River at Hawkesbury, Ont.	60-61 V., c. 4
13800	Apr. 21, 1900.	Ontario and Rainy River Ry. Co.	Supplementary subsidy to subsidy agreement, No. 13568.	62-63 V., c. 7
13809	Dec. 18, 1899.	Massawippi Valley Ry. Co.	Extension of their railway to village of Stanstead Plain, Que.	62-63 V., c. 7
13812	May 9, 1900.	South Shore Ry. Co.	Bridge over Yamaska River at Yamaska, Que.	62-63 V., c. 7
13816	" 9, 1900.	" " "	From Sorel Junction, along the south shore, to Lotbinière, Que.	62-63 V., c. 7
13865	June 23, 1900.	Lake Erie and Detroit River Ry. Co.	From Ridgeway, Ont., to St. Thomas.	62-63 V., c. 7

OTTAWA, Oct. 12, 1900.

SESSIONAL PAPER No. 20

1.

entered into during the Fiscal Year ended June 30, 1900.

AMOUNT OF SUBSIDY.		Number of Miles Subsidized.	Maximum Grade Feet per Mile.	Radii of Curvature not less than.	Width of Clearing each side.	Width of Cutting.	Embankment.	Steel Rails, lbs., per Lineal Yard.	Date for Completion.
Per Mile.	Not exceeding.								
8	8		Feet.	Feet.	Feet.	Feet.	Feet.	Lbs.	
3,200	6,400 p. mile	80	52 $\frac{80}{100}$	717	50	20	15	56	Aug. 1, 1901.
3,200	6,400 "	15 & 7	80	1,127	50	20	15	56	" 1, 1901.
3,200	6,400 "	15	80	955	50	20	15	56	" 1, 1901.
3,200	35,872	62	106	574	50	20	15	56	" 1, 1900.
3,200	6,400 p. mile	20	106	574	50	20	15	56	" 1, 1901.
3,200	6,400 "	7 $\frac{1}{2}$	80	717; at sta. 410, 574	50	20	15	56	Nov. 30, 1900.
3,200	114,272	85	53	1,433	50	20	15	56	Aug. 1, 1900.
3,200	6,400 p. mile	35	52 $\frac{80}{100}$	1,433	50	20	15	56	Dec. 31, 1900.
3,200	6,400 "	6	64	595 & 573	50	20	15	56	Oct. 1, 1900.
3,200	6,400 "	0.66	80	716	50	20	15	56	June 30, 1900.
15 p. c. of cost.	35,000	.....	.....	.....	.....	.....	.....	.....	May 1, 1900.
"	15,000	.....	.....	.....	.....	.....	.....	.....	June 30, 1901.
"	15,000	.....	.....	.....	.....	.....	.....	.....	" 30, 1901.
"	16,425	.....	.....	.....	.....	.....	.....	.....	" 30, 1901.
"	112,500	.....	.....	.....	.....	.....	.....	.....	Aug. 1, 1900.
3,200	6,400 p. mile	62	80	955	50	20	15	56	Dec. 31, 1901.
3,200	6,400 "	35	80	955	50	20	15	56	" 31, 1901.
3,200	6,400 "	2 $\frac{1}{2}$	80	716	50	20	15	56	June 30, 1900.
3,200	6,400 "	50	52 $\frac{80}{100}$	1,433	50	20	14	56	Oct. 31, 1901.
3,200	224,000 "	70	65	717	50	20	14	56	Aug. 1, 1904.
6,400	896,000 "	140	65	717	50	20	14	56	" 1, 1904.
3,200	6,400 p. mile	58	56	882	50	20	15	56	Oct. 31, 1901.
3,200	6,400 "	30	66	955	50	20	15	56	Dec. 31, 1901.
15 p. c. of cost.	52,500	.....	.....	.....	.....	.....	.....	.....	Aug. 1, 1901.
6,400	6,400 p. mile	80	65	717	50	20	14	56	" 1, 1901.
3,200	6,400 "	2 $\frac{1}{2}$	184	716	50	20	15	56	" 31, 1902.
50,000	.....	.....	.....	.....	.....	.....	.....	.....	May 1, 1862
3,200	6,400 p. mile	82	52 $\frac{80}{100}$	1,433	50	20	15	56	Aug. 1, 1903.
3,200	6,400 "	44	37	2,865	50	20	15	56	July 1, 1902.

No. 2.

CONTRACTS entered into during the Fiscal Year ended June 30, 1900.

INTERCOLONIAL RAILWAY.

No. of Contract.	Date of Signature.	Contractors.	General Description.
13540	July 1, 1899.	Galena Oil Co.	Supply signal oil for summer and winter use.
13541	" 1, 1899.	"	" oils for government railways.
13583	" 24, 1899.	Town of Stellarton	" water to I. C. Ry. at Stellarton.
13601	Aug. 29, 1899.	Honore Huard	Erect a station and freight shed at St. Valier.
13603	Sept. 6, 1899.	R. C. & A. D. Donald	" covered shelter at Painsec Junction.
13639	Oct. 18, 1899.	John Starr, Son & Co.	Install 155 lamps in freight shed at Halifax, N.S.
13640	" 2, 1899.	Willard Kitchen	Remove rock from Morrisey's tunnel.
13645	" 14, 1899.	"	Grading, &c., to change line at Colville and Loyalist.
13650	" 30, 1899.	Dominion Bridge Co.	Erect 7 truss bridges.
13657	Dec. 3, 1898.	Canadian Locomotive and Engine Co., Ltd.	Construct 2 narrow-gauge locomotives.
13660	Nov. 1, 1899.	Town of North Sydney	Supply water at North Sydney, N.S.
13661	Oct. 26, 1899.	Rhodes, Curry & Co., Ltd.	" 200 33-in. and 50 30-in. car wheels.
13676	Dec. 2, 1899.	W. P. Mills	Erect a station and freight shed at Alba, C.B.
13681	Sept. 23, 1899.	Rhodes, Curry & Co., Ltd.	Supply 30 26-in., 40 28-in., and 40 30-in. car wheels.
13685	Nov. 15, 1899.	Frank McCaie	Erect freight shed at Tunnel Siding.
13692	Dec. 11, 1899.	Hugh McDonald	Construct protection wall between Iona and McKinnon's Harbour.
13696	" 9, 1899.	E. T. Nesbitt	Construct wooden snow shed at St. Moise station.
13697	" 31, 1899.	H. H. Cameron	Handling of coal at Springhill Junction.
13712	" 20, 1899.	John McGourty	" " St. John, N.B.
13713	" 4, 1899.	Joseph McDonald & Sons	Erect a freight shed at Scotsburn, N.S.
13723	" 11, 1899.	H. Boulay	" " St. Moise.
13724	" 11, 1899.	"	" an addition to station at St. Moise.
13725	" 11, 1899.	"	" a freight shed at Cedar Hall.
13726	" 11, 1899.	"	" " St. Anaclet.
13727	Jan. 22, 1900.	Rhodes, Curry & Co., Ltd.	" an extension to freight shed at Sydney, N.S.
13729	" 26, 1900.	Dussault & Lemieux	Build cribwork, and filling at Lévis, Que.
13745	" 18, 1900.	William A. Johnson	Handling of coal at Truro, N.S.
13746	Feb. 9, 1900.	The Rathbun Co	Supply 25 box freight cars.
13752	Jan. 18, 1900.	F. Gosselin & D. Girard	Handling of coal at St. Charles, Que.
13753	Oct. 30, 1899.	Hamilton Bridge Works Co.	Construct 3 spans steel deck plate girders.
13754	Feb. 17, 1900.	Paul Lea	Finish 3rd floor of general office at Moncton, N.B.
13755	" 12, 1900.	Rhodes, Curry & Co., Ltd.	Construct an ice-house at Sydney, N.S.
13761	Mar. 3, 1900.	Geo. A. Appleby	" freight shed on terminal wharf at St. John, N.B.
13762	Feb. 16, 1900.	Theodore Theriault	Improvements to station at Causapsal, Que.
13766	" 2, 1900.	Honore Huard	Construct a station at St. Jean, Port Joli.
13769	June 13, 1899.	Canada Coals & Ry. Co.	Supply coal for the year 1899 1900.
13775	Apl. 20, 1899.	Crossen Car Mfg. Co. of Cobourg.	Deliver 6 first-class passenger cars.
13786	Jan. 18, 1900.	W. J. Watkins	Handling of coal at Drummondville.
13791	Mar. 22, 1900.	Cleophas Auger	Construct 3 dwellings.
13794	" 31, 1900.	Alphonse Dallaire	Extend freight house at Cap St. Ignace.
13798	May 1, 1900.	Great North-western Telegraph Co. of Canada.	Construct, repair and maintain telegraph line between Montreal and Moncton.
13802	Feb. 15, 1900.	John Lemieux	Handling of coal at Campbellton, N.B.
13803	Mar. 1, 1900.	Joseph Marquis & Cie.	" " Rivière du Loup, Que.
13804	Feb. 15, 1900.	Charles Maisey	" " Campbellton, N.B.
13805	" 15, 1900.	Jerome Roy	" " Newcastle, N.E.
13806	Apl. 16, 1900.	John McDougall & Co.	Supply 200 33-in. car wheels.
13811	" 18, 1900.	Illinois Steel Co. of Chicago ..	Supply 10,000 tons of steel rails, first quality, with privilege of furnishing a quantity not exceeding 5 p.c. of first quality, of second quality rails.
13813	" 12, 1900.	William Talbot	Construct an ice-house at New Glasgow, N.S.

SESSIONAL PAPER No. 20

No.2.—CONTRACTS entered into during the Fiscal Year ended June 30, 1900.—*Con.*INTERCOLONIAL RAILWAY—*Continued.*

No. of Contract.	Date of Signature.	Contractors.	General Description.
13814	Jan. 18, 1900.	Damas Charette.	Handling of coal at Ste. Flavie, Que.
13817	Apr. 18, 1900.	P. E. I. Government.	Construct, by Dominion Government, a railway and highway bridge over Hillsborough River.
13819	" 16, 1900.	David Smith.	Erect a passenger and freight building at River Sauvage, Que.
13826	" 12, 1900.	Rhodes, Curry & Co., Ltd.	Deliver 275 box freight cars.
13831	May 25, 1900.	Thomas Gilliland	Erect station and freight shed at model farm.
13845	" 30, 1900.	Willard Kitchen.	Lower a street and construct a sub-way at Christie's crossing, at south end of Amherst station.
13846	" 25, 1900.	J. B. McManus.	Construct 250 farm crossing gates.
13847	" 19, 1900.	E. Mattinson & Sons.	" 123 switch stands.
13848	" 25, 1900.	New Brunswick Anchor Wire Fence Co.	" 250 farm crossing gates.
13856	" 25, 1900.	Pierre Morin.	" 500 " "
13857	June 27, 1900.	Galena Oil Co.	Supply lubricating oils.
13858	" 27, 1900.	"	" signal " "
13859	May 16, 1900.	Alexis Belanger.	Erect a freight shed at Old Lake River.
13860	" 16, 1900.	"	" " St. Alexandre.
13861	May 16, 1900.	Alexis Belanger.	Erect a freight shed at St. Philippe de Neri.
13863	Mar. 1, 1900.	Auguste Larouche	Handling of coal at Riviere du Loup.
13864	June 19, 1900.	R. C. Bacon.	Construct roof on general office at Moncton, N.B.
13866	Jan. 1, 1900.	Westinghouse Air Brake Co.	Supply air brakes and signal materials.
13867	June 21, 1900.	L. A. Cloutier.	Paint buildings and bridges in Districts 1 and 3.
13868	" 21, 1900.	Alphonse Caron.	" " District 4.
13869	" 28, 1900.	W. S. Kinnear & R. F. Kinnear.	" " Districts 5, 6, 7 and 8.
13870	" 21, 1900.	H. J. Walsh.	" " District 9.
13871	" 21, 1900.	S. Venoit.	" " Districts 12 and 13.
13872	" 21, 1900.	A. McDonald.	" " District 14.
13873	" 16, 1900.	Town of Sydney	Construct level crossing at Whitney Avenue, Sydney, C.B.
13728	Jan. 6, 1900.	Simmons & Burpee.	Erect an extension of cribwork at Mulgrave, N.S.

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No. 2.—CONTRACTS entered into during the Fiscal Year ended June 30, 1900.—*Con.*

BEAUHARNOIS CANAL.

No. of Contract.	Date of Signature.	Contractors.	General Description.
13656	Nov. 6, 1899.	Dominion Bridge Co., Ltd.	Construct swing bridge at St. Timothée.
13658	Oct. 31, 1899.	Dussault & Pageau	" protection wall from McKee's Point to Wood's Creek.
13672	" 31, 1899.	Quinlan, Phippen & Robertson	" stone wall between Coteau Landing and St. Zotique.

CORNWALL CANAL.

13625	Oct. 18, 1899.	J. & R. Miller	Construct guide piers at lock 20.
13634	Sept. 28, 1899.	Weddell & McAuliff	Improvements at upper entrance of canal.

CHAMBLY CANAL.

13671	Oct. 31, 1899.	Napoleon Trahan & Cie	Construct stone walls around head of St. Thérèse Island.
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LACHINE CANAL.

13632	Oct. 18, 1899.	John B. de Lorimier	Rebuild portions of the slope walls of canal.
13789	Mar. 27, 1900.	Farand & Delorme	Construct 2 lighthouses at Lachine.
13801	Apr. 18, 1900.	Michael J. Hogan	Enlarge regulating weir at Lachine.

RIDEAU CANAL.

13652	Nov. 11, 1899.	John Burns	Reconstruct dredge <i>Rideau</i> .
13659	" 18, 1899.	Timothy F. Delaney	Deepen upper rock cut at Kilmarnock Lock Station.
13768	Mar. 13, 1900.	Mathew Ryan	Supply timber for the year 1900-1901.

SAULT STE. MARIE CANAL.

13675	Oct. 31, 1899.	Hickler Bros.	Deepen channel way forming lower entrance of canal.
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SOULANGES CANAL.

13627	Oct. 23, 1899.	Bellhouse, Dillon & Co	Supply 3,000 brls. Portland cement.
13631	" 23, 1899.	Manning & McDonald	Letting of a dredge, tug and scows for use on canal.
13795	Apr. 2, 1900.	Dominion Bridge Co., Ltd	Supply and erect 7 pairs of automatic gates.
13849	May 19, 1900.	Bellhouse, Dillon & Co	" 1,700 brls. Portland cement.
13789	Mar. 27, 1900.	Farand & Delorme	Construct 4 lighthouses.

SESSIONAL PAPER No. 20

No. 2—CONTRACTS entered into during the Fiscal Year ended June 30, 1900.—*Con.*

TRENT CANAL.

No. of Contract.	Date of Signature.	Contractors.	General Description.
13577	Oct. 10, 1899.	The Rathbun Co.....	Supply 12,000 brls. Portland cement.
13673	" 12, 1899.	David Conroy	Construct 2 concrete piers at Rosedale.
13773	Jan. 15, 1900.	Corry & Laverdure.....	Excavate walls for hydraulic lift lock at Peterborough.
13825	June 1, 1900.	Arthur H. Rowley	Supply 5,000 brls. Portland cement.

WELLAND CANAL.

13749	Feb. 17, 1900.	Cunningham & Cuthbert . . .	Supply iron castings for 1900.
13750	" 15, 1900.	John McLean.	" timber and lumber for 1900.
13756	" 17, 1900.	Dean Bros	" brass and phosphor bronze castings for 1900.
13767	" 23, 1900.	P. D. Gordon & Co.	" timber for 1900
13792	Apl. 5, 1900.	Rowan & Elliott.....	Construct substructure and approaches of a swing bridge on line of concession 4, Humberstone Tp.
13807	May 4, 1900.	Hogan & MacDonell.....	Improve Port Colborne entrance.
13830	" 21, 1900.	Hamilton Bridge Works Co.	Construct and erect superstructure of a swing bridge on line of concession 4, Humberstone Tp.

WILLIAMSBURG CANALS.

13564	Sept. 5, 1899.	Dominion Bridge Co., Ltd..	Remove Sault Ste. Marie swing bridge to Galops Canal and erect it thereat.
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DOMINION SURVEY.

13644	Oct. 26, 1899.	William H. Bose	Wintering of 23 heads of mules and horses.
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ST. LAWRENCE RIVER.

1376	Feb. 2, 1900.	Waterous Engine Works Co., Ltd	Deliver marine engines and a Clyde boiler for use on the Galops Canal.
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OTTAWA, October 12, 1900.

GERARD RUEI,
Law Clerk.

64 VICTORIA, A. 1901

No.

GENERAL

SHOWING Water Power and other Public Property leased by the Department

No. of Lease.	Date of Signature.	Term of Lease.	Lessees.	Property Leased.
<i>Intercolonial Railway.</i>				
13636	Sept. 1, '99	1 year.....	Sydney Grey	Privilege to sell newspapers, &c., on trains and stations of P. E. I. Ry.
13638	" 28, '99	10 years.....	John C. McNeil	Part Intercolonial property at Grand Narrows, N. S.
13674	Nov. 4, '99	During pleasure.	Lazare Lefebvre to the Queen.	Right to lay pipes, &c., over his lands to draw water to the railway water tank at St. Apollinaire, Que.
13763	Dec. 26, '99	5 years.....	Canadian Express Co....	Right to carry on a general freight and transportation business on railway, &c.
<i>Chambly Canal.</i>				
13646	Oct. 27, '99	During pleasure.	Jules Audette	Land on canal wharf at St. Johns.....
13740	Jan. 3, '00	" ..	St. Johns Electric Light Co., Ltd.	Right to erect a line of poles with wires to transmit electric current.
<i>Cornwall Canal.</i>				
13611	Aug. 18, '99	" ..	Ambrose F. Mulhern....	Parcel of land on south side of Water St..
13774	Jan. 17, '00	21 years, renewable.	Town of Cornwall.....	Parts of lots 12 and 13, concession 1, Township of Cornwall, County of Stormont.
<i>Lachine Canal.</i>				
13604	Aug. 20, '99	During pleasure.	Ferdinand Tremblay ...	Privilege to draw water at St. Gabriel basin No. 3.
13605	Sept. 1, '99	" ..	V. E. Traversy & Co....	Space in St. Gabriel shed No. 2, on N. E. side of new St. Gabriel basin No. 2.
13637	" 15, '99	" ..	Grand Trunk Ry. Co. of Canada.	Privilege to lay a siding on N. side of canal to Merchant's cotton factory in St. Henri.
13651	Nov. 1, '99	" ..	" ..	Privilege to extend their track 660 ft. from foundry of W. Clendenning & Son, along canal.
13662	" 23, '99	" ..	City of Montreal.....	Parcel of land in Montreal for a public park.
13663	" 13, '99	" ..	" ..	Parcel of land in Montreal for a public bath.
13687	" 9, '99	" ..	Wilfrid Marsan.....	Parcel of land at lock No. 2.....
13741	Jan. 1, '00	" ..	The Chambly Mfg. Co....	Privilege to erect 15 poles with wires.....
13764	Feb. 22, '00	" ..	Montreal Street Ry. Co..	Privilege to lay a 30-inch pipe, &c., at St. Gabriel basin No. 1.
13780	Mar. 21, '00	10 years, renewable.	Edward Cavanagh Co....	Wharf lots 1, 2 and 3, south-eastern side of Wellington basin.
13781	" 5, '00	During pleasure.	Lawrence & Robitaille ..	Storage lots 1 and 2, west of St. Gabriel basin No. 4.

SESSIONAL PAPER No. 20

3.

STATEMENT

of Railways and Canals during the Fiscal Year ended June 30, 1900.

Area.	For what purpose used.	Amount of Water Power.	Date from which Lease is reckoned.	TERMS OF PAYMENT.			Remarks.
				Annual Rental.	When due each year.	When first instalment was due.	
				\$ cts.			
			Sept. 1, '99	360 00	On the 5th day of each month, \$30.		
0.11 acres.	Railway restaurant.		May 1, '98	10 00	June 30.	Sept. 28, '99	
			Nov. 1, '99	25 00	\$12.50 half-yearly on Nov. and May 1.	Nov. 1, '99	
			Dec. 1, '99	40 p. c. of gross receipts paid monthly.	Monthly.		
5,000 sq. ft.	Storing coal.		Oct. 1, '99	48 00	Oct. 1.	Oct. 1, '99	
			Jan. 1, '00	1 00	Jan. 1.	Jan. 1, '00	
0.37 acres.	Storing coal.		Oct. 1, '99	40 00	Oct. 1.	Oct. 1, '99	
19.65 "	Iron, wood, cotton, &c., manufactories		Jan. 17, '00	100 00	Jan. 17.	Jan. 17, '00	
	Factory purposes.		Sept. 1, '99	20 00	Sept. 1.	Sept. 1, '99	
100 ft. x 40 ft.	Storing lumber		" 1, '99	100 00	"	" 1, '99	
			Oct. 1, '99	1 00	Oct. 1.	Oct. 1, '99	
	Receive or deliver goods to Colonial Bleaching Co		Nov. 1, '99	10 00	Nov. 1.	Nov. 1, '99	
15,682 sq. ft.			Oct. 1, '99	1 00	Oct. 1.	Oct. 1, '99	
9,276 "			Nov. 1, '99	1 00	Nov. 1.	Nov. 1, '99	
400 "	Weigh scales.		Sept. 1, '99	20 00	Sept. 1.	Sept. 1, '99	
	Transmission of electricity		Jan. 1, '00	1 00	Jan. 1.	Jan. 1, '00	
	Condensing purposes and generating steam.		Aug. 25, '97	500 00	Aug. 25.	Aug. 25, '97	
2.37 acres.	Storing of goods, &c.		May 1, '00	622 50	May and Nov. 1.	May 1, '00	
19,046 sq. ft.	Storing lumber		Jan. 1, '00	380 92	Jan. 1.	Jan. 1, '00	

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No. 3.—GENERAL STATEMENT showing Water Power and other Public

No. of Lease.	Date of Signature.	Term of Lease.	Lessees.	Property Leased.
	1900			<i>Lachine Canal—Con.</i>
13782	Mar. 6, '00	30 years	Thomas A. Trenholme	Lots 950, 964 and 1004, and parts of lots 1005 and 3605, in the parishes of Lachine and Montreal.
13783	" 16, '00	During pleasure.	Montreal Sand & Gravel Co.	Wharf lots at head of and on the eastern side of St. Gabriel basin No. 1.
13784	Feb. 20, '00	"	"	Lots 23 and 24 on western side of St. Gabriel basin No. 2.
13785	" 20, '00	"	"	Wharf lot at head of St. Gabriel basin No. 2.
13790	Mar. 19, '00	"	Montreal Gas Co.	Privilege to lay gas pipes under canal.
13821	April 21	"	The Consumers Cordage Co., Ltd.	Privilege to lay a 6-in. iron pipe and to take water from canal.
13850	May 3	"	The Canada Paint Co.	Privilege to lay a 3-in. pipe and to take water from canal.
	1899.			<i>Rideau Canal.</i>
13576	Sept. 1	During pleasure.	A. Foster.	Privilege to extend his present wharf into the basin at Smith's Falls, and to erect a coal shed.
13624	Aug. 28	21 years	Pontiac Pacific Junction Ry. Co. and Ottawa & Gatineau Ry. Co.	Certain lands within the limits of the city of Ottawa, in the vicinity of and along canal.
13708	1900. Jan. 9	"	J. R. Booth	Two parcels of land, parts lot 'M,' concession 'B.'
	1899.			<i>Sault Ste. Marie Canal.</i>
13593	Aug. 3	21 years	The Lake Superior Power Co.	Parcel of land in town of Sault Ste. Marie.
				<i>Soulanges Canal.</i>
13612	Oct. 2		S. Hudon, P.P., to Govt.	Shed at Rockland, Ont.
				<i>Trent Canal.</i>
13654	Sept. 21	When metal work is delivered.	Dominion Bridge Co., Ltd., to Govt.	Part of storage yard at Lachine
13683	Nov. 7	During pleasure.	Francis Sandford	Part block 'K' and south-west part Cameron lot, and part lot 7, south of Francis St., Fenelon Falls.
13693	" 15	"	The Trent Valley Peat Fuel Co., Ltd.	Part lot 60, south of Portage Road, in Township of Eldon.
13751	1900. Feb. 22	20 years	John A. Culverwell	Privilege to use water power at Perry's Creek, and to remove Govt. dams for that purpose.
	1899.			<i>Welland Canal.</i>
13498	Sept. 5	During pleasure.	R. Cooper	Parcel of land in town of Welland.
13615	Aug. 29	10 years	Chester Tufts	Part lot 26, con. 5, Township of Crowland, and privilege to erect a wharf thereat.
13629	Oct. 18	21 years	A. & W. Muir	Two parcels of land above lock No. 1, old canal, with surplus water.
13630	Aug. 4	During pleasure.	Town of Thorold	Privilege to lay an electric cable under canal at Thorold, Ont.
13670	Nov. 22	"	Dunnville Natural Gas Co., Ltd.	Privilege to lay a 2-in. gas pipe across bottom of canal at Dunnville, Ont.
13694	Dec. 30	"	Henry D. Symmes	Privilege to lay 3 electric cables under canal.

SESSIONAL PAPER No. 20

Property Leased by the Department of Railways and Canals, &c.—*Concluded.*

Area.	For what purpose used.	Amount of Water Power.	Date from which Lease is reckoned.	TERMS OF PAYMENT.			Remarks.
				Annual Rental.	When due each year.	When first instalment was due.	
				8 cts.			
81 arp.72 per.	Farming		May 1, '99	81 00	May 1	May 1, '99	
8,675 sq. ft.	Storing of sand		April 1, '00	130 00	April 1	April 1, '00	
43,740 "	"		" 1, '00	656 00	" 1	" 1, '00	
5,250 "	"		" 1, '00	78 00	" 1	" 1, '00	
			" 1, '00	30 00	" 1	" 1, '00	
	Boilers.....		May 1, '00	60 00	May 1	May 1, '00	
	"		" 1, '00	30 00	" 1	" 1, '00	
			Sept. 1, '99	7 00	Sept. 1	Sept. 1, '99	
	Railway, &c.....		" 1, '99	100 00	" 1	" 1, '99	
2.6 } 3.6 } acres.	Farming		Jan. 1, '00	6 25	Jan. 1	Jan. 1, '00	
1.38 acre.			Aug. 1, '99	25 00	Aug. 1	Aug. 1, '99	
	Storing of tools, &c.		Oct. 2, '99	1 50	Per month		
			" 1, '99	1 00	At end of term.....		
$\frac{1}{2}$ } $\frac{1}{80}$ } acres.	Manufacturing works and to erect an office thereon.....		July 1, '99	16 00	July 1	July 1, '99	
14.55 acres.	Cut, &c., peat and moss.....		Nov. 1, '99	14 50	Nov. 1	Nov. 1, '99	
			Dec. 1, '99	1 00	Dec. 1	Dec. 1, '99	
0.13 acre.	Erect a store-house.....		June 1, '99	20 00	June 1	June 1, '99	
1.66 "			Sept. 1, '99	20 00	Sept. 1	Sept. 1, '99	
0.75 } 0.25 } acre.			Jan. 1, '99	100 00	Jan 1	Jan. 1, '99	
			Aug. 1, '99	5 00	Aug. 1	Aug. 1, '99	
			Oct. 1, '99	5 00	Oct. 1	Oct. 1, '99	
			May 1, '99	15 00	May 1	May 1, '99	

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No. 3.—GENERAL STATEMENT showing Water Power and other Public

No. of Lease.	Date of Signature.	Term of Lease.	Lessees.	Property Leased.
	1900.			<i>Welland Canal—Con.</i>
13705	Jan. 4..	During pleasure.	Packard Electric Co., Ltd.	Privilege to place temporary gates at the spill-way near end of Co.'s race-way.
13796	April 3..	" ..	Niagara, St. Catharines and Toronto Ry. Co.	Privilege to lay 3 electric cables across bottom of canal at Co.'s swing bridge.
13822	" 30..	21 years, renewable.	Port Dalhousie Village..	Land and water-power at Port Dalhousie, Ont.
13832	May 8.. 1899.	During pleasure.	William Thomson	Land west of the West Pier at Port Dalhousie, Ont.
13833	Dec. 1.. 1900.	" ..	James A. Stewart <i>et al.</i> ..	Privilege to lay a 2-in. syphon pipe over east bank of canal at upper end of lock 16.
13843	June 1.. 1899.	10 years	Henry J. Johnston.....	Land on east side of old canal, below lock 2, St. Catharines, Ont.
13862	Dec. 27..	During pleasure.	Arthur L. Bradley <i>et al.</i> ..	Privilege to lay a 2-in. syphon pipe between locks 15 and 16.
	1900.			<i>Williamsburg Canals.</i>
13815	May 10..	21 years, renewable.	Village of Morrisburg...	Parcel of land at lock 23, Morrisburg, and surface water, Rapide Plat Canal.

OTTAWA, October 12, 1900.

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Property Leased by the Department of Railways and Canals, &c.—Continued.

Area.	For what purpose used.	Amount of Water Power.	Date from which Lease is reckoned.	TERMS OF PAYMENT.			Remarks.
				Annual Rental.	When due each year.	When first instrlment was due.	
				8 cts.			
0.80 acre.	Electric power and telegraph. Manufacturing establishm'ts.	500	April 1, '00	10 00	April 1.....	Apl. 1, '00	
0.38 acre.			May 1, '00	Land 60 00 Pr h p 2 00	Dec. and May 1.	Dec. 1, '00	
			" 1, '00	40 00	May and Nov. 1.	May 1, '00	
0.30 acre.	To water cattle, &c.		Dec. 1, '99	5 00	Dec. 1.....	Dec. 1, '99	
			June 1, '00	15 00	June 1.....	June 1, '00	
	To water cattle, &c.		Jan. 1, '00	3 00	Jan. 1.....	Jan. 1, '00	
0.16 acre.		250	Sept. 1, '00	Land 40 00 Pr h p 2 00	Sept. and Mar. 1	Sept. 1, '00	

GERARD RUEL,
Law Clerk.

No.

PROPERTY conveyed and damages released to the Department of

No. of Deed.	Date of Signature.	Grantor.	Lot.	District.
<i>Canadian Pacific Railway.</i>				
13655	Mar. 15, '99	John Murray	Pt. Lot 1, Block 3	New Westminster
13770	Feb. 22, '93	Mary Howison	" 397, Group I	"
13771	Dec. 19, '96	Alice Smith Place <i>et al.</i>	" 13, " Lytton Div.	Yale
13776	Feb. 28, '93	Peter Baker	" 405, "	New Westminster
13777	Aug. 11, '94	Samuel Robertson	" (275) "	"
13778	" 15, '92	Charles McDonough	" 18, Block 1, Pt. Moody, being subdivision of Lot 203, Group I	"
13779	Oct. 21, '92	Ernest V. Bodwell, administrator E. V. Bodwell	12, Block 9, Port Moody, being subdivision of Lot 202, Group I	"
<i>Intercolonial Railway.</i>				
13664	Nov. 4, '99	Eliza Knight		
13682	May 10, '98	St. John Terminal Ry. Co.	Long Wharf Property, lying between S. side of Main st. and Harbour line, etc.	St. John City
13744	Nov. 7, '99	Drummond County Ry. Co.		
13835	June 6, '00	Helen Roy, <i>et al.</i>		
<i>Beauharnois Canal.</i>				
13584	Aug. 8, '00	Hector Langevin		
13585	" 8, '99	Belonnie Poirier		
13586	" 8, '99	Felix Pilon		
13587	" 8, '99	Mathias Godin		
13588	" 8, '99	Olier Marchand		
13589	" 8, '99	Antoine Miron		
13590	" 8, '99	Joseph Auger		
13591	" 8, '99	Amedée Pilon		
<i>Cornwall Canal.</i>				
13709	Jan. 13, '00	John G. Snetsinger		
13797	Apr. 10, '00	Roman Catholic Corporation for the Diocese of Alexandria.	Pt. Lot 7, Con. 1	Osnabruck
13823	May 23, '00	Wm. Ira Brown, <i>et ur.</i>	" 6, "	
13841	" 8, '00	Ellen M. Baker	Part W $\frac{1}{2}$ Lot 7, Con. 1	
<i>Lachine Canal.</i>				
13597	Sept. 6, '99	Heney & Borthwick		
13686	Dec. 9, '99	Adelard Bourdon		
<i>Rideau Canal.</i>				
13649	Oct. 25, '99	Lawrence J. Gemmill		
<i>Sault Ste. Marie Canal.</i>				
13710	Jan. 4, '00	Hugh Ryan & Co., <i>et al.</i>		

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4.

Railways and Canals during the Fiscal Year ended June 30, 1900.

County.	Area.	Amount.	Remarks.
		\$ cts.	
	0 13 acre.. . . .	147 00	Too late for last year's Report.
	8 43 acres.....	376 63	" "
	0 43 acre.....	200 00	" "
	7 58 acres.....	818 75	" "
	{ 14 61 }	2,167 43	" "
	{ 4 18 }		
	4,554 sq. ft.....	1 00	" "
	8,712 sq. ft.....	2 20	" "
		400 00	Release for dower.
St. John	7 68 acres....	100,000 00	Too late for last year's Report.
		1,464,000 00	Line of railway extending from Ste. Rosalie to Chaudière, and branch extending from St. Leonard to Nicolet.
		550 00	Release for damages as set forth in a Petition of Right filed in Exchequer Court of Canada on Aug. 2, 1899.
		180 00	Release for damages to his lands, etc., caused by steamer 'Sir S. L. Tilley' in breaking gates of Lock 12.
		45 00	" "
		225 00	" "
		100 00	" "
		15 00	" "
		12 00	" "
		8 00	" "
		75 00	" "
		{ Int. 8,000 00	{ Release for damages by reason of loss of
Stormont.....	0 2 acre. . . .	3,000 00	{ water power and land leased.
		575 00	
	0 31 "	100 00	
	0 36 "	915 00	
		8,932 86	Release for claims in connection with contract dated June 25, 1891.
		39 58	Release for damages to barge 'Caroline,' colliding with a scow controlled by Her Majesty.
		2,750 00	Release for damages to his mills at Port Elmsley by diversion of River Tay.
		800 00	House on canal reserve.

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No. 4.—PROPERTY conveyed and damages released to the Department

No. of Deed.	Date of Signature.	Grantor.	Lot.	District.
				<i>Soulanges Canal.</i>
13747	Jan. 23, '00	Archibald Stewart <i>et ux</i> , From the Queen.	{ Pts. Lot 'A,' Con. 8. Pt. of W. of the N. pt. L. 'A,' C. 8 " Lot 'B,' Con. 8. " " " " 9. " " 'C,' " 9. }	Clarence
				<i>Trent Canal.</i>
13643	Oct. 6, '99	Canadian Pacific Ry. Co. From the Queen.	Pts. Lots 26 & 27, 18 & 19 and pt. Block W.	Ashburnham Village
13706	Jan. 3, '00	Henry Cox	Lot 30, Con. 12	Otonabee
13707	" 10, '00	Toronto Gen. Trusts Co..	"	"
13736	Feb. 7, '00	Can. Bk. of Commerce ..	Pts. Lots 6 & 5, Con. 11	Douro
13772	" 7, '00	B. W. McDonnell	Pt. Lot 22, Con. 4.	Smith
13799	Mar. 22, '00	David Wright, <i>et ux</i>	Pts. Lots 57, 58 & 59.	Eldon
13834	June 1, '00	Alex. C. Graham, <i>et ux</i> ..	" Lot 32, Con. 11.	"
13854	Dec. 30, '99	Ellen Crowley, <i>et al.</i> ..	" " 7 " 10.	Douro
				<i>Welland Canal.</i>
13562	July 20, '99	John Read .....	.....	.....
13607	Sept. 6, '99	Methodist Church	Pts. Lots 4 & 5, Huft Tract	North Cayuga
				<i>Williamsburg Canal.</i>
13563	July 27, '99	James Begg	Pt. Lot O, S. side new canal ...	Cardinal
13572	" 28, '99	Elizabeth Hawley	Pts. Lot P & Q, N. side of Dun- das st.	"
13575	" 22, '99	Chas. C. Farran (heirs C. C. Farran).	.....	.....
13606	Sept. 8, '99	Walter A. Weston	Pt. W $\frac{1}{2}$, Lot 26, Con. 1 and pt. W $\frac{1}{2}$ of E $\frac{1}{2}$, Lot 26.	Matilda
13614	Aug. 19, '99	Sophia Bush, <i>et al.</i>	Pt. Lot 9, W. side of West st., and pt. Lot 27, N. side of Dun- das st.	Cardinal
13619	" 19, '99	John Gilligan, <i>et al.</i>	Pt. Lot 26, W. side of Waddell st.	"
13626	Oct. 5, '99	Thomas Ranns, <i>et ux</i>	" 6, E. side of West st.	"
13622	Sept. 19, '99	John Kavanagh, <i>et ux</i>	" 7, W. side of Walter st.	"
13699	Dec. 11, '99	Andrew Ferguson	" 26, N. side of Elgin st.	"
13711	" 30, '99	Barbara L. Lambert (Lambert Estate).	Pts. Lots 24 & 25, N. side Lam- bert st.	"
13714	" 2, '99	William Gibson .....	.....	.....
13721	Oct. 14, '99	Geo. A. Shaver	Pt. Lot 12, S. side of Elgin st. ...	Cardinal
13733	Dec. 28, '99	Edwardsburg Starch Co.	.....	.....
13743	Jan. 24, '00	Agnes Duval .....	.....	.....
13759	Aug. 19, '99	John Ferney, <i>et ux</i>	Pt. Lot 20, E. side of Waddell st	Cardinal
13827	May 8, '00	James A. McCullough, <i>et al.</i>	Lot 1, Block 7.	Iroquois
13828	" 8, '00	Micheli Battista	Pt. Lot 1, Block 7.	"
13829	" 8, '00	William Patton	" "	"
13842	" 25, '00	William N. Barrie	" 7, Block F, and pt. Roman Catholic Church Lot, Block E.	Morrisburg

OTTAWA, October 12, 1900.

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Railways and Canals during the Fiscal Year ended June 30, 1900—Continued.

County.	Area	Amount.	Remarks.
Russell	(1.49 acre.) (0.46 ") 3.5 acres (0.22 acre.) (18.07 acres)	8 cts. 1 00	Special grant.
Peterborough	0.47 acre.		Special grant.
"			Release as tenant as per judgment of the Exchequer Court.
"			Release as per judgment of Exchequer Ct.
"	(3.22) (21.61) acres	20,000 00 And interest from July 27, 1895.	
"	5.42 "	180 00	
Victoria	30.61 "	368 00	
"	3.28 "	40 00	
Peterborough	1.36 "	50 00 And interest.	
		899 12	Release for damages to Schr. 'Wawanosh.'
Haldimand	(0.75) (0.53) acre	118 00	" "
Grenville	0.050 "	780 00	
"	0.131 "	1,300 00	
		17,370 00	Right of water power and flume and whatever lands not conveyed by deed, March 26, 1898, granted them by Letters Patent, July 20, 1858.
		(Int. 1,436 23	
Dundas		350 00	Release for damages as tenant.
		(Int. 21 40	
Grenville	0.94 "	1,125 00	
"	0.155 "	800 00	
"	0.038 "	800 00	
"	0.079 "	475 00	
"	0.06 "	55 00	
"	0.117 "	950 00	
		50 00	Receipt for rent of building in Farran's Point, and damages.
Grenville	0.55 "	625 00	
		13,500 00	Release for damages caused by the pollution of the water of Riv. St. Lawrence.
		38 00	Release of dower in property conveyed by deed No. 13,321.
Grenville	0.074 "	875 00	
Dundas		225 00	Release, damages.
"		175 00	" " as tenant.
"		125 00	" " "
"	(0.0121) (0.051)	800 00	

PART V
CANAL STATISTICS

CANAL STATISTICS

FOR

SEASON OF NAVIGATION 1899.

REVENUE.

The total revenue, exclusive of hydraulic rents for two years, is as follows :—

For 1898.	\$341,679.23
For 1899.	291,652.37

By comparing the statistics of 1898 with 1899, it will be seen that the gross revenue has decreased \$50,026.86.

The increases and decreases are as follows :—

	Increase.	Decrease.
On the Welland Canal		\$ 50,605 28
" St. Lawrence Canals		6,111 21
" Chambly Canal	\$ 6,674 04	
" Ottawa Canals		1,545 22
" Rideau Canal	1,127 21	
" St. Peters Canal	267 01	
" Trent Valley Canals.	136 11	
" Murray Canal	30 48	
" Sault Ste. Marie Canal		
Total	\$ 8,234 85	\$ 58,261 71
Total decrease		50,026 86

STATEMENT of the Revenue, together with the increases and decreases of all the Canals for the seasons of Navigation from 1890 to 1899, inclusive.

Years.	Revenue.	Increase.	Decrease.
1890	\$ 338,059 51		\$ 33,049 80
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

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 24, 1899, authorized a reduction of canal tolls, as follows :—

For the season of 1899 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

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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 $2\frac{1}{2}$ 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 1899.

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 \$42,687.70.

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 eighteen years is as follows:—

QUANTITY PASSED DOWN TO MONTREAL.	QUANTITY ON WHICH FULL TOLLS WERE PAID.		
	To Ports in Ontario.	Quantity from U.S. Ports to U.S. Ports.	
	Tons.	Tons.	Tons.
1882	180,694		63,881
1883	186,814	10,650	121,876
1884	142,194	12,153	104,537
1885	96,569	11,909	117,346
1886	203,940	9,881	151,551
1887	185,034	11,838	134,868
1888	160,358	25,589	169,664
1889	267,769	19,075	213,766
1890	288,513	16,899	245,932
1891	295,509	6,805	202,710
1892	261,954	8,942	201,540
1893	501,806	25,555	222,958
1894	273,651	16,699	203,979
1895	231,491	32,096	133,823
1896	461,049	73,386	160,372
1897	560,254	53,257	157,756
1898	519,532	31,279	144,612
1899	332,746	40,197	68,011

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.

* 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, and in 1899, 48,823 tons.

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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.

The rate through the St. Lawrence Canals only, was 10 cents a ton.

It may be remarked that goods having paid full tolls on the Welland Canal are allowed to pass down the St. Lawrence Canals to Montreal free from payment of any further tolls.

During the last decade the quantity of agricultural products as above, passed down the Welland and St. Lawrence Canals to Montreal, has increased from 288,513 tons in 1890 to 332,746 tons in 1899; and the quantity passed down the Welland Canal from United States ports to United States, has decreased from 245,932 to 68,011 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 1887	191,760
1888	113,794
1889	94,943
1890	119,208
1891	184,410
1892	291,680
1893	147,610
1894	60,666
1895	51,114
1896	153,717
1897	228,611
1898	293,391
1899	209,170

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 1887	237,881
1888	166,191
1889	275,414
1890	242,571
1891	320,434
1892	302,899
1893	532,084
1894	288,015
1895	247,550
1896	495,898
1897	604,200
1898	575,097
1899	372,291

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Comparative shipments of grain by the St. Lawrence route, and rail and water via the state of New York, are as follows:—

QUANTITY OF GRAIN TO SEA-BOARD BY COMPETING ROUTES.

The quantity of grain and pease passed down the whole length of the St. Lawrence Canals to Montreal, is as follows:—

	Tons.
For 1898.....	575,097
1899.....	372,291
	<hr/>
Showing a decrease of.....	202,806

The quantity of grain and pease carried to Montreal via Canadian Pacific and Grand Trunk Railways, is reported as follows:—

	Tons.
For 1898.....	293,391
1899.....	209,170
	<hr/>
Showing a decrease of.....	84,221

The quantity of grain arrived at tide-water by New York Canals, is reported as follows:—

	Tons.
For 1898.....	459,404
1899.....	416,700
	<hr/>
Showing a decrease of.....	42,704

The quantity of grain carried to tide-water by the New York railways, is reported as follows:—

	Tons.
For 1898.....	5,371,500
1899.....	4,642,952
	<hr/>
Showing a decrease of.....	728,548

The increases and decreases for 1899 as compared with 1898 on the several routes, competing for the carrying trade to the seaboard, are as follows:—

	Increase.	Decrease.	Increase. per cent.	Decrease.
On the St. Lawrence Canals.....		202,806		34.48
do Canadian Pacific and Grand Trunk Railways.....		84,221		40.26
do New York Canals.....				10.25
do do Railways.....		728,548		15.69

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 238,467 tons in 1888 to 172,738 tons in 1899, and the quantity to Ontario ports, between Port Dalhousie and Cornwall, has decreased from 113,801 tons in 1888 to 108,958 tons in 1899. The quantity passed down to Montreal shows an increase from 183,899 tons in 1888 to 354,485 tons 1899.

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TRANSHIPMENT OF GRAIN.

The quantity of grains passed down the Welland Canal in Canadian and United States vessels to Kingston and Prescott for fourteen years, is as follows:—

In Canadian vessels there were in—

		Tons.
1886,	244 Cargoes, with an aggregate quantity of	143,330
1887,	284 do do	178,233
1888,	182 do do	143,025
1889,	208 do do	165,117
1890,	203 do do	184,275
1891,	209 do do	190,664
1892,	158 do do	159,018
1893,	146 do do	148,962
1894,	125 do do	159,145
1895,	123 do do	136,617
1896,	196 do do	227,912
1897,	180 do do	229,265
1898,	166 do do	224,021
1899,	162 do do	221,306

In United States vessels there were in—

		Tons.
1886,	97 Cargoes, with an aggregate quantity of	62,222
1887,	19 do do	12,477
1888,	60 do do	43,667
1889,	114 do do	108,358
1890,	35 do do	35,560
1891,	77 do do	90,153
1892,	89 do do	109,812
1893,	257 do do	328,269
1894,	84 do do	106,236
1895,	56 do do	73,987
1896,	158 do do	217,978
1897,	197 do do	285,847
1898,	339 do do	464,852
1899,	167 do do	205,571

Two vessels took cargoes of 558 tons through to Montreal intact in 1899, seven of 2,426 in 1898, seven of 2,324 in 1897, three of 1,176 in 1896, four of 1,344 tons in 1895, two cargoes of 810 tons in 1894, none in 1893, two in 1892 of 924 tons, and three in 1891 of 1,441 tons. Twenty-five vessels lightened a portion of their cargoes in 1898, against 11 in 1897, 16 in 1896, 6 in 1895, 19 in 1894, 34 in 1893, 25 in 1892, and 44 in 1891; 473 vessels discharged the whole of their cargoes at Kingston in 1898, against 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 1898 and the four previous years is given below.

The total number of grain laden vessels lightened at this port in 1899 was 86, against 58 the previous year.

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The quantity of grain lightened was as follows :—

Articles.	1895.	1896.	1897.	1898.	1899.
	Bush.	Bush.	Bush.	Bush.	Bush.
Wheat.....	322,662	660,190	642,927	239,518	390,162
Corn.....	870,765	908,833	697,568	313,689	638,143
Rye.....	Nil	8,197	Nil	37,380	7,065
Oats.....	71,648	79,585	12,527	Nil	Nil
Barley.....	21,003	6,377	5,119	5,669	Nil

WELLAND CANAL.

The total quantity of freight passed on the Welland Canal during the season of 1899 was 789,770 tons ; of this quantity 20,152 tons were way or local freight.

There were 637,268 tons of freight passed eastwards, and 152,502 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 1899 was 769,618 tons.

Of this quantity 622,104 tons were east bound and 147,514 west bound freight.

Of the east bound through freight Canadian vessels carried 297,084 tons and United States vessels carried 325,020 tons ; and of the west bound through freight Canadian vessels carried 12,462 tons, and United States vessels carried 135,052 tons, or a total of 309,546 tons for Canadian and 460,072 tons for American vessels.

ST. LAWRENCE CANALS.

The total quantity of freight passed through these canals during 1899 was 1,349,093 tons, of this quantity 1,137,665 tons passed eastward and 211,428 past westward.

East and west bound through freight.

The total quantity of through freight was 639,264 tons ; of this quantity 609,454 tons were east bound and 29,810 tons were west bound.

Way freight.

Of the total quantity of (way) or local freight 528,211 tons were east bound and 181,618 tons west bound freight.

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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.
1885.....	132,968	16,115
1886.....	244,514	16,801
1887.....	213,834	14,075
1888.....	183,899	19,310
1889.....	298,197	25,370
1890.....	231,746	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.....	480,077	10,050
1897.....	584,246	4,542
1898.....	538,108	4,436
1899.....	354,933	5,991

FREIGHT FROM UNITED STATES PORTS TO UNITED STATES PORTS.

The total quantity of freight passed eastward and westward through the Welland Canal, from United States ports to United States ports, for a period of fifteen years, is as follows :—

	Eastward. Tons.	Westward. Tons.	Total. Tons.
1885.....	168,212	216,297	384,509
1886.....	224,916	239,562	464,478
1887.....	189,427	151,074	340,501
1888.....	221,062	213,689	434,751
1889.....	297,353	266,231	563,584
1890.....	318,259	215,698	533,957
1891.....	306,257	247,543	553,800
1892.....	300,733	240,332	541,065
1893.....	384,559	247,108	631,667
1894.....	361,319	230,948	592,267
1895.....	255,259	214,520	469,779
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

The total quantity of freight passed through the Welland Canal from United States ports to United States ports shows a decrease of 127,010 tons, as compared with the previous year ; and a decrease of 23,980 tons, as compared with 1885.

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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 1899, inclusive :

Fiscal Year.	Aggregate	Total quantity	Quantity
	number of Vessels.	transported on the Welland Canal.	passed from United States ports to United States ports.
	No.	Tons.	Tons.
1867	5,405	933,260	458,386
1868	6,157	1,161,821	641,711
1869	6,069	1,231,903	688,700
1870	7,356	1,311,956	747,567
1871	7,729	1,478,122	772,756
<i>Season of Navigation.</i>			
1872	6,063	1,333,104	606,627
1873	6,425	1,506,184	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	1,068,221	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

The total quantity of freight passed through the several divisions of the canals during the season of 1899 is as follows :—

	Farm Stock.	Forest Produce of Wood.	Manufac- tures.	Merchan- dise.	Agricultural Products.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Welland	10	103,589	45,606	178,042	462,523	789,770
St. Lawrence	1,158	81,951	74,211	380,127	811,616	1,349,093
Chaubly.	273	218,977	13,992	112,338	17,055	362,635
Ottawa	1,283	597,722	308	6,019	4,773	529,105
Rideau	18	37,189	2,623	25,714	1,361	69,905
St. Peters	32	10,673	3,310	47,389	9,400	70,894
Murray	62	1,651	2,448	9,346	3,281	16,788
Trent Valley.	180	38,135	223	1,060	562	40,160

The total quantity of freight moved on the Welland Canal was 789,770 tons, of which 462,523 tons were agricultural products.

On the St. Lawrence Canals the total quantity of freight moved was 1,349,093 tons, of which 811,616 were agricultural products, and 380,127 tons were merchandise.

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On the Ottawa Canals the total quantity of freight moved was 520,105 tons of this quantity 507,722 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 577,486 in 1899, 653,027 in 1898, 744,575 tons in 1897, 957,182 tons in 1896, 602,505 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:—

	Tons.		Tons.
In 1899.	6,211,827	In 1887	*3,847,766
1898.	7,060,542	1886	*3,802,262
1897.	5,673,638	1885	4,105,594
1896.	5,183,540	1884	3,639,805
1895.	3,798,574	1883	4,422,461
1894.	4,281,056	1882	3,885,557
1893.*	5,107,426	1880	4,732,385
1892.	5,913,013	1869	1,087,809
1891.	3,565,381		
1890.	4,336,199		
1889.	3,654,984		
1888.	3,197,734		

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 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.	1,365,550	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.	1,539,493	3,847,766	5,387,169	285
1888.	1,166,958	3,197,734	4,364,692	267
1889.	1,296,896	3,654,984	4,951,880	262
1890.	1,167,901	4,336,199	5,504,100	212
1891.	1,092,355	3,565,381	4,657,736	234
1892.	937,999	5,913,013	6,851,012	137
1893.	1,452,563	5,107,426	6,599,989	284
1894.	1,400,129	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

*Flour and grain only.

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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 :—

In	Per cent.	In	Per cent.
1859.	68·9	1884.	19·0
1869.	47·0	1885.	17·1
1879.	38·9	1886.	16·9
1871.	38·9	1887.	16·3
1872.	40·1	1888.	18·8
1873.	34·9	1889.	15·1
1874.	31·7	1890.	13·9
1875.	28·4	1891.	13·4
1876.	24·6	1892.	9·8
1877.	28·3	1893.	10·1
1878.	27·1	1894.	10·2
1879.	23·7	1895.	9·7
1880.	25·1	1896.	8·5
1881.	18·5	1897.	8·3
1882.	19·0	1898.	6·9
1883.	18·7	1899.	7·2

The quantity of freight carried by the canals and railways was greater in 1899 by 2,391,731 tons than the quantity carried in 1898, and an increase of 46,217,685 tons over 1899.

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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	15,841,152	·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

Average freight rates, grain, Chicago to Buffalo:—(as reported by the Secretary Merchants' Exchange, Buffalo).

Year.	Wheat.	Year.	Wheat.
1880	5·7	1891	2·5
1881	3·2	1892	2·2
1882	2·5	1893	1·6
1883	3·5	1894	1·2
1884	2·1	1895	1·9
1885	2·0	1896	1·7
1886	3·6	1897	1·5
1887	4·1	1898	1·5
1888	2·7	1899	2·5
1889	2·5		
1890	1·9	Average twenty years	2·8

COMPARATIVE STATEMENT of the Commerce through the United States, St. Mary's Falls Canal and Canadian Sault Ste. Marie Canal, for the Seasons of 1898 and 1899.

	TRAFFIC FOR 1899.		TOTAL TRAFFIC FOR		INCREASE.		DECREASE.	
	United States Canal.	Canadian Canal.	Season of 1899.	Season of 1898.	Amount.	Amount.	Amount.	Amount.
Vessels.....	16,480	3,769	20,249	17,733	2,516			
Lockages.....	8,389	2,610	10,999	9,598	1,471			
Tonnage registered	19,021,485	2,948,069	21,969,554	18,029,259	3,940,295			
" freight.....	22,252,139	3,006,664	25,258,803	21,239,438	4,019,365			
Passengers.....	33,661	15,697	49,358	44,142	5,219			
Coal (hard).....	732,213	119,358	851,571	582,633	268,938			
" (soft).....	2,543,397	553,855	3,097,252	3,242,971			145,719	
Flour.....	6,113,013	1,078,668	7,191,681	7,764,073			572,392	
Wheat.....	45,512,364	12,759,318	58,271,682	62,439,904			4,138,222	
" (soft).....	28,341,850	1,737,956	30,079,806	26,139,117	3,940,689			
" (hard).....	17,170,514	1,021,362	18,191,862	20,300,787			2,108,925	
" (other).....	216,018	7,638	223,656	250,805			27,149	
" (other).....	271,569	47,737	319,306	304,153	15,353			
Manufactured and pig iron	115,643	5,103	120,746	121,918			1,172	
Copper.....	13,653,225	1,080,064	14,733,289	11,672,855	3,060,434			
Iron ore.....	1,024,675,000	7,927,000	1,032,602,000	898,787,580	133,814,420			
Lumber.....	487		487					
Silver ore.....	38,863	1,239	40,102	7,163	32,939			
Building stone.....	593,335	81,323	674,658	616,936	57,722			
*Unclassified freight.....								26,298

* Included in unclassified freight for

Wool

1898. Tons. 1899. Tons.

..... 2,601 228

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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 "

The Canadian canal was open to navigation during the season of—

1895	87 days.
1896	218 "
1897	238 "
1898	243 "
1899	239 "

The average number of vessels passing per day through the two canals for the season of 1899 was over eighty-six

R. DEVLIN,
Compiler of Canal Statistics.

OTTAWA, Oct. 1, 1900.

SHIPMENTS of Grain (in Transit through Canada, and Export) by Lake from Chicago, during 1899.
(From Report of Trade, Chicago.)

SHIPPED TO.	BARLEY.		COBEN.		OATS.		RYE.		WHEAT.		TOTAL.
	Export.	Bushels.	Transit.	Bushels.	Export.	Bushels.	Transit.	Bushels.	Export.	Bushels.	
Collingwood, Ont.											38,163
Dépot Harbour Ont.	284,440		1,555,994	38,163	666,010						8,622,233
Goderich			509,186	4,722,734	92,600	391,865					825,132
Kingston				223,346							2,424,562
Midland			1,267,171	1,919,312	105,000	319,800		25,000			2,453,655
Owen Sound			353,447	1,123,884							483,447
Prescott				973,306							997,396
Sarnia			39,250		3,012,415						3,051,665
Sault Ste. Marie.				895							895
Totals.	284,440		3,705,048	9,001,640	3,876,025	711,665		25,000		322,000	19,396,518

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EXPORTS by Lake from Chicago to Canada, during the Season of Navigation of 1999.

(From report of Board of Trade, Chicago.)

Commodities.	Quantity.	Value.	
		\$	cts.
Barley	Bush.	284,440	114,686 00
Corn	"	9,001,640	3,204,897 00
Flaxseed	"	171,295	188,936 00
Oats	"	711,665	211,296 00
Rye	"	25,000	13,750 00
Wheat	"	1,299,405	929,388 00
Flour	Barrels.	18,772	62,975 00
Coru meal	"	1,870	3,660 00
Oat meal	"	475	1,261 00
Mill stuffs	Sacks.	22,269	15,917 00
Grass seed	"	728	2,239 00
Glucose	Barrels.	540	5,785 00
Gluten meal	Sacks.	14,742	15,125 00
Malt	"	5,925	2,987 00
Oil cake	"	13,406	48,300 00
Starch	Barrels.	3,620	14,331 00
Sugar	"	12,500	20,768 00
Beef	"	611	6,045 00
Pork	"	13,734	134,410 00
Cured meats	Packages.	11	249 00
Lard	Tierces.	2,956	56,598 00
Tallow	"	1,747	27,409 00
Angle bars	Tous.	1,121	22,192 00
Steel rails	"	8,468	132,628 00
Wire rods	"	2,497	43,588 00
Bolts	Kegs.	62	226 00
Spikes	"	303	951 00
Manufactured iron	Tons.	266	19,310 00
Hardware	Packages.	1,305	9,885 00
Lumber	M. Feet.	6	137 00
Oils	Barrels.	544	7,745 00
Soap	Boxes.	12	94 00
Liquors	Packages.	1	6 00
Groceries	"	3	11 00
Unclassified	"	175	1,502 00
Total value			5,319,197 00

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Dec. 2	27	3	6 1/2	7 1/2	8 1/2	9 1/2	10 1/2	11 1/2	12 1/2	13 1/2	14 1/2	15 1/2	16 1/2	17 1/2	18 1/2	19 1/2	20 1/2	21 1/2	22 1/2	23 1/2	24 1/2	25 1/2	26 1/2	27 1/2	28 1/2	29 1/2	30 1/2	31 1/2
" 9	27	3	6 1/2	7 1/2	8 1/2	9 1/2	10 1/2	11 1/2	12 1/2	13 1/2	14 1/2	15 1/2	16 1/2	17 1/2	18 1/2	19 1/2	20 1/2	21 1/2	22 1/2	23 1/2	24 1/2	25 1/2	26 1/2	27 1/2	28 1/2	29 1/2	30 1/2	31 1/2
" 16	27	3	6 1/2	7 1/2	8 1/2	9 1/2	10 1/2	11 1/2	12 1/2	13 1/2	14 1/2	15 1/2	16 1/2	17 1/2	18 1/2	19 1/2	20 1/2	21 1/2	22 1/2	23 1/2	24 1/2	25 1/2	26 1/2	27 1/2	28 1/2	29 1/2	30 1/2	31 1/2
" 23	27	3	6 1/2	7 1/2	8 1/2	9 1/2	10 1/2	11 1/2	12 1/2	13 1/2	14 1/2	15 1/2	16 1/2	17 1/2	18 1/2	19 1/2	20 1/2	21 1/2	22 1/2	23 1/2	24 1/2	25 1/2	26 1/2	27 1/2	28 1/2	29 1/2	30 1/2	31 1/2

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 1899 (as reported by the Secretary of Merchants' Exchange, Buffalo).

1899.		Wheat, Bushels.	Corn, Bushels.	1899.		Wheat, Bushels.	Corn, Bushels.
Opening.		cts.	cts.	Opening.		cts.	cts.
April	27	1 $\frac{3}{8}$	1 $\frac{3}{8}$	Aug.	16	2 $\frac{3}{4}$ to 2 $\frac{1}{2}$	2 $\frac{1}{2}$
May	3	1 $\frac{3}{8}$	1 $\frac{3}{8}$	"	17	2 $\frac{3}{4}$	2 $\frac{1}{2}$
"	6	1 $\frac{3}{8}$	1 $\frac{3}{8}$	"	19	2 $\frac{1}{2}$ to 2 $\frac{3}{4}$	2 $\frac{1}{2}$
"	12	2	1 $\frac{3}{8}$	"	20	2 $\frac{1}{2}$	2 $\frac{1}{2}$
"	22	2	1 $\frac{7}{8}$ to 2	"	21	2 $\frac{3}{4}$	2 $\frac{1}{2}$
"	23	2	1 $\frac{7}{8}$	"	23	3	2 $\frac{3}{4}$
"	24	2 $\frac{1}{8}$	1 $\frac{7}{8}$ to 2	"	30	3	3
"	27	2 $\frac{1}{8}$	2	Sept.	2	3 $\frac{1}{4}$	3
June	1	2 $\frac{1}{8}$	2	"	5	3	3
"	8	2	1 $\frac{3}{8}$	"	9	3 $\frac{1}{2}$	3 $\frac{1}{2}$
"	13	2	2	"	13	3 $\frac{1}{2}$ to 3 $\frac{3}{4}$	3 $\frac{1}{2}$
"	17	2 $\frac{1}{8}$	2	"	14	3 $\frac{1}{2}$	3 $\frac{1}{2}$
July	10	2 $\frac{1}{8}$	2 $\frac{1}{8}$	"	19	3 $\frac{1}{2}$	3 $\frac{1}{2}$
"	12	2 $\frac{1}{8}$	2 $\frac{1}{8}$	"	22	3 $\frac{1}{2}$	3 $\frac{1}{2}$
"	13	2 $\frac{1}{8}$	2 $\frac{1}{8}$	Oct.	24	3 $\frac{1}{2}$	3 $\frac{1}{2}$
"	15	2 $\frac{1}{8}$	2	"	27	3 $\frac{1}{2}$ to 3 $\frac{3}{4}$	3 $\frac{1}{2}$
"	24	2 $\frac{1}{8}$	2	"	28	3 $\frac{3}{4}$	3 $\frac{1}{2}$
"	27	2 $\frac{1}{8}$	1 $\frac{3}{4}$ to 1 $\frac{1}{2}$	"	31	3	3
"	28	1 $\frac{3}{4}$	1 $\frac{3}{4}$	Nov.	7	2 $\frac{3}{4}$	2 $\frac{3}{4}$
Aug.	1		2	"	8	2 $\frac{3}{4}$	2 $\frac{3}{4}$
"	4		2 to 2 $\frac{1}{4}$	"	9	2 $\frac{3}{4}$	2 $\frac{3}{4}$
"	5		2 $\frac{1}{4}$	"	10	2	2
"	9		2 $\frac{1}{8}$ to 2 $\frac{1}{4}$	"	24	2 $\frac{1}{4}$	2 $\frac{1}{4}$
"	10		2 $\frac{1}{8}$ to 2 $\frac{1}{4}$	"	28	2 $\frac{1}{2}$ to 2 $\frac{3}{4}$	2 $\frac{1}{2}$
"	12		2 $\frac{1}{8}$ to 2 $\frac{1}{4}$	"	29	2 $\frac{1}{2}$	2 $\frac{1}{2}$
"	15		2 $\frac{1}{4}$	Dec.	1 to close	3	3

NOTE.—Corn from Chicago to Kingston ranged from 1 $\frac{3}{8}$ to 3 $\frac{1}{2}$ cents, and wheat 3 cents per bushel during the season. Corn to Port Huron, 1 $\frac{3}{8}$ to 2 $\frac{1}{4}$ cents. Rates from Milwaukee about the same as from Chicago.

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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, bushel.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
1890 { Wheat.....	1·8	2·2	2·3	1·5	2·0	1·8	2·0
{ Corn.....	1·6	2·0	2·0	1·3	1·8	1·6	1·8

Highest rate, wheat, 1890, 2½c.; lowest, 1·5c.; average for the season, 1·9c.

1891 { Wheat.....	1·4	1·2	2·1	2·7	3·3	2·2	4·1
{ Corn.....	1·2	1·1	2·0	2·5	3·0	2·1	3·8

Highest rate, wheat, 1891, 5¼c.; lowest, 1c.; average for the season, 2·4c.

1892 { Wheat.....	1·9	1·8	2·0	2·3	2·3	2·3	2·6
{ Corn.....	1·7	1·6	1·8	2·1	2·1	2·1	2·3

Highest rate, wheat, 1892, 3c.; lowest, 1c.; average for the season, 2·2c.

1893 { Wheat.....	1·3	1·8	1·2	1·3	1·7	2·1	2·0
{ Corn.....	1·2	1·6	1·1	1·2	1·5	1·9	1·8

Highest rate, wheat, 1893, 2¾c.; lowest, 1c.; average for the season, 1·6c.

1894 { Wheat.....	1·4	1·2	0·9	1·0	1·4	1·1	1·3
{ Corn.....	1·2	1·1	0·9	0·9	1·3	1·0	1·3

Highest rate, wheat, 1894, 3c.; lowest, ¾c.; average for the season, 1·2c.

1895 { Wheat.....	1·2	1·2	1·1	1·6	2·1	3·0	3·0
{ Corn.....	1·1	1·1	1·0	1·4	1·9	2·9	2·7

Highest rate, wheat, 1895, 3c.; lowest, 1c.; average for the season, 1·9c.

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, 2¾c.; 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, 2¾c.; lowest, 1c.; average for the season, 1·5c.

1898 { Wheat.....	1·3	0·1	0·9	1·2	1·4	2·5	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, 1¾c.; average for the season, 2·5c.

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LAKE FREIGHTS FROM DULUTH TO BUFFALO ON WHEAT (AS REPORTED BY THE SEC. 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 1899 :—

1899.	Wheat Bushels.	1899.	Wheat Bushels.
	Cts.		Cts.
April 28	24	September 24	5
May 22	23	" 26	4½
June 1	2½	October 4	4½
" 5	2½	" 6	5
" 12	2½	November 1	4½
" 19	2½	" 5	4½
" 26	2½	" 8	4
August 4	3	" 9	3½
" 9	3½	" 10	3
" 16	3½	" 13	2½
" 21	3½	" 16	2½
" 24	4½	" 17	2½
" 26	4½	" 18	3
" 30	4½	" 22	3½
September 6	6	" 26	4
" 9	5½	" 28	4½
" 20	5½	" 30 to Dec. 2	5

In 1885, the range of freights on wheat, Duluth to Buffalo, was 1½ to 5c.; in 1886, 3¼ to 8c.; in 1887, 5 to 8c.; in 1888, 2 to 5c.; in 1889, 2 to 5c.; in 1890, 2 to 5c.; in 1891, 1¼ to 9½c.; in 1892, 2¼ to 4c.; in 1893, 1¼ to 3½c.; in 1894, 1¼ to 3c.; in 1895, 2 to 6c.; in 1896, 1¼ to 3c.; in 1897, 1 to 2½c.; in 1898, 1 to 3½c. per bushel, and in 1899, 2½ to 6c. per bushel.

The first departure by lake, at Duluth, in 1899, was on April 29; in 1898, was on April 16; in 1896 on April 22, and in 1895 on April 27. 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, on May 4; in 1886, on May 7.

Wheat was shipped at Kingston, Canada, per bushel, during the season of 1887, at 6¼ to 7¾c.; in 1888, at 4 to 5c.; in 1889, at —; in 1890, 5¾, 5½, 4½, 4¼, 4c.; in 1891, during May, 3¾, 3½, 2½c.; during June, 3c.; and on July 25, 2½c.; in 1892, 5c. in April; 5 to 5¼c. in May; 4c. in June, 4½c. in July; 3c. in August; 6 to 6¼c. in October; in 1893, ranged from 5½ to 4½c. in April; 4½ to 4¾c. in May; 4 to 3½c. in June; 2¾ to 3c. in July; 3½ to 3¾c. in September; no figures quoted after that date. In 1894, ranged from 3¼ to 3½c. in May; 3½c. in June; 2½c. in July; 2½ to 3¼c. in August; 4c. in September, and 4¼c. in October. On August 25 and November 3, 1894, wheat to Ogdensburg at 3¼c. and 4½c. respectively. In 1895, wheat to Kingston from 3c. to 5c. In 1896, wheat to Kingston from 3c. to 5½c.; and in 1897, wheat to Kingston 3c. to 3½c. according to time of year; 1898 and 1899 not given.

LAKE FREIGHTS FROM TOLEDO TO BUFFALO ON WHEAT.

The following statement shows the ruling rates of Lake Freights, on wheat from Toledo to Buffalo, during the season of 1899 on the dates specified, as reported by the Secretary Merchants Exchange Buffalo.

Date, 1899.	Wheat Bushels.	Date, 1899.	Wheat Bushels.
	Cts.		Cts.
Opening to October 24	1	November 1 to close of season	1½
October 24 to November 1	1¼		

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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. 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 5c. to $5\frac{1}{2}$ c. for wheat in 1889 per bushel. From Toledo, on October 8th, 1887, corn shipped to Kingston at $3\frac{1}{2}$ c. and on November 12th at $4\frac{1}{2}$ c. per bushel. In 1888, corn Toledo to Kingston at $4\frac{1}{4}$ c. 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 2nd, 1887, wheat shipped to Montreal by propeller at $6\frac{1}{2}$ c.; on June 14th, corn at same price; but on September 26th 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 reports.

CANAL FREIGHTS 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 1899 (as reported by the Secretary, Merchants Exchange, Buffalo).

Date, 1899.	Wheat. Bush.	Corn. Bush.	Date, 1899.	Wheat. Bush.	Corn. Bush.
	Cts.	Cts.		Cts.	Cts.
April 26.	—	—	Aug. 3.	$2\frac{1}{2}$	$1\frac{1}{2}$
May 5.	$2\frac{1}{4}$	$1\frac{3}{4}$	Aug. 4.	$2\frac{1}{2}$	$2\frac{1}{2}$
May 6.	$2\frac{1}{4}$	—	Aug. 7.	$2\frac{1}{2}$	$2\frac{1}{2}$
May 25.	$2\frac{1}{4}$	$2\frac{1}{4}$	Aug. 8.	$2\frac{1}{2}$	$2\frac{1}{2}$
June 5.	$2\frac{1}{4}$	—	Aug. 18.	$2\frac{1}{2}$	$2\frac{1}{2}$
June 13.	$2\frac{1}{4}$	$2\frac{1}{2}$	Sept. 25.	$2\frac{1}{4}$	$2\frac{1}{2}$
June 21.	$2\frac{1}{4}$	$2\frac{1}{2}$	Oct. 4.	3	$2\frac{1}{2}$
July 3.	$2\frac{1}{4}$	$2\frac{1}{4}$	Oct. 13.	$3\frac{1}{2}$	$3\frac{1}{2}$
July 17.	$2\frac{1}{4}$	2	Oct. 18.	4	$3\frac{1}{2}$
July 24.	$2\frac{1}{4}$	2	Oct. 25.	$4\frac{1}{2}$	$3\frac{1}{2}$
July 31.	$2\frac{1}{4}$	$1\frac{1}{2}$	Nov. 13 to close.	4	$3\frac{1}{2}$

The freight on oats varied from $1\frac{3}{8}$ to $2\frac{1}{2}$ c. per bushel.

Pine lumber per 1,000 feet, was carried from Buffalo and Tonawanda to New York as follows: Opened at \$1.75; June and July \$1.65; August \$1.75; September \$2.00; closed at \$2.25. Rates to Albany opened at \$1.25; June and July \$1.15; August \$1.25; September \$1.50; closed at \$2.00.

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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.
1890 { Wheat.....	3·9	3·8	3·6	3·8	3·9	4·0	3·5
{ Corn.....	3·5	3·4	3·2	3·4	3·5	3·6	3·1
Highest rate, wheat, 1890, 4·2c.; lowest, 3c.; average for the season, 3·8c.							
1891 { Wheat.....	2·8	2·9	2·8	3·8	4·2	4·6	4·0
{ Corn.....	2·5	2·6	2·5	3·5	3·8	4·2	3·6
Highest rate, wheat, 1891, 3 $\frac{3}{4}$ c.; lowest, 2·5c.; average for the season, 3·5c.							
1892 { Wheat.....	2·7	2·2	2·4	3·0	3·8	4·7	4·6
{ Corn.....	2·4	2·0	2·2	2·6	3·4	4·4	4·3
Highest rate, wheat, 1892, 6c.; lowest, 2 $\frac{1}{2}$ c.; average for the season, 3·5c.							
1893 { Wheat.....	4·8	4·8	4·6	4·6	4·0	4·7	4·8
{ Corn.....	4·4	4·4	4·3	4·2	3·6	4·3	4·5
Highest rate, wheat, 1893, 5c.; lowest, 3·6c.; average for the season, 4·6c.							
1894 { Wheat.....	3·1	2·9	3·3	3·4	3·6	2·9	3·0
{ Corn.....	2·8	2·6	3·0	3·1	3·3	2·6	2·7
Highest rate, wheat, 1894, 4c.; lowest, 2·6c.; average for the season, 3·2c.							
1895 { Wheat.....	1·9	1·7	2·0	2·0	2·1	2·5	2·7
{ Corn.....	1·7	1·5	1·7	1·7	2·0	2·2	2·5
Highest rate, wheat, 1895, 3c.; lowest, 1·9c.; average for the season, 2·2c.							
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, 2·8c.							
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, 3·c.							

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.	Grain received.	Average Canal Freight on Wheat.	Tolls on Wheat.	Elevating, including Storage.
	Bush.	Cts.	Cts.	Cts.
1870				
1871	32,208,039	11 2	3 1	1 1/2
1872	61,319,313	12 6	3 1	1 1/2
1873	58,703,666	13 0	3 1	1 1/2
1874	65,498,955	11 4	3 1	1 1/2
1875	55,660,198	10 0	3 1	1 1/2
1876	52,833,451	7 9	2 0	1 1/2
1877	44,297,121	6 6	2 0	1 1/2
1878	61,822,292	7 4	1 0	1 1/2
1879	78,828,443	6 0	1 0	1 1/2
1880	75,089,768	6 8	1 0	1 1/2
1881	105,133,069	6 5	1 0	1 1/2
1882	56,389,827	4 7	1 0	1 1/2
1883	51,501,503	5 4	1 0	1 1/2
1884*	65,722,080	4 9	None.	1 1/2
1885*	58,011,800	4 2	do	1 1/2
1886*	52,671,090	3 8	do	1 1/2
1887*	75,570,850	5 0	do	1 1/2
1888*	87,073,570	4 6	do	1 1/2
1889*	73,977,390	3 4	do	1 1/2
1890*	92,290,550	4 8	do	1 1/2
1891*	91,994,680	3 8	do	1 1/2
1892*	135,315,510	3 5	do	1 1/2
1893*	138,872,560	3 5	do	1 1/2
1894*	140,796,410	4 6	do	1 1/2
1895*	105,435,577	3 2	do	1 1/2
1896*	121,225,497	2 2	do	1 1/2
1897*	172,474,664	3 7	do	1 1/2
1898*	204,964,103	2 8	do	1 1/2
1899*	221,383,945	2 8	do	1 1/2
	153,393,184	3 0	do	1 1/2

NOTE—Prior to 1870 tolls 6 21 cents per bushel, and the elevating charge 2 cents per bushel.
 * Including flax seed.

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AVERAGE FREIGHT CHARGES PER BUSHEL.

For the transportation of wheat and corn from Chicago to New York for a series of years.

(From Report of Board of Trade, Chicago.)

	CORN.			WHEAT.		
	By lake and canal.	By lake and rail.	By all rail.	By lake and canal.	By lake and rail.	By all rail.
1858	127		3619	1550		3861
1859	1570		3248	1663		3480
1860	a 0833		3248	a 095		3480
1861	a 1062		3881	a 1210		4158
1862	a 0957		4480	a 1062		4800
1863	a 063		4592	a 072		4920
1864	a 09		5600	a 0952		60
1865	a 0864		4188	a 0894		4488
1866	a 1075		4312	a 1377		4620
1867	a 0511		4176	a 08		4475
1868	a 0604		3532	a 0802		3784
1869	a 0584	2355	3320	a 0651	2520	3557
1870	a 16	2220	28	a 0677	2250	30
1871	a 0754	2372	2968	a 0687	2542	3180
1872	a 1072	2660	3266	a 1110	2950	3499
1873	a 0816	2298	2893	a 0917	2461	3102
1874	a 0382	1388	2450	a 0400	1709	2625
1875	a 034	1393	2240	a 0378	1389	2400
1876	b 0875	1979	1574	b 0982	1136	1686
1877	b 0959	1406	1899	b 1109	1546	2050
1878	b 0883	1953	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	9942	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 0830	1120	1470	b 0950	12	1575
1888	b 0671	1026	1354	b 0705	1114	1450
1889	b 0632	0819	126	b 0692	0897	1500
1890	b 0593	0732	1136	b 0676	0852	1430
1891	b 0632	0753	1400	b 0695	0857	1500
1892	b 0595	0721	1296	b 0645	0759	1380
1893	b 0718	0797	1365	b 0766	0848	1463
1894	b 0493	0650	1232	b 0511	0700	1320
1895	b 0450	0640	1029	b 0486	0696	1189
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

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.	1899.	1898.	1897.	1896.	1895.
			\$	\$	\$	\$
Liverpool	Grain	2972	3435	3360	3350	3290
"	Sacked flour	3012	3766	3681	3430	3400
"	Provisions	4050	4715	4440	4491	4181
Glasgow	Grain	3235	3600	3523	3422	3419
"	Sacked flour	3125	3906	3906	3650	3625
"	Provisions	4469	5250	5250	4997	4969
London	Grain	3060	3500	3400	3348	3329
"	Sacked flour	3350	3725	3612	3528	3513
"	Provisions	4414	4969	4814	4715	4603
Antwerp	"	4750	5250	5109	4969	4828
Hamburg	"	4600	5200	5100	5100	5000
Amsterdam	"	4700	5250	5200	5200	5000
Rotterdam	"	4700	5250	5200	5200	4800
Copenhagen	"	5172	5813	5728	5812	5531
Stockholm	"	6297	6925	6853	6937	6656
Stettin	"	5172	5813	5728	5812	5531
Bordeaux	"	5912	6575	6413	6413	6413

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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 1899 inclusive.

YEAR ENDING JUNE 30.	COUNTRIES FROM WHICH RECEIVED.					COUNTRIES TO WHICH SHIPPED.				
	British North America.					British North America.				
	Nova Scotia, New Brunswick, and Prince Edward Island.	Quebec, Ontario, Manitoba and the Northwest Territories.	British Columbia.	Newfoundland and Labrador.	Total.	Nova Scotia, New Brunswick, and Prince Edward Island.	Quebec, Ontario, Manitoba and the Northwest Territories.	British Columbia.	Newfoundland and Labrador.	Total.
1873	495,280	12,804,164	5,240	13,394,683	5,282,290	21,330,174	181,730	26,784,184	26,784,184	
1874	449,655	13,616,344	97,691	14,163,690	7,159,036	19,843,169	317,534	27,310,730	27,310,730	
1875	443,570	17,342,933	296,074	18,042,577	8,499,396	20,283,639	517,060	29,800,235	29,800,235	
1876	261,443	22,134,275	195,047	22,391,972	9,102,600	14,638,358	638,836	94	24,419,888	
1877	169,658	12,092,619	218,418	12,471,695	2,875,422	15,551,238	544,018	2,475	18,977,153	
1878	163,978	11,627,114	412,966	12,204,658	951,268	11,436,479	524,013	194	12,912,685	
1879	194,129	11,606,832	280,079	12,081,095	889,539	11,520,877	476,824	2,347	12,889,587	
1880	215,131	16,782,315	137,271	17,134,717	1,643,716	14,896,663	531,436	288	17,042,103	
1881	171,383	16,758,108	72,555	17,002,046	1,778,836	20,837,827	719,268	353	23,356,264	
1882	164,900	28,265,683	113,018	28,543,178	2,732,665	34,005,845	855,784	1,190	37,595,484	
1883	591,791	29,294,631	36,973	29,862,890	1,740,909	19,717,466	971,307	7,335	37,322,568	
1884	636,233	12,574,933	188,041	13,419,227	1,635,442	17,448,942	1,615,293	5,186	22,359,385	
1885	333,896	12,280,433	308,691	13,523,613	2,040,298	16,369,423	1,825,178	781	19,700,438	
1886	1,165,973	9,303,864	359,104	10,861,629	1,621,748	19,430,296	635,841	6,174	20,241,079	
1887	1,684,730	9,696,175	213,816	11,594,721	1,781,028	13,459,169	370,322	70	27,187,455	
1888	1,525,048	6,417,791	37,934	8,542,817	2,484,787	18,493,957	605,527	1,137	13,611,656	
1889	2,596,233	8,355,178	294,359	11,336,123	2,484,787	18,493,957	605,527	2,704	22,146,975	
1890	3,070,637	12,449,772	306,897	16,091,910	5,277,210	21,140,198	913,106	4,090	27,335,204	
1891	3,859,079	15,310,945	422,896	19,730,470	5,695,932	24,639,492	547,144	34,273	27,883,623	
1892	4,393,592	19,005,704	291,373	23,928,255	2,079,783	21,891,181	438,188	6,362	26,704,114	
1893	1,099,597	16,404,425	381,986	17,885,373	2,052,357	20,232,400	499,655	26,289	22,720,111	
1894	1,070,676	15,649,881	348,069	17,342,693	1,831,417	19,390,688	463,471	6,640	20,182,216	
1895	1,199,782	17,774,108	411,537	19,621,862	1,894,745	17,330,714	538,991	7,814	21,722,294	
1896	1,118,185	18,038,931	582,469	20,143,695	1,572,783	19,441,279	772,586	1,768	21,888,416	
1897	1,118,655	22,497,151	611,322	24,533,823	1,682,538	17,690,211	1,312,797	8,130	29,663,676	
1898	1,440,950	35,596,039	1,744,289	39,336,981	1,536,413	22,400,622	2,294,356	19,247	26,250,638	
1899	1,618,309	30,673,265	3,708,928	36,561,721	1,215,518	19,605,819	4,685,559	27,117	25,653,943	

FOREIGN CARRYING TRADE.

VALUE of the Imports and Exports of the United States carried respectively in cars and other land vehicles, in American vessels and in foreign vessels during each Fiscal Year, from 1857 to 1899 inclusive, with the percentage carried in American vessels (coin and bullion are included from 1857 to 1879 inclusive), as method of transportation of specie and merchandise cannot be separately stated.

Year ending June 30.	IMPORTS.				EXPORTS.				IMPORTS AND EXPORTS.				Percentage carried in American vessels.	
	In cars and other land vehicles	In American vessels.	In Foreign vessels.	In cars and other land vehicles	In American vessels.	In Foreign vessels.	In American vessels.	In Foreign vessels.	In American vessels.	In Foreign vessels.	In American vessels.	In Foreign vessels.		Total.
1857		259,116,170	101,773,971		251,214,857	111,545,825	510,331,927	213,519,796	723,850,823	70.5				
1858		203,700,016	78,313,134		243,491,288	81,153,133	447,191,304	160,066,267	607,257,571	73.7				
1859		216,123,428	122,644,702		249,617,953	107,171,669	465,741,384	229,816,211	695,557,592	66.9				
1860		228,164,855	134,001,339		279,682,902	121,039,304	597,247,757	255,040,793	702,288,550	66.5				
1861		291,544,055	134,106,068		179,972,733	69,372,180	381,516,788	203,478,278	584,995,066	65.2				
1862		92,274,100	113,497,029		125,421,318	104,517,067	217,695,418	218,015,296	435,710,714	50.0				
1863		109,744,580	143,175,340		132,127,891	190,880,030	241,872,471	343,056,031	584,928,502	41.4				
1864		81,212,077	248,350,818		102,849,409	237,442,730	184,061,486	485,793,548	669,855,034	27.5				
1865		74,385,116	174,170,336		93,017,756	252,839,588	157,492,872	437,010,124	604,412,996	32.2				
1866		112,040,385	333,471,763		213,671,466	351,754,238	323,711,801	685,226,631	1,010,938,552	32.9				
1867		117,209,336	300,622,035		180,625,368	280,708,368	297,834,304	581,350,403	879,163,307	33.9				
1868		122,965,225	248,059,583		175,106,318	301,886,451	297,081,573	550,546,074	848,527,647	36.1				
1869		136,802,624	301,512,251		153,154,748	285,979,781	289,956,772	586,492,012	876,748,784	33.1				
1870		153,237,077	369,140,510		199,732,324	329,786,978	352,969,401	638,927,488	991,896,589	35.6				
1871		15,187,354	363,020,644	7,798,156	190,378,462	392,801,432	353,664,172	755,822,576	1,132,472,558	31.2				
1872		17,635,681	445,416,783	10,015,089	168,044,799	393,429,579	315,341,101	839,346,362	1,212,328,293	28.5				
1873		17,070,548	471,806,765	10,799,430	171,566,758	494,915,586	27,869,978	966,723,051	1,340,899,221	25.8				
1874		14,513,335	405,390,135	8,500,205	174,424,216	533,885,971	23,022,540	939,906,106	1,312,680,640	26.7				
1875		13,083,839	382,349,568	7,394,356	156,385,065	501,898,949	30,388,265	314,257,792	884,788,517	25.8				
1876		12,148,667	321,139,500	6,242,487	167,686,467	492,215,487	18,473,154	311,076,171	813,354,987	21.4				
1877		10,697,640	329,565,833	6,707,170	163,826,213	539,353,703	17,494,810	316,690,281	859,420,586	26.5				
1878		12,965,999	307,407,565	7,511,365	166,351,624	569,583,564	29,477,364	313,059,306	876,491,129	25.9				
1879		11,983,823	310,499,599	7,439,862	128,425,339	600,770,633	29,423,685	272,015,632	911,269,232	22.6				
1880		15,142,465	503,494,913	5,838,698	109,029,369	720,770,621	20,981,393	258,346,577	1,292,658,009	17.18				
1881		17,193,213	491,840,269	8,259,368	116,955,324	777,162,714	25,452,521	250,586,470	1,269,002,983	16.22				
1882		22,824,946	130,266,826	571,517,862	141,469,909	641,469,909	34,973,317	912,978,769	1,475,181,831	15.40				
1883		23,003,048	564,175,576	25,689,844	104,418,210	604,331,348	48,092,892	240,420,500	1,547,029,316	15.54				
1884		20,149,294	135,046,267	512,311,192	36,532,828	615,287,007	46,714,068	233,699,035	1,408,211,362	16.60				
1885		21,149,476	122,864,052	443,313,801	82,001,691	636,004,765	45,332,775	194,865,743	1,079,518,566	14.76				
1886		24,556,683	118,942,817	491,337,636	78,106,680	581,973,477	43,700,350	197,349,503	1,073,941,113	13.89				
1887		27,362,059	121,365,493	543,392,216	72,999,253	621,802,292	48,951,725	194,356,746	1,408,562,479	13.89				

VALUE OF THE IMPORTS AND EXPORTS OF THE UNITED STATES CARRIED RESPECTIVELY IN CARS AND OTHER LAND VEHICLES, ETC.—*Continued.*

Year ending June 30.	IMPORTS.			EXPORTS.			TOTAL IMPORTS AND EXPORTS.				Percentage carried in American vessels.
	In cars and other land vehicles		In Foreign vessels.	In cars and other land vehicles		In Foreign vessels.	In American vessels.		In Foreign vessels.	Total.	
	\$	¢		\$	¢		\$	¢			
1888	32,209,459	123,525,298	568,222,357	22,147,368	67,332,175	606,474,964	54,356,827	190,857,473	1,174,697,321	1,419,911,621	13.44
1889	38,227,861	120,782,910	586,126,881	28,436,517	83,022,138	630,942,669	66,664,378	203,805,108	1,217,063,541	1,487,533,027	13.70
1890	40,621,861	124,948,948	623,740,100	32,949,902	77,592,138	747,376,644	73,576,263	202,451,086	1,371,116,744	1,647,139,043	12.29
1891	40,932,755	127,471,678	676,511,763	31,923,489	78,968,047	773,589,324	72,836,194	206,439,725	1,450,161,687	1,729,397,096	11.94
1892	38,726,595	139,139,891	648,535,976	33,220,629	81,033,844	916,623,675	72,947,221	220,173,735	1,564,550,651	1,857,689,610	11.85
1893	44,121,694	127,095,431	695,181,394	43,862,947	70,670,673	733,132,174	87,984,041	197,765,507	1,428,316,568	1,714,066,116	12.9
1894	29,623,095	121,561,193	503,810,334	49,221,427	73,707,023	698,212,129	78,844,522	195,268,216	1,273,022,456	1,547,135,191	13.3
1895	33,201,988	108,229,615	590,538,362	41,902,754	62,277,581	695,337,830	83,101,742	170,507,196	1,285,896,102	1,589,508,130	11.7
1896	35,535,079	117,299,074	626,890,521	61,131,125	70,392,813	751,083,600	96,666,294	187,691,887	1,377,473,521	1,662,331,612	12.00
1897	35,812,620	109,133,454	619,784,338	65,032,305	79,411,823	705,993,428	100,894,325	189,075,377	1,525,453,766	1,845,723,968	11.00
1898	30,427,781	93,535,867	492,068,003	73,283,704	67,423,150	1,090,406,476	103,711,188	161,328,017	1,582,492,479	1,847,531,984	9.39
1899	33,424,821	82,050,118	581,673,550	83,870,307	78,562,088	1,064,590,307	117,295,728	160,612,296	1,646,263,857	1,924,171,791	8.9

NOTES.—1. The amounts carried in cars and other land vehicles, were not separately stated prior to July 1, 1870. 2. Exports are stated in mixed gold and currency values from 1862 to 1879, inclusive.

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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 1899.

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	15,024,591	2,781,884	18,406,475
1872	8,237,859	1,038,310	9,276,169	19,357,342	4,685,448	24,042,790
1873	11,700,787	1,693,906	13,394,693	20,178,666	6,605,518	26,784,184
1874	12,655,590	1,468,100	14,163,690	20,572,299	6,938,430	27,510,739
1875	16,890,022	1,152,555	18,042,577	23,794,129	6,006,166	29,800,295
1876	21,301,262	1,290,640	22,591,902	19,369,958	5,049,930	24,419,888
1877	19,835,642	1,636,053	21,471,695	17,066,855	1,910,298	18,977,153
1878	10,314,534	1,889,524	12,204,058	11,914,321	998,364	12,912,685
1879	10,098,998	1,982,097	12,081,095	12,030,635	858,952	12,889,587
1880	15,265,177	1,869,570	17,134,747	16,388,673	653,430	17,042,003
1881	15,200,967	1,801,079	17,002,046	22,828,270	527,994	23,256,264
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	38,890,318	923,250	39,812,568
1884	13,043,498	375,729	13,419,227	22,120,587	818,798	22,939,385
1885	12,755,686	767,927	13,523,613	19,105,476	594,982	19,700,458
1886	9,593,344	1,267,676	10,861,020	19,428,867	812,212	20,241,079
1887	9,377,041	2,127,680	11,504,721	20,178,365	2,009,590	22,187,955
1888	6,309,024	2,033,793	8,342,817	13,347,876	2,063,780	15,611,656
1889	8,303,171	3,032,952	11,336,123	19,299,966	2,849,263	22,149,229
1890	13,524,298	2,477,612	16,001,910	24,788,152	2,547,052	27,335,201
1891	18,065,925	1,714,545	19,780,470	25,185,706	2,697,317	27,883,023
1892	21,346,413	2,581,842	23,928,255	23,989,746	2,714,368	26,704,114
1893	13,807,662	4,077,911	17,885,573	20,151,432	2,568,679	22,720,111
1894	13,501,664	3,840,429	17,342,093	17,974,332	2,207,884	20,182,216
1895	14,068,922	5,552,940	19,621,862	18,752,226	2,970,068	21,722,294
1896	13,408,578	6,735,027	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	22,248,759	14,312,962	36,561,721	22,593,761	2,941,282	25,535,043

NOTE.—This movement forms no part of the import and export trade.

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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	863,064	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	77,971
1880.....	8,266	966,052	1,156,619	106,247	20,893	26,340	86,673
1881.....	6,926	444,832	475,823	81,587	30,321	15,484	61,588
1882.....	9,372	642,215	251,687	96,650	22,180	43,372	53,300
1883.....	9,047	573,740	522,978	58,787	51,607	95,246	67,595
1884.....	7,251	790,409	198,216	65,008	52,696	71,462	51,944
1885.....	6,869	565,922	359,982	64,587	8,234	10,211	47,505
1886.....	9,005	993,129	354,765	62,854	7,278	3,073	59,782
1887.....	4,089	936,840	446,617	75,458	35,365	6,717	47,678
1888.....	3,287	491,419	499,218	41,100	70,315	12,532	49,087
1889.....	4,429	484,141	592,550	66,110	63,674	36,329	49,663
1890.....	3,489	353,738	616,702	90,754	48,438	21,657	33,123
1891.....	3,126	756,101	142,141	71,903	16,362	68,771	33,951
1892.....	4,879	620,768	150,269	51,596	72,444	4,236	33,807
1893.....	2,367	1,093,927	252,283	49,651	24,714	6,518	20,656
1894.....	2,909	903,361	275,377	89,700	100,874	5,288	22,620
1895.....	2,240	280,550	94,403	77,868	87,839	205	59,400
1896.....	7,963	408,872	100,227	109,967	197,714	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

*Apples, meal, all kinds, pease, potatoes.

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on all Canals in the State of New York, during a series of thirty-one years.

HEAVY GOODS.						
Total.	Railway Iron.	Other Iron.	Salt.	Coal.	Ores.	Total.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1,302,613	137,677	79,652	263,333	1,324,408	183,992	1,989,062
1,295,010	135,930	89,708	266,740	1,558,185	238,802	2,289,365
1,850,198	178,269	100,310	248,709	1,194,037	289,952	2,011,277
1,674,320	161,667	96,996	248,558	1,462,590	377,592	2,347,403
1,745,171	53,363	62,581	216,706	1,625,859	415,968	2,374,477
1,767,598	24,511	82,955	173,500	1,413,162	232,544	1,926,762
1,305,550	36,603	95,305	186,785	1,217,091	283,219	1,819,003
1,064,293	11,691	69,450	114,070	1,036,698	173,530	1,405,439
1,498,984	10,341	58,828	156,918	1,286,881	259,573	1,763,541
1,912,734	8,385	65,642	139,927	889,873	210,078	1,313,965
1,833,399	27,634	99,568	136,021	971,074	314,411	1,548,708
2,371,090	93,613	139,993	144,487	959,342	370,884	1,709,319
1,116,561	78,650	205,005	113,756	1,092,003	337,873	1,827,287
1,118,776	58,921	122,786	108,040	1,228,435	364,361	1,882,543
1,379,000	46,553	47,412	190,392	1,152,849	293,892	1,731,098
1,236,986	28,513	54,471	161,788	954,288	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	10,878	152,030	112,002	857,884	269,914	1,402,708
1,552,764	21,368	224,979	124,054	905,424	243,578	1,539,403
1,166,958	2,596	43,881	106,344	1,219,680	259,269	1,631,770
1,296,896	3,278	78,135	112,100	1,094,897	234,948	1,523,358
1,167,901	5,800	26,804	93,181	830,154	202,072	1,157,291
1,092,355	1,960	36,770	81,232	881,502	215,686	1,217,150
987,999	524	40,073	93,216	832,397	136,612	1,102,822
1,450,116	536	25,204	52,094	741,934	102,275	922,043
1,400,129	267	22,614	70,353	609,368	37,641	740,243
602,505	4,263	59,402	71,334	766,723	144,076	1,045,798
957,182	1,568	74,651	83,309	682,167	89,998	931,693
744,575	5,080	71,117	66,879	646,803	76,311	866,190
653,027	6,288	101,216	85,525	626,616	73,199	892,844
577,486	2,725	69,106	91,068	777,743	205,234	1,145,876

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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	183,931	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	441,002	18,599	31,283	3,671	36,981
1894	33,628	270,993	169,233	28,353	27,962	567	60,673
1895	44,044	203,088	164,894	8,689	18,236	1,007	46,463
1896	42,425	320,563	320,444	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

* Fisco

† Apples, meal, all kinds, pease, potatoes.

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through the Welland Canal, during a period of Twenty-nine years, ended Dec. 31, 1899.

HEAVY GOODS.							
Total.	Railway Iron.	Other Iron.	Salt.	Iron and salt having paid full tolls on St. Lawrence Canals.	Coal.	Ores.	Total.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
503,860	68,064	16,924	91,575	37,153	103,126	58,781	275,623
538,147	26,217	17,141	50,540	44,243	186,932	98,605	423,678
579,880	6,923	20,754	40,850	17,157	339,016	118,685	543,327
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
461,181	9,630	9,696	9,173	3,983	323,869	42,758	399,109
463,403	10	11,518	3,980	12,686	295,318	15,229	338,741
438,564	2,782	5,797	7,174	17,796	192,957	19,164	245,670
442,182	5,360	4,812	413	22,273	109,986	34,139	176,983
269,395	4,585	7,013	10	30,682	128,113	18,785	189,188
306,482		5,348	50	17,327	237,559	23,700	283,984
373,326	1,237	7,922	66	17,037	307,058	31,785	365,105
305,734	698	652	461	3,242	274,471	53,205	332,729
273,905	78	2,055	597	14,243	248,272	26,728	291,973
414,812	166	6,123	48	12,324	271,356	27,447	317,464
394,971	1,351	5,636		6,715	145,193	13,866	172,761
419,786	93	3,220	316	13,617	223,871	16,872	257,989
542,043	47	2,479	1,254	20,269	268,305	2,435	294,789
519,291		753	1,027	28,047	202,384	8,138	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	203,608		207,816
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

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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-one years.

VEGETABLE FOOD.

Year.	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles*	Total.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
1869.	5,609	496,904	219,874	1,978	63,728	2,150	2,193	786,436		
1870.	8,258	502,158	165,377	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	611,075	8,636	51,615	22,441	634	1,432,174	82·10	
1874.		650,161	459,728	3,192	44,079	112	237	1,157,500	47·18	
1875.	5,859	695,315	273,006	1,156	36,609	2,242	3,372	1,017,559	29·38	
1876.	231	377,317	356,064	6,334	24,488	12,205	4,691	783,331		0·39
1877.	1,710	398,416	709,723	26,351	52,559	27,365	4,976	1,223,100	55·52	
1878.	987	775,953	718,714	21,665	69,256	51,064	6,662	1,644,301	109·08	
1879.	1,239	892,404	602,171	7,193	14,537	40,471	7,528	1,565,543	99·07	
1880.	2,713	897,603	131,857	434	16,154	12,137	4,236	2,065,184	162·06	
1881.	1,491	386,605	458,318	86	24,751	107	7,484	878,842	11·75	
1882.	1,123	586,019	241,406	1,858	9,046	19,158	6,216	864,826	9·96	
1883.	538	535,150	517,219	6,816	47,190	79,010	6,051	1,191,974	51·06	
1884.	520	767,784	194,368	4,910	47,060	57,856	4,411	1,078,909	37·18	
1885.	323	540,533	356,737	3,317	5,610	6,405	5,427	918,352	14·36	
1886.	488	955,851	351,272	6,799	5,180		4,001	1,353,591	72·11	
1887.	334	914,152	438,069	15,207	32,907	4,612	44,693	1,449,984	85·64	
1888.	534	469,965	494,110	6,589	68,922	10,997	1,717	1,052,834	33·87	
1889.	845	457,922	579,526	16,580	61,175	34,167	5,160	1,155,175	46·88	
1890.	195	329,531	498,641	58,563	45,292	16,903	4,362	953,397	21·23	
1891.	1,071	733,967	137,679	43,779	14,803	66,278	2,594	1,000,171	27·18	
1892.	2,485	611,177	141,506	37,570	70,363	3,997	3,472	870,570	10·69	
1893.	424	1,086,834	240,767	38,986	21,981	6,156	243	1,395,391	77·43	
1894.	327	887,908	265,947	69,707	99,898	5,191	2,123	1,331,101	69·26	
1895.	98	271,957	83,611	71,185	85,507	205	15	508,596		35·32
1896.	6,971	402,114	89,726	101,151	194,442	77,162	5,575	877,144	11·53	
1897.	1,665	168,870	303,761	88,293	48,591	65,490	11,965	688,635		12·44
1898.		64,700	354,917	85,359	74,336	7,367	20,818	607,537		22·74
1899.		271,848	84,370	72,892	92,919	5,839		527,868		13·12

*Apples, meals 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	66,794	1,113	8,569	14,033	267,815	..	..
1870	11,440	115,732	10,120	77,906	3,953	7,402	11,628	238,181	..	11 06
1871	10,043	123,173	70,218	72,675	1,806	6,250	13,259	297,424	11 05	.....
1872	4,773	57,865	27,148	62,172	684	6,751	10,425	169,818	..	36 59
1873	4,061	53,361	10,578	46,337	670	6,019	10,739	131,763	.....	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	1,495	1,003	59,945	.....	77 61
1890	545	10,378	10,408	26,639	8	4,635	2,356	54,969	.....	79 47
1891	292	4,298	1,652	27,418	.....	2,130	3,620	39,410	.....	85 28
1892	273	4,806	5,657	5,283	.....	199	2,340	18,558	.....	93 07
1893	119	2,036	3,968	8,476	.....	237	2,784	17,620	.....	83 43
1894	8	10,293	10,514	17,160	.....	.....	2,609	40,584	.....	84 84
1895	66	3,073	7,352	1,900	1,816	.....	258	14,465	.....	94 23
1896	.....	1,825	7,778	7,552	.....	.....	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	3,166	4,478	2,400	2,346	12,546	20 56

* 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 Twenty-nine Years, ended December 31, 1899.

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	7,591	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	5,933		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	140,741	182,143	975	731	518	10,971	355,335
1884	13,626	135,804	118,811	270	10,716	477	9,018	288,752
1885	13,322	114,000	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	161,894	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	5,378	206,313	437,849	12,286	17,491	16,127	23,170	718,814
1899	16,215	197,732	204,004	2,424	23,541	923	18,440	463,278

* Fiscal. † Apples, meal all kinds, pease, potatoes.

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TABLE showing the Tonnage of the undermentioned Articles passed through the Welland Canal in transit between Ports in the United States during a series of Twenty nine Years, ended 31st December, 1899.

YEAR.	VEGETABLE FOOD.										HEAVY GOODS.															
	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.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1860	30,681	211,085	91,149	2,942	667	1,065	337,530	68,064	14,354	89,086	28,566	35,912	235,962													
1872	10,482	124,695	89,761	1,391	7,490	608	294,357	24,040	13,239	49,843	45,741	39,161	212,264													
1873	10,865	127,727	101,329	1,930	1,188	532	243,366	4,639	13,826	46,907	176,242	62,912	292,176													
1874	8,230	229,653	125,627	5,948	3	5,368	374,226	5,742	8,941	22,888	203,673	19,651	290,895													
1875	1,881	113,829	54,188	2,641	2,916	1,920	177,908	11	4,123	12,931	192,767	34,616	244,474													
1876	5,187	96,247	58,138	1,965	525	403	162,405	8,576	5,631	29,395	167,110	25,808	227,814													
1877	3,342	107,396	63,269	1,663	2,314	413	180,586	2,465	10,713	3,892	159,583	41,107	229,675													
1878	1,316	65,542	60,026	849	277	341	128,361	2,465	3,048	6,318	118,573	17,797	148,731													
1879	1,639	53,791	33,401	464	577	11	87,826	4,433	3,615	371	63,945	18,380	92,364													
1880	1,639	30,611	16,122	1,351	296	10	45,285	1,313	5,370	..	83,858	6,464	97,265													
1881	..	34,329	39,031	521	..	14	64,002	1,209	6,961	8	196,462	14,533	177,161													
1882	107	30,227	32,433	537	..	684	132,496	1,209	6,961	8	210,790	15,029	227,817													
1883	2,041	54,382	66,128	735	..	8,170	118,203	698	1,594	..	198,416	15,029	215,039													
1884	1,717	40,936	53,767	732	..	13,291	172,888	156	5,328	1	189,964	11,364	206,813													
1885	1,24	53,295	63,229	732	..	10,839	157,520	156	4,406	..	282,780	6	87,828													
1886	7,591	53,298	94,048	4,730	..	10,839	157,520	156	4,406	..	173,239	2,369	177,288													
1887	11,780	37,678	83,431	1,732	..	11,568	189,825	63	1,601	56	227,476	1,204	231,163													
1888	8,563	39,919	102,974	2	..	17,225	256,208	63	1,587	896	162,231	1,620	164,563													
1889	5,017	39,229	147,045	..	..	20,497	275,619	..	504	298	186,572	1,773	189,342											
1890	9,204	180,842	147,045	6,519	..	26,115	253,444	..	292	705	188,895	..	184,473													
1891	6,892	32,097	127,494	8,113	..	31,992	244,550	..	576	2	206,827	..	207,171													
1892	11,018	26,910	131,922	6,433	..	36,352	311,359	..	344	..	188,521	..	188,848													
1895	6,588	28,187	198,777	16,751	..	60,462	398,588	..	297	..	149,430	..	149,917													
1894	17,739	53,846	10,539	28,695	..	60,462	398,588	..	246	..	207,348	..	207,494													
1895	10,169	7,391	100,512	7,391	..	46,456	300,467	181	146	..	163,143	..	166,123													
1896	16,224	34,878	175,694	11,128	..	41,887	276,242	..	15	..	339	..	339,927													
1897	7,237	28,919	169,057	14,173	..	22,671	299,656	..	1,197	..	156,814	..	157,927													
1898	6,297	11,268	150,667	6,969	..	18,198	141,892	..	923	..	553	..	553,912													
1899	4,212	12,926	81,777	2,424	..	18,198	141,892	..	923	..	553	..	553,912													
1899	6,118	12,926	81,777	2,424	..	18,198	141,892	..	923	..	553	..	553,912													

* Apples, means all kinds, i.e., potatoes.

64 VICTORIA, A. 1901

H.—TABLE showing the Tonnage of Vegetable Food carried on each of the Lines of Canals and the two principal Railways, competing for the Carrying Trade between Lake Erie and Tidewater, for a series of Twenty-nine years, ended 31st December, 1899.

Year.	Total on New York Canals.	Total on Welland Canal.	Total on New York Central and Erie Railways.	Quantity charged 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	2,036,922	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	1,917,559	126,763	177,968
1876	1,064,293	499,788	2,875,803	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	118,293
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	1,652,834	11,191	189,825
1889	1,296,896	542,043	3,654,984	1,155,175	59,945	236,298
1890	1,167,901	519,291	4,336,199	953,357	54,969	275,619
1891	1,092,355	367,177	3,565,381	1,090,171	39,410	253,444
1892	937,999	527,426	5,913,013	870,579	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	4,281,656	1,331,101	40,584	293,148
1895	602,505	486,421	3,798,574	598,596	14,465	209,802
1896	957,182	788,974	5,183,549	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

Fiscal.

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I.—STATEMENT showing the Quantity of Through Freight passed Down the Welland Canal in Canadian and United States Vessels entering the Canal at Port Colborne during the season of Navigation in 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898 and 1899.

ARTICLES.	CANADIAN VESSELS.				AMERICAN VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	242	86,838	239	93,450	114	104,505	219	60,500	914	345,293
1888.		Tons.		Tons.		Tons.		Tons.		Tons.
Wheat		45,481		60,379		1,353		40,779		147,992
Corn		38,620		14,251		71,988		71,175		196,024
Barley										
Oats		672				24,967		1,311		26,950
Pease				54		57				111
Rye						71		632		703
Coal		1,603		20,064				4,208		25,897
Miscellaneous merchandise ..		2,165		3,291		22,719		3,722		31,875
Shingles, woodenware, &c. . .		66		84		141		6		297
Sawed Lumber Ft. B. & M.		5,262,700		11,977,905		4,451,360		12,539,672		34,230,637
Square timber Cub. ft.		687,728		1,555,307		19,000				2,262,035
Staves	No.	106,972		211,436				34,600		352,408
Firewood	Cords	179		201						380
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	317	106,048	427	118,071	208	172,873	268	92,442	1220	489,434
1889.		Tons.		Tons.		Tons.		Tons.		Tons.
Wheat		38,127		28,054		1,679		46,767		114,627
Corn		60,218		42,819		152,858		96,700		353,595
Barley										
Oats		320				25,347		2,145		27,812
Pease										
Rye		948		634		336				1,918
Coal		3,976		21,148		712		1,664		27,500
Miscellaneous merchandise ..		6,339		5,749		25,082		3,030		40,200
Shingles, woodenware, &c. . .				1				51		52
Sawed lumber Ft. B. & M.		5,780,226		11,632,330		11,792,850		21,026,211		50,240,617
Square timber Cub. ft.		924,645		2,934,989						3,859,634
Staves	No.	35,700		174,649						220,349
Firewood	Cords			46						46
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	342	110,056	443	117,400	202	204,542	142	50,622	1129	482,620
1890.		Tons.		Tons.		Tons.		Tons.		Tons.
Wheat		43,368		35,633		7,514		32,239		118,694
Corn		63,695		51,439		172,756		40,104		327,394
Barley						3,304		3,215		6,519
Oats		479		73		27,030				27,582
Pease						14				14
Rye		1,121								1,121
Coal		1,049		21,732				615		23,396
Miscellaneous merchandise ..		3,146		5,683		32,194		2,510		43,533
Shingles, woodenware, &c. . .		15		1,266		8				1,289
Sawed lumber Ft. B. & M.		5,921,240		5,167,201		10,274,335		14,290,800		35,653,576
Square timber Cub. ft.		1,141,194		3,395,832						4,537,026
Staves	No.	12,255		19,947						32,202
Firewood	Cords	15		566						581

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.
	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		31,040		169,233
Barley		258				28,095				28,353
Oats		175		107		27,621				27,903
Pease										
Rye										
Coal		1,483		1,892		61		11,109		14,545
Miscellaneous merchandise		16,949		664		83,118		1,977		102,788
Shingles, woodenware, &c.		22								22
Sawed lumber .. Ft. B.M.		8,423,295		279,330		11,719,664		31,891,456		52,313,745
Square timber .. Cub. ft.		771,328		1,578,981						2,350,309
Staves .. No.										
Firewood .. Cords										
	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		3,630
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

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I.—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.	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.	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.....	575	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 75,777	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.....	28,015	18,905	138,834	18,250	204,004					
Barley.....	.....	.....	2,424	.....	2,424		
Oats.....	1,557	.....	21,646	.....	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	20,862	328,806	1,257,526					
Firewood..... Cords	.....	9	.....	.....	9		
Staves..... No.	.....	.....	.....	.....	.....

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 1899.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam & Sail.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	187	99,235	133	75,748	199	209,897	83	39,326	602	424,206
1899.	Tons.		Tons.		Tons.		Tons.		Tons.	
<i>Class 3.</i>										
Cement and water lime.....	1,001		4							1,005
Fish.....	10				2,232					2,242
Iron railway.....					351					351
" pig.....										
" all other.....	1,392				636					2,028
Salt.....	1				4					5
Steel.....	20				75					95
Articles not enumerated.....	953		603		58					1,624
<i>Class 4.</i>										
Crockery and earthenware....	13				7					20
Marble.....					211					211
Manilla.....					129					129
Nails.....	556									556
Paint.....	2				12					14
Pitch and tar.....	6									6
Sugar.....	1,627				7,626					9,253
Tin.....	231									231
Merchandise not enumerated	1,805				35,190					36,995
<i>Class 5.</i>										
Produce of wood.....	3,318		385		21					3,724
<i>Special Class.</i>										
Coal.....	525				61,517		25,121			87,163
Unenumerated articles.....					1,243		619			1,862
Total.....	11,470		992		109,312		25,740			147,514

	Tons.
Canadian Steam Vessels carried.....	11,470
" Sailing	992
United States Steam	109,312
" Sailing	25,740

Crockery.	100	10	40	17	23	19	34	91	133	73	55
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J.—STATEMENT of Large Class of Vessels Lightened at the Welland Railway Elevator at Port Colborne, showing the Tonnage, Dimensions, Depth of Water, Number of Cargoes passed through the enlarged Welland Canal during the Season of Navigation in 1900.

CANADIAN STEAM VESSELS.

Table with columns: Date of Arrival, Name of Vessel, Dimensions (Length, Width, Depth), Depth of Water on Arrival, Original Cargo to the Welland Canal, Lightage over Welland Railway, Lightage over Welland Railway in Tons, Great Cargoes and Rolling Freight through Welland Canal, Total Cargoes through Canal, Depth of Water at Welland Canal, Destination, and Date of Departure.

CANADIAN VESSELS SAIL.

Table with columns: Date of Arrival, Name of Vessel, Dimensions, Depth of Water on Arrival, Original Cargo to the Welland Canal, Lightage over Welland Railway, Lightage over Welland Railway in Tons, Great Cargoes and Rolling Freight through Welland Canal, Total Cargoes through Canal, Depth of Water at Welland Canal, Destination, and Date of Departure.

UNITED STATES STEAM VESSELS.

Table with columns: Date of Arrival, Name of Vessel, Dimensions, Depth of Water on Arrival, Original Cargo to the Welland Canal, Lightage over Welland Railway, Lightage over Welland Railway in Tons, Great Cargoes and Rolling Freight through Welland Canal, Total Cargoes through Canal, Depth of Water at Welland Canal, Destination, and Date of Departure.

UNITED STATES VESSELS SAIL.

Table with columns: Date of Arrival, Name of Vessel, Dimensions, Depth of Water on Arrival, Original Cargo to the Welland Canal, Lightage over Welland Railway, Lightage over Welland Railway in Tons, Great Cargoes and Rolling Freight through Welland Canal, Total Cargoes through Canal, Depth of Water at Welland Canal, Destination, and Date of Departure.

RECAPITULATION.

Summary table with columns: Number, Tonnage, and other statistical data for Canadian and United States vessels.

SESSIONAL PAPER No. 20

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 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898 and 1899.

Articles.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 3.</i>													
Concent and water lime													
Clay, lime and seed													
Iron, pig		418			371			195	79	5	38	52	15
do all other								1	1,746	2,020	7,564	6,217	5,063
Steel									394	542	375	1,351	3,000
Stones for cutting										200			
Apples	33					54		50	28	1,263			
Barley							600	258	959	240		3,900	596
Corn	24,669	66,413	195,350	130,748	52,530	53,689	278,564	60,663	70,255	182,330	297,533	310,498	150,999
Flaxseed													
Flour	6,140	3,865	6,811	3,065	3,324	2,874	5,514	16,508	30,916	11,961			
Mead, all kinds	87	100	148	222	67	16			65				
Oats			320	479			9,761	175	1,654	12,373	6,847	3,975	10,250
Pease					390	524				3,029	2,078	260	
Rye			1,284	1,120	64,378	9,119	3,669			8,323	8,435	15,488	953
Salt											216	144	183
Seeds, all kinds		12	3	2	2	75				20			200
Tobacco, raw					1						51		
Wheat	160,063	93,915	70,815	75,515	159,785	194,281	209,212	212,557	158,643	255,198	278,498	184,154	169,978
All other agricultural products, vegetable	17		798	3	2								
Hides, skins, horns and hoofs						20		29				56	32
Horses													
Lard and lard oil			2	3	2	2	1	1	1	1	1	4	1
Pork					100								
All other agricultural products, animal	418	265	1,220	221	201			717					
Total, Class 3.	29	39	32	117		103							
	191,759	165,113	276,813	220,545	281,762	290,757	507,321	201,151	264,740	477,541	576,008	532,499	345,469
<i>Class 4.</i>													
Agricultural Implements													3
Ashes	113	85	107	70	40	17	23	19	34		133	73	55
(Crockery.													

SESSIONAL PAPER No. 20

L.—STATEMENT showing the Quantity of Freight passed Westward from Montreal, through the whole length of the St. Lawrence and Welland Canal to Lake Erie, during the Seasons of Navigation in 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898 and 1899.

Articles.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 3.</i>													
Bricks	3	187	84	252	469	1,570	3,169	1	24	15	70	70	24
Cement and water line	1,740	1,177	823	62	2,380	1,570	3,169	2,281	1,859	1,686	837	996	997
Clay, lime and sand	134	95	3	8	296	240	465	253			4	144	8
Fish	95	1	80	26	7	426		512		11	10	9	10
Gypsum													
Iron, railway	153	9,148	15,513	20,003	2,855	1,171	6,576	20	56	1,687			
" pig	368	573	250	20	112	74	25		28		6		
" all other	1,997	297	280	584	387	387	543	114	1,831	727	559	699	1,318
Salt	4,197	3,599	4,216	7,440	4,391	2,054	965	843	932	822	25	35	
Steel	423	3	3	1	269	269	426	248	528			19	18
Stone for cutting				12							62		
Wear				48			3						
Hay									124				
Meals		31						15					
Oats													
Potatoes													
Seeds, all kinds		24	215	100				33	25	99	121	56	121
Agricultural products not enumerated, vegetables		35	19		52			5	26		4		
Hides and skins									26				
Horses			2						1	1		1	
Lard and l rd oil	3			72		16						2	
Pork				35									
Wool	4			13		13							
All other articles not enumerated	4	77		1	2			10					
Total, class 3	9,135	15,247	21,498	28,675	11,071	6,345	12,292	4,335	5,432	5,080	1,088	2,031	2,500
<i>Class 4.</i>													
Ashes, pot and pearl			112	10	31	88						1	
Crockery and earthenware	164	336		11	251	8	98	107	12	83	4	33	3
Dye woods, &c.	4												
Furniture	1	1			1	3							2

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 1887 to 1899, inclusive.

Articles.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 3.</i>													
Bricks.....											845		
Cement and water lime.....				4								300	
Fish.....							5	5				770	
Iron, railway.....			520	1	10	1	102		181		965	324	1,008
Iron, all other.....					494	1			214			2,051	13,522
Salt.....										498			
Steel.....													
Stone for cutting.....													
Apples.....													
Barley.....	1,709			6,519	8,113	6,433	16,751	28,065	7,904	11,128	14,173	6,909	2,424
Corn.....	83,431	102,974	147,045	180,842	127,494	131,222	198,777	106,329	100,512	175,094	169,057	150,967	81,777
Flour.....	11,780	8,563	5,017	9,204	6,802	11,018	6,588	17,735	10,169	16,224	7,237	4,212	6,118
Hay, pressed.....											301		
Meat, all kinds.....	10,726	11,508	17,224	20,482	26,096	31,724	36,352	60,300	46,316	46,456	41,644	22,026	18,198
Oil cake.....								29					
Oats.....	12,050	26,510	27,492	27,030	52,823	36,935	23,870	27,621	16,442	16,137	14,969	12,729	19,526
Pease.....													
Potatoes.....													
Rye.....												1,197	923
Flax seed.....													200
Seeds, all kinds.....	44	48	151	135	256	50	16	78	14	78	299	44	11
Wheat.....	37,078	39,999	39,229	31,527	32,097	26,350	28,187	53,846	27,881	34,878	28,919	11,268	12,926
Agricultural products, vegetables.....													
Hides and skins, &c.....	2			14	42								
Horses.....	170	39	1								41	23	
Lard and lard oil, &c.....	2			1	3			4			3	3	2
Meats, other than pork.....	14	19	32	30	10				6	1,318	1,444	3,071	864
Pork.....	18	14	3	15	2	29			30				
Sheep.....	108	19	21	88	73	1			87	390	243	1,271	343
Tallow.....													
Wool.....			452			70	80	1,484	1,586	900	197	89	130
Total, class 3.....	157,820	189,989	237,188	275,893	255,553	244,434	311,647	294,654	211,300	303,665	290,319	219,434	158,720
<i>Class 4.</i>													
Agricultural implements.....	9												
Crockery and earthenware.....		1											
Furniture.....	24	30	30	21	7		6						2

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 1887 to 1899, inclusive—*Continued.*

Articles.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 4. Con.</i>													
Glass, all kinds.....					1								8
Molasses.....								57					11
Nails.....									30	1,005	198	119	367
Oil, in barrels.....	8			3		44						3	2
Paint.....													1
Rugs.....													
Soda, ash.....													
Stone, wrought.....			2										
Sugar.....									59	165	31		
White lead.....				1									
Whisky, beer and all other spirits.....	63	151	190	228	167	46	83		15			34	168
Merchandise.....	469	1,453	1,679	1,822	1,865	1,331	1,693	2,976	7,656	3,990	3,591	3,828	6,219
Total, Class 4.....	573	1,635	1,902	2,075	2,041	1,421	1,782	3,033	7,762	5,100	3,820	3,986	6,783
<i>Class 5.</i>													
Empty barrels.....										10			
Firewood in vessels.....							9			165			
Lumber, sawn, in vessels.....	29,845	28,333	55,074	38,030	45,504	54,173	68,085	62,905	41,974	75,515	68,280	52,844	57,695
Masts and spars, in vessels.....											403		
Hoops.....									446				
Railway ties, in vessels.....													
Shingles.....							13						
Staves, barrel.....		6	51										
Timber, square, in vessels.....		82											
Woodenware, &c.....	26	141	333	8	4	54					1,040		
Total, Class 5.....	29,871	28,562	55,458	38,038	45,508	54,227	69,007	62,905	42,920	75,702	69,724	52,844	57,695
<i>Special Class.</i>													
Coal.....	1,163	878	1,124	615	1,382	651	2,123	727	603	1,255		759	2,243
Stone, not suitable for cutting.....			1,681	18									
Kryolyte.....				1,620	1,773								
Total, Special Class.....	1,163	878	2,805	2,253	3,155	651	2,123	727	603	1,255		759	2,243
Grand total.....	189,427	221,064	297,353	318,259	306,257	300,733	384,559	361,310	262,585	385,782	353,863	277,023	225,491

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 1899.

Names of Vessels.	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	1,230	706	524
" " "	1,252	714	518
" " "	1,230	733	497
" " "	1,215	688	527
" " Myles	1,200	751	449
" " Sir S. L. Tilley.....	1,200	811	389
Total.....	7,307	4,403	2,904

No of cargoes of wheat.....	6
Quantity through Welland Canal to Kingston and Prescott.....	7,307 tons.
" transhipped at Kingston and Prescott.....	4,403 "
" taken to Montreal in vessels in which it arrived at Kingston and Prescott.....	2,904 "

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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 1899.

Name of Vessels.	Original quantity through the Welland Canal.	Quantity transhipped at Kingston and Prescott.	Cargo through the St. Lawrence Canals to Montreal
	Tons.	Tons.	Tons.
Canadian Steamer Arabian.....	1,164	643	521
" " ".....	1,204	680	524
" " Lake Michigan.....	420	231	189
" " ".....	252	.....	252
" " ".....	350	109	241
" " Myles.....	1,190	798	392
" Schooner Melbourne.....	336	.....	336
Total.....	4,916	2,461	2,455
No. of cargoes of corn.....	.....	.....	7
Quantity through Welland Canal to Kingston and Prescott.....	.....	.....	4,916 tons.
" transhipped at Kingston and Prescott.....	.....	.....	2,461 "
" taken to Montreal in vessels in which it arrived at Kingston and Prescott.....	.....	.....	2,455 "

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 1899.

	Number of Cargoes.	Total Number.
Wheat.....	6	
Corn.....	7	
Total.....		13
	Tons.	Tons.
Quantity of Wheat through the Welland Canal, bound for Montreal.....	7,307	
Quantity of Corn " " " " ".....	4,916	
Total through Welland Canal.....		12,223
Quantity of the above transhipped at Kingston and Prescott:—		
Wheat.....	4,403	
Corn.....	2,461	
Total transhipped.....		6,864
Quantity of the above cargoes taken to Montreal in vessels in which it arrived at Kingston and Prescott:—		
Wheat.....	2,904	
Corn.....	2,455	
Total quantity to Montreal.....		5,359
Grand total.....		12,223

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O—STATEMENT showing the quantity of Grain passed Down the Welland Canal to Kingston, Prescott, Ogdensburg and other ports, in Canadian and United States vessels, entering the Canal at Port Colborne, during the season of navigation in 1899.

	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam & Sail.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	94	68,571	68	50,769	146	179,738	21	12,156	329	311,234
	Tons.		Tons.		Tons.		Tons.		Tons.	
Barley.....					2,424					2,424
Corn.....		28,015		18,905	138,834		18,250			204,004
Oats.....		1,557			21,646					23,203
Pease.....										
Rye.....					923					923
Wheat.....		91,901		80,928	16,250		7,244			196,323
Total.....		121,473		99,833	180,077		25,494			426,877

94 Cargoes in Canadian vessels, steam, total quantity..... 121,473 tons.
 68 " " " sail, " 99,833 "
 146 " United States vessels, steam, total quantity..... 180,077 "
 21 " " " sail, " 25,494 "

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P.—STATEMENT of the Quantity of Grain arrived at Kingston, Prescott and Ogdensburg which passed Down the Welland Canal during the season of navigation in 1899.

Summary.	Tons.	Tons.
Canadian steam vessels—94 cargoes of grain	121,473	
" sail " 68 "	99,833	
Total in Canadian vessels.....		221,306
United States steam vessels—146 cargoes of grain.....	180,077	
" sail " 21 "	25,494	
Total in United States vessels.....		205,571
Total in Canadian and United States vessels.....		426,877
Distributed as follows :—		
13 cargoes arrived at Kingston and Prescott in Canadian vessels, with an aggregate quantity of.....	12,223	
Transhipped at Kingston and Prescott.....	6,864	
Quantity taken to Montreal in vessels in which it arrived at Kingston and Prescott. Vessels arrived at Kingston and Prescott and discharged all their cargoes as follows :—		5,359
149 cargoes in Canadian vessels.....	209,083	
167 " United States vessels.....	205,571	
Quantity discharged.....	414,654	
Quantity transhipped to Montreal.....	306,633	
Total quantity transhipped from Kingston, Prescott and Ogdensburg to Montreal.....		*313,497
" remaining at Kingston, Prescott and Ogdensburg.....		3,107
" Cardinal.....		104,914
Total.....		426,877

*Of this quantity 49,564 tons were transhipped from Ogdensburg to Montreal.

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Q.—COMPARATIVE STATEMENT of the Quantity of Grain passed Down the Welland Canal to Kingston, Prescott and Ogdensburg, for the seasons of navigation in 1898 and 1899.

	1898.		1899.	
	No. of Cargoes.	Tons.	No. of Cargoes.	Tons.
Quantity arrived at Kingston and Prescott in Canadian vessels.....	166	224,021	162	221,306
Quantity arrived at Kingston, Prescott and Ogdensburg in United States vessels.....	330	464,852	167	205,571
	505	688,873	329	426,877
Quantity transhipped at Kingston, Prescott and Ogdensburg in Canadian vessels for Montreal.....		496,638		313,497
Quantity taken to Montreal in vessels in which it arrived at Kingston and Prescott.....		16,344		5,359
Quantity remaining at Kingston, Prescott, Ogdensburg and Cardinal.....		*175,891		108,021
Total.....		688,873		426,877

*Of this quantity 13,610 tons were transhipped to Montreal in 1899.

2 vessels took their cargoes through to Montreal intact in 1899 against 7 in 1898.

11 " discharged part of their cargo in 1899 against 25 in 1898.

316 " " all their cargoes in 1899 " 473 "

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 1899.

Destination.	Number of Sections.	Number of Vessels.	Tonnage of Vessels.	Number of passengers.	Class Three.	Class Four.	Class Five.	Tolls.
			Tons.		Tons.	Tons.	Tons.	
Prescott to Montreal.....	4	120	66,981	13,118	119	1,335	.....	2,099 54
" Lachine.....	3	29	14,969	1,455	1,329	429	.....	407 51
Dickinson's Landing to Montreal.	3	7	4,837	643	.....	36	.....	80 88
Valleyfield to Lachine.....	1	150	25,081	4,431	1,198	361	30	223 41
Lachine to Montreal.....	1	305	62,224	20,874	737	499	617 01
Total.....	611	175,092	40,521	3,383	2,660	30	3,428 35

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S.—The quantity of Coal passed through the Welland Canal during a series of years from 1885 to 1899, inclusive, and the amount of Tolls collected thereon, is as follows:—

Year.	From Canadian Ports to Canadian Ports.		From United States Ports to United States Ports.		From United States Ports to Canadian Ports.		Total Tons.	Amount of Tolls Paid Rate 20 cents a ton. \$ c.
	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			185,190	1,382	17,374	20,698	224,644	44,928 20
1892			183,244	651	12,391	15,330	211,616	42,284 13
1893			204,704	2,123	8,325	17,944	233,096	46,619 20
1894			187,794	727	1,269	13,947	203,737	49,789 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

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 and 1899 being 20 cents a ton for passage either eastward or westward.

T.—STATEMENT showing the quantity of Coal passed through the whole length of the St. Lawrence Canals during the seasons of 1885 to 1899, inclusive.

Year.	Quantity passed up Free of Tolls.	Quantity passed down to Montreal.	Total Quantity passed up and down.	Amount of tolls on Quantity passed down to Montreal.
	Tons.	Tons.	Tons.	\$ c.
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	18,004 90
1890	6,538	135,168	141,706	20,273 20
1891	7,951	141,701	149,652	21,255 13
1892	7,543	137,134	144,677	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

NOTE.—Coal is allowed to pass free up the St. Lawrence Canals.

SESSIONAL PAPER No. 20

U.—COMPARATIVE STATEMENT of the Quantity of Through 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 1888 to 1899, 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.
1888.	Tons.	Tons.	Tons.
Ashes, pot and pearl.....	85		
Apples.....		45	
Barley.....			2
Cement and water lime.....			4
Coal.....		27,183	878
Corn.....	66,443	25,469	102,974
Crockery and earthenware.....		4	1
Flour.....	3,865		8,563
Furniture.....	2	41	30
Glass, all kinds.....	3	2	
Hay, pressed.....		20	
Horses.....	2		
Hides and skins.....			39
Iron, pig.....		549	
" all other.....	418	490	
Lard and lard oil.....	54	12	18
Meal, all kinds.....	100		11,598
Meats, other than pork.....	39	6	14
Oats.....			26,510
Oil.....		3	
Pease.....		54	
Pork.....	265	61	19
Rags.....			14
Rye.....		632	179
Stone, for cutting.....		6,535	
" wrought.....		126	
Seeds, all kinds.....	12	1	48
Steel.....			3
Sugar.....		2	4
Spirits.....	3	2	151
Tallow.....			1
Wheat.....	93,915	14,365	39,999
Wool.....			18
All other goods and merchandise not enumerated.....	105	34	1,435
Barrels, empty.....	40		133
Lumber, sawn.....	5,174	4,515	45,818
Staves and headings, barrel.....	15	7	
" " pipe.....	124		
" " West Indies.....	1,623	13	
" " salt barrel.....	1	1	
Shingles.....			6
Timber, square, in vessels.....	11,586	33,669	
Woodenware.....	25		8
Total.....	183,899	113,801	238,467

A refund of 18 cents per ton was allowed on wheat, corn, pease, barley and rye passed down Montreal, per O. C. 20th April, 1888.

64 VICTORIA, A. 1901

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.
1889.	Tons.	Tons.	Tons.
Ashes, pot and pearl	107	5	
Coal		25,931	1,124
Corn	195,350	11,200	147,045
Crockery and earthenware		1	1
Fish		5	
Flour	6,841		5,017
Furniture		4	30
Horses	2		1
Iron, pig		613	
" all other			520
Lard and lard oil		5	19
Meal, all kinds	148		17,224
Meats, other than pork	32	2	3
Molasses			88
Oats	320		27,492
Oil, in barrels	4	2	
Oil cake	798		
Potatoes			1
Pork	1,220	114	21
Rye	1,284	634	
Salt		316	
Stone, for cutting		6,784	
" wrought		11	2
" not suitable for cutting		375	1,681
Seeds, all kinds	3		151
Spirits, beer, &c.	20	8	190
Tallow			13
Wheat	70,815	7,241	30,229
Wool			452
Merchandise	193	129	1,591
Barrels, empty			173
Lumber, sawn	6,118	4,669	71,055
Masts, spars, &c.		220	
Railway ties		852	
Saw logs			158
Staves and headings, barrel		4	
" " pipe	202	304	
" " West India	68	559	
Shingles			51
Split posts, &c.		17	
Timber, square	9,302	70,579	240
Woodenware, &c.			2
Total	292,827	130,584	313,574

A refund of 18 cents per ton was allowed on wheat, corn, pease, barley and rye, passed down to Montreal, per Order in Council 18th March, 1839.

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.
1890.	Tons.	Tons.	Tons.
Ashes.....	70		
All other products, animal	14		
" vegetable.....	1		
Barley.....			6,519
Bricks.....			4
Coal.....		22,781	615
Corn.....	134,966	11,584	180,842
Fish.....	49		
Flour.....	3,065		9,204
Furniture.....	1	1	21
Glass, all kinds.....	1		
Horses.....	3		1
Iron, all other.....			1
Kryolite.....		1,280	1,620
Lard and lard oil.....		5	30
Meal.....	222		20,482
Meats.....			15
Oats.....	479	73	27,030
Oil, in barrels.....	6		
Oil cake.....	2		
Paint.....			3
Pease.....			14
Pork.....	221	19	88
Potatoes.....			1
Rye.....	1,120	1	
Salt.....		701	
Stone, for cutting.....		5,761	
" wrought.....		639	18
Seeds, all kinds.....	2		135
Spirits, &c.....	26		228
Tallow.....	54		
Wheat.....	75,515	5,241	31,527
White lead.....			1
Merchandise.....	142	32	1,822
Barrels, empty.....			7
Firewood, in vessels.....		1,398	
Lumber, sawn, in vessels.....	3,195	3,767	47,590
" " rafts.....	384		
Staves and headings, pipe.....		187	
" " West Indies.....		36	
Shingles.....			14
Square timber, in vessels.....		73,112	
" " rafts.....		17,683	
Woodenware.....	1		1
	219,539	144,301	327,833
Corn.....	16,033		
Oats.....	400		
	16,433		*16,433
Total.....	235,972	144,301	311,400

* This quantity of grain was transhipped at Ogdensburg and passed down the St. Lawrence canals to Montreal.

A refund of 18 cents Welland Canal tolls was allowed on wheat, Indian corn, pease, barley, rye (and oats for export), when shipped for Montreal or some port east of that point, per Orders in Council 20th February and 5th May, 1890.

64 VICTORIA, A. 1901

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.
1891.			
Ashes	40		42
Agricultural products.....	2		8,113
Barley.....			127,494
Corn.....	52,539	5,144	1,382
Coal.....		20,698	6,802
Flour.....	3,324		1
Fish.....			7
Furniture.....	2	2	1
Glass.....	1		3
Horses.....	2	2	
Hay.....		21	
Iron, pig.....	371	128	10
" all other.....		1,036	10
Lard and lard oil.....	100	16	26,096
Meal, all kinds.....	67		2
Meats, other than pork.....		1	18
Molasses.....		20	52,823
Oats.....			1
Oil.....			
Pease.....	390		
Pork.....	201		73
Rags.....			60
Rye.....	64,978	969	
Seeds, all kinds.....	2		256
Salt.....		1,861	494
Stone for cutting.....		6,602	
" wrought.....		7	
Tobacco.....	1		8
Tallow.....		9	32,097
Wheat.....	159,785	692	
Staves, pipe.....		8	
Whisky and all other liquors.....	105	57	167
Wool.....			1,237
Merchandise.....	278	6	1,779
Kryolite.....		1,098	1,773
Lumber, in vessels.....	2,991	1,300	56,456
" in rafts.....	917		
Timber, square, in rafts.....	5,680	14,638	
Barrels.....			4
Corn.....	12,169	291,776	54,315
Wheat.....	5,648		317,209
		17,817	*17,817
Total.....	309,593	54,315	299,392

*This quantity of grain was transhipped at Ogdensburg and passed down the St. Lawrence Canals to Montreal.

A refund of 18 cents a ton, Welland Canal tolls, on wheat, Indian corn, pease, barley, rye and (for export) oats, originally shipped for Montreal or some port east of Montreal, per Order in Council, 25th March, 1891.

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.
1892.			
Ashes, pot and pearl.....	17	2	
Apples.....	54		
Barley.....			6,433
Corn.....	53,689	7,637	131,999
Coal.....		14,839	651
Flour.....	2,874		11,018
Fish.....	9		
Furniture.....	1		7
Hides.....	30		
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	26,950
Whisky, beer, spirits, &c.....	6	15	46
Wool.....			70
Merchandise not enumerated.....	36	13	1,304
Barrels, empty.....	1		29
Lumber, sawn, in vessels.....	1,678	150	83,403
Square timber.....	440	42,768	440
Staves and headings, pipe.....	8	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 Montreal, or any port east of Montreal, and such products exported out of the country, and in such cases only.

64 VICTORIA, A. 1901

U.—COMPARATIVE STATEMENT of the Quantity of Through Freight passed down the Welland Canals, &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.
1893.	Tons.	Tons.	Tons.
Ashes, pot and pearl	23		
Barley	600	1,110	16,751
Bricks		1,251	
Corn	278,564	5,752	156,776
Coal		17,944	2,123
Flour	5,514		6,588
Fish			5
Furniture			6
Horses	1	1	2
Iron, pig			100
" all other			2
Meal, all kinds		1,025	36,352
Meats, other than pork			1
Oats	9,761	1,000	20,313
Pork			52
Rye	3,669	1	1
Salt		286	
Seeds, all kinds			16
Wheat	209,212	17,602	29,117
Whisky, beer, &c.	1		83
Wool			80
Merchandise not enumerated	4	2	1,693
Barrels empty			9
Firewood (in rafts)		15	
Lumber, sawn, in vessels	667	1,981	123,665
Shingles			13
Square timber		45,605	
Staves and headings, barrel		12	
" 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 Canals."

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.
1894.			
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.

64 VICTORIA, A. 1901

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	*158,643	29,061	17,908
Wool			1,536
Merchandise not enumerated	558	1,302	7,656
Barrels, empty	1		
Sawn lumber in vessels	1,117	492	43,286
Railway ties			1,942
Shingles		19	
Square timber in vessels		63,715	500
Total	266,659	111,946	247,035

* Of this amount 3,469 tons came down to Kingston in 1894—was stored there and taken to Montreal in 1895 and 245 tons came down to Ogdensburg in 1894, stored there and transhipped to Montreal in 1895.

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 Fort Dalhousie and Cornwall.	down to United States Ports.
1896.	Tons.	Tons.	Tons.
All other (vegetable).....	29		
Apples.....	†1,263		
Ashes.....	94		
Barley.....	240		11,128
Cement and water lime.....	12		
Coal.....		11,742	1,255
Corn.....	182,330	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, was stored there, and transhipped to Montreal in 1896.

64 VICTORIA, A. 1901

U.—COMPARATIVE STATEMENT of the Quantities of Through Freight passed Down the Welland Canal—*Continued.*

Articles.	Quantity passed down to Canadian Ports, between Port Dalhousie and Cornwall.		Quantity passed down to United States Ports.
	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports, between Port Dalhousie and Cornwall.	
1897.	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	11,103	115,689
Flax seed.....	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.....	8,135	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	69,710
Masts.....			403
" " rafts.....		5	
Railway ties, in vessels.....		999	
Split posts.....		4	
Timber, square.....	1,207	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, 50 tons came down to Prescott in 1896 and passed down to Montreal in 1897, and 179 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.

SESSIONAL PAPER No. 20

U.—COMPARATIVE STATEMENT of the Quantity of Through Freight passed Down the Welland Canal, &c.—*Concluded.*

Articles.	Quantity passed	Quantity passed	Quantity passed
	down to Montreal.	down to Canadian Ports between Port Dalhousie and Cornwall.	down to United States Ports.
1898.	Tons.	Tons.	Tons.
Agricultural products, vegetable	56		
Ashes	73		
Barley	3,960	1,417	6,909
Cement and water lime			300
Clay, lime and sand	52	1	
Coal		4,536	759
Corn	*310,498	13,338	116,317
Flax seed	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	144	644	
Seeds, all kinds			44
Spirits, beer, &c	4		34
Steel	1,351	3,122	2,951
Stone for cutting		554	
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	110,893	258,871

* 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.

64 VICTORIA, A. 1901

U.—COMPARATIVE STATEMENT of the Quantity of the Through Freight passed down the Welland Canal, &c.—*Concluded.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
	Tons.	Tons.	Tons.
1899.			
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, all other	5,063		294
" Ore		26,125	
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
Stoue 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		
Firewood in Vessels		27	
Hop Poles		100	
Lumber sawn in vessels	924	4,583	57,695
Mast 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 Ogdensburg and Prescott in 1898, were stored there and transhipped to Montreal in 1899.

* Of this quantity of oats, 187 tons passed down on Dunville 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.

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.
1888.	Tons.	Tons.	Tons.
Barley			2
Corn	66,443	25,469	102,974
*Oats			26,510
Peas		54	
Rye		632	179
Wheat.....	93,915	14,365	39,999
Total grain	160,358	+ 40,520	169,664
Other articles	23,541	73,281	68,803
Total	183,899	113,801	238,467
1889.			
Barley			
Corn	195,350	11,290	147,045
*Oats	320		27,492
Peas			
Rye	1,284	634	
Wheat	70,815	7,241	39,229
Total grain	267,769	19,075	213,766
Other articles	25,158	111,509	99,808
Total	292,927	130,584	313,574
1890.			
Barley			6,519
Corn	150,999	11,584	180,842
Oats	879	73	27,030
Peas			14
Rye	1,120	1	
Wheat	75,515	5,241	31,527
Total grain.....	228,513	16,899	245,932
Other articles	7,459	127,502	81,901
Total	235,972	144,301	327,833
1891			
Barley			8,113
Corn	52,539	5,144	127,494
Oats			52,823
Peas	390		
Rye	64,978	969	
Wheat	159,785	692	32,097
Total grain.....	277,692	6,805	220,527
Transhipped at Ogdensburg to Montreal.....	+ 17,817		- 17,817
Total	295,509		202,710
Other articles.....	14,084	47,510	96,682
Total	309,593	54,315	299,392

*There was no rebate on oats for 1888 or 1889.

†Owing to a break in the Cornwall Canal 14,921 tons of the above quantity of grain were transhipped to Montreal *via* Canadian Pacific and Grand Trunk Railways, and the re-fund of 18 cents per ton allowed.

‡Of this quantity of grain 16,433 tons were transhipped at Ogdensburg to Montreal.

64 VICTORIA, A. 1901

U.—STATEMENT showing the quantity of Through Freight passed down the Welland Canal to Canadian Ports, &c.—Continued.

RECAPITULATION—Continued.

Articles.	Quantity passed	Quantity passed	Quantity passed
	down to Montreal.	down to Canadian Ports between Port Dalhousie and Corowall.	down to United States Ports on the south side of Lake Ontarrio.
1892.	Tons.	Tons.	Tons.
Barley.....			6,433
Corn.....	53,689	7,637	131,222
Oats.....			36,935
Peas.....	524		
Rye.....	9,119	273	
Wheat.....	194,281	5,373	26,950
Total grain.....	257,613	13,283	201,540
Quantity taken to Ogdensburg and transhipped to Montreal.....	* 4,341	4,341	
Total.....	261,954	8,942	201,540
Other articles.....	5,531	60,944	128,863
Total.....	267,485	69,886	330,443
1893.			
Barley.....	600	1,110	16,751
Corn.....	278,564	5,752	156,776
Oats.....	9,761	1,090	20,313
Pease.....			
Rye.....	3,669	1	1
Wheat.....	209,212	17,602	29,117
Total grain.....	501,806	25,555	222,958
Other articles.....	6,210	68,182	170,790
Total.....	508,016	93,737	393,748
1894.			
Barley.....	258		28,095
Corn.....	60,661	3,243	105,329
Oats.....	175	107	27,621
Pease.....			
Rye.....			
Wheat.....	212,557	13,349	42,934
Total grain.....	273,651	16,699	203,979
Other articles.....	18,540	63,982	169,091
Total.....	292,191	80,681	373,070
1895.			
Barley.....	959		7,730
Corn.....	70,265	2,912	91,743
Oats.....	1,654	123	16,442
Rye.....			
Wheat.....	158,643	29,061	17,908
Total grain.....	231,491	32,096	133,823
Other articles.....	35,168	79,850	113,212
Total.....	266,659	111,946	247,035

*This quantity of wheat was taken from Kingston to Ogdensburg, stored in elevators and subsequently transhipped to Montreal.

†Of this amount, 3,469 tons came down to Kingston in 1894, was stored there, and taken to Montreal in 1895, and 245 tons came down to Ogdensburg in 1894, was stored there and transhipped to Montreal in 1895.

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 Ports Dalhousie and Cornwall.	Quantity passed down to United States Ports on the south side of Lake Ontario.
1896.	Tons.	Ton.	Tons.
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	150,977
Total	479,442	172,950	311,349
1897.			
Barley			14,173
Corn	264,396	11,103	115,689
Oats	6,817	3,046	15,234
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	115,989	128,207
Total	581,047	169,246	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
1899.			
Barley	596		1,828
Corn	150,999	16,594	43,854
Oats	10,250	1	13,139
Pease			
Rye	923		
Wheat	169,978	23,602	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

†Of this amount, 5,290 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.

***Of this quantity, 14,077 tons came down in 1898 and were transhipped to Montreal in 1899.

64 VICTORIA, A. 1901

COMPARATIVE STATEMENT showing the quantity of Vegetable Food and Lumber passed through the Canals during the Years ended December 31, 1898 and 1899.

		VEGETABLE FOOD.										Lumber.		Total.			
		Wheat.		Corn.		Barley.		Oats.		Rye.		Buck-wheat.		All other.		Total.	
		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Welland Canal, 1898		5,578	297,647	437,861	12,286	17,592	16,127							23,182	89,574	899,757	
" " 1899		11,625	197,732	294,664	2,367	24,637	923					4		18,466	67,830	927,312	
Increase.		6,047	9,915	233,857	9,379	6,535						4		4,722	12,724	273,215	
Decrease.																	
St. Lawrence Canals, 1898		26,694	274,335	501,836	6,496	53,048	23,976					3,051		25,036	21,744	937,616	
" " 1899		27,833	299,567	350,110	25,230	43,068	6,522					1,296		17,020	26,800	797,506	
Increase.		1,739	25,232	151,726	18,734									8,016	5,116	140,110	
Decrease.																	
Chambly Canal, 1898		469	1											1,292	26,606	32,253	
" " 1899		409			30	4,342								274	56,833	61,888	
Increase.																	
Decrease.		51	1		30	448								1,018	30,227	29,635	
Ottawa Canals, 1898		41	225		40	2,158	10					59		602	142,382	145,517	
" " 1899		125				1,441	10				40			508	106,378	108,502	
Increase.		84	225		40	717					19			94	36,004	37,015	
Decrease.																	
Rideau Canal, 1898		335	264	93	4	1,393	8				110			294	21,556	23,967	
" " 1899		788	213	110		823	7				33			336	28,534	30,844	

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Increase.....	153	51	17	4	570	1	77	132	6,978	6,877
Decrease.....										
St. Peter's Canal, 1898	2,177				894			1,888	4,955	9,914
" 1899	2,460		21	7	2,010			3,190	9,203	16,806
Increase.....	283		21	7	1,116			1,302	4,253	6,982
Decrease.....										
Trent Valley Canals, 1898		417			3			2	1,662	2,084
" 1899		437		13	16			26	2,697	3,189
Increase.....		20		13	13			24	1,035	1,105
Decrease.....										
Murray Canal, 1898	29	320	12	644	162	215	154	1,370	429	3,335
" 1899	7	1,115	56	762	8	392	79	667	311	3,397
Increase.....	22	795	44	118	154	177	75	703	118	62
Decrease.....										
Sault Ste Marie Canal, 1898	94,099	292,398	21,524	6,305	13,869	15,314		15,290	22,701	482,000
do 1899	119,888	382,789	20,812	2,040	3,196	3,528		16,014	13,271	561,568
Increase.....	25,789	90,391	682	4,265	10,473	12,286		724	9,430	79,568
Decrease.....										
Total increase.....	34,322	106,246	386,183	5,211	13,982	46,768	1,922	12,371	10,667	326,11
Total decrease.....										
Total for year 1898										2,737,443
" 1899										2,411,352

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 1, 1900.

RICHARD DEVLIN,
Compiler of Canal Statistics.

64 VICTORIA, A. 1901

CANAL
COMPARATIVE STATEMENT for years

	January.	February.	March.	April.	May.
	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.
Welland Canal, 1898			0 47	14,721 18	30,259 38
" 1899			2 31	3,731 14	24,339 23
Increase.....			1 84		
Decrease.....				10,990 04	5,920 15
St. Lawrence Canals, 1898		75 00		2,857 12	14,427 08
" 1899				712 35	15,762 82
Increase.....					1,335 74
Decrease.....		75 00		2,144 77	
Chaubly Canal, 1898				30 84	3,125 07
" 1899				9 25	3,932 67
Increase.....					807 60
Decrease.....				21 59	
Ottawa Canals, 1898				35 13	5,888 45
" 1899				37 22	6,264 76
Increase.....				2 09	376 31
Decrease.....					
Rideau Canal, 1898				20 16	567 63
" 1899				45 00	1,118 65
Increase.....				24 84	551 02
Decrease.....					
St. Peter's Canal, 1898	3 32		5 98	92 78	311 29
" 1899	12 30			35 59	271 86
Increase.....	8 98				
Decrease.....			5 98	57 19	39 43
Trent Valley Canals, 1898			31 15	66 23	117 30
" 1899				4 33	197 03
Increase.....					
Decrease.....			31 15	61 90	10 27
Murray Canal, 1898				38 40	77 39
" 1899				13 06	58 56
Increase.....					
Decrease.....				25 34	18 83
Sault Ste. Marie Canal, 1898					
" 1899					
Increase.....					
Decrease.....					
Total, increase.....	8 98		35 29	13,273 90	2,918 01
Total, decrease.....		75 00			

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, Oct. 1, 1900.

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REVENUE.

ended 31st December, 1898 and 1899.

June.	July.	August.	September.	October.	November.	December.	Total.
§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.
22,335 01	20,870 53	24,287 40	19,676 04	20,769 33	12,676 47	3,019 60	168,715 41
20,275 62	15,883 28	14,186 32	12,931 99	12,642 00	11,820 31	2,297 93	118,110 13
2,159 39	4,987 25	10,101 03	6,744 05	8,127 33	856 16	721 07	50,665 28
13,957 50	17,128 92	17,685 67	15,010 03	15,174 10	10,659 43	66 56	107,041 41
15,512 62	16,118 20	15,882 03	11,689 43	12,500 32	12,606 37	146 06	100,930 20
1,555 12	1,010 72	1,803 64	3,320 60	2,673 78	1,946 94	79 50	6,111 21
3,476 53	3,489 03	2,810 33	2,981 09	2,468 06	944 61		19,326 06
3,924 05	4,247 11	4,343 85	2,953 27	4,144 51	2,436 45	8 94	26,000 10
447 52	758 08	1,533 02	27 82	1,676 45	1,491 84	8 94	6,674 04
5,911 00	6,283 53	6,471 90	4,624 60	4,217 60	3,496 41		36,928 62
5,549 08	5,605 08	5,257 66	4,598 24	5,238 43	2,832 93		35,383 40
361 92	678 45	1,214 24	26 36	1,020 83	663 48		1,545 22
782 70	697 14	891 53	668 32	691 61	693 68		4,922 77
736 75	1,104 92	1,124 50	754 58	738 14	400 03	7 41	6,049 98
45 95	407 78	232 97	86 26	156 53	293 65	7 41	1,127 21
352 47	348 71	440 86	457 35	358 06	326 28	186 62	2,884 32
308 92	423 14	516 46	518 30	396 46	380 69	287 61	3,151 33
43 55	74 43	75 60	60 95	37 80	54 41	109 99	267 01
228 67	232 22	214 52	133 16	104 31	49 07		1,176 63
150 63	218 18	241 49	247 37	185 82	157 64	0 25	1,312 74
78 04	14 04	26 97	114 21	81 51	108 57	0 25	136 11
68 61	100 42	148 42	88 67	97 69	64 41		684 01
95 91	142 98	132 40	120 78	89 05	61 25	0 50	714 49
27 30	42 56	16 02	32 11	8 64	3 16	0 50	30 48
658 91	5,407 61	11,266 42	9,825 30	7,836 63	1,785 31	524 08	50,026 86

Total for year 1898.....8341,679 23
 Total for year 1899.....291,652 37

RICHARD DEVLIN, *Compiler of Canal Statistics.*

64 VICTORIA, A. 1901

APPENDIX A.

No. (A) 1. — GENERAL STATEMENT showing the Quantity of each Article transported on the Welland Canal and the Amount of Revenue collected during the Season of Navigation in 1899.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to Canadian Ports.		From United States to United States Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Ashes, pot and pearl	18										58	\$ cts.	\$ cts.	\$ cts.
Apples	2	214			14				40		250	11 60	5 35	11 60
Agricultural products not enumerated, vegetables	1								32		272	0 02	30 40	30 42
Agricultural products not enumerated, animal														
Agricultural implements														
Barley	115		483				2,424				2,424	72 45	242 40	314 85
Bones	4										4	0 10	0 10	0 10
Buckwheat	23	19	7		20				30	19	49	1 68	0 48	2 16
Cement and water lime	15	100			86,638		2,203		415	32	550	3 29	35 50	38 79
Clay, lime and sand			525				81,777		8,276	163	10,569	17,432 60	2,113 80	19,546 40
Coal		350							121,877		204,001	204,000	20,400 40	20,400 40
Cattle														
Cotton (raw)	12				7				19		19	2 59		2 59
Crockery and earthenware														
Dye wood and dye stuffs	1				2,232				2,233		2,233	334 82		334 82
Fish														
Flax and hemp									4,404		11,625	1 35	1 80	2,132 02
Flour	1,103		6		3		6,118		2	9	18	3 15	3 29	3 15
Furniture														
Gypsum														
Glass (all kinds)	33		17		20				16	70	86	7 90	3 29	11 10
Hay (pressed)	400								400		400	60 00		60 00
Hogs														
Horses	2	1	5		1				1	8	10	0 94	0 23	1 17
Hides and skins, horns and hoofs	1				20					21	21	3 02		3 02

No. (A) 1.—GENERAL STATEMENT showing the Quantity of each Article transported on the Welland Canal, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of 1/2 Tolls, Up.		Amount of Tolls, Down.		Total Amount of Tolls.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		\$	cts.	\$	cts.		
																	\$
Floats																	
Fire wood, in vessels		4,341									4,341				231 80		231 80
" rafts																	
Hoops																	
Hop poles		2,452									100				12 00		12 00
Lumber, sawn, in vessels						57,695					64,187				11,469 74		12,128 56
" rafts			3,663	2,366													
Masts, spars, and telegraph poles, in vessels																	
Masts, spars, and telegraph poles, in rafts	15	4	15							30	4						
Railway ties, in vessels	290	74		1,273						290	1,347				215 26		238 43
" rafts										1,654	2,937				153 99		183 41
Saw logs	590	1,914	1,064	1,023													
Staves and headings, barrel pipe																	
" " West India																	
" " Salt barrel										1	50				35 58		36 18
Shingles																	
Split posts and fence rails, in vessels																	
Split posts and fence rails, in rafts		500									24,985				3,746 21		3,746 21
Timber, square, in vessels																	
" " rafts																	
Traverses																	
Woodenware and wood partly manufactured																	
Total freight paying tolls	5,225	148,272	6,248	4,902	135,038	225,378	258,716		146,511	637,268	783,779	25,738 13	76,112 64	101,850 77			

64 VICTORIA, A. 1901

APPENDIX A—Continued.

No. (A) 2.—GENERAL STATEMENT showing the Quantity of each Article of Through Freight transported on the Welland Canal and the Amount of Tolls collected during the Season of Navigation in 1899.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up. \$ cts.	Amount of Tolls, Down. \$ cts.	Total Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Ashes, pot and pearl		18									58		11 60	11 60
Apples	2				14				16		16	2 40		2 40
Agricultural products not enumerated, vegetable...											32		6 40	6 40
Agricultural products not enumerated, animal...														
Agricultural implements.														
Barley			483			2,421				483	2,424	72 45	242 30	314 85
Bricks														
Bones														
Brimstone	1		7							8		1 20		1 20
Cement and water lime					20	2,293		15	20	15	10,569	35 50	3 00	6 00
Clay, lime and sand					86,168	8,276		8,276	87,163	10,569	97,732	17,432 60	2,113 80	19,546 30
Coal						81,777		121,877		201,094	201,094	20,400 40	20,400 40	20,400 40
Corn		350												
Cattle														
Cotton (raw)														
Crockery and earthenware.	10				7				17		17	2 55		2 55
Dye wood and dye stuffs.														
Fish.					2,232				2,232		2,232	334 80		334 80
Flax and hemp.														
Flour.						6,118		4,404		9	10,522	1 35	2,104 40	2,104 40
Furniture.					3	7		2			18		1 80	3 15
Gypsum.														
Glass (all kinds)	13													
Hay (pressed)	400				20			16	50	16	66	7 50	3 20	10 70
Hogs									400		400	60 00		60 00
Horses														
Hides and skins, horns and hoofs.														
									6	1	7	0 90	0 20	1 10
					20				20		20	3 00		3 00

64 VICTORIA, A. 1901

No. (A) 1.—GENERAL STATEMENT showing the Quantity of each Article of through Freight transported on the Welland Canal, &c.—*Concluded.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Plates.....											27			
Firewood, in vessels.....		27									27			1 80
" rafts.....														1 80
Hoops.....											100			12 00
Hop poles.....							100				100			12 00
Lumber, sawn, in vessels.....		1,467	3,663	2,366		57,695	1,674		3,663	63,292	66,865	638 82	11,358 96	12,017 78
" rafts.....														
Masts, spars, and telegraph poles, in vessels.....														
Masts, spars, and telegraph poles, in rafts.....	3		15						15	3	18	3 00	0 60	3 60
Railway ties, in vessels.....	71		1,273							1,317	1,317		215 26	215 26
" rafts.....														
Saw logs.....														
Staves and headings, barrel " pipe.....														
" W. India.....														
Staves, salt barrel.....		50								50	51	0 60	35 58	36 18
Shingles.....														
Split posts and fence rails, in vessels.....														
Split posts and fence rails, in rafts.....		500					24,485			24,985	24,985		3,746 21	3,746 21
Timber, square, in vessels.....														
" rafts.....														
Traverses.....														
Woodware and wood, partly manufactured.....														
Total freight paying tolls.....	1,301	135,065	5,184	3,639	135,038	225,378	258,022	141,523	622,104	763,627	25,605 63	75,221 80	100,827 43	

64 VICTORIA, A. 1901

APPENDIX A—Continued.

No. (A) 3.—GENERAL STATEMENT showing the Quantity of each Article of Way Freight transported on the Welland Canal, and the Amount of Tolls Collected, during the Season of Navigation in 1899.

Articles.	From Canadian to Canadian Ports.		From Canadian United States to United States Ports.		From United States to Canadian Ports.		Total Tons.	Amount of Tolls.		Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.		Up.	Down.	
Ashes, pot and pearl		214				214				
Apples									5 35	5 35
Agricultural products not enumerated, vegetable	1		210		1	210	1	0 02	24 00	24 02
Agricultural products not enumerated, animal										
Agricultural implements							115	4 99		4 99
Barley										
Bricks	115									
Bones										
Brimsone										
Buckwheat	4					4			0 10	0 10
Cement and water lime	22	19				41		0 48	0 48	0 95
Clay, lime and sand	15	100			400	515		0 29	32 50	32 79
Coal										
Corn										
Cattle										
Cotton (raw)	2					2		0 04		0 04
Crockery and earthenware										
Dye, wood and dye stuffs										
Fish	1					1		0 02		0 02
Flax and hemp										
Floor		1,103				1,103			27 62	27 62
Furniture										
Gypsum										
Glass (all kinds)	20					20		0 40		0 40
Hay (pressed)										
Il-gs.										
Horses	2	1				3		0 04	0 03	0 07

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Hides and skins, horns and hoofs.....	1	1	1	0 02	0 02
Ice.....	216	216	216	16 20	16 20
Iron, railway.....	172	132	294	3 28	6 33
" pig.....					
" all other.....					
Iron ore.....					
Kryolite chemical ore and other ore, except iron.....					
Lard and lard oil.....	4	4	4	0 38	0 38
Mead, all kinds.....	6	6	6	0 12	0 12
Meats, other than pork.....					
Marble.....					
Manilla.....					
Molasses.....	87	1	88	1 68	0 03
Nails.....	338	338	338	37 98	1 71
Oats.....	15	15	15	0 30	0 30
Oil (in barrels).....					
Oil cake.....					
Pease.....	28	28	28	0 71	0 71
Potatoes.....					
Pork.....					
Paint.....	26	26	26	0 52	0 52
Pitch and tar.....					
Rags.....					
Rye.....					
Flax seed.....					
Rosin.....					
Salt.....	15	15	66	0 30	4 88
Stone intended for cutting.....					
" wrought.....					
" not suitable for cut-ting, unwrought.....	302	941	1,243	10 14	46 88
Seeds, all kinds.....					
Sheep.....					
Soda Ash.....	30	30	60	0 57	0 75
Steel.....	157	157	157	3 00	3 00
Sugar.....	32	32	32	0 61	0 61
Spirits, beer, &c.....	99	66	165	1 89	1 65
Tobacco (raw).....	7	7	7	0 14	0 14
Tallow.....					
Tin.....	1	1	1	0 02	0 02
Turpentine.....					
Wheat.....	7	7	1,409	134 97	134 97
White lead.....					
Whiting.....					
Wool.....					
All other goods and mer-chaudise not enumerated.....	1,642	1,642	3,502	33 19	75 14
Bark.....					
	279	1,642	1,860	75 14	108 33

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Woodenware and wood, partly manufactured...	3,424	13,207	1,964	1,263	694	4,988	15,164	29,152	132 50	890 84	1,023 34
Total freight paying tolls.											
Total way tolls on vessels									324 70	323 01	647 71
" " passengers.									282 30	284 94	567 24
Total way tolls.									739 50	1,498 79	2,238 29

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 1, 1900.

RICHARD DEVLIN,
Compiler of Canal Statistics.

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 1899.

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.	
Asbes, pot and pearl.....		14									14					2 80
Apples.....	23	3,267									3,290		2 13	479 71		481 84
Agricultural products not enumerated, vegetable.....	1,815	530									659		94 65	92 19		186 84
Agricultural products not enumerated, animal.....	944	3,576									3,576		99 51	282 73		382 24
Agricultural implements.....	62	9									9		7 90	0 90		8 80
Barley.....	48	24,586									24,586		1 30	1,123 21		1,124 51
Bricks.....	8,355	39	34								39		401 46	2 22		403 68
Bones.....		366									367			47 37		47 37
Brinstone.....	608										608		64 68			64 68
Buckwheat.....	95	1,201									1,201		2 40	59 62		62 02
Cement and water lime.....	3,423	852	825								852		541 39	32 68		574 07
Clay, lime and sand.....	15,731	18,623	3								18,626		730 41	750 96		1,471 37
Coal.....	15	42,652			607						230		8 63	31,510 15		31,518 78
Corn.....	317	193,686									195,467		8 45	5,153 70		5,162 15
Cotton.....	15	293									293		1 26	22 45		23 71
Cattle (cow).....	231										231		5 83			5 83
Crocery and earthenware.....	117	16	1								118		20 65	2 00		22 65
Dye wood and dye st affs.....	1										3		0 29			0 29
Fish.....	65	11	12								77		8 98	0 67		9 65
Flax and hemp.....	3										3		0 30			0 30
Flour.....	781	22,823									22,823		49 56	1,253 68		1,303 24
Furniture.....	419	1,324									1,324		69 13	187 64		246 77
Gypsum.....	513	5	4								517		7 02	0 19		7 21
Glass (all kinds).....	861	74	198								1,061		207 05	10 30		217 35
Hay (pressed).....	654	305									305		25 97	16 40		42 37
Hogs.....	31										31		31	2 49		2 49
Horses.....	229	453									229		11 74	28 93		40 67

64 VICTORIA, A. 1901

No. (A) 4.—GENERAL STATEMENT showing the Quantity of each Article transported on the St. Lawrence Canals, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons	Amount of Tolls, Up.		Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		\$ cts.			
												\$	cts.		
Barrels, empty.....	122	464	2						124	464	588	3 75	56 33	60 08	
Boat knees.....															
Floats.....	170	1,150							170	1,150	1,320	2 48	20 13	23 11	
Fire wood, in vessels.....	4,125	5,954	1,527						5,652	5,954	11,606	170 55	100 20	270 75	
" rafts.....		30							30		30		0 63	0 63	
Hoops.....															
Hop poles.....	20,190	4,757	391	472	15	34			20,596	5,233	25,829	577 48	135 70	713 18	
Lumber, sawn, in vessels.....	54	1,734							54	1,734	1,788	2 33	77 90	80 23	
" rafts.....															
Masts, spars and telegraph poles, in vessels.....															
Masts, spars and telegraph poles, in rafts.....	90	31,079							90	31,079	31,169	2 25	776 88	779 13	
Railway ties, in vessels.....	63	32	32						65	32	127	1 39	3 13	5 12	
" rafts.....		569								569	569		10 74	10 74	
Saw logs.....															
Staves and headings, barrel.....															
" " pipe.....															
" " W. India.....															
Staves, salt barrel.....		34							34		34		0 65	0 65	
Shingles.....		49							49		49		8 26	8 26	
Split posts and fence rails, in vessels.....															
Split posts and fence rails, in rafts.....															
Timber, square, in vessels.....	186	466							186	466	652	2 48	7 40	9 88	
" rafts.....	190	7,047							190	7,047	7,237	4 75	177 30	182 05	
Traverses.....		544								544	544		3 40	3 40	
Wooden ware and wood partly manufactured.....	33														
Total freight paying tolls.....	102,320	595,051	7,125	472	344	1,233	11,780	181,378	121,569	778,134	899,703	9,210 81	51,974 67	61,185 48	

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Free articles having paid full tolls on the Welland Canal:

Ashes	30	28	58	58
Barley		596	596	596
Barrels, empty		1	1	1
Corn	130,802	23,584	154,386	154,386
Floor	1,706	2,533	4,229	4,229
Glass	7	9	16	16
Horses	1	1	1	1
Iron, all other	2,564			
Merchandise	73	2,499	5,063	5,063
Molasses	26	445	518	518
Nails	1	133	159	159
Oats	7,667	2,583	10,250	10,250
Oils	6,861	982	7,143	7,143
Rye	700	223	923	923
Salt	30	133	183	183
Seeds		200	200	200
Steel		1,150	3,000	3,000
Tobacco, raw	1,850	96	96	96
Vegetables, all other	32		32	32
Wheat	168,119	1,859	169,978	169,978
Whisky		31	74	74
Coal, free, per Order in Council	664,632	617	89,809	90,426
<i>Free articles for canal construction, O.C., 1884:</i>		23,177		
Clay, lime and sand		15	15	15
Lumber, sawn, in vessels	50		50	1,001
Square timber, "		26	26	26
Stone, wrought	1,015		1,015	1,015
Grand total, freight	169,092	344	1,233	1,349,093
		472	34,957	1,137,665
		7,125	211,428	

Total tolls on vessels	12,111 32	3,618 67	21,729 99
passengers	981 16	2,452 18	3,433 34
free goods			\$41,990.13
Total tolls			
Fines	22,363 29	64,045 52	86,348 81
* Damages			124 00
Wharfage and storage			2,174 00
Other receipts			12,283 39
Total revenue, exclusive of hydraulic rents			100,930 20

RICHARD DEVLIN,
Comptroller of Canal Statistics.

* Amount of damages not included in above, \$185.47.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 1, 1900.

64 VICTORIA, A. 1901

APPENDIX A—Continued.

No. (A) 5.—GENERAL STATEMENT showing the Quantity of each Article of Through Freight transported on the St. Lawrence Canals and the Amount of Tolls collected during the Season of Navigation of 1899.

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.		Tolls.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Ashes, pot and pearl		14							14				2 80	2 80
Apples.....		3,168							3,168				475 35	475 35
Agricultural products not enumerated, vegetable.....	202	456					129		202	202	585		87 75	118 05
Agricultural products not enumerated, animal.....		1,123							1,123				168 45	168 45
Barley.....		6,779							6,779				677 90	677 90
Bricks.....	254		34						288				43 20	43 20
Bricks.....							1		1				0 15	0 15
Brinestone.....	82								82				12 30	12 30
Buckhead.....		371							371				37 10	37 10
Cement and water lime.....	2,167	6	825						2,992	6			448 80	0 30
Clay, lime and sand.....	66		3						69				10 35	10 35
Coal.....		35,332							201,546				30,231 80	30,231 80
Corn.....		1,804							3,525				352 50	352 50
Cattle.....	1	5							1				0 75	0 75
Cotton (raw).....									57	10			11 40	2 00
Crockery and earthenware.....	56	10							28				4 20	4 20
Dye wood and dye stuffs.....	16													
Fish.....														
Flax and hemp.....														
Flour.....		1,408							1,408				211 20	211 20
Furniture.....	253								773				154 00	205 20
Gypsum.....									4				0 60	0 60
Glass (all kinds).....	701	40	198						899	40			8 00	187 80
Hay (pressed).....	7								7				1 05	1 05
Hogs.....		1							1				0 15	0 15
Horses.....	5	57							5				8 55	9 30

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	14	14	14	14	2 10	2 10	2 10
Hides and skins, horns and hoofs.....							
Ice.....	2	2	21	23	0 30	3 15	2 10
Iron, railway.....	378	378	1,213	1,621	56 70	186 45	3 45
" pig.....	2,876	293	310	4,514	630 60	46 50	243 15
" all other.....							677 10
Iron ore.....							
Kryolite chemical ore and other ore, except iron.....	36	36	356	362	5 40	53 40	58 80
Lard and lard oil.....							
Meat, all kinds.....	49	49	61	65	0 30	7 35	7 35
Meats, other than pork.....	61	2				9 15	9 45
Matte.....							
Mamilla.....	20	20		20	4 00		4 00
Molasses.....	2			2	0 40		0 40
Nails.....	747	1,060	35	1,125	218 00	7 00	225 00
Oats.....	5,769	5,769	5,769	5,769	576 90	576 90	576 90
Oil (in barrels).....	310	333	346	679	66 60	69 20	135 80
Oil cake.....							
Pease.....	7,669	7,669		7,669	766 90	766 90	766 90
Potatoes.....	2	2			0 30		0 30
York.....	1	1	31	32	0 15	4 65	4 80
Paint.....	257	265	59	324	53 00	11 80	64 80
Pitch and tar.....	105	172	172	293	24 20	34 40	58 60
Rags.....	59	73	109	182	14 60	21 80	36 40
Rye.....	3,873		4,068	4,068	406 80	406 80	406 80
Rosin.....	1	16		16	3 20		3 20
Salt.....	768	833		833	124 95		124 95
Stone intended for cutting.....							
" wrought.....	1	1		1	0 20		0 20
" not suitable for cutting, unwrought.....							
Seeds, all kinds.....	504	504		504	10 20	40 20	40 20
Sheep.....	285	51	51	465	62 10	7 65	69 75
Soda ash.....	516	610		610	122 00		122 00
Steel.....	646	664	297	961	99 60	44 55	144 15
Stegar.....	6,301	6,434	20	6,434	1,286 80	1 00	1,290 80
Syrups, brook, &c.....	138	292	193	485	58 40	38 60	97 00
Tobacco (raw).....	1	1		1	0 15		0 15
Tallow.....	3	3	16	19	0 45	2 40	2 85
Tin.....	729	833	125	978	170 60	25 00	195 60
Turpentine.....							
Wheat.....	10,682			11,364	1,136 40		1,136 40
White lead.....	91	91		91	18 20		18 20
Whiting.....	325	325		325	105 00		105 00
Wool.....	28	28		28	4 20		4 20
All other goods and merchandise not enumerated.....	4,497	2,649		7,554	978 80	532 00	1,510 80
Barrel.....	60	62		62	10 15		10 15
Barrels, empty.....							

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No. (A) 5.—GENERAL STATEMENT showing the Quantity of each Article of Through Freight 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.					
															%
Bent knees															
Flouts															
Firewood, in vessels			1,527							1,527		101 80		101 80	
" in rafts															
Hoops															
Hop poles															
Lumber, sawn in vessels	270		391							661		59 33		59 33	
" in rafts															
Masts, spars and telegraph poles, in vessels															
Masts, spars and telegraph poles, in rafts															
Railway ties, in vessels										32		2 50		2 50	
" in rafts															
Saw logs															
Staves and headings, barre															
" " W. India															
" " W. India															
Staves, salt barre															
Shingles															
Split posts and fence rails, in vessels															
Split posts and fence rails, in rafts															
Timber, square, in vessels															
" in rafts															
Traverses															
Woodenware and wood partly manufactured	17		2							19		7 60		7 60	
Total through freight paying tolls	22,251	85,818	7,108				169,121	29,362	254,969	284,331	5,082 01	36,460 40		41,542 41	7 60

Free articles having paid full tolls on the Welland Canal:

120 Agricultural products vegetable	32	28	32	32
121 Ashes	36	596	58	58
122 Barley		15	15	15
123 Clay, lime and sand	127,415	23,584	150,999	150,999
124 Corn		2,000	2,000	2,000
125 Flax seed		4,229	4,229	4,229
126 Flour	1,706	9	16	16
127 Glass	7	1	1	1
128 Horses		2,489	5,063	5,063
129 Iron (all other)	2,564	133	159	159
130 Molasses	25			
131 Nails	1			
132 Oats	7,667	2,583	10,250	10,250
133 Oil	6,861	282	7,143	7,143
134 Rye	700	223	923	923
135 Salt	30	153	183	183
136 Steel	1,850	1,150	3,000	3,000
137 Tobacco		96	96	96
138 Wheat	168,119	1,839	169,978	169,978
139 Whisky	43	31	74	74
140 Merchandise	73	445	518	518
141 Barrels (empty)		1	1	1
142 Lumber, sawn (in vessels)	924		924	924
143 Timber square (in ")			26	26
144 Coal, free per Order in Council		26		
145 Grand total through Council	448	448	448	448
146 Grand total through freight	22,792	403,896	609,474	639,264

Total through tolls on vessels	6,748 27	6,807 36	13,555 63
" " passengers	187 95	1,628 65	2,116 60
" " free goods		836,875.72	
Total through tolls	12,318 23	41,896 41	87,214 64

RICHARD DEVLIN,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 1, 1900.

No. (A) 6.—GENERAL STATEMENT showing the Quantity of each Article of Way Freight transported on the St. Lawrence Canals, &c.—*Concluded.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
Barrels, empty	62	164							62	464	526	3 75	46 15	49 90
Boat knees	170	1,150							170	1,150	1,320	2 98	20 13	23 11
Floats	4,125	5,951							4,125	5,951	10,076	68 75	100 20	168 95
Firewood, in vessels		30								30	30		0 63	0 63
Hoops														
Hope poles	19,920	4,757							19,935	5,263	25,198	518 15	135 70	653 85
Lumber, sawn, in vessels	54	1,731			15	34			54	1,731	1,785	2 33	77 90	80 23
Masts, spars, and telegraph poles, in vessels														
Masts' spars, and telegraph poles, in rafts	90	31,079							90	31,079	31,169	2 25	776 88	779 13
Railway ties, in vessels	63	32							63	32	95	1 99	0 63	2 62
Saw legs														
Staves and headings, barred		509								509	509		10 74	10 74
" " W. India pipe														
Staves, salt barrel	34	49							34	49	84		0 65	0 65
Shingles, in vessels														
Split posts and fence rails, in rafts	186	466							186	466	652	2 48	7 40	9 88
Timber, square, in vessels	190	7,047							190	7,047	7,237	4 75	17 30	182 05
" " in rafts		544							16	544	560		3 40	3 40
Travases														
Woodenware, and wood partly manufactured	16										16	2 78		2 78
Total way freight paying tolls	80,066	599,203	17	472	341	1,233	11,780	12,257	92,297	523,165	615,462	4,143 58	15,099 49	19,643 07

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<i>Free articles having paid full tolls on the Welland Canal:</i>										
Coal, free, per Council	66,181	3,387				3,387		3,387		
<i>Free articles for canal construction, O.C., 1884:</i>										
Stops, wrought Lumber, sawn, in vessels	50	1,015 27				1,015 27		1,015 77		
Grand total way freight	146,300	513,682	17	472	314	1,233	34,957	12,874	181,618	700,829
Total way tolls on vessels										
"	"	"	"	"	"	"	passengers	"	"	5,363 05
"	"	"	"	"	"	"	free goods	"	"	493 21
Total way tolls										85,114 41
										2,811 31
										823 53
										9,999 84
										19,134 33
										8,174 36
										1,316,74
										29,134 17

RICHARD DEVLIN,

Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 1, 1900.

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Iron, railway.....	1	2	1	2	0 12
" pig.....	6	6	7	7	0 42
" all other.....	107	107	107	107	7 26
Iron ore.....					
Kryolite, chemical ore and other ore, except iron.....					
Lard and lard oil.....	5	5	5	5	0 50
Meat, all kinds.....	15	15	15	15	1 14
Meats, other than pork.....					
Marble.....					
Manilla.....	4	4	4	4	0 76
Molasses.....	2	2	2	2	0 38
Nails.....					
Oats.....	121	1,320	1,441	1,441	117 73
Oil (in barrels).....	3	3	4	4	0 48
Oil cake.....					
Pease.....	345	345	345	345	28 25
Potatoes.....	143	143	148	148	9 50
Pork.....	2	2	3	3	0 12
Paint.....					
Pine and tar.....	57	57	57	57	10 83
Rags.....	67	67	67	67	12 19
Rye.....	10	10	10	10	0 92
Flax seed.....					
Rosin.....					
Salt.....	2	2	2	2	1 13
Stone intended for cutting.....					
" wrought.....	1,166	1,166	1,166	1,166	54 10
" not suitable for cutting, unwrought.....	1,178	1,178	1,178	1,178	12 56
Seeds, all kinds.....					
Sheep.....	1	1	1	1	0 06
Soda ash.....					
Steel.....	282	282	283	283	23 78
Sugar.....					
Spirits, beer, &c.....	16	1	17	17	1 50
Tobacco (raw).....	3	3	3	3	0 57
Tallow.....					
Tin.....	9	9	9	9	0 89
Turpentine.....					
Wheat.....					
White lead.....					
Whiting.....					
Wool.....	1	1	1	1	0 10
All other goods and merchandise not enumerated.....	6	565	571	571	89 98
Back.....					
Barrels, empty.....	2	43	45	45	4 96
Boat knees.....					
Boats.....	50	40,040	40,090	40,090	334 67
Fire wood, in vessels.....	17,390	17,390	17,390	17,390	568 57
" rafts.....	114	114	114	114	1 14
Hoops.....	38	38	38	38	4 14

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 Canadian Ports.		From United States to United States Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Hop poles												
Lumber, sawn, in vessels.		337,255		69,659					406,314		406,314	29,572 13
" " rafts		64							64		64	1 26
Masts, spars, and telegraph poles, in vessels.		60							60		60	0 63
" " rafts				756					2,462		2,462	493 11
Railway ties, in vessels.		1,706										
" " rafts									1,013		1,013	21 00
Saw logs.												
Staves and headings, barrel pipe.												
" " West India												
Staves, salt barrel									78		78	15 72
Shingles												
Split posts and fence rails, in vessels.												
" " rafts												
Timber, square, in vessels.									80		80	0 84
" " rafts									8,423		8,423	88 66
Traverses												
Woodenware and wood partly manufactured.												
Total freight paying tolls	445	418,244		69,820					445	488,064	488,509	31,875 76
<i>Free per Order in Council, June 27, 1890.</i>												
Floats.									19,620		19,620	
Firewood in rafts.									144		144	
Lumber, sawn, in rafts.									47		47	
Timber, square "									11,300		11,300	
Shingles									2		2	
Saw logs									483		483	
Freight, grand total	445	449,840		69,820					445	514,660	520,105	

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Total tolls on vessels	3,303 29
" passengers	186 35
" free goods	\$305 15
Other receipts	18 00
Total revenue exclusive of hydraulic rents	35,383 40

RICHARD DEVLIN,
Compiler of Canal Statistics

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 1, 1900.

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" pig.....	121	1,167	1,167	1,167	1,167	116 70
" all other.....		1,829	1,829	1,829	1,829	187 21
Iron ore.....		145	145	145	145	14 50
Kryofite chemical ore and other ore, except iron						
Lard and lard oil.....						
Meat, all kinds.....		15	15	15	15	1 50
Meats, other than pork.....						
Marble.....						
Macilla.....	41	189	189	239	239	20 37
Molasses.....						
Nails.....	1	4,341	4,341	4,342	4,342	144 98
Oats.....	47	50	79	126	126	7 72
Oil (in barrels).....	29	16	16	16	16	1 00
Oil cake.....						
Pease.....	238		238	238	238	7 96
Potatoes.....	6		53	59	59	2 04
Pork.....	2		2	2	2	0 08
Print.....		19	19	19	19	1 90
Pitch and tar.....	329	5,669	5,669	5,998	5,998	589 80
Rags.....						
Rye.....						
Flax seed.....						
Rosin.....		2,203	2,203	2,203	2,203	245 76
Salt.....	166	761	761	927	927	81 67
Stone intended for cutting.....						
" wrought.....		1	1	1	1	0 10
" not suitable for cutting, unwrought.....		594	594	594	594	51 15
Seeds, all kinds.....	6	1	3	3	3	0 42
Sheep.....						
Soda ash.....		90	90	90	90	3 13
Steel.....						
Sugar.....						
Spirits, beer, &c.....		1,568	1,569	1,577	1,577	157 13
Tobacco (raw).....	8					
Tallow.....						
Tin.....						
Turpentine.....		4	4	4	4	0 40
Wheat.....		157	157	157	157	15 70
White lead.....						
Whiting.....						
Wool.....						
All other goods and merchandise not enumerated.....	1,049	1,652	1,977	6,389	6,389	599 65
Bark.....						
Barrels, empty.....	8		8	8	8	0 30
Boat knees.....						
Floats.....						
Fire wood, in vessels.....	2,160	148,467	148,467	150,627	150,627	4,455 76
" in rafts.....						
Hoops.....						
Hop poles.....						

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APPENDIX A—Continued.

No. (A) 9.—GENERAL STATEMENT showing the Quantity of each Article transported on the Rideau Canal, and the Amount of Revenue collected during the Season of Navigation in 1899.

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.	K cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.			
Ashes, pot and pearl		13									13	2 11	
Apples	12	186							12	186	198	4 80	
Agricultural products not enumerated, vegetable, animal	4	25							4	25	29	0 70	
"	314	868							314	868	1,182	31 86	
Agricultural implements	27	91							27	91	118	13 17	
Barley													
Bricks	282			60					342		342	8 02	
Bones	11								11		11	0 86	
Brimstone													
Buckwheat		33								33	33	1 42	
Cement and water lime	410	24							410	24	434	11 14	
Clay, lime and sand	6,123	371		90					6,213	371	6,584	153 82	
Coal		3,327								16,248	16,248	646 98	
Corn	3	107							3	107	110	2 69	
Cattle		2								2	2	0 06	
Cotton (raw)													
Crockery and earthenware	20	24							20	24	44	3 96	
Dye wood and dye stuffs	3								3		3	0 27	
Fish	35	1							35	1	36	0 92	
Flax and hemp													
Flour	176	612							176	612	788	20 11	
Furniture	7	32							7	32	39	3 77	
Gypsum													
Glass (all kinds)	66	5							66	5	71	6 37	
Hay (pressed)	425	2							425	2	427	10 86	
Hogs													
Horses	3								3		3	0 48	
Hides and skins, horns and hoofs	11								11		11	0 32	
Ice													
Iron, railway													
" pig	67								67		67	1 82	

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	12	3	12	3	15	1 00
Tin						
Turpentine						
Wheat	30	183	30	183	213	1 97
White lead	20		20		20	1 79
Whiting	1		9		9	0 81
Wool	2		2		2	0 08
All other goods and merchandise not enumerated.	680	447	680	447	1,127	109 22
Barrel						
Barrels, empty	35	53	35	53	88	5 65
Boat knees	60		1,185	60	1,245	21 60
Floats	1,185		6,204	195	6,399	108 65
Firewood, in vessels.	6,204					
rafts						
Hoops						
Hop poles						
Lumber, sawn, in vessels.	5,040	1,580	11,187	10,727	28,534	2,619 98
rafts						
Masts, spars and telegraph poles, in vessels.						
rafts	94		94		94	3 75
Railway ties, in vessels						
rafts	140	27	140	27	167	3 72
Saw logs						
Staves and headings, barrel						
pipe						
West India						
Staves, salt barrel						
Slungies	120	30	120	30	150	29 11
Split posts and fence rails, in vessels.						
rafts						
Timber, square, in vessels						
rafts	600		600		600	3 80
Traverses						
Woodenware and wood partly manufactured						
Coal, free, per Order in Council	24,760	9,609	11,357	10,727	69,363	4,025 81
Grand total freight	542		542		542	
Total tolls on vessels	25,311	9,609	11,357	10,727	69,905	
passengers						1,552 29
free coal						126 12
Wharfage and storage					\$14 47	
Other receipts						22 76
Total revenue, exclusive of hydraulic rents						278 00
						6,004 98

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 1, 1900.RICHARD DEVLIN,
Comptroller of Canal Statistics.

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APPENDIX A—Continued.

No. (A) 10.—GENERAL STATEMENT showing the Quantity of each Article transported on the St. Peter's Canal and the Amount of Revenue collected during the Season of Navigation in 1899.

Articles.	From Canadian to Canadian Ports.		From Canadian 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.			
Ashes, pot and pearl.											
Apples	63								63	0 63	
Agricultural products not enumerated.	96								96	0 96	
" " animal.	1								1	0 01	
Barley	7								7	0 07	
Bricks	1,165								1,165	11 65	
Bones											
Brimsstone											
Buckwheat.	95	891							986	9 86	
Cement and water lime		474							474	4 74	
Clay, lime and sand		35,335							35,335	353 35	
Coal	21								21	0 21	
Corn	31								31	0 31	
Cattle											
Cotton (raw)	5								5	0 05	
Crockery and earthenware											
Dye wood and dye stuffs.	24	1,828							1,852	18 52	
Fish											
Flax and hemp	2,460								2,460	24 60	
Floor	8								8	0 08	
Furniture									130	1 30	
Gypsum	2	130							2	0 02	
Glass (all kinds)											
Hay (pressed)	1,466								1,466	14 66	
Hogs											
Horses											
Hides and skins, horns and hoofs											
Ice											
Iron, railway									33	0 33	

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" pig	23	7	30	0 30
" all other	50	50	50	0 50
Kryolite chemical ore and other ore except iron	150	150	150	1 50
Lard and lard oil	291	15	306	3 06
Lard, all kinds	999	1	1	0 01
Meats, other than pork	39	39	999	9 99
Meal, all kinds	4	2,196	2,200	22 00
Marble	2	2	2	0 02
Manilla	270	270	270	2 70
Molasses	62	62	62	0 62
Nails	2,009	1	2,010	20 10
Oats	277	51	328	3 28
Oil (in barrels)	1	1	1	0 01
Oil cake	1	1	1	0 01
Pease	2,123	5	2,128	21 28
Potatoes	106	106	106	1 06
Pork	5	5	5	0 05
Paint	4	4	4	0 04
Pitch and tar	4	4	4	0 04
Rags	4	4	4	0 04
Rye	4	4	4	0 04
Flax seed	1	1	1	0 01
Rosin	1	1	1	0 01
Salt	954	5	959	9 59
Stone intended for cutting	5	5	5	0 05
" wrought	5,327	5,327	5,327	53 27
" not suitable for cutting, unwrought	1	1	1	0 01
Seeds, all kinds	1	1	1	0 01
Sheep	1	1	1	0 01
Soda ash	1	1	1	0 01
Steel	214	214	214	2 14
Sugar	28	28	28	0 28
Spirits, beer, &c	1	1	1	0 01
Tobacco (raw)	33	33	33	0 33
Tallow	1	1	1	0 01
Tin	1	1	1	0 01
Turpentine	1	1	1	0 01
Wheat	1	1	1	0 01
White lead	54	54	54	0 54
Whiting	638	18	656	6 56
Wool	48	48	48	0 48
All other goods and merchandise not enumerated	18	10	28	0 28
Bark	18	18	18	0 18
Barrels, empty	383	383	383	3 83
Boat keuses	1	1	1	0 01
Boats	1	1	1	0 01
Floats	1	1	1	0 01
Firewood, in vessels	1	1	1	0 01
" in rafts	1	1	1	0 01
Hoops	1	1	1	0 01
Hop poles	1	1	1	0 01

20
 20
 20
 20

No. (A) 10—GENERAL STATEMENT showing the Quantity of each Article transported on the St. Peter's Canal, &c.—Concluded.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
	Lumber, sawn in vessels	9,122	86							9,122			86	9,208	92 08
" " in rafts	12	12							12	12	24	0 24
Nests, spars and telegraph poles, in vessel.												
" " in rafts	255								255		255	2 55
Railway ties, in vessels												
" " in rafts												
Saw logs												
Staves and headings, barreled												
" " in rafts												
" " West India												
Staves, salt barrel												
Stingles	143								143		143	1 43
Split posts and fence rails, in vessels	35	5							35	5	40	40
" " in rafts												
Timber, square, in vessels	514	57							514	57	571	5 71
" " in rafts												
Traverses												
Woodenware and wood partly manufactured.												
Total freight paying tolls	23,818	46,986							23,818	46,986	70,804	708 04
Total tolls on vessels												2,443 29
Other receipts												3,151 33
Total receipts												5,594 62

RICHARD DEVLIN,
Comptroller of Canal Statistics.

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" pig	299	37	8	307	37	344	6 58
all other							
Iron ore							
Kyrolite, chemical ore and other ores, except iron							
Lard and lard oil	1	20		1	20	21	0 42
Meal, all kinds	3	8		3	8	11	0 22
Meats, other than pork		7			7	7	0 14
Marble							
Manilla							
Molasses		2			2	2	0 05
Nails	21	3	14	38	3	11	1 06
Onions		8			8	8	0 15
Oats	45	125		45	125	170	1 28
Oil (in barrels)							
Oil cake	32	397		32	397	429	8 00
Peano		4			4	4	0 08
Potatoes		14			14	14	0 28
Pork	49	11		49	11	60	1 53
Paint							
Pitch and tar	2	1		2	1	2	0 05
Rags	5	392		5	392	392	0 51
Rye							
Rice seed	1			1		1	7 38
Rosin							
Salt	11	1		11	1	42	0 81
Stone intended for cutting							
" wrought							
" not suitable for cutting, unwrought							
Stools, all kinds	1,365	6		1,365	6	1,365	43 65
Sheep	50			50		56	1 07
Soda ash	17					47	1 18
Steel	22	1		22	1	23	0 45
Sugar	730	8	97	827	8	835	20 91
Spirits, beer, &c.	25	54		25	54	79	2 00
Tobacco (raw)							
Tallow	1			1		1	0 08
Tin	3	8	23	26	8	34	0 86
Turpentine		2			2	2	0 65
Wheat	18	1,097		18	1,097	1,115	20 97
White lead	10	2		10	2	12	0 30
Whiting	14			14		14	0 35
Wool	2	6		2	6	8	0 16
All other goods and merchandise not enumerated.	2,230	2,211	1	2	2,234	4,480	111 98
Bark							
Barrels, empty							
Beet knees							
Bents							
Firewood, in vessels							
" rafts							
Hoops						807	6 74
Hop poles							

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No. (A) 13.—GENERAL STATEMENT showing the Quantity of each Article transported on the Sault Ste. Marie 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.		Total Tons.		
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	
Iron, railway	2,166			1,250		2,799			6,215		6,215
" pig											
" all other	863		314			167			1,281	30	1,323
Iron, ore				2,576			1,044		2,576	1,677,488	1,680,061
Copper ore										5,103	5,103
Kryolite, chemical ore and other ore, except iron.											
Lead and lead ore	1		12						13		13
Lead and hard oil										14,610	14,610
Metal, all kinds	7						14,535		7		7
Meats, other than pork											
Marble											
Manilla	218								218		218
Molasses											
Nails	512		183	800					1,525		1,525
Ones	357								551	2,635	3,195
Oil (in barrels)	52		118	28					360		360
Oil, engine										307	307
Pease											
Potatoes	5		20						25		25
Pork	3								3	30	33
Paint	33								33		33
Pitch and tar	1								1		1
Rags											
Rye											
Flax seed											
Rasin				2,513						3,528	3,528
Salt	292		230	6,388					2,236	14,870	14,870
Stone intended for cutting											
" wrought											
" not suitable for cutting, unwrought											
Seeds, all kinds											
Sheep	3		2						5		5
Soda ash											
Steel	26								26		26
Sugar	495		237						732		732

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Spirits, beer, &c.	431	161	61	653	653
Tobacco (raw)					
Tallow	10	21		31	31
Tin					
Turpentine		15,063			
Wheat	215,915		98,851	382,789	382,789
White lead	1	18		19	19
Whiting	17		217	17	17
Wool	12,785	564	1,270	298	298
All other goods and merchandise not enumerated.		5,311	8,215	2,406	2,406
Bark					
Barrels empty					
Boat knees					
Floats					
Fire-wood, in vessels.	428	514		428	11,714
rafts.		11,290			
Hoops					
Hop poles					
Lumber, sawn, in vessels.	3,889	63	8,901	3,889	13,271
rafts.					
Masts, spars, and telegraph poles, in vessels.					
" rafts.					
Railway ties, in vessels.		860			860
" rafts.					
Saw-logs.	437	5,533	862	892	6,345
Staves and headings, barrel					
" pipes.					
" West India.					
Staves, salt barrel	9	8	3,250	9	3,451
Shingles					
Split posts and fence rails, in vessels.					
" rafts.					
Timber, square, in vessels.	490	200	290	690	3,000
" rafts.					
Traverses.					
Woodenware and wood partly manufactured.					
Total freight paying tolls.	27,588	234,169	90,721	115,996	3,006,664
		9,066	90,721	724,023	2,282,641
		29,212	1,903,214		

RICHARD DEVLIN,
Comptroller of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
 OTTAWA, October 1, 1900.

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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>		\$ cts.		\$ cts.		\$ cts.
Canadian vessels, steam.	391,448	3,751 49	713,266	4,766 20	64,429	211 67
United States vessels, steam.	424,820	6,352 83	23,584	155 91	1,613	18 49
Canadian vessels, sail.	167,852	3,577 12	1,525,512	15,491 23	35,190	396 62
United States vessels, sail.	76,553	1,723 78	116,070	1,316 65	211,391	2,705 99
Total, Class No. 1	1,060,673	15,405 22	2,378,432	21,729 99	892,623	3,332 77
<i>Class No. 2.</i>	No.		No.		No.	
Passengers.	63,545	777 94	70,921	3,433 34	3,710	50 08
<i>Class No. 3.</i>	Tons.		Tons.		Tons.	
Bricks	115	4 99	8,856	403 68	349	34 90
Brimstone			608	64 08		
Cement and water lime	49	2 16	5,100	574 07	175	17 05
Clay, lime and sand.	550	38 79	37,471	1,471 37	6,138	698 28
Fish	2,233	334 82	88	9 65		
Gypsum			522	7 21		
Iron, railway	567	68 85	309	22 84		
" pig			3,964	405 63	1,167	116 70
" all other	6,361	1,184 23	11,671	995 52	1,950	187 21
Steel	16,598	3,287 35	1,041	147 78		
Salt	1,282	247 83	2,328	269 24	927	81 67
Stone, for cutting.	429	85 80	4,451	195 34		
Apples	230	7 75	3,291	481 84	177	12 66
Barley	2,907	314 85	24,634	1,124 51	30	1 01
Buckwheat	4	0 10	1,266	62 02		
Corn	204,004	20,400 40	195,724	5,162 15		
Cotton, raw			231	5 83		
Flax and hemp.			5	0 30		
Flour	11,625	2,132 02	23,604	1,303 24	409	13 77
Hay, pressed.	400	60 00	959	42 37	11,789	712 65
Meals, all kinds.	18,202	3,639 98	2,058	99 95		
Oil cake			2,540	127 01	16	1 60
Oats	24,037	2,432 68	32,818	1,298 48	4,342	144 98
Pease	28	0 71	11,598	869 16	238	7 96
Potatoes			73	5 47	59	2 04
Rye	923	92 30	5,599	445 24		
Flax seed	200	20 00	20,444	511 28		
Seeds, all kinds.	11	2 20	7,264	347 03	9	0 42
Tobacco, raw	103	19 34	19,333	3 33		
Wheat	197,732	19,767 27	129,589	4,106 23		
All other agricultural products, vegetable	273	30 42	2,474	186 84		
Bones			367	47 37		
Cattle			308	23 71	120	4 25
Hogs			31	2 49		
Hides and skins, horns and hoofs	21	3 02	57	3 84		
Horses	10	1 17	682	40 67	63	2 23
Lard and lard oil.	870	173 85	1,166	101 74		
Meats, other than pork.	9	0 57	133	16 10		
Pork	363	71 60	1,629	97 83	2	0 08
Sheep			166	12 66	90	3 13
Tallow	201	40 20	89	7 30		
Wool	130	26 00	28	4 20		
All other agricultural products, animal			5,725	382 24		
Total, Class No. 3	490,467	54,491 25	551,022	21,488 24	28,050	2,042 59

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A—Continued.

the Amount of Tolls collected during the Season of Navigation in 1899.

Murray Canal.		Ottawa Canals.		Ride-au Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	§ cts.		§ cts.		§ cts.		§ cts.		§ cts.
161,597	198 55	154,041	735 45	117,489	794 53	45,751	915 20	69,914	438 54
282	1 08	43	0 60	899	15 08	276	5 52		
9,599	34 46	138,416	1,920 38	29,645	490 39	75,892	1,519 31	49,978	181 85
356	3 75	27,477	646 86	12,749	252 29	163	3 26		
171,834	237 84	319,977	3,303 20	160,782	1,552 20	122,082	2,443 29	119,892	620 39
No.		No.		No.		No.		No.	
14,466	173 64	13,254	186 35	5,510	126 12			26,608	165 38
Tons.		Tons.		Tons.		Tons.		Tons.	
43	0 81			342	8 02	1,165	11 65	205	2 83
30	0 57								
177	3 37	17	1 67	434	11 14	986	9 86		
29	0 56	2,985	68 06	6,584	153 82	474	4 74		
		10	0 60	36	0 92	1,852	18 52		
		20	1 95			130	1 30		
216	4 05	2	0 12			33	0 33		
		7	0 42	67	1 82	30	0 30		
344	6 58	107	7 26	313	8 52	50	0 50		
23	0 45			22	0 62				
42	0 81	22	1 13	1,074	28 47	959	9 59		
				22	0 52				
223	4 27			198	4 80	63	0 63		
762	14 31					7	0 07	13	0 13
79	1 49	40	3 92	33	1 42				
56	1 05			110	2 69	21	0 21		
2	0 04								
7	0 14	125	11 51	788	20 11	2,460	24 60		
		451	41 90	427	10 86	1,466	14 66		
11	0 22	15	1 14	19	0 47	999	9 99	2	0 02
						1	0 01		
8	0 15	1,441	117 73	823	31 43	2,010	20 10	16	0 16
429	8 09	345	28 25	9	0 35			19	0 19
4	0 08	148	9 59	110	2 68	2,128	21 28	5	0 05
392	7 38	10	0 92	7	0 20				
1	0 02			2	0 06				
56	1 07	1	0 06	4	0 10				
				16	0 43	1	0 01		
1,115	20 97			213	4 97			437	4 37
71	1 40	19	1 26	29	0 70	96	0 96		
		11	0 78	25	0 86			70	0 70
		663	50 35	2	0 06	31	0 31	175	1 75
		121	9 26						
11	0 21	11	0 90	11	0 32				
62	1 19	216	10 23	16	0 48				
21	0 42	5	0 50	86	2 31	1	0 01		
7	0 14			61	1 55	39	0 39		
14	0 28	3	0 12	200	5 10	106	1 06		
		283	23 78			1	0 01	5	0 05
4	0 08	9	0 89						
8	0 16	1	0 10	2	0 08				
		2,134	185 77	1,182	31 86	1	0 01		
4,247	80 36	9,222	580 17	13,267	337 74	15,110	151 10	947	10 25

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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. 4.</i>		<i>¢</i> cts.		<i>¢</i> cts.		<i>¢</i> cts.
Ashes, pot and pearl.....	58	11 60	14	2 80		
Agricultural implements.....			71	8 80	8	0 61
Crockery and earthenware.....	19	2 59	128	22 65	2	0 20
Dye woods and dye stuffs.....			3	0 29	5	0 50
Furniture.....	18	3 15	1,743	256 77		
Glass, all kinds.....	86	11 10	1,135	217 95	8	0 80
Marble.....	211	31 65			15	1 50
Manilla.....	129	19 35	40	7 80		
Molasses.....	249	45 70	1,111	84 22	230	20 37
Nails.....	139	10 01	2,502	332 01		
Oil, in barrels.....	7,467	1,488 05	2,349	241 13	126	7 72
Paint.....	40	2 72	486	80 84	19	1 90
Pitch and tar.....			591	79 60	5,998	599 80
Rags.....	1	0 20	760	112 07		
Rosin.....			1,748	93 40	2,203	245 76
Soda ash.....	60	1 32	651	126 11		
Sugar.....	7,689	1,149 16	9,459	1,526 65	1,577	157 13
Stone, wrought.....			120	6 20	1	10
Tin.....	73	10 82	1,034	263 60	4	40
Turpentine.....			102	5 38	157	15 70
White lead.....	7	14	184	25 65		
Whiting.....			550	109 11		
Whisky and all other spirits.....	581	81 59	734	126 83		
Merchandise, not enumerated.....	45,856	6,804 58	16,002	2,204 91	6,389	509 65
Total, Class No. 4.....	62,683	9,673 73	41,517	5,874 77	16,742	1,562 14
<i>Class No. 5.</i>						
Bark.....						
Barrels empty.....	78	8 93	588	60 08	3	0 30
Boat knees.....						
Floats.....			1,320	23 11		
Fire wood, in vessels.....	4,341	231 80	11,606	270 75	150,627	4,955 76
" in rafts.....			30	0 63		
Lumber sawn, in vessels.....	67,850	12,128 56	25,859	713 18	56,833	3,384 20
" in rafts.....			1,788	80 23		
Hoops.....						
Railway ties, in vessels.....	1,637	238 43	127	5 12	11,517	917 99
" in rafts.....						
Masts, spars and telegraph poles, in vessels.....						
Masts, spars and telegraph poles, in rafts.....	34	4 35	31,169	779 13		
Square timber, in vessels.....	24,985	3,746 21	652	9 88		
" in rafts.....			7,297	182 05		
Woodenware and wood partly manufactured.....			35	10 38		
Shingles.....	51	36 18	49	8 26		
Split posts and fence rails, in vessels.....						
" in rafts.....						
Saw logs.....	4,591	183 41	509	10 74		
Staves and headings, barrel.....						
" pipe.....						
" West India.....						
" Salt barrel.....			34	0 65		
Traverses.....			544	3 40		
Hop poles.....	100	12 00				
Total, Class No. 5.....	103,667	16,589 87	81,547	2,157 59	218,980	9,258 25

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the Amount of Tolls collected, &c.—Continued.

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
		6	0 96	13	2 11				
4	0 10	4	0 76	118	13 17				
27	0 70			44	3 46	5	0 05		
				3	0 27				
205	5 34	35	3 31	39	3 77	8	0 08	8	24
111	2 81	2	0 38	71	6 37	2	0 02		
				2	0 18	2,200	22 00		
		4	0 76	6	0 53	2	0 02		
2	0 05	2	0 38	76	6 70	270	2 70		
41	1 06			148	15 17	62	0 62		
170	4 28	4	0 48	180	16 54	328	3 28		
60	1 53			33	3 49	5	0 05		
2	0 05	57	10 83	50	4 44	4	0 04		
20	0 51	67	12 19	40	4 21				
				12	1 05	1	0 01		
47	1 18			3	0 27	1	0 01		
835	20 91	17	1 50	447	40 79	214	2 14		
		1,166	54 10	1	0 09				
34	0 86			15	1 60	33	0 33		
2	0 05					1	0 01		
12	0 30			20	1 79	1	0 01		
14	0 35			9	0 81	54	0 54		
79	2 00	3	0 57	79	7 11	28	0 28		
4,480	111 98	571	89 98	1,127	109 22	656	6 56	113	3 40
6,145	154 06	1,938	176 20	2,536	243 64	3,875	38 75	121	3 64
		45	4 96	88	5 65	48	0 48	46	1 78
						28	0 28	10	0 25
		40,090	334 67	1,245	21 60			5,756	44 42
807	6 74	17,390	568 57	6,399	108 65	383	3 83	20,523	217 86
		114	1 14						
311	3 50	406,314	29,572 13	28,534	2,619 98	9,208	92 08	2,200	42 78
		64	1 26					497	7 00
		38	4 14						
331	3 31	2,462	493 11	94	3 75	255	2 55	1,060	41 50
10	0 07					24	0 24		
		60	0 63					103	1 00
		80	0 84			571	5 71		
160	2 00	8,423	88 66					17	0 68
32	2 18	78	15 72	159	29 11	143	1 43	149	12 97
						46	0 40		
		1,018	21 00	167	3 72			7,634	64 89
				600	3 80			150	1 50
						1	0 01		
1,651	17 80	476,171	31,106 83	37,277	2,796 26	10,701	107 01	38,145	436 63

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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	97,732	19,546 40	221,003	31,518 78	98,214	9,688 62
Kryolite or chemical ore.						
Iron ore	26,125	1,306 25			145	14 50
Stone, unwrought, not suitable for cutting.	3,105	243 27	4,614	146 10	504	51 15
Ice						
Total special class.	126,962	21,095 92	225,617	31,664 88	98,863	9,754 27
Total freight and tolls.	783,779	118,033 93	899,703	86,348 81	362,635	26,000 10
Timber and other wood, free			1,028	88 77		
Wheat, corn, flour, iron, salt, coal, etc., free.	5,991	898 65	448,362	41,901 36		
Grand totals, passengers and tonnage of vessels not included.	789,770	118,932 58	1,349,093	128,338 94	362,635	26,000 10

DEPARTMENT OF RAILWAYS AND CANALS,

OTTAWA, October 1, 1900.

SESSIONAL PAPER No. 20

the Amount of Tolls collected, &c.—*Concluded.*

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
380	7 14	.....	.....	16,248	646 98	35,335	353 35	.....	.....
.....	.....	.....	.....	20	1 00	306	3 06	.....	.....
.....	.....	.....	.....	.....	.....	150	1 50	.....	.....
4,365	43 65	1,178	12 56	15	0 19	5,327	53 27	947	4 45
.....
4,745	50 79	1,178	12 56	16,283	648 17	41,118	411 18	947	4 45
.....
16,788	714 49	488,509	35,365 40	69,363	5,704 22	70,804	3,151 33	40,160	1,240 74
.....	.....	31,596	305 15	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	542	14 47	.....	.....	.....	.....
.....
16,788	714 49	520,105	35,670 55	69,905	5,718 69	70,804	3,151 33	40,160	1,240 74

RICHARD DEVLIN,

Compiler of Canal Statistics.

64 VICTORIA, A. 1901

SUPPLEMENTARY APPENDIX

No. (A) 15. —SUMMARY STATEMENT of Traffic on the undermentioned Canals during of each description of property passed through

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
		§ cts.		§ cts.		§ cts.
Vessels of all kinds	1,060,673	15,405 22	2,378,432	21,729 99	892,623	3,332 77
Passengers.	No. 63,545	777 94	No. 70,921	3,433 34	No. 3,710	50 08
<i>Forest, Produce of the Wood.</i>	Tons.		Tons.		Tons.	
Bark						
Boat knees.....						
Floats.....			1,320	23 11		
do	Free					
Firewood.....	4,341	231 80	11,636	271 38	150,627	4,955 76
do	Free					
Hoops and hop poles.....	100	12 00				
Lumber, sawed.....	67,850	12,128 56	27,647	793 41	56,833	3,384 29
do	Free		1,001			
Masts, spars, &c.....	34	4 35	31,169	779 13		
Railway ties.....	1,637	238 43	127	5 12	11,517	917 99
Saw logs.....	4,591	183 41	509	10 74		
do	Free					
Staves, all kinds.....			34	65		
Shingles.....	51	36 18	49	8 26		
do	Free					
Split posts and rails.....						
Timber, square.....	24,985	3,746 21	7,889	191 93		
do	Free		26			
Traverses.....			544	3 40		
Total	103,589	16,580 94	81,951	2,087 13	218,977	9,257 95
<i>Farm Stock.</i>						
Cattle.....			308	23 71	120	4 25
Hogs.....			31	2 49		
Horses.....	10	1 17	682	40 67	63	2 23
do	Free		1			
Sheep.....			166	12 66	90	3 13
Total	10	1 17	1,188	79 53	273	9 61
<i>Produce of Animals.</i>						
Bones.....			367	47 37		
Horns and hoofs, hides and skins, raw.....	21	3 02	57	3 84		
Lard and lard oil.....	870	173 85	1,166	101 74		
Meats other than pork.....	9	57	133	16 10		
Pork.....	363	71 60	1,629	97 83	2	08
Tallow.....	201	40 20	89	7 30		
Wool.....	130	26 00	28	4 20		
Agricultural products not enumerated, animal.....			5,725	382 24		
Total	1,594	315 24	9,194	660 62	2	08

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A—Continued.

the Season of Navigation ended 31st December, 1899, showing the Total Quantity and the amount of Tolls collected thereon.

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
171,834	237 84	319,977	3,303 29	160,782	1,552 29	122,082	2,443 29	119,892	620 39
No. 14,466	173 64	No. 13,254	186 35	No. 5,510	126 12	No.		No. 26,608	165 38
Tons.		Tons.		Tons.		Tons.		Tons.	
						48	48	46	1 78
		40,000	334 67	1,245	21 60			5,756	44 42
		19,620							
807	6 74	17,504	569 71	6,399	108 65	383	3 83	20,523	217 86
		144							
		38	4 14			1	01		
311	3 50	406,378	29,573 39	28,534	2,619 98	9,208	92 08	2,697	49 78
		47							
10	07	60	63			24	24	103	1 00
331	3 31	2,462	493 11	94	3 75	255	2 55	1,000	41 50
		1,013	21 00	167	3 72			7,634	64 89
		483							
		78	15 72	150	29 11	143	1 43	150	1 50
32	2 18	2						149	12 97
						40	40		
160	2 00	8,503	89 50			571	5 71	17	68
		11,300							
				600	3 80				
1,651	17 80	507,722	31,101 87	37,189	2,790 61	10,673	106 73	38,135	536 38
		663	50 35	2	06	31	31	175	175
		121	9 26						
62	1 19	216	10 23	16	48				
		283	23 78			1	01	5	05
62	1 19	1,283	93 62	18	54	32	32	180	180
		11	78	25	86			70	70
11	21	11	90	11	32				
21	42	5	50	86	2 31	1	01		
7	14			61	1 55	39	39		
14	28	3	12	200	5 10	106	1 06		
4	08	9	89						
8	16	1	10	2	08				
		2,134	185 77	1,182	31 86	1	01		
65	1 29	2,174	189 06	1,567	42 08	147	1 47	70	70

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No. (A) 15.—SUMMARY STATEMENT of Traffic on the Undermentioned

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
		\$ cts.		\$ cts.		\$ cts.
<i>Agricultural Products.</i>						
Agricultural products not enumerated, vegetable	273	30 42	2,474	186 84		
do do Free			32			
Apples	230	7 75	3,291	481 84	177	12 66
Barley	2,007	314 85	24,634	1,124 51	30	1 01
do Free			596			
Buckwheat	4	10	1,296	62 02		
Cotton, raw			231	5 83		
Corn	204,004	20,400 40	195,724	5,162 15		
do Free			154,386			
Flax and hemp			3	30		
Flour	11,625	2,132 02	23,604	1,303 24	409	13 77
do Free			4,229			
Hay, pressed	400	60 00	959	42 37	11,789	712 65
Meals, all kinds	18,202	3,639 98	2,058	99 35		
Manilla	129	19 35	40	7 80		
Oats	24,037	2,432 68	32,818	1,298 48	4,342	144 98
do Free			10,250			
Pease	28	71	11,598	869 16	238	7 96
Potatoes			73	5 47	59	2 04
Rye	923	92 30	5,599	445 24		
do Free			923			
Seeds, flax, clover and grass	211	22 20	27,708	858 31	9	42
do do Free	121		200			
Tobacco, raw	103	19 34	33	3 33		
do Free			96			
Wheat	197,732	19,767 27	129,589	4,106 23		
do Free			169,978			
Total	460,929	48,939 37	802,422	16,062 47	17,053	895 49
<i>Manufactures.</i>						
Ashes, pot and pearl	58	11 60	14	2 80		
do do Free			58			
Agricultural Implements			71	8 80	8	61
Barrels, empty	78	8 93	588	60 08	3	30
do Free			1			
Bricks	115	4 99	8,856	403 68	349	34 90
do Free	24					
Cement and water lime	49	2 16	5,160	574 07	175	17 05
do do Free	997					
Crockery and earthenware	19	2 59	128	22 65	2	20
do do Free	3					
Furniture	18	3 15	1,743	256 77		
Glass of all kinds	86	11 10	1,135	217 95	8	80
do Free	299		16			
Iron, railway	567	68 85	309	22 84		
do pig			3,964	405 63	1,167	116 70
do all other	6,361	1,184 23	11,671	995 52	1,950	187 21
do do Free	1,318		5,063			
Molasses	249	45 70	1,111	84 22	230	20 37
do Free			159			
Nails	139	10 01	2,502	332 01		
do Free	518					
Oil	7,467	1,488 05	2,349	241 13	126	7 72
do Free	21		7,143			
Oil cake			2,540	127 01	16	1 60
Paint	40	2 72	486	80 84	19	1 90
do Free	2					

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Canals, and the Amount of Tolls collected, &c.—Continued.

Murray Canal.		Ottawa Canals.		Rideau Canal,		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	\$ cts.		\$ cts.		\$ cts.		\$ cts.		\$ cts.
71	1 40	19	1 26	29	70	96	96		
223	4 27			198	4 80	63	63		
762	14 31					7	07	13	13
79	1 49	40	3 92	33	1 42				
2	04								
56	1 05			110	2 69	21	21		
7	14	125	11 51	788	20 11	2,460	24 60		
		451	41 90	427	10 86	1,466	14 66		
11	22	15	1 14	19	47	999	999	2	02
		4	76	6	53	2	02		
8	15	1,441	117 73	823	31 43	2,010	20 10	16	76
429	8 09	345	28 25	9	35			19	19
4	08	148	9 59	110	2 68	2,128	21 28	5	05
392	7 38	10	92	7	29				
57	1 09	1	06	6	16				
				16	43	1	01		
1,115	20 97			213	4 97			437	4 37
3,216	60 68	2,599	217 04	2,794	81 80	9,253	92 53	492	492
		6	96	13	2 11				
4	10	4	76	118	13 17				
		45	4 96	88	5 65	28	28	10	25
43	81			342	8 02	1,165	11 65	205	2 83
177	3 37	17	1 67	434	11 14	986	9 86		
27	70			44	3 96	5	05		
205	5 34	35	3 31	39	3 77	8	08	8	24
111	2 81	2	38	71	6 37	2	02		
216	4 05	2	12			33	33		
		7	42	67	1 82	30	30		
344	6 58	107	7 26	313	8 52	50	50		
2	05	2	38	76	6 70	2 70	2 70		
41	1 06			148	15 17	62	62		
170	4 28	4	48	180	16 54	328	3 28		
60	1 53			33	3 49	5	05		

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No. (A) 15.—SUMMARY STATEMENT of Traffic on the Undermentioned

Articles.	Welland Canal.		St. Lawrence Canals.		Chamby Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
<i>Manufactures—Concluded.</i>						
Pitch and tar.....		\$ cts.		\$ cts.		\$ cts.
do.....Free	6		591	79 60	5,998	599 80
Rosin.....			1,748	93 40	2,203	245 76
do.....Free	15					
Soda ash.....	60	1 32	651	126 11		
do.....Free	108					
Spirits, whiskey, &c.....	581	81 59	734	126 83		
do do.....Free	178					
Steel.....	16,598	3,287 35	1,041	147 78		
do.....Free	18		3,000			
Sugar.....	7,689	1,149 16	9,459	1,526 65	1,577	157 13
do.....Free	1,596					
Tin.....	73	10 82	1,034	203 60	4	40
do.....Free	159					
White lead.....	7	14	184	25 65		
do.....Free	1					
Turpentine.....			192	5 38	157	15 70
Whiting.....			550	109 11		
do.....Free	89					
Woodenware.....			35	10 38		
Total.....	45,606	7,374 46	74,211	6,290 49	13,992	1,408 15
<i>Merchandise.</i>						
Brimstone, crude.....			608	64 08		
Clay, lime and sand.....	550	38 79	37,471	1,471 37	6,138	698 28
do do.....Free	8		15			
Coal.....	97,732	19,546 40	221,003	31,518 78	98,214	9,688 62
do.....Free			90,426			
Dye woods and dye stuffs.....			3	29	5	50
Fish.....	2,233	334 82	88	9 65		
do.....Free	10					
Gypsum.....			522	7 21		
do.....Free	4					
Ores, all kinds.....	26,125	1,306 25			145	14 50
Marble.....	211	31 65			15	1 50
Rags.....	1	20	760	112 07		
do.....Free	14					
Salt.....	1,282	247 83	2,328	269 24	927	81 67
do.....Free			183			
Stone, all kinds.....	3,534	329 07	9,185	347 64	505	51 25
do.....Free			1,015			
All other goods and merchandises, not enumerated.....	45,856	6,804 58	16,002	2,204 91	6,389	509 65
do do.....Free	482		518			
Total.....	178,042	28,639 59	380,127	36,005 24	112,338	11,045 97
Grand totals, passengers and tonnage of vessels not included.....	789,770	118,033 93	1,349,093	86,348 81	362,635	26,000 10

DEPARTMENT OF RAILWAY AND CANALS,

OTTAWA, October 1, 1900.

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Canals, and the Amount of Tolls collected, &c.—Continued.

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.	
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
	§ cts.		§ cts.		§ cts.		§ cts.		§ cts.
2	05	57	10 83	50	4 44	4	04		
				12	1 05	1	01		
47	1 18			3	27	1	01		
79	2 00	3	57	79	7 11	28	28		
23	45			22	62				
835	20 91	17	1 50	447	40 79	214	214		
34	86			15	1 60	33	33		
12	30			20	1 79	1	01		
2	05					1	01		
14	35			9	81	54	54		
2,448	56 83	308	33 60	2,623	164 91	3,310	33 10	223	3 32
30	57								
29	56	2,985	68 06	6,584	153 82	474	4 74		
380	7 14			16,248	646 98	35,335	353 35		
				542					
		10	60	3	27	1,852	18 52		
		20	1 95			130	1 30		
				20	1 00	456	4 56		
				2	18	2,200	22 00		
20	51	67	12 19	40	4 21				
42	81	22	1 13	1,074	28 47	959	9 59		
4,365	43 65	2,344	66 66	38	80	5,327	53 27	947	4 45
4,480	111 98	571	89 98	1,127	109 22	656	6 56	113	3 40
9,346	165 22	6,019	240 57	25,714	945 87	47,389	473 89	1,060	7 85
16,788	714 49	520,105	35,365 40	69,905	5,704 22	70,804	3,151 33	40,160	1,340 74

RICHARD DEVLIN,

Compiler of Canal Statistics.

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APPENDIX A—Continued.

No. (A) 16.—STATEMENT showing the amount of Tolls accrued each month during the Season of Navigation ended December 31, 1899.

Canals and Offices.	January	February	March	April	May	June	July	August	September	October	November	December	Total.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
WELLAND CANAL.														
Chippawa.....					34 20	4 95	5 61	12 46	50	10,653 49	10,612 56	2,968 97	57 72	
Collerne.....					14,257 18	13,418 86	12,100 22	11,254 99	10,053 49	7,073 69	7,073 69	2,968 97	83,115 05	
Dalhousie.....					9,900 53	6,741 11	3,672 35	2,822 05	2,835 90	1,909 32	4,035 79	1 71	34,139 66	
Dunnville.....					90 74	61 85	48 84	76 75	12 28	36 91	74 63	17 08	422 08	
Mathand.....														
St. Catharines.....	2 31		34 75		44 64	33 29	45 50	19 15	28 04	61 49	28 16	2 09	299 42	
Total Welland Canal.....	2 31		3,731 14		24,327 29	20,263 06	15,872 52	14,185 00	12,930 21	12,629 28	11,812 27	2,289 85	118,053 93	
ST. LAWRENCE CANALS.														
Beauharnois.....					1,409 29	1,422 83	1,763 08	2,077 23	1,527 58	1,250 13	874 30		10,324 44	
Cardinal.....				3 36	17 36	28 50	29 85	48 06	41 77	78 30	51 55	9 08	307 83	
Cornwall.....				62 46	5,708 38	4,976 11	5,697 63	4,198 03	3,522 41	4,211 84	4,629 19	96 45	33,102 50	
Kingston.....				646 53	1,417 57	1,192 77	970 59	1,048 59	1,319 63	2,238 15	2,346 51		11,179 34	
Laclaire.....					332 63	418 51	440 69	704 62	527 79	447 59	464 04	8 58	3,343 85	
Montreal.....					4,855 69	4,756 57	4,734 99	4,677 08	3,313 40	2,965 27	2,787 85		28,090 85	
Total St. Lawrence Canals.....				712 35	13,740 92	12,745 29	13,636 23	12,753 61	10,252 58	11,191 28	11,152 44	114 11	86,348 81	
CHAMBLEY CANAL.														
Chamblay.....					886 55	1,685 91	1,889 80	2,141 67	1,905 63	1,308 86	1,495 01		11,403 43	
St. John.....					3,004 59	2,178 30	2,294 05	2,108 81	967 63	2,519 06	841 40	5 34	13,919 18	
St. Ours.....				9 25	41 53	59 84	63 26	93 37	80 01	226 59	100 04	3 60	677 49	
Total Chamblay Canal.....				9 25	3,932 67	3,924 05	4,247 11	4,243 85	2,953 27	4,144 51	2,436 45	8 94	26,000 10	

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OTTAWA CANALS.												
Ottawa.....	35 93	5,396 49	4,625 32	4,652 13	4,057 26	2,977 39	3,744 55	1,787 93	27,277 03
Carillon.....	.....	6 62	8 79	8 59	6 06	7 66	3 47	5 96	.....	47 15	.....	.....
Grenville.....	.....	257 89	713 73	784 40	998 05	1,458 05	1,360 46	948 05	.....	7,020 63	.....	.....
Stc. Anne's.....	1 29	35 76	291 21	159 96	196 29	130 14	129 35	83 99	.....	1,920 39	.....	.....
Total Ottawa Canals.....	37 22	6,256 76	5,349 08	5,605 08	5,257 66	4,593 24	5,238 43	2,827 93	.....	35,365 40	.....	.....
RIDEAU CANAL.												
Kingston Mills.....	.....	100 22	219 51	211 21	263 47	114 60	159 84	30 09	.....	1,098 94	.....	.....
Ottawa.....	.....	764 35	403 41	795 33	701 77	490 93	491 31	285 23	.....	3,939 74	.....	.....
Smith's Falls.....	.....	62 08	94 73	98 02	147 96	102 45	87 39	72 71	.....	665 34	.....	.....
Total Rideau Canal.....	.....	926 65	717 65	1,104 56	1,113 20	707 98	738 74	388 03	.....	5,704 22	.....	.....
ST. PETER'S CANAL.												
St. Peter's.....	12 30	271 86	308 92	423 14	516 46	518 30	396 46	380 69	.....	3,151 33	.....	.....
TRENT VALLEY CANALS.												
Bobcaygeon.....	.....	33 00	38 37	60 82	88 06	121 75	106 07	76 62	.....	524 94	.....	.....
Buckhorn.....	.....	9 25	10 48	24 34	15 97	13 08	12 95	30 30	.....	116 37	.....	.....
Burlingh.....	.....	3 44	10 01	12 01	17 60	17 00	5 25	7 50	.....	72 81	.....	.....
Fenelon Falls.....	.....	10 10	33 90	33 70	35 85	29 10	10 89	16 70	.....	170 24	.....	.....
Hastings.....	.....	1 65	6 20	5 61	5 75	4 87	14 45	4 89	.....	43 42	.....	.....
Pedertorough.....	.....	19 59	47 67	74 70	78 26	42 57	24 21	21 63	.....	312 96	.....	.....
Total Trent Valley Canals.....	.....	77 03	146 63	211 18	241 49	228 37	173 82	157 64	.....	1,240 74	.....	.....
MURRAY CANAL.												
Brighton.....	.....	58 56	95 91	142 98	132 40	120 78	89 05	61 25	.....	714 49	.....	.....
Grand total.....	12 30	49,591 71	43,800 59	41,242 80	38,543 67	32,304 73	34,592 57	29,216 70	.....	276,559 02	.....	.....

RICHARD DEVLIN,
Comptroller of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
 OTTAWA, October, 1899.

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, 1899, and the amount of Tolls collected thereon.

Vessels.	Total Number.	From Canadian to Canadian Ports,		From United States to United States Ports,		From United States to Canadian Ports,		Tons.		Total T. us.	Amount of Tolls, \$ cts.	
		Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.			
												Up.	Down.
WELLAND CANAL.												
Canadian vessels, steam.....	1,258	133,195	130,597	1,314	.....	483	.....	489	61,906	194,330	391,448	3,751 49
" sail.....	421	43,175	41,183	1,345	.....	802	.....	563	39,456	84,686	167,852	3,377 12
Total Canadian.....	1,679	176,370	171,780	2,659	.....	1,285	.....	992	101,842	281,794	559,300	7,328 61
United States vessels, steam.....	355	1,465	.....	29,765	461	189,568	161,615	29	59,917	211,827	424,829	6,352 83
" sail.....	168	.....	814	10,211	110	28,268	18,734	814	17,569	39,326	76,553	1,723 78
Total United States.....	523	1,465	814	31,009	571	217,836	180,349	813	68,486	251,153	501,373	8,076 61
Grand Total Welland Canal.....	2,202	177,835	172,594	3,269	217,836	181,634	1,835	328	532,857	527,816	1,060,673	15,405 22
ST. LAWRENCE CANALS.												
Canadian vessels, steam.....	3,565	369,682	298,971	20,822	68	925	290	68	22,450	391,497	713,266	4,706 20
" sail.....	6,327	789,315	697,463	40,172	180	.....	36	180	88,136	829,637	1,523,512	15,491 23
Total Canadian.....	9,892	1,159,027	996,434	60,994	248	925	316	248	110,586	1,221,194	2,236,778	20,257 43
United States vessels, steam.....	384	618	1,710	4,875	64	4,069	5,455	233	5,720	12,635	23,384	155 91
" sail.....	654	5,698	11,110	32,525	519	634	1,908	29,974	34,757	67,776	116,070	1,316 65
Total United States.....	1,038	6,316	12,820	37,400	583	5,543	7,363	30,297	40,477	78,411	139,654	1,472 56
Grand Total, St. Lawrence Canals.....	10,870	1,165,343	919,254	98,394	831	6,468	7,679	30,455	151,063	1,299,605	2,378,432	21,729 99
CHAMBLY CANAL.												
Canadian vessels, steam.....	321	31,639	33,334	56	.....	.....	.....	.....	.....	31,695	64,429	211 67
" sail.....	349	8,211	9,602	6,406	123	10,848	14,740	29,450	366 62
Total Canadian.....	670	39,850	42,936	6,462	123	10,848	45,835	93,879	608 29

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United States vessels, steam.....	31	15	99	496	39	964	511	1,102	1,613	18 49
" sail.....	2,145	384	1,496	91,266	118,245	91,656	119,741	211,391	2,705 99
Total United States.....	2,176	389	1,595	91,762	.....	39	119,299	92,161	120,843	213,004	2,724 48
Grand Total, Chambly Canal.....	2,846	39,649	44,631	98,224	.....	39	130,037	137,996	174,627	312,623	3,332 77
OTTAWA CANALS.											
Canadian vessels, steam.....	1,149	42,773	111,060	.....	208	.....	.....	42,773	111,268	154,041	735 45
" sail.....	1,224	5,564	127,362	.....	5,490	.....	.....	5,564	132,852	138,416	1,429 38
Total Canadian.....	2,373	48,337	238,422	.....	5,698	.....	.....	48,337	244,120	292,457	2,655 83
United States vessels, steam.....	2	42	.....	.....	1	.....	.....	.....	43	43	60
" sail.....	278	4,300	97	.....	22,877	203	.....	4,503	22,974	27,477	646 86
Total United States.....	280	4,300	139	.....	22,878	203	.....	4,503	23,017	27,520	647 46
Grand Total, Ottawa Canals.....	2,653	52,637	238,561	.....	28,576	203	.....	52,840	267,137	319,977	3,303 29
RIDEAU CANAL.											
Canadian vessels, steam.....	1,561	55,986	56,469	2,291	.....	.....	3,040	59,280	59,299	117,489	794 53
" sail.....	618	9,341	11,941	4,865	.....	.....	4,398	14,266	15,439	29,645	490 39
Total Canadian.....	2,179	65,327	67,210	7,159	.....	.....	7,438	72,486	74,648	147,134	1,284 92
United States vessels, steam.....	58	35	10	377	.....	.....	477	412	487	899	15 08
" sail.....	231	4,358	2,468	551	4,701	.....	671	4,969	7,849	12,749	252 29
Total United States.....	289	4,393	2,478	928	4,701	.....	1,148	5,321	8,327	13,648	267 37
Grand Total, Rideau Canal.....	2,468	69,720	69,688	8,087	4,701	.....	8,586	77,807	82,975	160,782	1,552 29
ST. PETER'S CANAL.											
Canadian vessels, steam.....	298	25,836	19,915	.....	.....	.....	.....	25,836	19,915	45,751	915 20
" sail.....	1,407	38,567	37,226	.....	.....	99	.....	38,666	37,226	75,892	1,519 31
Total Canadian.....	1,705	64,403	57,141	.....	.....	99	.....	64,502	57,141	121,643	2,434 51
United States vessels, steam.....	2	138	136	.....	.....	.....	.....	138	138	276	5 52
" sail.....	4	25	.....	.....	112	26	.....	51	112	163	8 26
Total United States.....	6	163	138	.....	112	26	.....	189	250	439	8 78
Grand Total, St. Peter's Canal.....	1,711	64,566	57,279	.....	112	125	.....	64,691	57,391	122,082	2,443 29

No. (A) 17.—SUMMARY STATEMENT showing the Number, Tonnage and Nationality of Vessels, &c.—Continued.

Vessels.	Total Number.		From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls. \$ cts.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
TRENT VALLEY CANALS.														
Canadian vessels, steam.....	1,641	34,901	35,013									34,901	69,914	438 51
" sail.....	788	35,640	24,338									24,338	49,978	181 85
Total Canadian.....	2,432	60,541	59,351									59,351	119,892	620 39
United States vessels, steam.....														
" sail.....														
Total United States.....														
Grand Total, Trent Valley Canals.....	2,432	60,541	59,351									59,351	119,892	620 39
MURRAY CANAL.														
Canadian vessels, steam.....	562	80,968	52,404	14,387	517							95,854	161,597	198 55
" sail.....	147	3,043	4,144	621	5			1,200				3,664	9,399	34 46
Total Canadian.....	709	84,011	56,548	15,008	522			1,200				99,518	171,196	233 01
United States vessels, steam.....	5	106	50	126								232	282	1 08
" sail.....	15	75	10	77								152	204	3 75
Total United States.....	20	181	60	203								384	486	4 83
Grand Total, Murray Canal.....	729	84,192	56,608	15,211	522			1,200				99,902	171,834	237 84
SAULT STE. MARIE CANAL.														
Canadian vessels, steam.....	1,743	130,611	140,526	31,300	17,192			88	31,185	90,031		201,036	448,833	
" sail.....	257	38,956	33,251	9,552	6,087			802	9,144	11,827		57,632	109,619	
Total Canadian.....	2,000	169,567	173,777	48,852	23,279			890	40,329	101,858		258,748	558,552	Free.

No. (A) 17.—SUMMARY STATEMENT showing the Number, Tonnage and Nationality of Vessels, &c.—Concluded.

RECAPITULATION.

Vessels.	Total Number.		From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Total Number.	Tons.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
CANADIAN VESSELS.														
<i>Steam and Sails.</i>														
Welland	1,679	176,370	171,780	104,342	2,689	1,285	992	101,842	281,704	277,596	559,300	7,328	61	
St. Lawrence	9,832	1,159,027	906,434	60,934	218	316	248	110,586	1,221,194	1,017,584	2,238,778	20,257	43	
Chambly	670	39,256	42,386	6,462	218	925	123	10,848	45,835	53,784	99,619	608	29	
Ottawa	2,373	48,357	238,422	7,159	5,698	.....	.....	.....	48,337	244,120	292,457	2,655	83
Rideau	2,179	65,327	67,210	7,159	.....	.....	.....	.....	7,438	72,486	147,134	1,284	92
St. Peter's	1,705	64,405	57,141	.....	.....	.....	99	.....	.....	57,141	121,643	2,434	51
Trent Valley	2,432	59,351	69,351	.....	.....	.....	.....	.....	.....	69,351	119,892	4,620	39
Murray	709	84,011	56,518	15,068	522	1,200	499	13,408	99,518	71,078	171,196	233	61	
Sault Ste. Marie	2,000	169,567	173,777	48,652	23,279	890	40,329	101,858	258,748	299,804	558,552	Free.	.....
Total Canadian	23,579	1,865,643	1,774,789	242,817	32,436	3,191	42,290	345,980	2,151,675	2,156,896	4,308,571	35,422	99	
UNITED STATES VESSELS.														
Welland	523	1,465	814	31,069	571	217,836	180,349	813	68,486	251,153	250,290	8,076	61	
St. Lawrence	1,038	6,316	12,829	37,400	588	5,543	7,363	39,207	40,477	61,243	139,654	1,472	56	
Chambly	2,176	899	1,595	91,762	.....	.....	39	119,209	92,161	120,843	213,004	2,754	48
Ottawa	280	4,303	2,478	928	22,878	.....	.....	203	4,503	23,017	27,520	647	46
Rideau	289	4,303	2,478	928	4,701	.....	.....	1,148	5,321	8,327	13,648	267	37
St. Peter's	6	163	138	.....	112	.....	.....	26	189	250	439	8	78
Trent Valley	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Murray	20	181	60	203	.....	.....	.....	.....	194	384	638	4	83
Sault Ste. Marie	1,769	.....	11,595	.....	1,157	1,382,508	968,752	29,623	4,822	1,414,736	974,731	2,389,457	Free.
Total United States	6,101	17,217	18,914	172,897	30,002	1,605,887	1,156,503	51,902	234,336	1,846,848	1,438,885	3,285,733	13,202	09
Grand total, Canadian and United States	29,680	1,882,860	1,792,833	415,714	62,438	1,606,812	1,160,194	94,192	580,316	3,998,523	3,555,781	7,594,304	48,625	08

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 1, 1900.RICHARD DEVLIN,
Compiler of Canal Statistics.

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APPENDIX A—Continued.

No. (A) 18.—COMPARATIVE STATEMENT OF Grand Total Freight passed through the undermentioned Canals during the Seasons of Navigation of 1898 and 1899, and the Amount of Tolls collected on the same, including Tolls on Vessels and Passengers.

	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
1898.												
Welland.....	6,343	106,289	5,561	20,997	210,516	277,023	986	512,412	223,406	916,671	1,140,077	168,598 07
St. Lawrence.....	172,178	1,028,585	3,374	620	398	962	28,181	204,836	204,131	1,235,063	1,429,134	90,854 93
Chambly.....	6,389	10,272	161,183	.....	.....	.....	43,492	107,572	107,572	103,764	271,336	19,326 06
Ottawa.....	1,401	492,712	.....	55,873	.....	.....	.....	.....	1,401	548,585	549,986	36,920 62
Rideau.....	19,910	9,498	7,283	9,106	.....	.....	9,149	.....	27,193	27,753	54,946	4,794 01
St. Peter's.....	14,427	49,321	.....	.....	.....	.....	742	.....	15,169	49,321	64,490	2,876 32
Trent Valley.....	21,167	6,500	.....	.....	.....	.....	.....	.....	21,167	6,509	27,676	1,094 63
Murray.....	5,671	8,407	531	.....	.....	.....	881	6,253	6,253	9,288	15,543	684 61
Sault Ste. Marie.....	16,903	108,344	9,321	12,371	618,594	2,147,136	51,653	91,365	696,071	2,359,216	3,055,287	No Tolls.
Grand total.....	263,989	1,819,887	187,253	98,967	829,568	2,425,121	81,615	912,135	1,362,365	5,256,110	6,618,475	325,148 65
1899.												
Welland.....	6,557	148,272	10,907	4,902	135,038	225,491	.....	258,693	152,502	637,268	789,770	118,063 93
St. Lawrence.....	169,092	917,528	7,125	472	344	1,233	34,957	218,432	211,428	1,137,663	1,349,693	85,348 81
Chambly.....	2,221	12,210	227,428	.....	.....	.....	120,776	229,649	229,649	362,636	520,105	26,000 10
Ottawa.....	445	449,840	.....	69,820	.....	.....	.....	445	519,660	445	69,905	35,365 40
Rideau.....	23,311	9,609	11,337	19,727	.....	.....	12,921	.....	36,648	33,257	5,704 22	5,704 22
St. Peter's.....	23,818	46,986	.....	.....	.....	.....	.....	.....	23,818	46,986	70,804	3,151 33
Trent Valley.....	31,177	8,983	.....	.....	.....	.....	.....	.....	31,177	8,983	40,160	1,240 74
Murray.....	10,089	5,815	501	.....	.....	.....	383	.....	10,590	6,198	16,788	714 49
Sault Ste. Marie.....	27,588	234,169	9,066	29,212	596,648	1,903,294	90,721	115,996	724,023	2,282,641	3,006,664	No Tolls.
Grand total.....	296,208	1,833,412	206,364	115,133	732,030	2,129,968	125,678	727,111	1,420,280	4,805,644	6,225,324	276,559 02

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October 1, 1900.

RICHARD DEVLIN,
Compiler of Canal Statistics.

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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 1899.

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	5	40	3	24	3	24		
10	4	40	1	10	3	30	1	10
15	3	45			2	30	1	15
20	3	60			1	20		
25	5	125	2	50				
30	4	120			2	60	1	30
35	4	140						
40			7	280	1	40		
45	1	45	3	135	1	45		
50			2	100	3	150		
55			1	55				
60	1	60	1	60				
70	1	70			1	70		
75			1	75	1	75		
80			1	80				
85	1	85						
95					1	95		
100	1	100						
110	1	110	1	110			1	110
130	1	130	1	130				
135			1	135				
140							1	140
150			1	150				
155	1	155						
160					1	160		
165	2	330						
175			1	175	1	175		
180			4	720				
190			1	190			1	190
195			1	195				
200			1	200	1	200		
220	3	660	1	220				
230	1	230	1	230	1	230		
245	1	245						
260	1	260			1	260	1	260
265			1	265			1	265
270			1	270	1	270		
275			1	275	2	550		
280					1	280	1	280
285					1	285		
290	1	290	1	290			1	290
295	1	295					1	295
300	1	300			1	300	1	300
305	2	610					2	610
310					1	310	1	310
315			1	315	2	630	1	315
320			2	640	1	320		
325			2	650				
330			1	330	1	330		
335			1	335				
355			1	355				
360	1	360			1	360		
400	1	400						
405							2	810
415	1	415					1	415
475							1	435
440	1	440						

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No. (A) 19.—STATEMENT of the Number and Tonnage of all kinds of Vessels,
 &c.—Continued.

WELLAND CANAL—Continued.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
455			1	455				
460							1	460
470							1	470
475			1	475				
480	1	480	1	480				
485	1	485					1	485
490							1	490
495	1	495						
500	1	500						
530	1	530						
540	1	540			1	540	1	540
545			1	545	1	545	1	545
555	1	555						
575	2	1,170						
590			1	590	1	590	1	590
595							1	595
600	1	600					1	600
605								
615							1	615
620					1	620		
625					1	625	1	625
640			1	640	1	640	1	640
655					1	655		
660					1	660		
665							1	665
675			1	675				
685							1	685
695							1	695
700							1	700
707							1	707
710							1	710
719			1	719				
722	1	722						
739							2	1,478
740			1	740				
742	1	742						
753							1	753
769	1	769						
771	1	771						
787							1	787
796						796		
802			1	802	1		1	802
806							1	806
837					1	837		
838							1	838
849					2	1,698		
870							1	870
873							1	873
882					1	882		
892					1	892		
904					1	904		
908			1	908				
911					2	1,822		
917					1	917		
940					1	940		
944					1	944		
950					1	950		
962					1	962		
963					1	963		

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No. (A) 19.—STATEMENT of the Number and Tonnage of all kinds of Vessels,
&c.—*Concluded.*WELLAND CANAL—*Concluded.*

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
966					2	1,932		
977	1	977						
989	1	989						
1,029					1	1,029		
1,034					1	1,034		
1,035	1	1,035						
1,041			1	1,041	1	1,041		
1,054					1	1,054		
1,068					1	1,068		
1,078							1	1,078
1,079					1	1,079		
1,111					1	1,111		
1,118					1	1,118		
1,123					1	1,123		
1,172	1	1,172						
1,203					2	2,406	1	1,203
1,207					1	1,207		
1,330					1	1,330		
1,425					1	1,425		
1,441					2	2,882		
1,547					1	1,547		
1,548					1	1,548		
1,550					1	1,550		
1,553					2	3,106		
1,565					1	1,565		
Total...	71	18,692	60	15,119	83	53,836	49	25,385

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APPENDIX A—Continued.

No. (A) 20—STATEMENT of the Number and Tonnage of all kinds of Vessels,
&c.—Continued.

ST. LAWRENCE CANALS—Continued.

CANADIAN.				UNITED STATES.				
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
8	36	288	31	248	10	80	1	8
10	20	200	24	240	4	40	2	20
15	16	240	10	150	4	60		
20	15	300	11	220	2	40		
25	18	450	7	175	1	25	1	25
30	14	420	9	270			1	30
35	7	245	5	175	3	105	2	70
40	10	400	8	320	5	200	4	160
45	4	180	4	180	1	45		
50	6	300	6	300			2	100
55	2	110	3	165	4	220		
60	5	300	20	1,200				
65			1	65				
70	6	420	5	350			2	140
75	1	75	7	525	1	75	3	225
80	4	320	8	640				
85	4	340	3	255			7	595
90	2	180	8	720	1	90	11	990
95	4	380	3	285			46	4,370
100	3	300	14	1,400			50	5,000
105	4	420	10	1,050	2	210	13	1,365
110	2	220	8	880	2	220	14	1,540
115	2	230	10	1,150	1	115	5	575
120	3	360	7	840			5	600
125	1	125	2	250			2	250
130	4	520	5	650				
135			5	675				
140	1	140	18	2,520			1	140
145	2	290	9	1,305				
150	1	150	30	4,500				
155	2	310	31	4,805				
160	2	320	10	1,600			2	320
165			11	1,815				
170			5	850				
175			2	350				
180			6	1,080				
185	1	185	4	740				
190			1	190				
195	2	390	4	780				
200	3	600	1	200				
215			1	215				
220			3	660				
225	1	225						
230	2	460	3	690				
245	1	245	2	490				
255	1	255	11	2,805				
260	1	260	4	1,040				
265			2	530				
270			1	270				
275			1	275			2	550
290	1	290	4	1,160			2	580
300	2	600	6	1,800				
305	1	305	2	610				
310			5	1,550				
315			3	945				
320			10	3,200				

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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.
325	1	325	2	650				
330			4	1,320				
335			1	335				
340	2	680	6	2,040			1	340
345			1	345				
350			2	700				
360			4	1,440				
365			2	730				
370			4	1,480				
375			2	750				
390			3	1,170				
395			1	395				
415			3	1,245	1	415		
420			5	2,100				
435			1	435			1	435
440			2	880			1	440
445			1	445				
455	1	455						
460			1	460				
475	3	1,425	2	950			1	475
485			3	1,455				
490			2	980			1	490
500	1	500	1	500				
508	2	1,016						
516			2	1,032				
518	1	518	1	518				
520	1	520	1	520				
541			4	2,164				
544							1	544
567			2	1,134				
577	1	577						
578	1	578						
586			1	586				
590	1	590						
593	3	1,779						
599	1	599					2	1,198
607			2	1,214				
617					1	617		
639							1	639
662							1	662
680			1	680				
691	1	691						
694					1	694		
700	1	700						
715	1	715						
801							1	801
805							1	805
838					2	1,676		
1,103							1	1,103
1,207	1	1,207						
1,497					1	1,497		
Total.....	240	25,223	491	79,006	47	6,424	191	25,585

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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 1899.

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	61	488	197	1,576	15	120	12	96
10	14	140	15	150	6	60	1	10
15	9	135	4	60	4	60	1	15
20	9	180	5	100	1	20	2	40
25	6	150	4	100	1	25		
30	3	90	2	60				
35	2	70	1	35	1	35		
40	3	120	5	200	3	120		
45	1	45	3	135				
50	4	200	2	100				
55	2	110	6	330	1	55		
60	1	60	1	60			1	60
65								
70	2	140	3	210	1	70	1	70
75			1	75			1	75
80	1	80	2	160			2	160
85	2	170	1	85			10	850
90	2	180	8	720			40	3,600
95	2	190	2	190			140	13,300
100	2	200	5	500			153	15,300
105			6	630	1	105	44	4,620
110			4	440			33	3,630
115	1	115	5	575			14	1,610
120	1	120	1	120			11	1,320
125	1	125	3	375			1	125
130			2	260			1	130
135	1	135	4	540				
140			9	1,260				
145	1	145	13	1,885				
150	1	150	25	3,750				
155			22	3,410				
160			12	1,920				
165			9	1,485				
170			4	680				
175			1	175				
180			3	540				
185			2	370				
190			1	190				
195	1	195	1	195				
200								
223	1	228	1	228				
256								
262	1	262						
324	1	324						
332	1	332						
397	1	397						
Total.....	138	5,276	395	23,874	34	670	468	45,011

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RIDEAU, OTTAWA AND CHAMBLEY CANALS.

1	250 to 347 tons	4	1,315	1	250 to — tons	1	228	1	250 to — tons	1	250 to — tons	1	250 to — tons	1	250 to — tons	1	250 to — tons	1	250 to — tons	
2	200 " 249 "	1	228	1	200 " 249 "	2	228	2	200 " 249 "	2	200 " 249 "	2	200 " 249 "	2	200 " 249 "	2	200 " 249 "	2	200 " 249 "	
3	150 " 199 "	2	345	80	150 " 199 "	3	12,715	3	150 " 199 "	3	150 " 199 "	3	150 " 199 "	3	150 " 199 "	3	150 " 199 "	3	150 " 199 "	
4	100 " 149 "	7	840	52	100 " 149 "	4	6,585	4	100 " 149 "	4	100 " 149 "	4	100 " 149 "	4	100 " 149 "	4	100 " 149 "	4	100 " 149 "	
5	50 " 99 "	16	1,130	26	50 " 99 "	5	1,430	5	50 " 99 "	5	50 " 99 "	5	50 " 99 "	5	50 " 99 "	5	50 " 99 "	5	50 " 99 "	
6	Under 50 "	108	1,418	236	Under 50 "	6	2,416	6	Under 50 "	6	Under 50 "	6	Under 50 "	6	Under 50 "	6	Under 50 "	6	Under 50 "	
Total		138	5,276	395	Total	23,874		34	Total	670		Total	468		45,011					

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, October, 1, 1900.

RICHARD DEVLIN,
Compiler of Canal Statistics.

CANALS

CONSOLIDATED

Sec. 1.

No. 23.—RATES OF TOLLS ON THE CANALS

WELLAND, ST. LAWRENCE, RIDEAU, OTTAWA, CHAMBLY AND MURRAY CANALS.

(O. C., April 18, 1873.)

The Rates of Tolls are divided into Six Classes, as under, and are per ton, unless otherwise specified.	Welland Canal, westward.	Welland Canal, eastward.	Lake Erie to Montreal.	St. Lawrence Canals, each way.	Chambly Canal and St. Ours Lock.	Rideau Canal, each way.	Ottawa Canals, and St. Ann's Lock, each way.	Ottawa to St. Johns, each way.	Murray Canal, each way.
<i>Class No. 1.</i>									
Vessel, steam..... per ton	0 01 $\frac{1}{2}$	0 01 $\frac{1}{2}$	0 02 $\frac{1}{2}$	0 00 $\frac{3}{4}$	0 00 $\frac{3}{4}$	0 01 $\frac{1}{2}$	0 00 $\frac{5}{16}$	0 01 $\frac{1}{16}$	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 $\frac{1}{16}$	0 0 $\frac{3}{8}$
<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 $\frac{3}{16}$	0 1 $\frac{1}{8}$
" 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 $\frac{5}{16}$
<i>Class No. 3.</i>									
Bricks, cement and water lime.....	15	0 20	0 20	0 15	0 10	0 07	0 06	0 19 $\frac{3}{4}$	0 1 $\frac{7}{8}$
Clay, lime and sand.....									
Brimstone.....									
Corn.....									
Flour.....									
Iron, railway.....									
" pig.....									
" all other, including steel (O.C., Feb. 1, 1888).....									
Plaster, gypsum.....									
Salt.....									
Salt meats or fish, in barrels or otherwise...									
Agricultural products, vegetable, not enumerated.....									
Agricultural products, animal, not enumerated.....									
Stone, for cutting.....									
Wheat.....									
<i>Class No. 4.</i>									
All other articles not enumerated.....	0 15	0 20	0 20	0 20	0 10	0 26	0 14	0 29	0 2 $\frac{1}{2}$

SESSIONAL PAPER No. 20

REVENUE

TARIFF OF TOLLS

OF THE DOMINION OF CANADA, 1899.

TRENT VALLEY CANALS.

(O. C., July 25, 1888.)

1ST SECTION.	2ND SECTION.	3RD SECTION.	4TH SECTION.	THROUGH.	Peterborough to Hastings, each way.
Fenelon Falls to Bobcaygeon.	Bobcaygeon to Buckhorn.	Buckhorn to Burleigh.	Burleigh to Lakefield.	Fenelon Falls to Lakefield.	Tolls Chargeable at Peterborough and Hastings.
Tolls 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.	
§ cts.	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.
0 00 $\frac{3}{16}$ 0 00 $\frac{1}{4}$	0 00 $\frac{3}{16}$ 0 00 $\frac{1}{4}$	0 00 $\frac{3}{16}$ 0 00 $\frac{1}{4}$	0 00 $\frac{3}{16}$ 0 00 $\frac{1}{4}$	0 00 $\frac{3}{4}$ 0 01	0 00 $\frac{3}{16}$ 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	0 01	0 01	0 01	0 04	01
0 03	0 03	0 03	0 03	0 12	

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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.	Chamblly Canal and St. Ours Lock, each way.	Rideau Canal, each way.	Ottawa Canals and St. Ann's Lock, each way.	Ottawa to St. Johns, each way.	Murray Canal, each way.
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 $\frac{1}{2}$	0 01 $\frac{1}{2}$
Barrels, empty, each	0 02	0 02	0 02	0 02	0 02	0 02	0 01	0 03 $\frac{1}{2}$	0 00 $\frac{1}{2}$
Boat knees, each	0 05	0 05	0 05	0 02	0 02	0 02	0 01	0 03 $\frac{1}{2}$	0 00 $\frac{1}{2}$
Floats, per 1,000 lineal feet	1 40	1 40	1 40	1 40	1 20	1 05	0 50	2 05	0 17
Firewood, per cord, in vessels	0 20	0 20	0 20	0 20	0 10	0 15	0 08	0 23	0 02
" " rafts	0 25	0 25	0 25	0 25	0 15	0 19	0 09	0 30 $\frac{1}{2}$	0 03
Hoops	0 25	0 25	0 25	0 20	0 15	0 15	0 10	0 30	0 02
Masts and spars, telegraph poles, per ton of 40 cubic feet, in vessels	0 15	0 15	0 15	0 05	0 05	0 08	0 07	0 13 $\frac{1}{2}$	0 00 $\frac{1}{2}$
Masts and spars, telegraph poles, per ton of 40 cubic feet, in rafts	0 20	0 20	0 20	0 10	0 10	0 15	0 10	0 22 $\frac{1}{2}$	0 01 $\frac{1}{2}$
Railway ties, in vessels, each	0 01	0 01	0 01	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{2}$	0 01 $\frac{1}{2}$	0 0 $\frac{1}{2}$
" " rafts, each	0 02	0 02	0 02	0 01	0 01	0 02	0 01	0 02 $\frac{1}{2}$	0 00 $\frac{1}{2}$
Sawed stuff, boards, plank, scantling and sawed timber, per M feet, board measure, in vessels	0 30	0 30	0 30	0 15	0 10	0 11 $\frac{1}{2}$	0 06 $\frac{3}{4}$	0 20	0 01 $\frac{1}{2}$
Sawed stuff, boards, plank, scantling and sawed timber, per M feet, board measure, in rafts	0 60	0 60	0 60	0 30	0 20	0 19	0 09	0 36 $\frac{3}{4}$	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 40	0 40	0 40	0 20	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 $\frac{1}{2}$
Traverses, per 100 pieces	0 50	0 50	0 50	0 50	0 40	0 38	0 15	0 67 $\frac{1}{2}$	0 06 $\frac{1}{2}$
Hop poles, per 1,000 pieces	2 00	2 00	2 00	2 00	1 50	1 50	0 65	2 65	0 25
<i>Special Class.</i>									
Gypsum, crude (per O.C., Oct. 28, 1892)	0 15	0 05	0 05	0 05	West ward	0 08	0 05	0 17 $\frac{1}{2}$	0 01 $\frac{1}{2}$
Coal	0 20	0 20	0 20	0 15	0 10	0 08	0 05	0 17 $\frac{1}{2}$	0 01 $\frac{1}{2}$
Stone, unwrought, c'rded, 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 Charge- able at Fenelon Falls.	Tolls Charge- able at Babcaugeon.	Tolls Charge- able at Buckhorn.	Tolls Charge- able at Burleigh.	Tolls Charge- able at Fenelon Falls.	Tolls Charge- able 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 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 00 $\frac{1}{2}$	0 00 $\frac{1}{4}$
0 00 $\frac{1}{4}$	0 00 $\frac{1}{4}$	0 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.

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, or 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, nor 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 \$50 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. From Chippawa Cut, or any part thereof, to Dunnville, Port Maitland or Port Colborne.....	1
3. From Dunnville to Port Colborne.....	1
4. From Thorold to St. Catharines or Port Dalhousie.....	1
5. From Maitland, Dunnville, Colborne or Port Robinson to Marshville and intermediate places.	1
6. From Marshville or intermediate places to Port Maitland, Dunnville, Port Colborne and Port Robinson.....	1
7. From Port Robinson to Allanburg or Thorold.....	1
8. From Port Robinson to St. Catharines or Port Dalhousie.....	1
9. From St. Catharines to Port Dalhousie.....	1
10. From Dunnville to Maitland.....	1
11. From Port Robinson through the Lock and Chippawa Cut.....	1
12. From Port Colborne to Port Maitland.....	1
13. From Chippawa Cut through Lock to Port Robinson.....	1
14. From Colborne, Dunnville, Maitland and Marshville to Thorold.....	1
15. From Colborne, Dunnville, Maitland and Marshville to St. Catharines.....	1
16. Through the Chippawa Cut only.....	1
17. Through the Port Robinson Lock only.....	1

St. Lawrence Canals.

Sec. 15. The navigation is divided into four sections, viz., Cardinal, Cornwall, Beauharnois and Lachine. Tolls are to be levied on all vessels and property in proportion to the number of sections passed through.

Chambly Canal.

	Rate.
Sec. 16. Vessels and property passing from Sorel to Chambly, to pay.....	1
Vessels and property passing from Chambly to St. Johns, to pay.....	1

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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(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 WHARVES 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 wharves 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 wharves 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 wharves 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. Aug. 8, 1878. Con. O. C. Oct. 26, 1889, sec. 95.

PHOSPHATES.

Sec. 27. Whereas vessels laden with grain for delivery in Montreal Harbour frequently carry also deck loads of phosphates, and being compelled to proceed at once to the harbour for the discharge of the grain, they pay tolls through to that point, subsequently re-entering the Lachine Canal for the storage of the phosphates, and in accordance with the existing regulations, paying canal dues a second time for such re-entry;

It is ordered that the Lachine Canal basins, within the Montreal city limits, be considered as part of the Montreal Harbour, for the purpose of the unloading of phosphates carried by vessels in addition to their grain cargoes as described in this section; it being, however, provided that in the event of their returning to the harbour to take cargo, the usual tolls shall be charged against such vessels on their passing out of the canal a second time. O. C. July 12, 1881. Con. O. C. Oct. 26, 1889, sec. 96.

WHARFAGE DUES IN ALL BASINS OF THE LACHINE CANAL ON SEA-GOING VESSELS.

Sec. 28. The Montreal Harbour Commissioners shall be allowed to retain the right of levying dues in respect of the old lower basin of the Lachine Canal, but the Government shall retain full control of the new works and basin of said canal and of the revenue that may be derived from their use.

All property delivered or received by sea-going vessels in the Lachine Canal basins at Montreal (except the old lower basin) shall be charged wharfage dues as follows:—

All goods, wares and merchandise not elsewhere specified	25 cents per ton.
Hay, straw, pig and scrap iron, pot and pearl ashes	20 "
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.	

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All property landed on the canal wharves 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 wharves or vessels into sea-going vessels, shall pay wharfage dues equal to one section of canal tolls, viz., $3\frac{1}{2}$ 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	12 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	$\frac{1}{2}$	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

Note.

Sec. 31. (a.) No allowance shall be made for fractional parts of a month or winter season.

(b.) The firewood shall be stored across the bank while being delivered from the boat in such manner and at such points as the superintending engineer may direct.

(c.) The rates on timber to take effect upon the completion of the booms in Lachine Canal. O.C. June 8, 1860. Con. O.C. Oct. 26, 1889, secs. 103 and 104.

CHARGES ON VESSELS WINTERING IN LACHINE CANAL.

Sec. 32. The following 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.

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

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(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 1899 ONLY.

Sec. 42. For season of 1899 the Canal Tolls for the passage of the following food products:—wheat, Indian corn, peas, 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 the said products to free passage through the St. Lawrence Canals, or any portion thereof. (O. C. April 10, 1899.) Also special rates, are granted to grain, &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, peas, barley, rye, oats, flaxseed and buckwheat, 2½ cents per ton, and all rolling and package freight, 5 cents per ton. (O. C. April 24, 1899.)

Sec. 43. (a.) That for the current season of navigation of 1899, 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 10, 1899.)

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 cooerage is of the same weight as salt cooerage.

His Excellency in virtue of the provisions of chapter 38 of the Revised Statutes of Canada, intituled "An Act respecting the Department of Railways and Canals," and by and with the advice of the Queen's Privy Council for Canada, is pleased to order that 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 toll 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 7½ and 10 cents respectively. (O. C. August 27, 1898.)

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