
DOMINION OF CANADA.

ANNUAL REPORT

OF THE

MINISTER OF RAILWAYS AND CANALS

FOR THE PAST

FISCAL YEAR FROM 1ST JULY, 1887, TO 30TH JUNE, 1888,

ON THE WORKS UNDER HIS CONTROL.

SUBMITTED IN ACCORDANCE WITH THE PROVISIONS OF THE REVISED STATUTES
OF CANADA, CHAPTER 37, SECTION 28.

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REPORT

1887-88.

*To His Excellency Lord Stanley of Preston,
Governor General of Canada, &c., &c., &c.*

MAY IT PLEASE YOUR EXCELLENCY :

I have the honour to submit the Annual Report of the Department of Railways and Canals for the fiscal year ended 30th June, 1888.

This report is submitted in accordance with the provisions of the Revised Statutes of Canada, 1886, Cap. 37, Section 28.

The Annual Reports of the Chief Engineers, together with general and special Reports from Superintendents, both of Railways and Canals, and from other Officers of the Department are given in Appendices.

Attached hereto (Appendices Nos. 1, 2 and 3) will be found statements showing the amounts expended during the past fiscal year in construction, repairs and maintenance of the several works under the Department.

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.*

There is prepared by this Department, and laid before Parliament annually, a special Statistical Report embodying returns made by Canadian railway companies, as required by statute. These returns give information as to railroad operations in Canada.

The following general facts gathered from this compilation, relating to roads other than Government railways, being returns made for the fiscal year ended on the 30th of June, 1887, the last issued, will be of interest.

The year appears to be marked by much activity in railway construction, while the receipts of those railways already built evidence a degree of prosperity exceeding anything yet reached in Canada. Thirteen new lines are added to the list of Canadian railways, making a total of 64 railway companies, while others under

* 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 General Report of the Minister contains information on points of interest relating to subsidized lines of railway up to the end of December, 1888.

construction in the previous year, are now wholly or partly in operation. The use of steel in place of iron rails has become almost universal, and the equipment of the several roads has been largely increased. There were at the close of the year 12,332 miles of completed railway (exclusive of the Government railways) of which 11,157 miles were laid with steel rails. The capital paid,—including Government bonuses, \$129,810,633, loans \$25,592,026, and subscriptions to shares \$100,000, and aid given by municipalities \$12,812,836,—amounted to \$683,773,191.33 The gross earnings amounted to \$38,842,010, an increase of nearly \$5,500,000, the working expenses being \$27,624,633, leaving the net earnings of the year \$11,217,327. The number of passengers carried was 10,698,638 and the freight transported over these roads amounted to 16,356,335 tons. The miles run by trains were 33,638,748. The total number of passengers killed was 10, death in all cases being due to their own carelessness.

CANADIAN PACIFIC RAILWAY.

TRUNK LINE.

		Miles.
Quebec to St. Martin's Junction (13 miles north of Montreal).....		159
Montreal (at the head of Atlantic Ocean Navigation) to St. Martin's Junction.....		13
St. Martin's Junction to Callander.....		331
For this portion the Company were subsidized direct by the Government under their contract.	Callander to Port Arthur.....	649
	Port Arthur to Red River (opposite Winnipeg)....	428
	Red River to Savona's Ferry.....	1,257
	Savona's Ferry to the waters of the Pacific Ocean at Port Moody.....	213
		2,547
Port Moody to Vancouver on Burrard Inlet.....		15
Total, Montreal to Vancouver, Burrard Inlet.....		2,906

This road, so far as the Dominion is concerned, being completed by and handed over to the company, as is recorded in the last annual report of this Department, but little remains to be dealt with in the present report as occurring within the past fiscal year.

By the Act 51 Vic, c. 32, approval and ratification were given to a certain agreement dated the 18th of April, 1888, provisionally made between the Government and the company, whereby the restrictions contained in article fifteen of the original agreement for the construction of the road, barring the Dominion Parliament for 20 years from authorizing the construction of railways south of the Canadian Pacific Railway from any point at or near that road except those running south-west, were removed. By this agreement the Government undertook to guarantee the payment of interest at 3½ per cent. on an issue of the company's bonds to the extent of fifteen million dollars, running for a term not exceeding [1888]

fifty years ; the unsold lands of the company's subsidy, estimated at nearly 15 million acres, to form the security for such bonds. The arrangements contemplated by this agreement are being carried out by the Department of Finance. A deed of mortgage in favour of special trustees, one of whom is the Minister of Finance, has been executed under date the 2nd of June 1888, having previously been approved by an Order in Council of the 1st of that month, being a mortgage of the said unsold lands of the company's subsidy, amounting to 14,934,238 acres, constituting the said security.

In the agreement dated the 20th of November, 1886, and executed under an Order in Council of the 2nd of that month, which constituted the basis of the final settlement of matters between the Government and the company prior to the transfer of the road to them, a special provision was inserted in view of dispute as to the condition in which the work in British Columbia executed by the Government should be handed over, the company accepting the same "subject deficiencies conditions of the Govern-

ERRATUM.

On fourth line of page x, for "exclusive of government railways," and "inclusive of government railways," (the statistics which follow covering the government roads as well as those of private companies).

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	files.
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.....	32
Prince Edward Island	211
Total mileage.....	<u>1,217</u>

Details respecting these railways and their operations will be found in Appendices Nos. 5 to 7, p. 11, from the Chief Engineer and General Manager, and in the following appendices from the Chief Superintendent and other officials of the road.

The through ocean mail line from Point Lévis, opposite Quebec, to Halifax, is 688 miles in length.

The length of roads operated was increased by the completion of the Pictou Town Branch of the Intercolonial, fourteen miles in length.

The General Revenue Accounts for 1887-88 show the following as the financial position of these roads for the past fiscal year. The average length of road

* The date of the company's contract.

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CANADIAN PACIFIC RAILWAY.

For this portion the Company were subsidized direct by the Government under their contract.

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Total, Montreal to Vancouver, Burrard Inlet..... 2,906

This road, so far as the Dominion is concerned, being completed by and handed over to the company, as is recorded in the last annual report of this Department, but little remains to be dealt with in the present report as occurring within the past fiscal year.

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In the agreement dated the 20th of November, 1886, and executed under an Order in Council of the 2nd of that month, which constituted the basis of the final settlement of matters between the Government and the company prior to the transfer of the road to them, a special provision was inserted in view of dispute as to the condition in which the work in British Columbia executed by the Government should be handed over, the company accepting the same "subject to the adjustment and correction by the Government of any defects or deficiencies in the construction thereof, if any, according to the specifications and conditions of the contracts therefor, except in so far as the same were modified by the Government prior to October twenty-first, 1880." *

For the determination of the questions covered by the foregoing, a special arbitration was authorized by an Order in Council of the 5th of January, 1888, and the arbitrators, subsequently appointed, have held sittings at Vancouver and Ottawa, examining the line and hearing evidence on both sides. They have not yet presented their award.

GOVERNMENT RAILWAYS IN OPERATION.

The several lines operated and maintained by the Government during the past fiscal year, ended the 30th June, 1888, were:—

	Miles.
The Intercolonial and its extensions.....	894
Eastern Extension Railway.....	80
Windsor Branch (maintained only).....	32
Prince Edward Island	211
	<hr/>
Total mileage.....	1,217
	<hr/> <hr/>

Details respecting these railways and their operations will be found in Appendices Nos. 5 to 7, p. 11, from the Chief Engineer and General Manager, and in the following appendices from the Chief Superintendent and other officials of the road.

The through ocean mail line from Point Lévis, opposite Quebec, to Halifax, is 688 miles in length.

The length of roads operated was increased by the completion of the Pictou Town Branch of the Intercolonial, fourteen miles in length.

The General Revenue Accounts for 1887-88 show the following as the financial position of these roads for the past fiscal year. The average length of road

* The date of the company's contract.

operated for the whole fiscal year was 1,210 miles, the Pictou Town Branch not having been opened until the 28th of November, 1887:—

—	Average mileage of the year	Expenditure.	Earnings.	Profit.	Loss.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Intercolonial.	886	3,276,441 61	2,912,783 85	.....	363,657 76
Eastern Extension.....	80	90,954 73	70,552 20	.....	20,402 53
Windsor Branch (earnings, one-third of entire receipts).....	32	24,040 33	24,553 55	513 22	
Prince Edward Island.	211	229,639 95	158,363 62	.....	71,276 33
				513 22	455,336 62
					513 22
Total.....	1,210	.....	.....	.....	454,823 40

INTERCOLONIAL RAILWAY.

LENGTH OF LINE.

Ocean Mail Line.

	Miles.
Point Lévis to Rivière du Loup.....	126
Rivière du Loup to Moncton....	374
Moncton to Painsec.....	8
Painsec to Truro.....	118
Truro to Halifax	62
	— 688

Extensions.

Moncton to St. John.....	89
Painsec to Shediac.....	11
Truro to Pictou.....	52
Dalhousie Junction to Dalhousie.....	7
St. Charles Loop Line.....	14
Dartmouth Branch.....	5
Indiantown Branch.....	14
Pictou Town Branch.....	14
	— 206
	894

Wharf Branches.

	Miles.
Rimouski to Wharf.....	2
Newcastle, N. B., to Deep Water Wharf	2
Dorchester to Shipping Wharf.....	1
Sackville to Shipping Wharf.....	0·5
Stewiacke to Wharf.....	1
Rivière du Loup Town to Wharf.....	4
	<u>10·5</u>

Capital Account.

The expenditure charged to the capital account for the year ended 30th June, 1888, is as follows:—

The total cost of road and equipment on 30th June, 1887, was.....	\$44,995,982 42
Paid in the fiscal year 1886-87 to the New Brunswick Government in connection with the purchase of the railway between the Missiquash and Painsec Junction, but not entered on the I. C. R. books till the current year	149,441 40
	<u>\$45,145,423 82</u>
Less refunded.....	50 00
	<u>\$45,145,373 82</u>

The additions during the year are as follows:—

For Halifax Extension... ..	\$ 8,992 97
Increased accommodation, St. John	2,513 89
Increased accommodation, Moncton	16,653 56
Increased accommodation, Rivière du Loup.....	3,997 51
Original construction of the Intercolonial Railway.....	10,004 12
Rolling stock.....	258,334 81
St. Charles Branch.....	106,045 18
Dartmouth Branch.....	3,442 28
Dalhousie Branch.....	1,343 00
Rivière du Loup Town Branch...	355 79
Indiantown Branch.....	9,940 45
Pictou Town Branch.....	227,924 54
Track to wharf at Sackville.....	1,398 20
Road crossing at Bathurst... ..	4,083 26
Coal shed at Amherst.....	567 50
Machinery.....	9,770 25

[1888]

Servis tie plates	12,571 50	
Snow sheds and snow fences.....	38,998 75	
Appliances for heating cars with steam and lighting them by electricity.....	21,617 54	
Expenses in connection with the Richmond siding, Halifax...	3,830 28	
	<u>742,385 38</u>	
Making the total cost to 30th June, 1888...	\$45,887,759 20	

Revenue Account.

The gross expenditure for the year was.....	\$3,276,441 61
The earnings were.....	<u>2,912,783 85</u>
Excess of expenditure over earnings.....	<u>\$ 363,657 76</u>

	1887-88.	1886-87.
Earnings from passenger traffic.....	\$ 845,041 65	\$ 792,678 56
do freight do	1,909,842 04	1,657,695 76
do mails and sundries...	157,900 16	145,635 51
	<u>\$2,912,783 85</u>	<u>\$2,596,009 83</u>

The gross earnings, compared with those of the previous year show an increase of.....	<u>\$ 316,774 02</u>
--	----------------------

The value of stores in hand, including steel rails and fuel, at the end of the year 1887-88 was..	<u>\$ 498,634 83</u>
--	----------------------

The engine mileage, compared with that of last year was:—

	Miles.
1887-88.....	5,936,035
1886-87.....	<u>5,466,488</u>
Increase.....	<u>469,547</u>

The car mileage, compared with that of last year, was:—

1887-88	56,008,930
1886-87	<u>52,001,928</u>
Increase.....	<u>4,007,002</u>

The train mileage, compared with that of last year, was:—

1887-88	4,939,253
1886-87	<u>4,512,599</u>
Increase.....	<u>426,654</u>

The working expenses per mile run by engines, were:—

	Cents.
1887-88	55·19
1886-87	51·74
Increase.....	4·45

The working expenses per mile run by trains, were:—

	Cents.
1887-88	66·33
1886-87	62·67
Increase.....	3·66

Working expenses per mile of railway:—

1887-88	\$3,723 23
1886-87	3,265 72
Increase.....	\$ 457 51

The gross tonnage carried was:—

	Tons.
1887-88	1,275,995
1886-87	1,131,334
Increase.....	144,661

The total number of passengers carried was:—

1887-88	996,194
1886-87	940,144
Increase.....	56,050

In comparison with last year's results, there was an increase of 56,050 in the number of passengers, and an increase of 144,661 in the number of tons of freight carried by the road. The earnings also show an increase of \$316,774.02. The expenditure for working shows an increase of \$448,326.03.

This expenditure, however, has included much that might very properly be charged to the capital account, and is shown in detail in the annexed reports of the Chief Engineer of the road and of the Mechanical Superintendent. The items include the erection of new buildings to replace others destroyed by fire, the erection of about 132 miles of wire fencing (the cost of maintenance of ordinary fencing for the year being nearly \$87,000); the purchase of four locomotives to replace that number out of use, together with the building of a considerable number of cars of various kinds, replacing others disused, besides considerable additions to the means of water supply, also ballasting and tie renewals. The direct cost of snow clearance was \$67,000, besides the cost of repairing snow ploughs, \$26,000.

The items of increase to the capital account of the road have already been given, explanatory notes with respect to them will be found in the annexed report

of the Chief Superintendent. The most considerable items are for new rolling stock (further provision of which was necessary mainly for the accommodation of the increase in the coal traffic and other freight), the construction of the Pictou Town Branch, and expenditure on the St. Charles Branch. These three items make up \$592,304.53 out of the total capital expenditure of the year, \$742,385.33.

The earnings of the road for the transport of freight, \$1,909,842.04, were 65.57 per cent. of the gross earnings, as against 63.86 per cent. the year before.

The increases in the freight traffic compared with the returns of the previous year, comprise flour, grain, lumber, live stock, fish and coal, in all of which a marked improvement is observable. The coal traffic from Nova Scotia to the upper Provinces shows a steady growth each year, having risen from 570 tons in 1879 to 192,022 tons in 1887. The rates charged for coal transport, however, are not directly remunerative to the road.

The adoption of steam from the locomotive for the purpose of heating passenger cars has been satisfactorily carried out, and the use of the apparatus is being extended.

The use of electricity as a means of lighting a certain number of cars has also been successfully adopted.

By the construction of the new Pictou Town Branch, between Stellarton and Pictou, the tedious delay and inconvenience of the ferry transport across the Pictou Harbour is avoided, and the traffic greatly advantaged.

Both the rolling stock and the road are in good order.

WINDSOR BRANCH.

The arrangement whereby the Windsor and Annapolis Railway Company operate this line still continues. The company pay all charges in connection with the working, two-thirds of the gross earnings being allowed them for such purpose; the Government taking the remaining one-third, and assuming all cost of maintenance.

All charges for superintendence and supervision of maintenance of works are borne by the Intercolonial Railway, whose chief officer performs the duty.

The earnings and expenditure for the year ended the 30th June, 1888, were as follows :—

Earnings accruing to the Government (one-third of the gross earnings).....	\$ 24,533 55
Expenditure for maintenance of way and works.....	24,020 33
	<hr/>
Profit.....	\$ 513 22
	<hr/> <hr/>

Government earnings, in comparison with those of the previous year :—

1886-87	\$25,327 58
1887-88	24,533 55
Decrease.....	\$ 994 03

Expenditure in comparison with that of the previous year :—

1886-87	\$26,042 33
1887-88	24,020 33
Decrease.....	\$ 2,032 00

The line is in good order.

EASTERN EXTENSION RAILWAY.

This line of railway is eighty miles long, extending from the Pictou Branch of the Intercolonial Railway, at New Glasgow to Port Mulgrave on the Strait of Canso, thence connecting with Cape Breton by means of a ferry.

The line, with its equipment, was, on the 9th January, 1884, purchased by the Dominion Government from the Government of the Province of Nova Scotia, together with rights possessed by that Government in the Pictou Branch between Truro and Pictou; also, the ferry built for the passage of the Strait of Canso.

The road is worked by a staff directed by the chief officers of the Intercolonial.

The cost of the road and equipment amounted on the 30th June, 1888, to \$1,284,495.76, no addition having been made to capital account during the year.

The expenditure of the year amounted to.....	\$90,554 73
The gross earnings were.....	70,552 20
Loss.....	\$20,402 53

The earnings of the road, in comparison with those of the year 1886-87, show an increase of \$6,445.10.

The expenditure during the past fiscal year in comparison with that of the previous year shows a reduction of \$3,699.31.

The road and rolling stock are in good order.

OXFORD AND NEW GLASGOW DIVISION.

Under authority of a vote of Parliament, passed in 1882, there is being constructed a line of railway forming a comparatively straight road between two points on the Intercolonial system, namely, the Oxford station of that railway and Brown's Point on its Pictou Town Branch, the length being 67.60 miles. In addition a branch from it 4.75 miles long is being built, namely from Pugwash Junction to Pugwash Harbour, making a total of 72.35 miles. The line will pass close to the towns of Oxford, Pugwash, Wallace, Tatamagouche and River John. A recent inspection made shows satisfactory progress, with promise of early completion. A special provision of rolling stock has been made for this Division.

CAPE BRETON DIVISION.

Under authorization of Parliament given by the Act 49 Vic., ch. 14, (1886) a line of railway is in course of construction by the Government in the Island of Cape Breton, extending from Point Tupper on the Strait of Canso (opposite the terminus of the Eastern Extension Railway at Port Mulgrave on the mainland) for a distance of 78 miles, to a point near Leatche's Creek, from which two extensions branch, one, 5 miles long, running to North Sydney, and the other, 13.75 miles long, into the town of Sydney, with a connecting line 1.25 miles long, giving communication with the International Coal Company's Railway beyond North Sydney, and thus bringing that important industry into direct line with the Intercolonial Railway system. The same advantage is afforded to the coal mines of Sydney. The total to be constructed is 98 miles. A report made by the Chief Engineer of Government Railways on the works will be found in the appendices hereto attached, and it will be observed that in his opinion there is good prospect of the completion of the whole of the works in readiness for traffic next autumn. The road will be placed in communication with the Intercolonial Railway (Eastern Extension) by means of a ferry between Point Tupper and Port Mulgrave.

It should be observed that the exceptionally wet character of the season has greatly embarrassed and retarded the work of railway construction on both the Oxford and New Glasgow and the Cape Breton Branch.

PICTOU TOWN BRANCH.

In the Session of 1886, Parliament voted an appropriation towards the construction of a branch of the Intercolonial Railway, from a point at or near Stellarton to the town of Pictou. Contracts were entered into on the 22nd of December, 1886, for the work, and the road, 14 miles long, was opened for traffic on the 28th of November, 1887.

PRINCE EDWARD ISLAND RAILWAY.

LENGTH OF LINE.

	Miles.
Tignish to Royalty Junction	113½
Royalty Junction to Mount Stewart.....	20
Mount Stewart to Georgetown.....	21
	154½

EXTENSIONS.

	Miles.
Cape Traverse Branch, County Line Station to Cape Traverse	2
Royalty Junction to Charlottetown... ..	5
Mount Stewart to Souris.....	39
	57
	210½

Capital Account.

No addition having been made to the expenditure on capital account during the past fiscal year, the total cost of the road and equipment chargeable to capital account at the close of the fiscal year 1887-88, remains the same as at the close of 1886-87, namely.....\$3,741,780 89

Revenue Account.

The working expenses and receipts for the year ended 30th of June, 1888, were:—

Gross expenses.....	\$ 229,639 95
Gross earnings.....	158,363 62
Excess of expenditure over earnings.....	\$ 71,276 33

The gross earnings, compared with those of the previous year, were:—

1887-88.....	\$ 158,363 62
1886-87.....	155,303 37
Increase.....	\$ 3,060 25

The gross expenditure, compared with that of the previous year, was:—

1887-88.....	\$ 229,639 95
1886-87.....	\$ 204,237 45
Increase.....	\$ 25,402 50

The engine mileage was:—

	Miles.
1886-87.....	316,763
1887-88.....	306,924
Decrease.....	9,839

The train mileage was:—

1886-87.....	258,457
1887-88.....	248,410
Decrease.....	10,047

The car mileage was:—

1887-88.....	1,309,922
1886-87.....	1,249,892
Increase.....	60,030

The value of the stores on hand on the 30th June, 1888, was \$114,743.29.

The road and its equipments are in good condition.

Communication between the Prince Edward Island Railway and the Intercolonial is afforded by a branch which leaves the island railway at Emerald (formerly called County Line) station and runs to Cape Traverse, a distance of thirteen miles. Last year the train service was made daily in place of bi-weekly as formerly. Across the strait to Cape Tormentine, on the mainland, the distance is nine miles. Here, by the line of the New Brunswick and Prince Edward Island Railway Company, about forty miles in length, connection is made with the Intercolonial Railway at Sackville. In winter time the ice-boats land at Cape Traverse. This ice boat service is conducted by the Marine Department, the mails being taken to and met at Cape Traverse by special trains.

CARLETON BRANCH RAILWAY.

In the year 1885 Parliament voted the sum of \$35,000 to purchase the Carleton Branch Railway, with harbour frontage, wharf and town lots and all other property of the company owning the road, "the Carleton, City of St. John Branch Railroad Company," the said road extending from Fairville, where it joins the line of the New Brunswick Railway Company, to Carleton on the south side of the River St. John, N.B., a distance of $3\frac{6}{10}$ miles. In the following year, an Act, 49 Vic., chap. 16, was passed, reciting that 4,700 out of the 5,000 shares of the company's capital stock had been purchased by the Government; declaring the work to be one for the general advantage of Canada, and authorizing the issue of a proclamation either with or without the purchase of the outstanding shares, vesting the road in the Crown.

By October, 1887, the whole of the remaining shares were acquired, with the exception of 33, the value of which is \$552, and a proclamation was issued on the 5th October, 1887, under the authority of an Order in Council of the same date declaring the road vested in the Crown from and after the 20th of that month. By an agreement dated the 1st of January, 1886, an interchange of running powers between the Intercolonial Railway and the New Brunswick Railway Company over the Carleton Branch Railway from Fairville to Carleton and the portion of the line of the company, namely, between Fairville and the St. John Cantilever Bridge, respectively, has been effected.

SUBSIDIZED LINES.

By the Acts of Parliament below specified, authority has been placed in the hands of the Governor in Council to grant, upon certain conditions, aid towards the construction of various lines of railway throughout the Dominion, as follows, namely:—

By the Act 45 Vic., cap. 14 (1882). (*Assented to 17th May, 1882*):—

1. For a railway from Gravenhurst to Callander, both in the Province of Ontario, a subsidy not exceeding \$6,000 per mile, nor exceeding in the whole..... \$660,000

(NOTE.—*Further subsidized by 46 Vic., ch. 25.*)

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
 (NOTE.—Further subsidized by 46 Vic., ch. 25; 48-49 Vic., ch. 59; 49 Vic., ch. 10, and 50-51 Vic., ch. 24.)

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
 (NOTE.—Further subsidized by 48-49 Vic., ch. 58.)

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
 (NOTE.—Further subsidized as part of a line to Sydney or Louisburg by 47 Vic., ch. 8.)

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
 (NOTE.—Amended by the special Act 49 Vic., ch. 18.)

By the Act 46 Vic., cap. 25 (1883). (Assented to 25th May, 1883):—

6. To the Baie des Chaleurs Railway Company, for 100 miles of their railway, from Matapedia, on the Intercolonial Railway, to Paspébiac, in the Province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 320,000
 (NOTE.—See also 49 Vic., ch. 17, as to additional vote.)

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

NOTE.—Further subsidized by 47 Vic., ch. 8; and 50—51 Vic., ch. 24.)

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

(NOTE.—Cancelled by 48-49 Vic., ch. 59.)

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

(NOTE.—This was amended by the Act 47 Vic., ch. 8, sec. 2, the words "To the Great American and European Short Line Railway Company" being struck out, and the word "the" being inserted for the word "their" and the words and figures "for 80 miles of" being omitted. The line was further subsidized by 47 Vic., ch. 8, as part of a line from Oxford Station to Sydney or Louisbourg; finally authorized as a Government work by Act 49 Vic., ch. 14.)

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

In connection with the extension of this road through Maine to connect with New Brunswick, at or near Vanceborough or south of that point.

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

(NOTE.—Cancelled by 47 Vic., ch. 8.)

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

(NOTE.—Cancelled by 49 Vic., ch. 10.)

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, not 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.

(NOTE.—Further subsidized by the Act 48-49 Vic., ch. 59; 49 Vic., ch. 10, and 50-51 Vic., ch. 24.)

- 15. For a railway from the Intercolonial 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 forty-fifth Victoria, chapter fourteen, that subsidies may be granted, shall be commenced within two years from the first day of July next, and completed within a reasonable time, not to exceed four years from and after the passing of this Act, to be fixed by Order in Council, and according to descriptions and specifications to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made by each company with the Government, and which the Government is empowered to make; and all the said subsidies authorized by this Act, respectively, to be paid out of the Consolidated Revenue Fund of Canada by instalments, on the completion of each section of not less than ten miles of railway, proportionate to the value of the portion so completed in comparison with the whole work undertaken, to be established by the report of the said Minister: Provided always, that the granting of such subsidies shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized as the Governor in Council may determine.”

By the special Act 46 Vic., cap. 26 (1883). (Assented to 25th May, 1883):—

- 17. An advance authorized in favour of the “St. John Bridge and Railway Extension Company,” to enable them to build a railway bridge across the River St. John, N. B., with railway connection with the Intercolonial, such advance to be secured by a mortgage on their entire property, not to exceed 80 per cent. of the expenditure on the work, nor a total sum of\$ 500,000

By the Act 47 Vic., cap. 8 (1884). (*Assented to 19th April, 1884*) :—

- 18.** To the Government of the Province of Quebec, in consideration of their having constructed the railway from Quebec to Ottawa, forming a connecting line between the Atlantic and Pacific coasts *via* the Intercolonial and Canadian Pacific Railway, 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, 150 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, per year, for fifteen years..... 170,000
- (NOTE.—*Further subsidized by the Act 48-49 Vic., ch. 58 sec. 1, sub-sec. 2.*)
- 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, per year, for 15 years. 30,000
- (NOTE.—*Authorized as a Government work by 49 Vic., ch. 14.*)
- 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
- (NOTE.—*The unpaid balance cancelled and further subsidy granted by 51 Vic., ch. 3.*)
- 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
- (NOTE.—*Further subsidized by the Act 48-49 Vic., ch. 58, sec. 2. See also, below, subsidy for line between Jacques Cartier Junction and St. Martin's Junction, both subsidies being united by the Act last named.*)
- 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
(NOTE.—Further subsidized by 51 Vic., ch. 3.)
- 26.** To the Gatineau Railway Company, for a line of railway from Kazubazua to Le Desert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 160,000
(NOTE.—Cancelled by Act 48-49 Vic, ch. 59.)
- 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
(NOTE.—Cancelled by Act 48-49 Vic., ch. 59.)
- 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 Desert, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 160,000
(NOTE.—Cancelled by 49 Vic., ch. 10.)
- 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
(NOTE.—Further subsidized by 48-49 Vic., ch. 59, and by 49 Vic., ch. 10.)
- 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
(NOTE.—Further subsidized by 50-51 Vic., ch. 24.)
- 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
(NOTE.—See Act 48-49 Vic., ch. 58, sec. 2.)

- 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. Andrews to Lachute, in the county of Argenteuil, a subsidy not exceeding \$3,200 per mile nor exceeding in the whole..... 22,400
(NOTE.—*Cancelled by 49 Vic., ch. 10.*)
- 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
(NOTE.—*Cancelled by 48-49 Vic., ch. 59.*)
- 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
(NOTE.—*See arrangements authorized by Act 50-51 Vic., ch. 25.*)
- 40.** For a line of the Central Railway, from the head of Grand Lake to the Intercolonial Railway, between Sussex and St. John, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 128,000
- 41.** To the Caraquet Railway Company, for the extension of their line of railway from Caraquet to Shippegan Harbour, in the Province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 76,800
(NOTE.—*In addition to subsidy granted by 46 Vic., ch. 25 ; further subsidized by 50-51 Vic., ch. 24.*)
- 42.** For a branch of the Intercolonial Railway, from Matapediac eastward towards Pasbebiac, twenty miles, in the Province of Quebec, a sum not exceeding in the whole..... 300,000
- 43.** For a branch of the Intercolonial Railway, from Derby Station to Indiantown, fourteen miles, a sum not exceeding in the whole..... 140,000

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose, shall be granted to such companies, respectively; the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to construct and complete the said railways, respectively. All the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of July next and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, except the line mentioned in the fourth section of this Act,* which shall be commenced within one year, and shall also be constructed

* The extension of the Canadian Pacific Railway from its terminus at St. Martin's Junction, or some other point on the said railway, to the harbour at Quebec.

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 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

(NOTE.—*In addition to the subsidy granted by the Acts 45 Vic., ch. 14, and 46 Vic., ch. 25.*)

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

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

(NOTE.—*Further subsidized by Act 50-51 Vic., ch. 24.*)

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

(NOTE.—*Cancelled by 51 Vic., ch. 3.*)

53. To the Central Ontario Railway Company, for a line of railway from Coe Hill or Rathburn, 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

(NOTE.—*Further subsidized by 49 Vic., ch. 10.*)

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

(NOTE.—*Further subsidized by 49 Vic., ch. 10, and the whole amended by the Act 50-51 Vic., ch. 24.*)

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

(NOTE.—*Further subsidized by the Act 50-51 Vic., ch. 24.*)

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

(NOTE.—*Cancelled by Act 49 Vic., ch. 10.*)

58. To the Gatineau Railway Company, for a line of railway from Hull station towards Le Desert, a distance of 62 miles, in lieu of the subsidies granted by 46 Vic., ch. 25, and 47 Vic., chapter 8, a subsidy of..... 320,000

(NOTE.—*Substituted.*)

59. For a line of railway from the Grand Piles, on the River St. Maurice, to its junction with the Lake St. John Railway, a distance of about 50 miles, in lieu of the subsidy granted by 47 Victoria, chapter 8, for a line of railway from the Grand Piles, on the River St. Maurice, to Lake Edward, a subsidy of..... 217,600

(NOTE.—*Cancelled by Act 50-51 Vic., ch. 24.*)

60. To the Canada Atlantic Railway Company, for a line of railway from Valleyfield to a point one and a-half mile west of Johnson's, a subsidy not exceeding \$1,600 per mile, and from one and a-half miles west of Johnston's to Lacolle; also from the present terminus at Ottawa to the Chaudière Falls, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 96,000

(NOTE.—*Further subsidized by 49 Vic., ch. 10, and for their bridge over the St. Lawrence by 50-51 Vic., ch. 24.*)

61. For a line of railway from Indiantown *viâ* the Miramichi Valley, to its junction with the Northern and Western Railway at or near Boies-town, 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 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.”

“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" (*additional*)..... \$258,000

63. For a line of railway from the south bank of the St. Lawrence River, opposite or near Montreal, to the harbours of St. Andrews, St. John and Halifax, *via* Sherbrooke, Moosehead Lake, Mattawamkeag, Harvey, Fredericton and Salisbury, a subsidy not exceeding eighty thousand dollars per annum for twenty years, forming in the whole together with the subsidy authorized by the Act forty-seventh Victoria, chapter eight, for a line of railway connecting Montreal with the said harbours of St. John and Halifax by the shortest and best practicable route, which the line above described is found to be, a subsidy not exceeding two hundred and fifty thousand dollars per annum, the whole of which shall be paid in aid of the construction of such line of railway for a period of twenty years, or a guarantee 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

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last mentioned Act in respect of the subsidy thereby authorized in aid of the said line of railway." Per year for twenty years
(additional) 80,000

- 64.** "The Governor in Council may grant a further subsidy as an aid towards procuring free access as hereinafter described for the trains and traffic of the Canadian Pacific Railway Company from St. Martin's Junction, near Montreal, or from some other point on their railway to be selected by the said company, to the harbour of Quebec, in such a manner as shall be approved by the Governor in Council, that is to say: an additional subsidy not exceeding three hundred and forty thousand dollars, constituting, together with the subsidy authorized by the said last mentioned Act to aid in procuring the extension of the Canadian Pacific Railway to Quebec, and the subsidy also thereby authorized to aid in constructing a line connecting the Canadian Pacific Railway at the Jacques Cartier Union Junction with the North Shore Railway proper (which subsidies shall be applicable to the said first mentioned purpose) a sum not exceeding in the whole the sum of one million five hundred thousand dollars, payable out of the Consolidated Revenue Fund of Canada" *(additional)*..... 340,000

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 obligations 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
 (NOTE.—*Further subsidized by 50-51 Vic., ch. 24.*)
- 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

(NOTE.—*In addition to subsidies granted by Acts 47 Vic., ch. 8, and 48-49 Vic.,*

ch. 59.)

- 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
(NOTE.—In addition to subsidies granted by 46 Vic., ch. 25, and 47 Vic., ch. 8. This addition was cancelled by Act 50-51 Vic., ch. 24.)
- 69.** To the Lake Erie, Essex and Detroit River Railway Company, for thirty-seven miles of their railway, from Windsor to Leamington, in the Province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 118,400
(NOTE.—Cancelled by Act 50-51 Vic., ch. 24.)
- 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
(NOTE.—Cancelled by 51 Vic., ch. 3.)
- 71.** To the Parry Sound Colonization Railway Company, for forty miles of their railway, from the Village of Parry Sound to the Village of Sandridge, on the line of the Northern Pacific Junction Railway, in the Province of Ontario, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 128,000
- 72.** For a railway from a point at or near New Glasgow or St. Lin, to or near to Montcalm, in the Province of Quebec, eighteen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 57,600
- 73.** For a railway from Hereford to the International Railway, in the Township of Eaton, in the Province of Quebec, thirty-four miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 108,800
- 74.** For a railway from St. Félix to Lake Maskinongé, Parish of St. Gabriel, in the Province of Quebec, ten miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 32,000
- 75.** For a railway from Glenannan to Wingham, in the Province of Ontario, five miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 16,000
- 76.** For a railway from a point at or near the McCann Station on the Intercolonial Railway, to the Joggins, on Cumberland Basin, in the Province of Nova Scotia, twelve miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 38,400
(NOTE.—Further subsidized by Act 50-51 Vic., ch. 24.)
- 77.** For a railway from L'Assomption to L'Epiphanie, in the Province of Quebec, three miles and a half, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 11,200

- 78.** To the Montreal and Western Railway Company, for seventy miles of their railway from St. Jérôme, north-westerly towards Desert, in the Province of Quebec, a subsidy of \$5,161 per mile, in lieu of the subsidies granted by 46 Victoria, chapter 25, and 47 Victoria, chapter 8, not exceeding in the whole..... 361,270
(NOTE.—*Substituted*)
- 79.** For a railway from St. Andrews to the Canadian Pacific Railway at or at any point east of the Town of Lachute, in the County of Argenteuil, in the Province of Quebec, seven miles, in lieu of the subsidy granted by 47 Victoria, chapter 8, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 22,400
(NOTE.—*Substituted*.)
- 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
(NOTE.—*In addition to the subsidy granted by 48-49 Vic., ch. 59; also further subsidized by 50-51 Vic., ch. 24, for a bridge across the St. Lawrence.*)
- 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
(NOTE.—*Further subsidized by the Act 50-51 Vic., ch. 24.*)
- 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 wharves and landing stages on the line of the railway from Long Sault to the foot of Lake Temiscamingue, a subsidy of..... 6,000
(NOTE.—*In addition to the subsidy for the construction of the line granted by 48-49 Vic., ch. 59. The addition was cancelled by Act 50-51 Vic., ch. 24.*)
- 85.** To the Gananoque, Perth and James' Bay Railway Company, seventeen miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 54,400
- 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
(NOTE — *Cancelled by 50-51 Vic., ch. 24.*)
- 90.** For a railway from Fredericton to the Village of Prince William, in the Province of New Brunswick, twenty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 70,400
- 91.** For a railway from a point on the Intercolonial Railway near Newcastle or *via* Douglstown to a point on the River Miramichi, opposite the Town of Chatham, in the Province of New Brunswick, six miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 19,200
- 92.** For a railway from a point on the Canadian Pacific Railway to Eganville, in the Province of Ontario, twenty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 70,400
(NOTE.—*Cancelled by 51 Vic., ch. 3.*)
- 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
(NOTE.—*Additional.*)
- 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
(NOTE.—*Further subsidized by the Act 50 51 Vic., ch. 24.*)
- 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 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 the 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: 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 50-51 Vic., cap. 24 (1887). (*Assented to 23rd June, 1887:—*

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| 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 |
| 99. | To the Drummond County Railway Company, for thirty miles of their railway from Drummondville towards Nicolet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 96,000 |
| 100. | To the Joggins Railway Company, for one and a quarter miles of their railway extending from the southern end of the portion subsidized by the Act forty-ninth Victoria, chapter ten, to the wharves, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole (<i>additional</i>)..... | 4,000 |

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| 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 forty-ninth Victoria, chapter ten, to Moncton, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole (<i>additional</i>). | 6,400 |
| 102. To the Beauharnois Junction Railway Company, for thirty miles of their railway from St. Martin's towards St. Anicet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 96,000 |
| 103. To the Harvey Branch Railway Company, for three miles of their railway from the southern terminus of the Albert Railway to Harvey Bank, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 9,600 |
| 104. To the Brantford, Waterloo and Lake Erie Railway Company, for eighteen miles of their railway from the Town of Brantford to the Village of Hagarville or the Village of Waterford, or some intermediate point on the Canada Southern Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 57,600 |
| 105. To the Guelph Junction Railway Company, for sixteen miles of their railway from its junction with the Canadian Pacific Railway to the Town of Guelph, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 51,200 |
| 106. To the Massawippi Railway Company, for ten miles of their railway from a point on the Atlantic and North-Western Railway, near the Village of Magog, to Ayer's Flat Station, on the Massawippi Valley Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... | 32,000 |
| (NOTE.—Cancelled by 51 Vic., ch. 3.) | |
| 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 fifty-nine, to Tweed, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole (<i>additional</i>)..... | 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, for extending and completing their railway, a subsidy of..... | 20,000 |

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| 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 |
| (NOTE.— <i>Transferred by 51 Vic., ch. 3, to the Québec and Lake St. John Railway Co.</i>) | |
| 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 forty-seventh Victoria, chapter eight, to the town of Perth, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole (<i>additional</i>)..... | 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 forty-ninth Victoria, chapter ten, a subsidy not exceeding in the whole (<i>substituted</i>)..... | 32,000 |
| 117. To the St. Lawrence and 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, 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 fifty-nine, 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 (<i>substituted</i>) | 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 wharves 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 fifty-nine, 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 forty-ninth Victoria, chapter ten), a subsidy of (<i>substituted</i>)..	12,400
120. To the Carillon and Grenville Railway Company, for twelve miles of their railway from St. Eustache to Sault au Recollet, 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 Hebert 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 (<i>additional</i>).....	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 fifty-nine, to the Village of Comber, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole (<i>additional</i>).....	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 (<i>in addition to the subsidy granted by Act 48-49 Vic., ch. 59.</i>)	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 (<i>in addition to subsidies granted by Acts 45 Vic., ch. 14; 46 Vic., ch. 25; 48-49 Vic., ch. 59, and 49 Vic., ch. 10.</i>).....	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	

(in addition to subsidies granted for their main line by 45 Vic., ch. 14, and 48-49 Vic., ch. 58)..... 96,000

(NOTE.—Cancelled by 51 Vic., ch. 3.)

- 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 forty-ninth Victoria, chapter ten, for a railway from Perth Centre Station, on the New Brunswick Railway, to a point near Plaister Rock Island, a subsidy of (*substituted*)..... 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 (*in addition to subsidies granted for the main line by 48-49 Vic., ch 59, and 49 Vic., ch. 10*)..... 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 forty-ninth Victoria, chapter ten, a subsidy not exceeding (*substituted*)..... 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 con-

struction of which subsidies are granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council; and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the Company with the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon completion of the work subsidized, except as regards the subsidy for the bridge over the St. Lawrence River upon which shall be paid fifteen per cent. of the value of work done on monthly progress estimates, certified by the Chief Engineer, and upon the approval of the Minister of Railways and Canals.

The granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running 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.

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 Acts contained.

By the Act 51 Vic., ch. 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 (<i>substituted</i>).....	\$ 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 (<i>additional</i>).....	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 (<i>additional</i>).....	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 (*substituted*)..... 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 (*additional*) 41,100 00
- 139.** To the Port Arthur, Duluth and Western Railway Company, for 84 $\frac{3}{4}$ miles of their railway from Port Arthur towards Gun Flint Lake, in lieu of the subsidies granted by 48-49 Victoria, Chapter 59, and 49 Victoria, Chapter 10, for the construction of a railway from Murillo Station to Crooked Lake, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole (*substituted*)..... 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 (*substituted*)..... 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 (*substituted*)..... 100,000 00
- 142.** To the Quebec Central Railway Company, for the construction and completion of a line of railway from Saint 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 guar-

antee 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 (*substituted*)..... 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 55 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 of..... 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 subsidy (the section of road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an

Order in Council has been passed authorizing their transfer to the Company) of 726 tons of used iron rails and fastenings loaned to the Company, which rails and fastenings stand in the Public Accounts as an asset for..... 14,665 45

- 149.** To the Chatham Branch Railway of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the Company) of 958 tons of used iron rails and fastenings loaned to the Company, which rails and fastenings stand in the Public Accounts as an asset for..... 24,439 84

All the lines, for the construction of which subsidies are granted, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications, and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the Company with the Government, and which the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council; and all 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 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.

LAND SUBSIDIES.

By 47 Vic., cap. 25, clause 7, (1884). (*Assented to 19th April, 1884*):—

- 150.** “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 Bay to make a free grant of not more than six thousand four hundred acres for each mile of railway within Manitoba, and not more than twelve thousand eight hundred acres for each mile in the North-West Territories.”

By 48-49 Vic., cap. 60 (1885). (*Assented to 20th July, 1885*):—

- 151.** 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.
- 152.** 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.

- 153.** 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.
- 154.** To the Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway, from its commencement near Regina, to the navigable waters of Long Lake.

The said grants, and each of them, may be so made in aid of the construction of the said railways respectively, in the proportion and upon the conditions fixed by the Orders in Council made in respect thereof,—each of the said enterprises being respectively subject to any modification thereof which may hereafter be made by the Governor in Council; and except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash on the issue of the patents therefor.

By 49 Vic., cap. 11 (1886). (*Assented to 2nd June, 1886*):—

- 155.** To the Manitoba and North-Western Railway Company, Dominion lands to the extent of six thousand four hundred acres per mile for each mile on the company's branch railway running from a point on the main line of that railway, at or near Todburn, in a north-westerly direction through the county of Russell to the Assiniboine River, near the town of Shellmouth, about twenty-six miles.
- 156.** 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.
- 157.** 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

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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 50-51 Vic. cap. 23 (1887). (*Assented to 23rd June, 1887*):—

- 158.** The Governor in Council may grant to the Alberta and Athabaska 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.
- 159.** The Governor in Council may grant 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.
- 160.** The Governor in Council may grant to the Medicine Hat Railway and Coal Company Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the Company's railway, from a point at or near Medicine Hat, on the line of the Canadian Pacific Railway, to the coal field in or near townships twelve and thirteen, range six, west of the fourth principal meridian, a distance of about eight miles, to be selected out of such lands as are at the disposal of the Government in the proximity of the line of the Company's railway.

The said grants, and each of them may be so made in aid of the construction of the said railways respectively, in the proportions and upon the conditions fixed by the Orders in Council made in respect thereof,—each of the said enterprises being respectively subject to any modification thereof which may hereafter be made by the Governor in Council; and, except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively of the cost of survey of the lands and incidental expenses at the rate of ten cents per acre in cash on the issue of the patents therefor.

 GOVERNMENT ACTION AS TO SUBSIDIZED LINES.

With regard to the above enumerated lines of railway, the following represents the action taken and the progress made in so far as the Dominion Government has cognizance or concern; only those lines and companies being mentioned as to which definite steps, other than merely preliminary, have been taken towards securing the subsidy. Information has been brought down to the 31st of December, 1888.

Since the system of subsidy to railway enterprise was commenced, the following are the sums paid over, namely:—

For the fiscal year 1883-84, ended on June 30, 1884	\$	208,000	00
do 1884-85	do	1885	403,245 00
do 1885-86	do	1886	2,171,249 00
do 1886-87	do	1887	1,406,533 00
do 1887-88	do	1888	1,027,041 92
			\$5,216,068 92

Add to the above for the six months that have elapsed since, namely, from the 30th of June, 1888, to the 31st December, 1888..... 347,070 00

Total payments to the 31st of December, 1888, \$5,563,138 92

The Canadian Pacific Railway is not included in the above, nor is the subsidy to the Quebec Government for the line from Ottawa to Quebec, nor advances made on mortgage to the St. John Bridge Company, to the Albert Railway Company and to the Fredericton and St. Mary's Bridge Company.

The total number of companies to whom payments have been made on subsidy account up to the 31st of December, 1888 (with the above exceptions) is 37.

A tabulated statement of payments will be found in Appendix 3, page 6.

The following pages show, in alphabetical sequence, the position of those companies whose dealings with the Government in respect of subsidies are not yet closed. Reports of previous years give information as to companies whose subsidies have been earned and paid prior to the 1st of July, 1887.

Albert Southern Railway Company.

(See No. 36.)

By the Act 47 Vic., chap. 8 (1884), a subsidy not exceeding \$51,200 was authorized towards the construction of a line from Hopewell (now called Albert) to Alma, N.B.

Under the authority of an Order in Council of the 8th of May, 1885, a contract for this work, namely, from Albert to the mouth of Salmon River, in the parish of Alma, was made with the Albert Southern Railway Company on the 23rd of that month; the line to be completed by the 1st of July, 1887. By an Order in Council of the 4th of April, 1887, the company were permitted to change their location, a route *via* Derry's Corner being adopted.

The time for completion was extended to 1st of July, 1888. During the fiscal year the sum of \$18,428.57 has been paid from the company's subsidy, making the total payments up to the 31st of December, 1888, \$19,428.57.

Atlantic and North-West Railway Company.

(See Nos. 20 and 63.)

By the Act 47 Vic., ch. 8, the grant of the following subsidy was authorized :—

“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, per year for fifteen years, \$170,000.”

By the Act 48-49 Vic., ch. 58 (1885), the grant of a further subsidy was authorized as follows :—

“For a line of railway from the south bank of the St. Lawrence River, opposite or near Montreal to the harbours of St. Andrews, St. John and Halifax, *via* Sherbrooke, Moosehead Lake, Mattawamkeag, Harvey, Fredericton and Salisbury, a subsidy not exceeding eighty thousand dollars per annum for twenty years, forming in the whole, together with the subsidy authorized by the Act forty-seventh Victoria, chapter eight, for a line of railway connecting Montreal with the said harbours of St. John and Halifax by the shortest and best practicable route, which the line above described is found to be, a subsidy not exceeding two hundred and fifty thousand dollars per annum, the whole of which shall be paid in aid of the construction of such line of railway for a period of twenty years, or a guarantee 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 to the subsidy thereby authorized in aid of the said line of railway.”

An application having been made for the said subsidies by the International Railway Company, and they having agreed to conform to the necessary conditions and requirements, and having evidenced their ability to construct and operate the road, entry into contract with them was authorized by an Order in Council of the 19th of November, 1885, and such contract was executed on the 14th of December, 1885, they undertaking to complete a line from a point on the south bank of the St. Lawrence at or near Caughnawaga, about 9 miles above Montreal, to connect with the Intercolonial Railway at Moncton by the 1st of July, 1889.

The International Railway Company subsequently disposed of their interest in this contract to the Atlantic and North-West Railway Company, and that company were accepted as contractors by an Order in Council dated the 13th of November, 1886, the agreement made thereunder being dated the 6th of December, 1886.

The Atlantic and North-West Railway Company, having powers under their charter to enter into arrangements for the crossing of the State of Maine, obtained,
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from the Maine Central Railway Company, the privilege of acquiring running powers for 99 years over the portion of their road between Mattawamkeag and Vanceborough, on the boundary line. These arrangements were accepted by an Order in Council of the 30th December, 1886.

The total subsidies available under vote of Parliament for this work of railway construction, amounting, as above stated, to \$250,000 a year, for a term of twenty years, it became necessary so to apportion this amount as to secure the building of the links to connect with the roads already in existence in New Brunswick and Nova Scotia leading to the harbours named.

Accordingly, an estimate of the cost of the several sections of the surveyed line, as adopted, was made, and as the result an Order in Council was passed on the 14th of June, 1886, apportioning the subsidy, the arrangement being as follows:—For the section from the River St. Lawrence to Lennoxville, \$71,100. The section from Lennoxville to Moose River is covered by the International Railway, already constructed. For the section between Moose River and Mattawamkeag, a station on the Maine Central Railway, \$115,500. From Mattawamkeag to Harvey Station on the New Brunswick Railway, running arrangements have been made over existing roads. For the section between Harvey and a point on the Intercolonial Railway near Salisbury Station, \$63,400. The remaining distance is by the Intercolonial Railway to Moncton.

By Orders in Council of the 3rd of September, 1886, and 24th of May, 1887, approval was given to location plans for the distance between the River St. Lawrence (at Caughnawaga) and Lennoxville, passing through the town of St. Johns, P. Q., Farnham and South Stukely to Magog, thence passing to the north of Lake Magog; the Government location being thus modified, and the distance slightly increased, namely, from 100 miles to $101\frac{5}{16}$.

The portion of the road between Caughnawaga on the South Branch of the St. Lawrence, opposite Montreal, and Sherbrooke having been practically completed, and also the portion commencing from the end of the section built by the International Railway Company, and running as far as Mattawamkeag, these two sections were inspected, and under date the 31st of December, 1888, an Order in Council has been passed authorizing the payment of the annual subsidy applicable, namely, \$186,600.

By the construction of these two sections and the intermediate links of already built railway, acquired as part of the system, direct communication is now afforded between the River St. Lawrence at Caughnawaga and Harvey. Connection is made at McAdam and at Harvey with the system of the New Brunswick Railway leading to St. Andrews and St. John; thence, over the Intercolonial Railway, with Moncton and Halifax, pending the full completion of the scheme for the shorter route from Harvey to Moncton direct.

The Atlantic and North-West Railway Company having under their charter, 42 Vic., chap. 65 (1879) power to construct a bridge across the St. Lawrence, near Lachine, submitted for approval plans for such a bridge, to be situated about a mile below the entrance of the Lachine Canal, and about nine miles above Montreal. These plans, having been favourably considered from an engineering point of view, and

also with regard to navigation, were approved of by an Order in Council dated 1st of April, 1882, subsequently modified by an Order of the 14th of November, 1885. The plans so approved show a steel bridge, with stone piers, having two spans of 408 feet each, two of 269 feet each, and eight of 242 feet each. The central 216 feet of each of the two channel spans affords a height of 60 feet above ordinary summer water level; these two spans are on the cantilever principle. The bridge is completed.

By an indenture dated the 6th of December, 1886, the Canadian Pacific Railway Company have obtained a lease in perpetuity of the line and interests of the Atlantic and North-West Railway Company.

Baie des Chaleurs Railway Company.

(See Nos. 42 and 6.)

The Act 47 Vic., ch. 8, authorized the expenditure of \$300,000 (revoted in the year 1885) for the construction of a branch of the Intercolonial Railway, to extend for a distance of 20 miles eastward, from Metapediac towards Paspebiac.

Tenders for the work were received, but none of them coming within the limit of expenditure authorized by Parliament, an offer made by the Baie des Chaleurs Railway Company to build and operate this section as a part of their own road from Metapediac to Paspebiac for the amount, was accepted by an Order in Council of the 18th of September, 1885, and a provisional contract was entered into with them on the 7th of November, the section to be finished by the first of July, 1888, plans being furnished and the work supervised by the Department.

By the Act 46 Vic., ch. 25 (1883) a subsidy had been authorized in favour of this company towards the construction of their said road; the limit fixed by the Act being \$3,200 a mile, for 100 miles, or a total of \$320,000.

Provision, however, having been made, as above stated, for the building of the first 20 miles of this distance, the contract entered into with the company, also on the 7th of November, 1885, as authorized by an Order in Council, also dated the 18th of September, for the work under this subsidy, dealt with the construction of the last 80 miles only. It contained a clause under which, subject to authorisation from Parliament to that end, the portion, namely, \$3,200 a mile, applicable to the first 20 mile section of the road under the 100 mile subsidy of 1883, should be transferred to the second 20 mile section as an additional subsidy therefor, making the grant for such section \$6,400 a mile.

To this arrangement, approval of Parliament was given, the two agreements above mentioned being ratified and confirmed by the special Act 49 Vic., ch., 17; the date for the completion of the road being fixed by the Act as the 1st of December, 1888, in place of the 25th of May, 1887, as contemplated by their agreement. By an Order in Council of the 14th of June, 1888, the time has been further extended, to the 1st of January, 1890.

The plans for the first 20 miles having been furnished by this Department, works were commenced, and up to the end of the fiscal year, namely, the 30th June, 1888, there was paid to the company the sum of \$300,300. A further sum of \$15,000 has since been paid, making the total payments up to the 31st of December, 1888, \$315,500.

The location has been approved up to the 60th mile by Orders in Council, and on the 27th November, 1888, the company asked for inspection of the road for this distance.

Beauharnois Junction Railway.

(See No. 102.)

By the Railway Subsidy Act, 50-51 Vic., ch. 25, the grant of a subsidy not exceeding \$96,000, was authorized in favour of the Beauharnois Junction Railway Company, for their railway from St. Martin towards St. Anicet, the estimated distance being 30 miles.

On the 21st of November, 1887, and under the authority of Orders in Council of the 1st of October and 2nd of November, a contract for the work was made with the company, namely, from St. Martin to Valleyfield towards St. Anicet, the road to be completed by the first of December, 1888. By the Order first named approval was also given to the location of the road from its junction with the Montreal and Champlain Junction Railway at St. Martin's, to Valleyfield, $19\frac{6}{10}$ miles. An inspection of the road for a distance of ten miles has been requested by the company, but up to the 31st of December, 1888, no portion of the subsidy has been paid.

Belleville and North Hastings Railway Company.

(See Nos. 54 and 93.)

By the Act 48-49 Vic., ch. 59 (1885) the grant of a subsidy not exceeding \$10,500, was authorized in favour of the Belleville and North Hastings Railway Company, for a line of railway, about 7 miles long, from the village of Madoc to a point of junction with the Central Ontario Railway, at Eldorado, and by the Act 49 Vic., ch. 10 (1886) a further subsidy was granted to the company for the same railway, namely, \$11,900, making a total subsidy of \$22,400. Under authority of an Order in Council of the 14th of November, 1887, a contract was made with the company on the 12th of December, for the work. The road has been built, and the payment of the subsidy for the actual distance, 6.84 miles, has been authorized by an Order in Council dated the 29th of December, 1888, the amount being \$21,888.

Brockville, Westport and Sault Ste. Marie Railway Company.

(See No. 48.)

By the Act 48-49 Vic., chap. 59 (1885), aid was granted to an extent not exceeding \$128,000 towards the construction of the portion between Brockville and Westport, about 40 miles, of the line of the Brockville, Westport and Sault Ste. Marie Railway.

Under the authority of an Order in Council of the 28th of April, 1886, a contract was made with the company on the 16th of July, 1886, the subsidized road to be finished by the 1st of August, 1889.

Up to the close of the fiscal year, the company had received no portion of the subsidy, but subsequently to that date, the sum of \$45,000 has been paid them, this being the total amount paid up to the 31st of December, 1888.

Brantford, Waterloo and Lake Erie Railway Company.

(See No. 104)

By the Act 50-51 Vic., ch. 24, authority was given for the grant of a subsidy of \$57,600 to the above company for 18 miles of their railway from Brantford to Hagersville or Waterford or some intermediate point on the Canada Southern Railway.

Under an Order in Council of the 4th of August, 1888, a contract was made with the company for a line from Brantford to Waterford, the work to be completed by the 1st of August, 1891. An Order of the same date approved of the location, the actual distance being $16\frac{3}{4}$ miles. No portion of the subsidy had been paid up to the 31st of December, 1888.

Buctouche and Moncton Railway Company.

(See Nos. 65 and 101).

By the Act 49 Vic., chap. 10 (1886), assistance was authorized for the construction of a railway about 30 miles long, to connect Buctouche, N.B., with the Inter-colonial Railway at or near Moncton, the subsidy not to exceed \$96,000.

By the Act 50-51 Vic., chap. 24, an additional subsidy of \$6,400 was granted for two miles additional, making the total subsidy \$102,400.

Under an Order in Council of the 10th September, 1886, an agreement, dated the 14th of that month, was entered into with the Buctouche and Moncton Railway Company for the execution of this work by the 1st of July, 1887. Up to the close of the fiscal year the sum of \$61,053.57 had been paid from the company's subsidy, and no further payment has been made.

Canada Atlantic Railway Company.

(See Nos. 60, 80 and 132.)

By the Acts 48-49 Vic., ch. 59, and 49 Vic., ch. 10, the Canada Atlantic Railway Company were subsidized to the extent not exceeding \$134,400, for a line from Clarke's Island, in the St. Lawrence, opposite Valleyfield, through Lacolle to the International boundary, about 50 miles; also from the present Ottawa terminus to the Chaudière Falls, and under the authority of Orders in Council, dated the 17th of September, 1885, and 1st of July, 1886, contracts have been made with the company for the work in question. The date for full completion has been extended by an Order in Council of the 17th of November, 1888, to the 1st of August, 1890. Under date the 4th of December, 1888, the company have applied for the inspection of the Chaudière section.

Upon due inspection, payments have been made, under Orders in Council, the last dated the 24th of August, 1886, to the extent of \$92,864; the work done and so paid for comprises the whole portion between Clarke's Island and Lacolle, a distance of 43.18 miles.

By the Act 50-51 Vic., ch. 24, the grant of a subsidy not exceeding \$180,000 was authorized for a bridge across the River St. Lawrence at Coteau Landing on the line of this railway.

The Canada Atlantic Railway Company possess powers under the Acts 35 Vic., ch. 83, and 42 Vic., ch. 57, to build this bridge, subject to the approval of the Governor General in Council, and upon Proclamation in the *Canada Gazette* showing such approval. The company having submitted satisfactory plans of the proposed work and site, these have been approved by Orders in Council of the 23rd February, 1887, and 26th of November, 1888, and a proclamation has been published in the *Canada Gazette* of the 10th of December, 1888.

An agreement dated the 5th of December, 1888, has been entered into with the company for the construction of the said bridge, a low level structure, on certain conditions, specifications and descriptions approved by an Order in Council of the 12th of that month, with a view to their obtaining the subsidy authorized by the Act 50-51 Vic., ch. 24, above mentioned.

A supplementary agreement framed in the interests of navigation and of the public for the operation of the swing to be built in this bridge has been approved by an Order in Council of the 29th of December, 1888, and will be held as part and parcel of the main agreement for the construction of the bridge. It requires the maintenance of a signal service at a point about one mile above the bridge, and the observance of such rules and regulations as are considered necessary for the protection of traffic down the navigable channel of the river.

The main features of the bridge as definitely proposed to be built by the company are as follows: From the north shore to Giroux Island, five spans, one 154 feet clear opening; two swing spans each 160 feet clear, and two trusses each 165 feet. From Giroux Island to Round Island 11 spans, each of 186½ feet clear opening. From Round Island to Clarke's Island four spans each of 213 feet clear opening, all the above being the width of the openings at summer water level. The total length of the bridging to be executed, including the spans, is about 4,100 feet. The superstructure will, it is proposed, be of iron, rivetted lattice work, the width 16 feet clear, inside the end posts, and the minimum height 32 feet, the rail level being 20 feet above minimum summer water level. The estimated cost of the superstructure, including the swing, is \$470,000. The masonry work is in progress.

Caraquet Railway Company.

(See Nos. 7, 41, 68 and 116.)

Under an Order in Council, dated the 6th of May, 1884, the subsidies authorized by Parliament in 1883 and 1884, for the road of this company from a point near Bathurst, on the Intercolonial Railway, to Shippegan Harbour, amounting to \$192,000, have been granted to them. An agreement was executed under date the 20th

January, 1885, for the construction of the line, the portion from Caraquet to Gloucester Junction Station, near Bathurst, to be completed by the 25th May, 1887, and the whole road by the 1st of July, 1888. By an Act, 49 Vic., ch. 10, a further subsidy of \$32,000 was authorized, covering the last ten miles of the road; for this, however, another Act, 50-51 Vic., ch. 24 (1887), was substituted, giving the same subsidy for 7 miles. A contract was made with the Company on the 19th February, 1887, for this subsidy. Of the total subsidies granted, namely, \$224,000, there was paid during the fiscal year \$40,050, making total payments \$210,050. The road is completed with the exception of certain work and the supply of rolling stock, to secure the completion of which, the sum of \$13,950 has been withheld.

Central Railway Company of New Brunswick.

(See Nos. 40 and 143.)

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

Under the authority of an Order in Council of the 5th of June, 1886, a contract was made with the Central Railway Company, on the 7th July, 1886, for a line from Salmon River at the head of Grand Lake to Norton on the Intercolonial Railway, the work to be completed by the 1st of July, 1888. Certain work has been executed but the contract obligations have not been carried out, and no portion of the subsidy has been paid. The subsidy has now lapsed.

By the Act 51 Vic., ch. 3, a grant as a subsidy to this Company was authorized of certain used iron rails to the value of \$83,612.54, loaned to the St. Martins and Upham Railway Company, which railway has been acquired by the Central Railway Company; the condition of the grant being that such rails should first be replaced by new steel rails. The transfer has not been made up to the 31st of December, 1888.

Chignecto Marine Transport Railway Company.

(See No. 5.)

On the 3rd February, 1882, this company (which received incorporation the same year, by Act 45 Vic., chap. 76) made a proposal to the Government for the construction of a line of railway for the transport of ships overland across the Isthmus of Chignecto from Tidnish, on Bay Verte in the Gulf of St. Lawrence, to a point at or near the mouth of the River La Planche, in the Bay of Fundy, and by the Act 45 Vic., ch. 55, authority was given for the grant of a subsidy of \$150,000 a year for 25 years, in aid of the work.

No definite action was, however, taken until the 6th of October, 1885, when an Order in Council was passed authorizing entry into agreement with the company, subject to the approval of Parliament, and such agreement was executed on the 4th of March, 1886. Under its terms, the subsidy payable is to be \$170,602 a year for 20 years, or such portion thereof as may be required to bring the net earnings to 7 per cent. per annum on the authorized share and bond capital of the company,

\$5,500,000, and to be granted only during the satisfactory performance of the services contemplated, such services comprising the raising, transport, and lowering of vessels of 1,000 tons burden, registered, with full cargo. Should the earnings exceed 7 per cent. per annum, one-half of such surplus is to be paid to the Government until repayment of the whole amount received by said company under their subsidy. The whole work is to be completed and equipped by the 1st of July, 1889.

By a special Act, 49 Vic., ch. 18 (1886), this agreement was confirmed and ratified.

By a further special Act, 51 Vic., ch. 4 (1888), the time for the completion of the work, for subsidy purposes, was extended to the 1st of July, 1890, with, if required, a farther extension for 24 months, but under penalty.

The company having submitted plans, the same were approved by an Order in Council of the 23rd of May, 1888, and steps necessary to the expropriation of the lands required have been taken by the company.

Cornwallis Valley Railway Company.

(See No. 128.)

By the Act 50-51 Vic., ch. 24 (1887) the grant of a subsidy to this company to the extent of \$41,600 was authorized, for 13 miles of their railway from Kentville to Kingsport.

Under an Order in Council of the 29th of March, 1888, they were admitted to contract on the 28th of May, the road to be completed by the 1st of October, 1889.

Up to the 31st of December, 1888, no portion of the subsidy had been paid.

Cumberland Railway Company.

(See No. 124.)

By the Act 50-51 Vic., ch. 24 (1887) the grant to this company of a subsidy to the extent of \$41,800 was authorized, for 14 miles of their railway from a point on the Spring Hill and Parrsboro' Railway, near Spring Hill, to a point on the Oxford and New Glasgow Railway, near Oxford.

The company having applied, they were admitted to contract on the 12th of April, 1888, under an Order in Council of the 12th of March, the work to be completed by the 1st of August, 1891. An Order of the same date approved of the location.

No portion of the subsidy has been paid up to the 31st of December, 1888.

Dominion Lime Company.

(See No. 108.)

By the Act 50-51 Vic., ch. 24 (1887), the grant of a subsidy to the Dominion Lime Company was authorized, namely, for a railway of an estimated length of seven miles starting from a point on the Quebec Central Railway, in the township of Dudswell, to the Dudswell Lime Company's quarries, the amount not exceeding \$22,400.

A contract was made with the company on the 12th October, 1887, and the road having been inspected, the sum of \$11,840 has been paid under an Order in Council dated the 31st of December, 1887. No further payment has been made up to the 31st of December, 1888. The road, $4\frac{8}{100}$ miles long, is, however, practically completed.

Drummond County Railway Company.

(See No. 99.)

By the Railway Subsidy Act of 1887, 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, P.Q.

Under the authority of an Order in Council of the 12th of November, 1887, which also approved of the location plans for $12\frac{1}{2}$ miles, a contract was made with the company on the 1st of December, 1887, covering a line from the South Eastern Railway at the Village of Drummondville to the South West branch of the River Nicolet, the road to be completed by the 1st of August, 1891.

Under an Order in Council of the 17th of February, 1888, the sum of \$15,057 has been paid. No further payment has been made up to the 31st of December, 1888.

Elgin, Petitecodiac and Havelock Railway Company.

By the Act 51 Vic., chap. 3. (1888), certain used iron rails from the Intercolonial Railway, valued at \$44,252.82, which had been loaned to the Elgin Branch Railway, now part of the line of the above named company, were changed from a loan to a subsidy for that company, on the condition that they should first be replaced on the track with new steel rails.

The transfer had not been made up to the 31st of December, 1888.

Fredericton and St. Mary's Bridge Company.

By the special Act 50-51 Vic., ch. 26 (1887), the Governor in Council was authorized to make advances (secured by a mortgage) to the Fredericton and St. Mary's Bridge Company, in aid of the construction of a railway bridge over the river St. John, such advances not to exceed 80 per cent. of the expenditure as made, nor, in the whole \$300,000.

Upon submission of satisfactory plans for such bridge and its approaches, an Order in Council was passed on the 25th of August under which a deed of mortgage and agreement was executed on the 12th of October, 1887, covering the works in question, and running for a term of 15 years from the date of the first advance, the interest payable being at the rate of 4 per cent. per annum. The company proceeded to construction and have received under Orders in Council, the last dated the 14th of November, 1888, advances to the aggregate of \$297,000. The work having been inspected, authority was given on the 14th of November, 1888, for the opening of the bridge for public traffic. The work connects the Fredericton Railway at Fredericton with the Northern and Western Railway at St. Mary's.

Great Eastern Railway Company.

(See Nos. 88 and 114.)

By the Act 49 Vic., ch. 10, authority was given for the grant of a subsidy to an extent not exceeding \$32,000, on an estimated distance of 10 miles, towards the construction of a line from Yamaska to the River St. Francis, Que.; and the Great Eastern Railway Company having applied, and having satisfactorily shown their ability to perform the work, a contract was made with them on the 12th of October, 1886, under the authority of an Order in Council of the 9th of that month, the time for completion being fixed as the 1st of October, 1887.

The road having been completed and inspected, the whole of the subsidy due for its actual distance, 6 miles, namely, \$19,200, was paid under an Order in Council of the 27th of March, 1887.

By the Act 50-51 Vic., ch. 24, authority was given for the grant of a subsidy to the company to an extent not exceeding \$96,000 for 30 miles of their railway from the River St. Francis to the Arthabaska (Grand Trunk) Railway at St. Grégoire, and under an Order in Council an agreement was entered into with them for the work, the date being 16th, March 1888. The location plans have been approved of by an Order in Council of the 3rd of March, 1888, covering the distance between Pierreville (River St. Francis) and St. Grégoire, the time for completion has been extended to the 1st of August, 1891. No payment has been made up to the 31st of December, 1888.

Great Northern Railway Company.

(See Nos. 33, 37, 72 and 79.)

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

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

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

By the Act 49 Vic., ch. 10, 1886, a subsidy not exceeding \$57,600 was authorized for a line from New Glasgow to Montcalm, a distance of about 18 miles. The Great Northern Railway Company having applied for it, it was granted to them by an Order in Council of the 18th July, 1887, which also approved of the location. The contract was made on the 19th of August, 1887, the road to be completed by the 1st of August, 1890. No payment has been made up to the 31st December, 1888.

By the Act 49 Vic., ch. 10, a subsidy not exceeding \$22,400 was granted for a line from St. Andrews to Lachute, Que. For this subsidy the above named company have applied; no contract however has yet been made.

Guelph Junction Railway Company.

(See No. 105.)

By the Subsidy Act 1887, 50-51 Vic., ch. 24, authority was given for the grant of a subsidy not exceeding \$51,200 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, Ontario.

Under date the 1st of October, 1887, an Order in Council authorized entry into contract, and such contract was signed on the 5th of November, the date fixed for the completion of the road being the 1st of January, 1889.

The location plans for the road, 15½ miles, having been approved, and the work inspected, payment has been made of the sum of \$46,000 under an Order in Council dated the 21st of December, 1888.

Harvey Branch Railway Company.

(See No. 103.)

By the Subsidy Act of 1887, 50-51 Vic., chap., 24, the grant of a subsidy to the Harvey Branch Railway Company was authorized to an extent not exceeding \$9,600 in aid of a line about three miles in length, extending from the southern terminus of the Albert Railway to Harvey Bank.

A contract was entered into with the company on the 3rd of October, 1887, for the work. The road has been built and inspected, but no portion of the subsidy has been paid up to the 31st December, 1888.

Hereford Branch Railway Company.

(See No. 73.)

By the Act 49 Vic., chap. 10, 1886, authority was given for the grant of a subsidy to the extent of \$108,800 for a railway from Hereford to the International Railway in the township of Eaton, an estimated distance of 34 miles.

The Hereford Branch Railway Company having applied, an Order in Council of the 30th of December, 1887, authorized entry into contract with them for the work and a contract was made accordingly, dated the 31st of March, 1888. The date for completion is fixed as the 1st of August, 1890.

Up to the 31st of December, 1888, no portion of the subsidy has been paid, but 20 miles of the road have been built and inspected.

International Railway Company.

(See No. 10.)

In 1883 Parliament granted a subsidy of \$156,800 to this company for forty-nine miles of their railway, between Sherbrooke and the International boundary line, the object being to enable them to complete their road and lay steel rails. They entered into contract on the 20th of July, 1883, and under successive Orders in Council, they had been paid, prior to the commencement of the year, a total sum

of \$144,000, upon a distance of forty-five miles. Under the authority of an Order in Council, dated the 2nd of July, 1887, they have now been paid, for the remaining $2\frac{8.0}{10.0}$ miles up to Lennoxville, the further sum of \$8,960; making a total payment of \$152,960, and completing the contract work.

Irondale, Bancroft and Ottawa Railway Company.

(See No. 24.)

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

With the sanction of an Order in Council of the 10th July, 1886, a contract was made with the company on the 19th of August, 1886, the first 10 miles to be completed by the 1st of December, 1886, and the remainder by the 1st of July, 1888.

Under the authority of an Order in Council of the 14th of February, 1887, \$15,000 has been paid. No further payment has been made up to the 31st of December, 1888, and the unpaid balance has lapsed.

Joggins Railway Company.

(See No. 76 and 100.)

By the Act 49 Vic., chap. 10 (1886), authority was given for the grant of aid to an extent not exceeding \$38,400, towards the construction of a railway, the estimated length of which is 12 miles, from a point at or near McCann Station, on the Intercolonial Railway, to the Joggins, on Cumberland Basin, N.S.

The Joggins Railway Company having applied for this subsidy, and the application being satisfactory, a contract was made with them on the 30th of November, 1886, under the authority of an Order in Council on the 5th of October, the line to be completed by the 1st of November, 1887.

A further subsidy to this company not exceeding \$4,000 having been authorized by the Act 50-51 Vic., chap. 24 (1887), towards the construction of an extension of the line, $1\frac{1}{4}$ mile long, to the wharves on Cumberland Basin, a contract was made with them for the work on the 13th of October, 1887.

Up to the 31st of December, 1888, the sum of \$26,138.78, has been paid from the company's subsidy.

Lake Erie, Essex and Detroit River Railway Company.

(See No. 133.)

By the Act 50-51 Vic., ch. 26 (1887) the grant of a subsidy to the extent of \$118,400, for 27 miles of their railway, was authorized in lieu of a subsidy granted the previous year, and on the 6th of April, 1888, they were admitted to contract for the construction of a line from Walkerville, on the Detroit River, to Cedar Creek Station, under the authority of an Order in Council of the 25th of March.

The line having been built and inspected, the company were authorized, on the 22nd of December, to open it for traffic.

No portion of the subsidy has been paid up to the 31st of December, 1888.

Lake Temiscamingue Colonization Railway Company.

(See Nos. 55, 84, 119 and 122.)

By the Act 48-49 Vic., ch. 59, a subsidy was authorized in aid of the construction of a line of railway from Long Sault to the foot of Lake Temiscamingue, surmounting certain rapids on the River Ottawa. The limit of the amount was \$25,600, covering a total distance of 8 miles. Under the authority of an Order in Council of the 17th November, 1885, a contract was entered into for the construction of 6 miles, to be completed by the 1st of January, 1887.

By the Subsidy Act, 49 Vic., chap. 10, a further subsidy of \$6,000 was authorized for the building of wharves and landing stages in connection with this line. This was subsequently cancelled, and by the Act 50-51 Vic., chap. 24, 1887, the definition of portions of the road to which the preceding Acts had granted subsidies was corrected, the amount of the subsidy, however, remaining the same, namely, a total of \$31,600.

In conformity with an express provision to that effect in clause 2 of the above cited Act, Letters Patent were issued under an Order in Council of the 20th of July, 1886, published in the *Canada Gazette* of the 24th, granting a charter for the construction of this railway to the "Lake Temiscamingue Colonization Railway Company." Up to the close of the fiscal year the sum of \$17,400 had been paid, and since that date a further sum of \$9,000, making a total of \$26,400 up to the 31st of December, 1888.

By the Act 50-51 Vic., ch. 24, the grant of a subsidy to the extent of \$33,600 was authorized for 10½ miles of this company's line from Long Sault to Lake Kippewa. Entry into contract for this subsidy has been authorized by an Order in Council of the 15th of June, 1888, but the contract is not yet signed.

Leamington and St. Clair Railway Company.

(See Nos. 56 and 123.)

By the Act 48-49 Vic., chap. 59 (1885), aid was granted to an extent not exceeding \$44,800 towards the construction of a line of railway from a point on the Canada Southern Railway near Comber, to Leamington, on Lake Erie.

By the Act 50-51 Vic., chap. 24, a further subsidy of 6,400 was granted, making the total subsidy \$51,200.

Under authority of an Order in Council of the 13th of April, 1886, a contract for this work was made with the Leamington and St. Clair Railway Company on the 3rd of May, 1886, the road to be completed by the 1st of August, 1889. After inspection of the road and under Order in Council the sum of \$32,000 has been paid to the company up to the 31st of December, 1888.

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Minudie Railway Company.

(See No. 121.)

By the Act 50-51 Vic., chap. 24, 1887, authority was given for the grant of a subsidy to the extent of \$17,600 to the above company for 5½ miles of their railway from its junction with the Joggins Railway, near the River Hebert Railway Bridge, to the village of Minudie, Nova Scotia.

Under authority of an Order in Council of the 10th of February, a contract, dated the 26th of March, 1888, has been made with the company for this work, which is to be completed by the 1st of March, 1889.

Up to the 31st of December, 1888, no portion of the subsidy has been paid.

Montreal and Champlain Junction Railway Company.

(See Nos. 51, 125 and 136.)

By the Act 48-49 Vic., chap. 59, a subsidy was authorized to be granted to this company for a line from Brosseau's to Dundee, not exceeding \$30,000. The work was completed and the subsidy was paid in the year 1885-86.

By an Act 50-51 Vic., chap. 24, a further subsidy not exceeding \$64,000 was authorized to be granted to this company. Authority has been given for entry into contract by an Order in Council of the 26th August, 1887, and the contract was signed on the 25th of January, 1888, for a line from Fort Covington to Massena Springs, 21¾ miles. Up to the close of the fiscal year \$16,400 had been paid; no further payments have been made to the 31st of December, 1888.

By the Act 51 Vic., chap., 3, a further subsidy of \$9,600 was authorized for 3 miles additional.

Montreal and Lake Maskinongé Railway Company.

(See No. 74.)

By the Act 49 Vic., chap. 10 (1886) the grant of a subsidy, of \$32,000 for a railway from St. Félix to Lake Maskinongé, P.Q., was authorized, and application being made by the Montreal and Lake Maskinongé Railway Company, an Order in Council of the 1st of October, 1887, accepted them as contractors, and an agreement was entered into accordingly on the 29th of September, covering the distance between St. Félix and St. Gabriel de Brandon, near Lake Maskinongé, the road to be completed by the first of December, 1888. The location plans for the distance, 12¾ miles, were approved by an Order in Council of the 23rd of June, 1888. Under authority of an Order in Council of the 26th of November, 1888, payment has been made of \$19,700 and the time for completion has been extended to the 1st of December, 1889.

Montreal and Sorel Railway Company.

(See No. 47.)

By the Act 48-49 Vic., chap. 59, a subsidy not exceeding \$72,000 was authorized to be granted to this company for a line from St. Lambert to Sorel. Under an
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Order in Council of the 2nd October, 1885, a contract was made with the company on the 14th, and under the authority of Orders in Council, the last dated the 10th of November, 1886, payments have been made, amounting in all to \$69,922, the road, 44.67 miles long, having been completed, with the exception of a small quantity of work, to secure the finishing of which \$1,550 was retained. No further payment has been made up to the 31st of December, 1888.

New Brunswick and Prince Edward Railway Company.

(See No. 46.)

By the Act 48-49 Vic., chap. 59 (1885), a subsidy, not exceeding \$118,400, was granted to the New Brunswick and Prince Edward Railway Company for the construction of a line between the Intercolonial Railway at Sackville Station to the Straits of Northumberland at or near Cape Tormentine, whence, by ferry, communication could be had with the railway system of Prince Edward Island.

Under the authority of an Order in Council, dated the 19th of April, 1886, a contract was entered into with the company for this work on the 18th May, 1886.

Before the close of the fiscal year, payments had been made to the extent of \$113,440, representing the full amount of the subsidy to which the company were entitled.

Napanee, Tamworth and Quebec Railway Company.

(See Nos. 13, 27, 57, 94 and 107.)

In 1883 Parliament authorized a subsidy of \$39,600 to this company, covering their road from Napanee to Tamworth.

A contract, dated 31st December, 1883, was entered into with the company for this work, and upon completion, inspection, and approval of the road, this subsidy was all paid under Orders in Council, the last dated the 28th of July, 1884.

In the Session of that year Parliament authorized the grant of a further subsidy not exceeding \$3,200 a mile or a total of \$70,400, for an extension of this company's road from Tamworth to Bogart and Bridgewater. In 1885, however, in substitution for this subsidy, Parliament authorized the grant to the company, of a subsidy of \$70,000 for a line "from Tamworth towards Bogart and Bridgewater, 16 miles." This, again, was cancelled by the Act 49 Vic., ch. 10 (1886), a subsidy of \$70,000 being granted to the company for 18 miles of their railway from Tamworth to Tweed.

By the Act 50-51 Vic., ch. 24 (1887) a further subsidy to this company, not exceeding \$12,800, was authorized for four miles of their road to Tweed.

Under date the 25th of July, 1888, an Order in Council authorized entry into contract, and approved the location plans from Tamworth to Tweed, 20 miles. The contract was signed on the 31st of July, 1888, covering both subsidies. The road is to be completed by the 1st of August, 1890. No portion of these subsidies has been paid up to the 31st of December, 1888.

Northern and Pacific Junction Railway Company—Gravenhurst to Callander.

(See Nos. 1 and 16)

For the purpose of affording to the Province of Ontario the advantage of direct railway communication with the North-West, it was necessary that a road should be built connecting the Canadian Pacific Railway with the existing railways of Ontario, and such a line was subsidized by the Acts of 1882 and 1883, to the extent of \$12,000 a mile, for a distance of 110 miles, or a total of \$1,320,000. It extends, southwards, from the Canadian Pacific Railway at Nipissing Junction, east of Lake Nipissing, to the Village of Gravenhurst, a distance of $111\frac{1}{2}$ miles, there connecting with the railway system of Ontario. Under the authority of an Order in Council, dated the 10th of April, 1884, a contract was entered into on the 12th of April, 1884, with the Northern and Pacific Junction Railway Company (formerly the Northern and North-Western and Sault Ste. Marie Railway Company), for the construction of this line, the same to be completed by the 1st of May, 1886.

Connection was made from north to south in January, 1886, a through train running on the 27th of that month.

By an Order in Council of the 3rd of May, 1886, the time for completion was extended to the 1st of August, 1886.

Up to the 31st of December, 1886, the total payments aggregated \$1,284,400, leaving the sum of \$35,600 to cover certain incomplete work. No further payments have been made.

Northern and Western Railway Company.

(See Nos. 11, 29, 50 and 61.)

In 1883 Parliament authorized the grant of a subsidy to this company of \$102,400, towards the construction of thirty-two miles of their railway, from the Intercolonial Railway, near the Miramichi, to Moran's, near Demphy Village, N.B. This action was suggested to the House, in view of an application made for aid for a line extending from the Intercolonial Railway at the crossing of the Miramichi River, *viâ* Boiestown and the Nashwaak Valley to Gibson, on the River St. John, opposite Fredericton. In 1884, no work having meantime been commenced, Parliament voted money for the construction, by the Government, of the portion of this distance, extending from Derby Station, on the Intercolonial Railway, to Indiantown, and authorized the grant to this company of a subsidy of \$123,000 in aid of their railway from Fredericton to Miramichi, "instead of the subsidy proposed in 1883."

The contract for the construction of this subsidized line, from Fredericton to the Miramichi, forty miles in length, was signed on the 24th of December, 1884, an Order in Council on the 16th of that month having given approval to the draft of such contract. The date fixed for completion was the 1st of July, 1888.

The location for the whole distance, forty miles, having been approved of by Orders in Council, and the road having been duly completed and inspected, the whole of the subsidy, \$128,000, was paid to the company.

In 1885, a subsidy in favour of this company was authorized to the extent of \$19,200 for a continuance of their line to Boiestown, and under the authority of an Order in Council of the 6th of November, 1885, a contract was made with the company for the work on the 23th of that month. The location was approved by an Order in Council of the 27th. The line, six miles in length, was to be completed by the 1st of November, 1886. The line being completed, an Order in Council was passed on the 13th of July, 1886, under which payment of \$18,200 was made; the balance, \$1,000, being retained to cover the widening of certain cuttings.

Parliament also, in 1885, authorized the grant of a subsidy to the extent of \$140,800 in aid of the construction of a line of railway from Indiantown, *via* the Miramichi Valley, to its junction with the Northern and Western Railway at or near Boiestown.

The Northern and Western Railway Company having applied for the work, they were accepted, and a contract was made with them on the 26th of November, 1885, as authorized by an Order in Council of the 7th of that month; the location, for the whole distance, about 50 miles, being approved of by an Order of the 27th. The line was to be completed by the 1st of August, 1888.

By the Subsidy Act, 49 Vic., ch. 10 (1886) a further grant of \$32,000 to this company was authorized for ten miles of their railway, made up of the portion intervening between the present termini of their already subsidized line and of the two miles extending down to deep water at Chatham.

For this subsidy, a contract was made with the company on the 14th of August, 1886, covering the intervening portion of line only, and omitting the two miles deep water extension. Under date the 12th of August, 1887, they entered into an agreement covering the two miles in question, the amount of subsidy applicable being \$6,400.

By the 31st of December, 1887, the whole road between Gibson, opposite Fredericton, and Indiantown was completed and in operation, the actual distance being $95\frac{1}{2}$ miles. The total subsidy provided for this distance was \$313,600. The amount found to be actually applicable was \$305,600, and the whole has been paid after due inspection and on Orders in Council, the last dated the 31st of December, 1887.

Under date the 29th of November, 1888, an Order in Council passed authorizing payment of the sum of \$6,300 out of the 6,400 of subsidy for the deep water extension at Chatham (\$100 being retained for the completion of certain work), and this amount has been paid.

The portion connecting Indiantown with the Intercolonial Railway, 14 miles, having been built by the Government as a branch for its main road, there is now direct communication between Fredericton and the Intercolonial Railway at Derby, the distance being about $109\frac{1}{2}$ miles.

Nova Scotia Central Railway Company.

(See Nos. 129 and 135.)

By the subsidy Act of 1887, 50-51 Vic., ch. 24, the Nova Scotia Central Railway Company were subsidized for 34 miles of their railway, to an extent not exceeding [1888] lxiii

\$108,800. Under an Order in Council of the 16th of September, 1887, the company were admitted to contract on the 17th of October, 1887, the work to be executed being a line of railway, from Lunenburg on the east coast of Nova Scotia, westward, to a point in the district of New Germany, together with a spur, about $\frac{3}{4}$ mile long, to Bridgewater Railway Wharf, the whole to be completed by the 31st of December, 1889. No portion of the subsidy has been paid up to the 31st of December, 1888.

By the Act 51 Vic., chap. 3 (1888) the grant of a further subsidy not exceeding \$147,200 was authorized, for 46 miles of the company's railway, and under an Order in Council of the 9th October, 1888, a contract, dated the 15th of October, 1888, was executed, covering a line of railway $39\frac{1}{2}$ miles starting from a point $33\frac{1}{2}$ miles from Lunenburg, and running to Middleton on the Windsor and Annapolis Railway; the work is to be completed by the 31st of December, 1890.

No portion of the subsidy has been paid up to the 31st of December, 1888.

Ontario and Pacific Railway Company.

(See Nos. 31 and 115.)

By the Act 47 Vic., chap. 82, the grant of a subsidy to the Ontario and Pacific Railway Company was authorised, namely, to the extent of \$262,400, on an estimated distance of 82 miles, for a line from Cornwall to Perth, and on the 27th of July, 1886, a contract was made with the company, under the authority of an Order in Council of the first day of that month, for the construction of such line, *vid* Newington, Chrysler, Manotic and Franktown, the road to be completed by the 1st July, 1888.

By the Act 50-51 Vic., chap. 24, a further subsidy of \$19,200 for a further distance of 6 miles was granted, making the total subsidy \$281,600.

No portion of the subsidy has been paid up to the 31st of December, 1888.

Ottawa and Gatineau Valley Railway Company.

(See No. 8, 26 and 58.)

By the Act 4E-49 Vic., chap. 59 (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 Desert, 62 miles, the amount being \$320,000.

The company having applied to enter into contract, an Order in Council was passed on the 4th of June, 1888, admitting them accordingly. The date, for completion is fixed as the 1st of August, 1889.

The location plans of the first 20 miles were approved by an Order in Council of the 11th of July, 1888.

Up to the 31st of December, the contract, though prepared, has not been actually signed, and no portion of the subsidy has been paid.

Pontiac Pacific Junction Railway Company.

(See No. 25 and 138.)

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

Under authority of an Order in Council, dated the 12th of December, 1884, a contract, dated the 22nd of that month, was made with this company for the building of the line subsidized, namely, from Aylmer, Que., to Pembroke, crossing the River Ottawa at a point "not east of Lapasse," the first twenty-seven miles to be completed by the 1st September, 1885 (extended to 15th of December, by Order in Council of the 13th of August, 1885) the second twenty-seven miles by the 1st of July, 1886, and the whole road, estimated at 85 miles west of Aylmer, by the 1st of July, 1887. The time for completion was extended by an Order in Council of the 9th of July, 1887, to the 1st of July, 1888.

Under authority of Orders in Council payments have been made during the past fiscal year to the extent of \$24,153, making a total of \$174,828, for a distance of 71 miles from Aylmer, has been paid out of the full subsidy, \$272,000, the balance unpaid having lapsed on the 1st of July, 1888, under the terms of the Act.

The road is open for public traffic from Aylmer to Coulonge, 59 miles.

By the Act 51 Vic., ch. 3 (1888), a subsidy to this company of \$31,500 was authorized for the bridging of the River Ottawa at Culbute; also a subsidy of \$9,600 for 3 miles of their railway from a point 3 miles east of Pembroke to Pembroke, provided that the entire work subsidized on this railway be completed within four years from the 22nd of May, 1888. No contract has been entered into for the work contemplated by this Act.

Quebec Central Railway Company.

(See Nos. 22 and 143.)

This company was subsidized in 1884, to the extent of \$211,200, in aid of the construction of sixty-six miles of their railway, from Beauce Junction to the International Boundary.

Under the authority of an Order in Council, dated the 2nd of August, 1884, a contract was made with the company on that date for the construction of a line from Beauce Junction on their trunk line, thence up the valley of the River Chaudière to the frontier, the line to be completed by the 2nd of February, 1888.

The location of the first 23 miles was approved of by an Order in Council of the 8th of May, 1885. The amount of the subsidy paid up to the end of the fiscal year 1885-86, under an Order in Council of the 14th of August, 1885, was \$60,342, covering 15½ miles of road inspected, starting from Beauce Junction. No further payment has been made up to the 31st of December, 1888.

In lieu of the balance of this subsidy, which lapsed on the 1st of July, 1888, authority has been given by the Act 51 Vic., ch. 3 (1888), for the grant of a subsidy to this company of \$21,191.54 a year for 20 years, equivalent to a cash grant of

\$288,000, for a line of railway from St. Francis Station to a point on the Atlantic and North-West Railway, near Moose River, 90 miles. No contract has yet been made for this work.

Quebec and Lake St. John Railway Company.

(See Nos. 2, 14, 49, 82, 126 and 140.)

By the Subsidy Act of 1882, a subsidy of \$334,000 was granted for a line from St. Raymond to Lake St. John. By the Act of 1883, the Quebec and Lake St. John Railway Company, engaged in the work of constructing this line, were permitted to receive a further subsidy of \$80,000. By the Act of 1885 a subsidy of \$96,000 was authorized for a line extending from the point of their junction with the North Shore Railway (4 miles from Quebec) up to St. Raymond (36 miles from Quebec), conditionally upon the construction of their line to a point 50 miles north of St. Raymond, and by the Act of 1886 a subsidy was authorized, not exceeding \$186,225, for the portion, 95 miles, extending from the point 50 miles north of St. Raymond to Lake St. John.

By the Act 50-51 Vic., chap. 24 (1887), an additional subsidy not exceeding \$28,800 was authorized for a distance of 9 miles, the distance which previous subsidies granted were short of covering from the city of Quebec to Lake St. John. By this Act, authority was given for payment up to the 23rd of June, 1888 (under the usual conditions) of balances available from the subsidies granted in 1882 and 1883. The aggregate of the subsidies granted to this company for the whole distance from Quebec to Lake St. John is \$775,095, the number of miles subsidized being 186.

An agreement was duly entered into on the 4th of September, 1883, in respect of the two subsidies first named, under which this line was to be completed by the 25th of May, 1887, the portion up to Lake Edward to be completed by the 31st of December, 1885, and on the 10th of February, 1886, an agreement was signed covering the third subsidy, that, namely, of 1885. For the subsidies granted in 1886 and 1887, no further contracts are required, these subsidies being applicable to works embraced in the previous contracts.

During the fiscal year 1887-88, there has been paid the sum of \$232,013, making the total payments \$690,004.

The road has been sufficiently completed for immediate operating purposes, and is in operation up to Roberval, 190 miles from Quebec. No further payments have been made up to the 31st of December, 1888.

By the Act 51 Vic., chap. 3, a subsidy to the extent of \$96,000, previously granted to the Saguenay and Lake St. John Railway Company, for 30 miles of their railway from Lake St. John towards Chicoutimi was transferred to this company; and under authority of an Order in Council of the 17th of November, 1888, a contract was made with them on the 5th of December for this work, which starts from Chambord Junction near Lake St. John on their main line; the road to be completed by the 1st of August, 1890. The location for these 30 miles has been approved by an Order in Council of the 17th of November, and the work is in progress, but no portion of the subsidy therefor has been paid up to the 31st December, 1888.

Short Line.

In previous reports, and pending definite conclusions to work and negotiations then in progress, a scheme of some magnitude and importance to the country, whereby a line of railway more direct than the existing one should be constructed to connect the harbours of the Atlantic seaboard with the railway systems to the west of the St. Lawrence has been dealt with under the title "The Short Line."

Now, however, parts of the scheme have been undertaken as Government work, and the remainder is in a fair way to completion under a company; the route comprises the following features:—

1. A line from the River St. Lawrence at Caughnawaga, running *via* Sherbrooke across the State of Maine, to Harvey, Fredericton, Salisbury on the Intercolonial Railway and so to Moncton—connecting on the way with the roads leading to St. Andrews and St. John, N. B. This work is in the hands of the Atlantic and North-West Railway Company.

2. A line from Oxford to New Glasgow, avoiding a long *détour* and joining the Eastern Extension Railway at New Glasgow. This work has been undertaken by the Government.

3. A line from a point on the Island of Cape Breton opposite the Canso terminus of the Eastern Extension on the mainland to Sydney and North Sydney. This is being constructed as a Government work.

Information with regard to these works will be found in the present report under their respective headings.

South Norfolk Railway Company.

(See No. 109.)

By the Act 50-51 Vic., chap. 24, authority was given for the grant of a subsidy of \$54,400 to this company, for 17 miles of their railway from Port Rowan to the town of Simcoe.

Under an Order in Council of the 11th August, 1888, the company were admitted to contract on the 23rd, the date for completion being the 1st July, 1889.

The road having been completed and inspected, the whole of the subsidy, \$54,400, has been paid under an Order in Council of the 29th December, 1888.

St. Catharines and Niagara Central Railway Company.

(See No. 96.)

By the Act 50-51 Vic., chap. 24 (1887), the grant of a subsidy to the extent of \$38,400 to the above company was authorized for 12 miles of their railway from St. Catharines to the bridge over the River Niagara.

The company were admitted to contract on the 5th March, 1888, under an Order in Council of the 12th April, the location being approved by an Order of the same date.

On the 20th December, the road having been built and inspected, the company were permitted to open it for traffic.

Up to the 31st December, 1888, no portion of the subsidy had been paid.

St. John Valley and Rivière du Loup Railway Company.

(See Nos. 90 and 118.)

By the Act 49 Vic., chap. 10 (1886), a subsidy of \$70,400 was authorized for 22 miles of railway from Fredericton to Prince William, New Brunswick, and by the Act 50-51 Vic., chap. 24, a subsidy of \$70,400 was authorized in favour of the St. John Valley and Rivière du Loup Railway Company for 22 miles of railway from Prince William towards Woodstock.

The company having applied for both subsidies, they were admitted to contract on the 26th June, 1888, under an Order in Council of the 21st May, the time of completion being fixed as the 31st July, 1890. This covers both subsidies, aggregating 140,800. The location plans were approved by an Order in Council of the 23rd May.

Up to the 31st December, 1888, no portion of the subsidy had been paid.

Stewiacke Valley and Lansdowne Railway Company.

(See No. 87.)

By the Act 49 Vic., chap. 10 (1886), a subsidy was authorized for a railway from a point on the Intercolonial Railway through the Stewiacke Valley, affording communication with the Iron Mines, Spring Side, Upper Stewiacke and Musquodoboit settlements, 25 miles, the extent of aid not exceeding \$80,000. The Stewiacke Valley and Lansdowne Railway Company having applied for this subsidy, a contract was made with them on the 17th of December, 1886, the line to be completed by the 1st of December, 1889. Up to the 31st of December, 1888, no portion of the subsidy had been paid.

St. Lawrence, Lower Laurentian and Saguenay Railway Company.

(See Nos. 59, 117.)

By the Act 48-49 Vic., chap. 59 (1885), a subsidy of \$217,600 was granted for a line of railway from the Grand Piles, on the River St. Maurice, Que., to a point of junction with the Lake St. John Railway (being in lieu of a subsidy of the previous year).

By the Act 50-51 Vic., chap. 24, this subsidy was repeated in favour of the company named below.

The St. Lawrence, Lower Laurentian and Saguenay Railway Company having applied for this subsidy, and being approved, a contract was entered into with them on the 20th of February, 1886, under authority of an Order in Council of the 6th of that month, which also approved of the location plans, the said location being subsequently amended under an Order in Council of the 25th of August, 1887.

Up to the 30th of June, 1888, the end of the fiscal year, there had been paid to the Company the sum of \$92,813, covering a distance of 22½ miles. No further payment has been made up to the 31st December, 1888.

Témiscouata Railway Company—Rivière du Loup to Edmundston.

(See Nos. 3, 62, 127 and 141.)

Towards the construction of a line from Rivière du Loup or Rivière Ouelle, or from some point between them, to Edmundston, Parliament, in 1882, voted a subsidy of \$240,000, and by the Act 48-49 Vic., ch. 58, a further subsidy, not exceeding \$258,000, was voted for the same work, making a total subsidy of \$498,000.

Under express provisions of this Act a charter was granted by Orders in Council of the 3rd and 6th of October, 1885, to certain persons constituting "The Témiscouata Railway Company," their object being to build the said road, and such charter, being published in the *Canada Gazette* of the 10th of that month, has force and effect as if an Act of Parliament. This charter was subsequently confirmed and amended by the special Act 50-51 Vic., ch. 71, 1887. Under the said charter the company have power to construct a road from the Intercolonial Railway at Rivière du Loup to Edmundston. On the 21st of June, 1886, a contract was duly entered into with the company for the work subsidized, the whole to be completed by the 1st of August, 1889. The location of the road, 80½ miles, *via* Lake Témiscouata and the River Madawaska has been approved of by an Order in Council of the 30th of September, 1886. During the fiscal year ended on the 30th June, 1888, payments have been made on Orders in Council and after due inspection, aggregating the sum of \$249,634. Subsequent to that date, further payments have been made to the extent of \$151,470, making the total paid \$401,154 up to the 31st December, 1888, the sum of \$82,446 being retained to cover balance of work required to complete the contract. On the 22nd of November the company were permitted to open the road for traffic.

By the Act 51 Vic., ch. 3 (1888) a subsidy of \$100,000 was granted to this company for 20 miles of their branch railway from Edmundston towards the River St. Francis, in lieu of a subsidy granted the previous year.

The company having applied to be admitted to contract authority was given for such contract by an Order in Council passed on the 31st of December, 1888, which also approved of the location.

Tobique Valley Railway Company.

(See No. 13C.)

By the Act 50-51 Vic., ch. 24 (1887) authority was given for the grant of a subsidy to the extent of \$89,600 for 14 miles of the railway of the above company from Perth Centre Station on the New Brunswick Railway towards Plaister Rock Island, in lieu of a subsidy previously granted under an Order in Council of the 9th of July, 1888. A contract was made with this company for the work on the 4th of September, 1888, the date for completion being the 31st of December, 1888.

Up to that date no portion of the subsidy has been paid.

Toronto, Grey and Bruce Railway Company.

(See No. 75.)

By the Subsidy Act of 1886, 49 Vic., chap. 10, the grant of a subsidy, not exceeding \$16,000, was authorized towards the construction of a railway from Glenannan to
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Wingham, Ont. Under date the 20th of January, 1887, a contract for the work was made with the Toronto, Grey and Bruce Railway Company, as authorized by an Order in Council of the 5th of December, 1886, and the location plans having been approved, and the completed road having been inspected, the amount of subsidy applicable to the work, namely, \$14,656, was paid under Orders in Council, the last dated the 31st of December, 1887.

Western Counties Railway Company.

By the Act 50-51 Vic., ch. 25 (1887), assented to on the 23rd of June, 1887, confirmation was given to an agreement made by the Government with the Western Counties Railway Company, on the 31st of January, 1887, contingently on such confirmation, the agreement itself being thereby, in some respects, modified, as expressed in a subsidiary agreement. Under the provisions of the said Act and agreements, covenants have been entered into which may be summarized as follows :—

The company undertook to withdraw a suit pending against the Crown, in respect of the Windsor Branch Railway, releasing the Government from all claims and also releasing to the Government all right and title to the branch. They have undertaken to build and complete the railway between Annapolis and Digby, N.S., and to complete, equip and put in first-class order the whole of the line from Yarmouth to Annapolis, also to settle all liens on their property and their indebtedness. In order to the fulfilment of the above, they undertook to deposit with the Government the total proceeds of the sale of their debentures, &c., the issue of which was limited to \$4,200,000. The Government on its side, in consideration of these premises, undertook to pay to the company the sum of \$500,000, this amount to be credited to the company and added to the proceeds of the sale of their debentures, which proceeds the Government agree to hold for the purpose, the whole to be applied under certificate of the Government Chief Engineer and Order in Council, to the payment of interest on the debentures, &c., to be issued, to the building and completion of the railway above mentioned, and to the satisfaction of the company's existing obligations; the balance, if any, to be paid to the company. The dates to which the company were bound, as modified by the terms of the Act, are as follows :—

Work to be commenced by the 13th of July, 1887, and the railway between Annapolis and Digby to be completed by the 12th of September, 1888, the company to complete to the satisfaction of the Government by the 12th of September, 1887, all arrangements for the settlement of its indebtedness. Provision was made also for the completion of the line between Annapolis and Digby, by the Government, at its option, from the funds in its hands, in the event of failure on the part of the company to make commencement of work, to progress with the same, or to satisfy the Government as to the arrangement of the settlement of its indebtedness by the dates so fixed. The company has not made deposit of money, nor have they taken any practical steps to carry out the works contemplated. Under these circumstances, and in view of representations urging that the Government should itself, undertake the work, a survey has been made of the country between Digby and Annapolis, under instructions given in October, 1888.

West Ontario Pacific Railway Company.

(See No. 66.)

By the Act 49 Vic., chap. 10, 1886, the grant of a subsidy not exceeding \$3,200 a mile, nor in the whole \$256,000, was authorized in aid of the construction of a railway from Ingersoll, *via* London, to Chatham, Ont., the estimated distance being 80 miles.

Application being made by the West Ontario Pacific Railway Company for the said subsidy, qualified by a request for permission to construct a road from Woodstock to London, in place of from Ingersoll, and it appearing that in view of the greater distance of the line proposed by them from any other existing railway, it would be of more service to the country than the route actually subsidized, they were permitted, by an Order in Council of the 8th of September, 1886, to enter into contract for the road suggested between Woodstock and London, 27 miles, subject, however, to approval by Parliament; this conditional contract was signed on the 2nd of November, 1886, the road to be completed by the 1st of November, 1887.

The company, however, have actually constructed a portion of their railway, the location of which has been duly approved, from London eastwards to a point near Ingersoll, 19 miles, from which connection may be made with both Ingersoll and Woodstock. After inspection they have been paid under an Order in Council of the 1st of September, 1887, the sum of \$60,000, this being the amount of the subsidy applicable to the length built, less the sum of \$300 withheld to cover work remaining to be done.

In the Session of 1887 an Act, 50-51 Vic., chap 62, was passed, authorizing the lease to the Ontario and Quebec Railway Company of part of the line of the West Ontario Pacific Railway Company under construction, from the line of the Ontario and Quebec Railway near Woodstock, *via* London to the River St. Clair, and this lease has been approved by an Order in Council, dated the 15th of October, 1887.

Under an Order in Council dated the 25th of August, 1888, an agreement dated the 4th of September, 1888, has been made with the Ontario and Quebec Railway Company direct for the construction of the line between London and Chatham by the 1st of August, 1890.

LAND SUBSIDIES.

The following companies have been aided by subsidies in land, duly authorized by Parliament and granted by the Department of the Interior:—

They are enumerated here because the engineering details have been dealt with by this Department, the certificate of whose officer has been required prior to handing over to the company concerned any part of the subsidy.

Alberta and Athabaska Railway Company.

(See No. 158.)

By an Order in Council, dated the 21st of May, 1887, a grant of land was made subject to the approval of Parliament, to the company above named for a railway
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from some point on the Bow River or Canadian Pacific Railway at or between Calgary and Crow Foot Creek, running northerly to a point on the River Athabaska, and crossing the North Saskatchewan at a point near the town plot of Edmonton, a distance of 300 miles, the subsidy being at the rate of 6,400 acres per mile. The first 50 miles, commencing at the southern terminus, were to be completed by the 20th of July, 1888; 100 miles in each of the two years following, and the whole road by the 20th of July, 1891.

By the Act 50-51 Vic., ch. 23, the above grant was confirmed.

Great North-West Central Railway Company.

(See No. 156.)

The inception of the scheme for the construction of a line of railway to extend from Brandon on the Canadian Pacific Railway to Battleford in the Provisional District of Saskatchewan, a distance of about 450 miles, is due to the North-West Central Railway Company (formerly the Souris and Rocky Mountain Railway Company) and under an Order in Council of the 29th of July, 1885, the privilege of purchasing land at the rate of \$1.06 per acre, to the extent of 6,400 acres per mile, previously accorded them, was converted into a free grant of such land (subject to a charge of 10 cents per acre for survey), the grant being contingent on the due completion of their work in stated sections.

This concession did not result in the construction of any section of the road, and difficulties arising, and other applications being put forward for the work, the Act 49 Vic., chap. 11 (1886), granting aid to the extent of 6,400 acres per mile for the same, was made applicable either to the company named or to such other company as might undertake the construction of the road. Subsequently, the Great North-West Central Railway Company were accepted as contractors by an Order in Council of the 22nd of July, 1886, for the building of a railway from Brandon to Battleford under the subsidy named,—being incorporated by an Order in Council of the same date in conformity with the provisions of the Act. The contract itself was actually signed on the 12th of September, 1887. Under an Order in Council of the 15th of June, 1888, the contract time for completion has been extended as follows:—

By the 1st of August, 1889,	50 miles.
do do January, 1890,	100 do
do do do 1891,	150 do
do do do 1892,	150 do

Total 450 miles.

The location plans have been approved up to the 50th mile.

Manitoba and North-Western Railway Company.

(See Nos. 153 and 155.)

By the Act 48-49 Vic., ch. 60, authority was given for the grant of aid for a line from Portage la Prairie to the crossing of the south branch of the River Saskatchewan, 20 miles from Prince Albert, about 430 miles, 6,400 acres per mile.

A grant was made to the company by Order in Council of the 4th October, 1864, cancelling previous Orders. The date for completion was fixed by Order in Council of 6th May, 1885, as at the rate of 50 miles a year.

The location and grades having been duly approved, an inspection made of the Company's road showed that up to the 1st December, 1885, they had built and equipped 131 miles of road. An Order in Council of 2nd April, 1886, authorized conveyance of the land grant for this distance. Further inspection shows that since that date and up to the end of December, 1886, a further distance of about 50 miles had been built, making a total of 180 miles on the company's main line.

By the Act 49 Vic., ch. 11, 1886, authority was given for the grant of aid for a branch of this railway, from a point on the main line at or near Todburn, to the River Assiniboine, near Shellmouth, about 26 miles, 6,400 acres per mile.

A grant was made to the company by Order in Council of the 24th May, 1886, completion to be by the 31st December, 1886. Under Orders in Council of the 10th and 21st September, 1886, the line was permitted to start from Binscarth, the Order first named approving the location, to Russell, up to which point the road has been built. This branch, 12 miles long, is completed.

At the present date, the 31st December, 1888, the main line is in operation for traffic purposes from Portage la Prairie to Saltecoats, 206 miles.

Manitoba South-Western Colonization Railway Company.

(See No. 152.)

By 48-49 Vic., cap. 60 (1885), authority was given for the grant of aid for a line from Winnipeg to Whitewater Lake, about 150 miles, 6,400 acres per mile.

The charter of the company, granted by Act 42 Vic., ch. 66 (1879) empowered them to build a line from Winnipeg to Rock Lake, near the west boundary of the Province, the line to be completed in five years, namely, by the 15th May, 1884.

By the Act 43¹/₂ Vic., ch. 53, 1880, they were permitted to extend the line up to the Souris coal fields.

By the Act 47 Vic., ch. 73, 1884, the company were allowed to lease their line to the Canadian Pacific Railway, the time for the completion of the railway being extended three years beyond the period fixed by their charter, namely, to the 15th of May, 1887.

By an Order in Council of the 4th of October, 1884, the company were subsidized to the extent of 6,400 acres per mile for the whole distance, about 152 miles, from Winnipeg to Whitewater Lake, equal to 972,800 acres, the line for this distance to be completed by the 1st of October, 1885. Location has been approved as follows:—

By an Order in Council of the 3rd November, 1881,—from Aikins Street, Winnipeg, to Section 18, Township 7, Range 4 W., about 52 miles. This is to a point about 4 miles south from what is now known as Elm Creek.

By an Order in Council of the 1st April, 1885—from Section 29, Township 8, Range 4, the point now known as Elm Creek, running west on a tangent to Section 31, Township 7, Range 9. This is the northern branch to the westward.

By an Order in Council of the 10th September, 1885,—from Section 29, Township 8, Range 4, passing through Carman and Manitou and the south shore of White Lake, thence to the western boundary of Manitoba between Ranges 29 and 30. This is the southern branch.

An Order in Council of the 6th April, 1885, modified the grant of the Order in Council of the 4th October, 1884, so as to make it applicable to a change in the location of the road, and to the following sections:—

	Miles.
1. From Township 7, Range 4 (the portion from Winnipeg to Township 7, Range 6, about 50 miles, being already completed), to Manitou.....	110
2. From Manitou to Whitewater Lake.....	20
3. From Township 8, Range 4, to Township 8, Range 9.....	20
	130
	130

The Order also apportioned the 972,800 acres equally amongst these 130 miles = 7,483.84 acres per mile.

An Order in Council of the 11th September, 1885, extended the time for completion to the 6th April, 1886.

An Order in Council of the 5th April, 1886, after report by the Chief Engineer of Railways as to inspection, showing completion of 100 miles, authorized the conveyance of 748,384 acres to the Manitoba South-Western Company.

By an Order in Council of 15th November, 1886, it was decided to apply to certain further extensions completed, namely, on the South Branch, from Boisevain west 21 miles; on the North Branch, from Holland west, 20 miles, the reserve for Section No. 1, made under the Order of the 6th April, 1885. The remainder was to be kept as a subsidy for said Section No. 1, from Township 7, Range 4, to Manitou, the construction of which was deferred: the Canadian Pacific Railway Company, the lessees of the road, having already communication with Manitou from Winnipeg by their southern line.

By an Order in Council of the 6th March, 1887, the location of the northern of the two limits has been approved for a total distance of 60 miles from Elm Creek to Section 10, Township 7, Range 14. Of this, the first 30 miles was for a location previously approved, but now amended.

After further inspection and report by the Government Chief Engineer, showing the railway fit for traffic for a further total distance of 69 miles, an Order in Council was passed on the 19th of March, 1887, authorizing conveyance of the lands representing the subsidy for this distance. At the present date, the 31st December, 1888, the line is in operation from Winnipeg to Glenboro' (northern limb) 104 miles; also on the southern limb as far as Deloraine, a point 100 miles west from Manitou, and 202 miles from Winnipeg.

Medicine Hat Railway and Coal Company.

(See No. 160.)

By the Act 50-51 Vic., chap. 23, authority was given for the grant to the above company of Dominion lands to the extent of 6,400 acres per mile for a railway from a point at or near Medicine Hat, on the line of the Canadian Pacific Railway to the coal field in or near Townships Nos. 12 and 13, Range 6, west of the 4th Principal Meridian, a distance of about 8 miles.

By an Order in Council of the 6th of July, 1887, the grant was made to the company accordingly; it being provided that the road should be completed and in operation by the 31st December, 1888.

By an Order in Council of the 18th December, 1888, an extension of time to the 1st December, 1889, was granted for completion of the road.

North-Western Coal and Navigation Company.

(See No. 151.)

By 48-49 Vic., ch. 60 (1885), authority was given for the grant of aid for a line from Medicine Hat to the coal banks on the Belly River, about 110 miles, 3,800 acres per mile. This was amended by 50-51 Vic., ch. 22—the extent of land being increased to 3,840 acres per mile.

By an Order in Council of the 16th of March, 1885, approval was given to the location of the company's line, and on inspection, in October, 1885, of the road from Dunmore Station, on the Canadian Pacific Railway, to Lethbridge, 109 miles; an Order in Council of the 19th of October, accepted the road as completed.

Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company.

(See No. 154.)

By Act 48-49 Vic., ch., 60, authority was given for the grant of aid for a line from a point near Regina to the navigable waters of Long Lake, 6,400 acres per mile.

On the 13th December, 1884, an Order in Council was passed granting to the company the above subsidy.

The location of the road from Regina to the navigable waters of Long Lake, a distance of about 23 miles, was approved by an Order in Council of the 25th of September, 1886.

On inspection of the road, made in May, 1886, it was found that it was completed and in running order for a distance of 20·10 miles.

By the Act 50-51 Vic., ch. 23, authority was given for the grant to this company of a subsidy of 6,400 acres per mile for an extension of their line from a point near the northern terminus of the completed portion of the line near Long Lake to a point near the elbow of the North Saskatchewan River, with branches to Prince Albert and Battleford, about 325 miles.

On the 20th of June, 1887, an Order in Council was passed granting this subsidy; the company to construct and have running the first fifty miles of the distance by the 20th of July, 1888, the portion up to the crossing of the South Saskatchewan within the following year, and the whole road by the 25th of May, 1891.

On the 31st August, 1888, under authority of an Order in Council of the 11th, an agreement was entered into with the company, subject to the approval of Parliament, by which certain arrangements are made for the conveyance of men, mails and supplies for the Government up to Saskatoon, a point near the South Saskatchewan, about 160 miles from Regina, for a period of ten years, the Government paying \$50,000 a year on account of such conveyance, the excess of earnings for transport over that amount being paid to the company and the payment of deficiency, if any, being secured to the Government by retention of a portion of the land grant. By this agreement the company are allowed till the 1st of July, 1889, to complete the first fifty miles from Long Lake.

Winnipeg and Hudson's Bay Railway and Steamship Company.

(See No. 150.)

By 47 Vic., cap. 25, clause 7 (1884), authority was given for the grant of aid for a line from some point on the Canadian Pacific Railway to Hudson Bay, viz., for each mile in Manitoba, 6,400 acres, and in the North-West Territories, 12,800 acres.

In the year 1880, by Act 43 Vic., ch. 59, there was incorporated "the Winnipeg and Hudson's Bay Railway and Steamship Company," with powers for the construction of a line from Winnipeg to or near Port Nelson, Hudson Bay.

In 1884, this Act was amended (by chapter 70), and the company were authorized to commence their line either from Winnipeg or from some point between Selkirk and Portage la Prairie, extending to Port Nelson and Churchill or some other point on Hudson Bay; also to construct a branch from any point on their main line to the Canadian Pacific Railway, west of Lake Winnipegosis, construction to be carried on at the rate of at least 50 miles a year.

By the same Act, a previous Act authorizing the amalgamation of this company with the Nelson Valley Railway and Transportation Company was repealed, and authorization was given for the winding up of the company last named and the transfer to the Winnipeg and Hudson's Bay Company of all its property and interests.

By an Act passed in 1886 (49 Vic., ch. 73) the date for completion was fixed as the 2nd of June, 1890.

By an Order in Council of the 11th of May, 1885, all previous orders in this connection were cancelled, and there was granted to the Winnipeg and Hudson's Bay Railway and Steamship Company a subsidy in land, as follows:—

		Acres.
Authorized by Act 47 Vic., c. 26, assented to 19th April, 1884.	} Division A.—From the Canadian Pacific Railway to the northern boundary of Manitoba—estimated distance, 225 miles	1,440,000
	} Division B.—From the boundary to the terminus near the mouth of the Nelson River, Hudson Bay—estimated distance, 425 miles	5,440,000
	} Division C.—The Branch, from a point on the main line, near the northern extremity of Lake Winnipeg, to intersection with the Manitoba and North-Western Railway—estimated distance not to exceed 250 miles (Grant to be subject to approval by Parliament).....	1,600,000

The time for completion was fixed by this Order as 50 miles on division A or B by the 19th of April, 1887, and 50 miles a year thereafter until completion of main line; but if the company do not complete their main line by 11th of May, 1890, they will forfeit their right to a grant for their branch line, which must itself be completed by the 11th May, 1893.

In April, 1888, the Chief Engineer of Government Railways reported showing that forty miles of road were completed with the exception of certain station buildings, &c.

Wood Mountain and Qu'Appelle Railway Company.

(See No. 157.)

By the Act 49 Vic., ch. 11, 1886, the grant of aid was authorized for a railway from a point in Township 4, Range 30, west of the 2nd meridian, passing through Fort Qu'Appelle to the Manitoba and North-Western Railway, about 240 miles, 6,400 acres per mile.

A grant was made to the company by Order in Council of the 24th May, 1886, the portion between Fort Qu'Appelle and the Canadian Pacific Railway to be completed by the 1st November, 1887, and 50 miles a year thereafter.

This Order was amended by an Order of the 7th of July, 1887, the company being allowed one year from the 1st of January, 1887, for the completion of the first 50 mile section (after completion by the 1st of November, 1887, of the portion between the Canadian Pacific Railway and Fort Qu'Appelle), the rate of completion to be 50 miles each year subsequently until completion of the road.

By a further amending Order in Council of the 22nd of November, 1887, the Company have been granted an extension of time for the completion of the portion between Fort Qu'Appelle and the Canadian Pacific Railway, namely, up to the 31st of July, 1888; 100 miles of the road to be completed and in operation by the 31st of December, 1888, as required by the preceding Order.

NORTHUMBERLAND STRAITS TUNNEL SURVEY.

A scheme having been submitted to the Government for the construction of a subway under the Straits of Northumberland to connect the railway systems of New Brunswick and Prince Edward Island, it was considered advisable, before arriving
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at a decision on a matter of such importance, that the Government should obtain from its own engineers information as to the feasibility of the plan. An Order in Council was passed on the 24th of August, 1886, under which a limited expenditure was authorized in order that subaqueous borings might be taken, covering the distance between Cape Traverse, on the Island, and Cape Tormentine, on the mainland, a distance of eight miles.

The engineers employed succeeded in making borings at a quarter of a mile for the first three miles, starting from Cape Traverse, and at each half mile for the balance. On the first $5\frac{1}{2}$ miles the boring tool passed through sand and gravel until brick clay was reached. From the $5\frac{1}{2}$ mile to the $6\frac{1}{4}$, through sand and hard grey sand to brick clay. From the $6\frac{1}{4}$ to the 8th mile, namely, to the shore line of the main land, through mud, sand and red clay to rock. The deepest water is 96 feet at $4\frac{1}{2}$ miles from the Cape Traverse wharf, and at the $6\frac{1}{2}$ mile a rocky reef occurs, covered by 9 feet of water and about 10 feet of sand. With this exception the bottom is very uniform and satisfactory.

ST. CLAIR RIVER TUNNEL.

In the year 1884, a company, "the St. Clair Frontier Tunnel Company," was incorporated by the Dominion Act, 47 Vic., ch. 82, for the purpose of building a tunnel for railway passage under the River St. Clair, from a point in or near the town of Sarnia, Ontario, to the city of Port Huron, Michigan, U.S., the Act providing that the plans of the tunnel and its works should be approved by the Governor in Council prior to commencement.

Satisfactory plans having been submitted, they were approved by an Order in Council, dated the 24th of November, 1886.

The length of the actual tunnel will be 5,280 feet, or one mile, of which 2,310 feet will be under the river. For the centre portion of this distance, 1,500 feet will, practically, be on the level; the ascent from the centre on either side being 1 in 50. The total length of the tunnel and its approaches will be 15,150 feet, and it will make connection between the Grand Trunk Railway and the Chicago and Grand Trunk Railway. The tunnel, cylindrical in form, will have a diameter of 20 feet in the clear. It will be lined with cast iron. The greatest depth of water over the top of the work will be $40\frac{1}{2}$ feet, and the minimum, 15 feet. The machinery is all in position, and the works are in active progress.

ROYAL COMMISSION ON RAILWAYS.

As the issue of discussion in Parliament upon the question of the expediency of constituting a Court of Railway Commissioners for Canada, and with the object of obtaining reliable information, which would serve as a guide to decision in the matter, a Royal Commission was appointed by an Order in Council of the 6th of July, 1886, and conducted enquiries in various localities interested. The Commissioners presented their report under date the 14th of January, 1888, and the information and conclusions arrived at formed a valuable basis in the preparation of the draft of the Railway Act, which was approved and enacted at the last Session of Parliament.

C A N A L S.

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

1. The River St. Lawrence and Lakes.
2. The River Ottawa.
3. The Rideau Navigation, from Ottawa to Kingston.
4. The Trent Navigation.
5. The River Richelieu, from the St. Lawrence to Lake Champlain.
6. St. Peter's Canal, Bras d'Or Lake, Nova Scotia.

The collection of the revenue derivable from the canals of the Dominion being in the hands of the Department of Inland Revenue, reference must be had to the annual report of that Department for all information in relation to the subject. The report in question further deals with general matters relating to the movement of freight on these canals.

The following statement, showing the amount accrued on each canal, for canal revenue proper and hydraulic rents, etc., during the fiscal year ended the 30th of June, 1888, has been furnished by the Department of Inland Revenue :

Name of Canal.	Tolls.	Wharfage and Storage.	Fines and Damages.	Other Receipts.	Hydraulic Rents.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Welland	154,332 91	.....	312 00	.....	5,331 52	159,976 43
St. Lawrence.....	60,592 54	4,349 34	73 00	15,171 93	23,634 21	103,821 02
Chambly	21,935 37	20 00	50 70	.....	240 00	22,246 07
Ottawa..	54,276 31	.....	149 20	.....	46 00	54,471 51
Rideau.....	5,765 87	13 59	56 43	87 00	1,641 75	7,564 64
Newcastle District.	319 92	.....	.....	.....	.....	319 92
St. Peter's.....	2,793 82	.....	.....	.....	.....	2,793 82
	300,016 74	4,382 93	641 33	15,258 93	30,893 48	351,193 41

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-Ile to Port Arthur, at the head of Lake Superior, a distance of 2,260 statute

miles. The distance to Duluth is 2,334 miles (A table giving the intermediate distances will be found in Appendix No. 18, p. 149.)

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

The Dominion canals, constructed between Montreal and Lake Erie, are the Lachine, Beauharnois, Cornwall, Farran's Point, Rapide Plat, Galops and Welland. Their aggregate length is $70\frac{1}{2}$ miles; total lockage (or height directly overcome by locks) is $533\frac{1}{4}$ feet; number of locks, 53.

Communication between Lakes Huron and Superior is obtained by means of the Sault Ste. Marie Canal, situated on the United States side of the river.

The canal is a little over a mile in length, and has one lock, the dimensions being:—length 515 feet, width 80 feet, with 16 feet of water on the sills, and a lift of about 13 feet.*

Steps have been taken by the Dominion Government for the construction of a lock and canal on the Canadian side, a general description of which will be found further on in the present report, page 99.

In 1841, as was observed in the report presented last year, at the time when the system of canals between Montreal and Lake Ontario was designed, it was in contemplation to afford a depth, at all stages of the St. Lawrence waters, of 9 feet, a depth seemingly, from the data then possessed, secured through the works proposed. The River St. Lawrence is, however, from various causes, subject to fluctuations, the extent of which it was impossible, at the time when these canals were originally constructed, to arrive at with precision, and the continued observations and experience of subsequent years have shown that while the intermediate river reaches, at all times, afford ample depth for vessels of 9 feet draught, in the canals themselves, at certain periods of low water, this depth cannot be maintained, the bottom not having been sunk to a sufficiently low level.

The following list shows the least depth of water on the sills of the locks of the St. Lawrence Canals at a time of exceptionally low water, in the year 1872 (*vide* report of Chief Engineer, 1880):—

* From the report of the Chief of Engineers, U. S. army dated the 1st of October 1888, for the fiscal year ended the 30th June, 1888, it appears that the construction of a new and still larger lock is in progress, taking the site occupied by the two old locks built in 1855, the canal itself being deepened to correspond. The dimensions of the proposed lock will be,—length 800 feet, width 100 feet, with 24 feet of water on the sills: the estimated cost of this new lock and work of canal deepening is set down as \$4,738,865. For this work an appropriation of \$250,000 was made by Congress in August, 1886, and a further appropriation of \$1,000,000 in August, 1888.

From the same report and its appendices it appears that during the fiscal year ended the 30th of June, 1888 the canal was open for 210 days; that 8,823 vessels, etc. passed through, carrying 5,581,169 tons of freight, and 29,494 passengers, the number of lockages being 3,940.

	Feet.	Inches.
Williamsburgh Canals—		
Rapide Plat, guard lock.....	6	7
“ “ lower entrance.....	7	0
Galops, Guard lock	8	1
Iroquois, lower entrance	9	3
Farran's Point.....	7	9
Cornwall, guard.....	8	3
“ lower entrance.....	9	0
Beauharnois.....	10	10
“ lower entrance.....	9	3

In the year 1871 it was decided to enlarge the canals on the St. Lawrence route so as to afford a navigable depth of 12 feet throughout. Subsequently, however, it was decided that the depth should ultimately be increased so as to accommodate vessels of 14 feet draught; and accordingly in the scheme of enlargement which has so far been carried out, while, at present, a channel-way in the canals is provided for vessels drawing 12 feet only, all permanent structures, locks, bridges, &c., are being built of such proportions as to accommodate vessels of 14 feet draught, the locks being 270 feet long between the gates, 45 feet in width, and with a clear depth of 14 feet of water on the sills.

In view of the interest now being taken in the question of the completion of the scheme of enlarging the St. Lawrence Canals, the following brief resumé of matters treated more at length further on, under their proper headings, may be of some use as indicating the works of canal enlargement for a fourteen feet navigation so far executed, and those remaining untouched:—

Lachine Canal.—This canal is completed for a twelve feet navigation, with locks, bridges and culverts adapted for a fourteen feet navigation. The untouched work consists of the excavation of the canal prism to a further depth of two feet for about six out of the eight and a half miles comprising the canal. About one half of this excavation would be rock. No work has been carried on during the past year for the deepening of this canal.

Beauharnois Canal.—No enlargement works whatever have been commenced on this canal, but examinations are in progress.

Cornwall Canal.—Here, out of the six new locks required, two locks have been built at the lower end, and are in use, the remaining four, together with the work of enlarging and deepening the entire canal for a fourteen feet navigation, are now under contract. Out of the eleven and a half miles comprising this canal about ten and a half have a navigable depth of nine feet only.

Williamsburg Canals:—

Farran's Point.—No work has been done here. The canal is three-quarters of a mile long, with one lock, the navigable depth being nine feet.

Rapide Plat.—One new lock is completed and in use, leaving one yet to be dealt with. Of the prism of the canal, four miles long, about three quarters of a mile is completed to the requisite depth for a 14 feet navigation.

Galops Canal.—The approach to the upper entrance has been improved, and a new guard lock and lift lock from the river below the rapids at a point connecting the upper entrance with the deep water channel, are under contract.

Welland canal.—The whole of the works, including excavation throughout, are completed, and the present depth of water on the canal accommodates vessels drawing 14 feet.

Besides the above, the channel way of the River St. Lawrence, itself, offers, in parts, obstacles to a fourteen feet navigation which it would be necessary to remove. Of this work, progress has been made with a certain portion, and that the most difficult and in the shallowest section of the river, namely at the Galops Rapids, through which a channel giving safe passage to vessels drawing fourteen feet is now completed. From Cornwall down through Lake St. Francis a channel of sufficient depth for a 14 foot navigation already exists, the improvement of which at a few points, if considered desirable, can be effected at small cost.

LACHINE CANAL.

	Old Line.	New Line.
Length of Canal.....	8½ statute miles.	8½ statute miles.
Number of locks	5	5
Dimensions of locks.....	200 feet by 45 feet.	270 feet by 45 feet.
Total rise or lockage.	45 “	45 “
Depth of water {	at two locks 16 “	18 “
	at three locks.... 9 “	14 “
Mean width of new canal...		150 “

The depth of prism of canal between locks is adapted to vessels of 12 feet draught.

The canal now consists of one channel, with two distinct systems of locks, the old and the enlarged. There are two entrances at each end.

The new canal having been extended for some distance above the entrance of the old canal, the total rise has been increased from 44½ to 45 feet.

This canal extends from the City of Montreal to the Village 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-Ile.

The full scheme for the enlargement of this, in common with the other canals of the St. Lawrence, contemplated the affording a navigable depth of 14 feet throughout; the improvement immediately in view, however, was only intended to furnish a navigable depth of 12 feet in the canal proper, and accordingly, on the following reaches, namely, between Lachine and Côte St. Paul, Côte St. Paul and St. Gabriel, and between St. Gabriel and Wellington Basin, the channel has been adapted to navigation by vessels of 12 feet draught only. All permanent works on the canal, such as locks, bridges, sidewalls, and culverts have been built to afford a navigable depth of 14 feet. Through Lake St. Louis down to the Lachine Canal—a distance of about

15 miles—the existing channel, which is wide and deep, would be available for about 11 miles. Over the lower four miles, however, the channel will require to be deepened and widened at a number of places.

The canal was closed on the 30th of November, 1887, and opened on the 1st May, 1888.

No detention to vessels occurred during the year, nor was any damage caused to the works. During the winter months the lowness of the water in Lake St. Louis rendered it necessary for the protection of the canal works to curtail the operations of the mills and factories deriving their power from the canal. The works have been maintained in a state of thorough efficiency.

The report of the Superintending Engineer gives details of the repairs and new works executed, and shows generally the condition of the canal. (App. 8, p. 100.)

BEAUHARNOIS CANAL.

Length of canal.....	11 $\frac{1}{4}$ statute miles.
Number of locks.....	9
Dimensions of locks.....	200 feet by 45 feet.
Total rise or lockage.....	82 $\frac{1}{2}$ feet.
Depth of water on sills.....	9 “
Breadth of canal on bottom.....	80 “
Breadth of canal at water surface.....	120 “

This canal commences on the south side of the St. Lawrence, 15 $\frac{1}{4}$ miles from the head of the Lachine Canal. It connects Lakes St. Louis and St. Francis, and passes the three rapids known respectively as the Cascades, the Cedars, and the Coteau.

The canal was closed on the 1st of December, 1887, and was re-opened for traffic on the 1st of May, 1888.

No accident or interruption to navigation occurred during the year. (See App. 8, p. 102.)

Nothing has been done towards the enlargement of this canal.

CORNWALL CANAL.

Length of canal.....	11 $\frac{1}{2}$ statute miles.
Number of locks.....	6
Dimensions of locks (four).....	200 feet by 45 feet.
“ of two lower entrance locks.....	270 “ by 45 “
Total rise or lockage.....	48 feet.
Depth of water on sills.....	9 “
“ “ at the two lower entrance locks..	14 “
Breadth of canal at bottom (except at two culverts).....	100 “
Breadth of canal at water surface.....	150 “

From the head of the Beauharnois to the foot of the Cornwall Canal, there is a navigable stretch through Lake St. Francis of $32\frac{3}{4}$ miles.

The Cornwall Canal extends past the Long Sault Rapids.

This canal was closed on the 4th December, 1887, and re-opened on the 2nd of May, 1888. (See App. 10, p. 110.)

The canal was in good working order up to the close of the fiscal year. On the evening of the 11th of October, 1888, a serious break occurred in the south bank of this canal between MilleRoches and Moulinette, the breach made being of a mean length of about 300 feet. The re-formation of the bank proved to be a matter of considerable difficulty and cost, owing not only to the extent of the damage done but to the exceptionally wet character of the weather, which retarded operations. The navigation was, in consequence, delayed for about five weeks. Though made good sufficiently to admit of the re-opening of the canal for navigation before the close of the season, the bank requires and will receive further strengthening during the present winter.

NEW WORKS.

The two locks at the new lower entrance (taking the place of three on the old line), were in constant use during the season of navigation. The dimensions of the new locks are those of the general enlargement scheme, namely: Length, 270 feet; breadth, 45 feet; depth of water, 14 feet. The basin between these two locks is 825 feet long.

The four locks still to be dealt with, are all under contract, to gether with supply weirs and bridges; also the work of deepening and enlarging the prism of the canal.

The proposed channel will be sunk to such depth as to admit of the passage of vessels of 14 feet draught.

WILLIAMSBURGH CANALS.

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

These canals were closed on the 5th of December, 1887, and re-opened on the 21st of May, 1888.

They were operated without interruption to navigation throughout the season, though the lowness of the water in the St. Lawrence during the earlier part made it difficult to maintain the canal at its proper depth. (See Appendix 11, p. 119.)

A statement showing the highest and lowest depth of water at the locks on these canals will be found in Appendix 11, p. 120.

FARRAN'S POINT CANAL.

Length of canal.....	$\frac{3}{4}$ mile.
Number of locks.....	1
Dimensions of lock.....	200 feet by 45 feet.
Total rise, or lockage.....	4 feet.
Depth of water on sills at ordinary water level.....	9 "
Breadth of canal at bottom.....	50 "
Breadth of canal on water surface.....	90 "

From the head of the Cornwall Canal to the foot of Farran's Point Canal the distance on the River St. Lawrence is 5 miles. The latter canal enables vessels ascending the river to avoid the Farran's Point Rapid. Descending vessels run the rapids with ease and safety.

No steps have been taken for the enlargement of this canal.

RAPIDE PLAT CANAL.

Length of canal.....	4
Number of locks.....	2
Dimensions of locks.....	200 feet by 45 feet.
Total rise, or lockage.....	$11\frac{1}{2}$ feet.
Depth of water on sills.....	9 "
Breadth of canal at bottom.....	50 "
Breadth of canal at surface of water.....	90 "

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

NEW WORKS.

The enlargement of this canal in conformity with the proportions of the general scheme has been commenced. The works consist of the enlargement of the channel way above and for some distance below the present guard lock at the head of the canal, and the construction of a new lock and a supply weir in connection with the old lock. The bottom of the channel, for a distance of about 1,000 feet below, and out into deep water, above the lock, about 700 feet, has been excavated to an extent sufficient to afford a navigable depth of 14 feet. The new lock is completed and in operation and the remaining works in that connection are well advanced. Arrangements are in progress for the enlargement of the lower portion of the canal, consisting of the prism and lock at the canal outlet.

GALOPS CANAL.

Length of canal.....	$7\frac{5}{8}$ miles.
Number of locks.....	3
Dimensions of locks.....	200 feet by 45 feet.
Total rise, or lockage.....	$15\frac{3}{4}$ feet.
Depth of water on sills.....	9 "
Breadth of canal at bottom.....	50 "
Breadth of canal at surface of water.....	90 "

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

NEW WORKS.

The work under contract was the excavation and deepening of a channel way at the upper end leading to deep water, so as to give a depth available for vessels of 14 feet draught. The work is completed, and consequently access to this canal is found to be greatly facilitated. The extension of the 14 feet navigation down to deep water below the rapids, placing a guard lock at that point, and also a lift lock to the river remain to be done. These works are under contract.

GALOPS RAPIDS IMPROVEMENT.

The Galops Rapids, about seven miles below Prescott, the most shallow of the three passed by the Galops Canal, have been improved for purposes of navigation by certain works of submarine blasting and dredging.

These works, commenced in 1880, consist of the excavation of a straight channel through the rapids, 3,300 feet long, 200 feet wide, and of such depth as to afford safe passage at low water to vessels of 14 feet draught. This implies affording a depth of 17 feet of water.

The whole of these works have been completed, and the leading marks and beacons will be put in position in readiness for the season of 1889.

WELLAND CANAL.

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

LAKE ERIE.

By the works of enlargement, passage is now afforded, at all stages of the Lake Erie level, to vessels drawing 14 feet of water.

	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	26	} lift 25 } guard 1
{ lift	1	
{ guard.....	1 lock 200 x 45	} 270 feet x 45 feet.
Dimensions.....	1 " 200 x 45	
	1 (tidal) 230 x 45	
	24 150 x $26\frac{1}{2}$	
Total rise or lockage.....	$326\frac{3}{4}$ feet.	$326\frac{3}{4}$ feet.
Depth of water on sills.....	$10\frac{1}{4}$ "	14 "

WELLAND RIVER BRANCHES.

Length of Canal—Port Robinson Cut to River Welland.....	2,622 feet.
“ From the Canal at Welland to the river, <i>via</i> lock at aqueduct	300 “
“ 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 “ 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
Dimension of locks.....	185 by 45 feet.
Total rise, or lockage.....	7½ feet.
Depth of water on sills	11 “

The Welland Canal has one entrance from Lake Ontario, at Port Dalhousie, serving for both the old and new canals, and two from Lake Erie, of which one is for the main line at Port Colborne, and one for the feeder route at Port Maitland; it has also an entrance from the River Niagara, at the town of Chippewa. The enlarged route lies between Port Dalhousie and Port Colborne.

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

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

The canals were closed on the 5th of December, 1837, and re-opened on the 1st of May, 1888.

On pages 137 and 138 tables will be found giving the greatest and least depth of water on the mitre sills of both the new and old locks at Port Dalhousie and Port Colborne. Also, a comparative statement showing the average height of water at both places in the months of June, 1887 and 1888. From this it appears that the average height of water on the new lock at Port Dalhousie, was 17 feet 10 inches, while in 1888 it was 16 feet 2½ inches, and for the new lock at Port Colborne 16 feet 6 inches in 1837, and 15 feet 5½ inches in 1888.

NEW CANAL.

No accident of importance has occurred during the year.

Full details of the various repairs, renewals, &c., executed during the year, will be found in the report of the Superintendent. (App. 12, p. 122.)

OLD CANAL AND FEEDER.

The necessary repairs and renewals of the year have been made, and the works have been maintained in good condition. (App. 12, p. 129.)

It may be observed that in making renewals to certain pier works at the Port Dalhousie entrance, the Chief Engineer of Canals has substituted for the timber formerly used, concrete work, the durability of which more than compensates for the extra first cost.

MONTREAL, OTTAWA AND KINGSTON.

This route extends from the Harbour of Montreal to the Port of Kingston, passing through the Lachine Canal, the navigation sections of the lower River Ottawa, and the Ottawa River Canals, to the City of Ottawa, thence by the River Rideau and the Rideau Canal to Kingston, on Lake Ontario—a total distance of 245 $\frac{3}{4}$ miles.

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

The St. Anne's Lock; }
 Carillon Canal; } Ottawa River Canals.
 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 distance from Montreal Harbour:—

Sections of Navigation.	Intermediate distance.	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.....	$\frac{1}{8}$	23 $\frac{5}{8}$
From Ste. Anne's Lock to Carillon Canal.....	27	50 $\frac{5}{8}$
The Carillon Canal.....	$\frac{3}{4}$	51 $\frac{1}{4}$
From Carillon Canal to Grenville Canal.....	6 $\frac{1}{4}$	57 $\frac{1}{4}$
The Grenville Canal.....	$\frac{3}{4}$	63 $\frac{1}{4}$
From the Grenville Canal to entrance Rideau Navigation	56	119 $\frac{1}{4}$
Rideau Navigation, ending at Kingston.....	126 $\frac{1}{4}$	245 $\frac{3}{4}$

STE. ANNE'S LOCK.

	Old Lock.	New Lock.
Length of canal.....	$\frac{1}{8}$ mile.	$\frac{1}{8}$ mile.
Number of locks.....	1	1
Dimensions of lock.....	190 by 45 feet.	200 by 45 feet.
Total rise, or lockage.....	3 feet.	3 feet.
Depth of water on sills.....	6 "	9 "

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

This lock was closed to navigation on the 28th November, 1887, and re-opened on the 2nd of May, 1888.

Navigation has been conducted without interruption or accident during the year.

Both the old and the new locks are available. (App. 9, p. 116.)

THE CARILLON CANAL.

Length of canal.....	$\frac{3}{4}$ mile.
Number of locks.....	2
Dimensions of locks.....	200 by 45 feet.
Total rise, or lockage.....	16 feet.
Depth of water on sills.....	9 "
Breadth of canal at bottom.....	100 "
Breadth of canal at water surface.....	110 "

This canal overcomes the Carillon Rapids.

From Ste. Anne's Lock to the foot of the Carillon Canal there is a navigable stretch of 27 miles, through the Lake of Two Mountains and the River Ottawa.

The canal was closed on the 30th of November, 1887, and re-opened on the 2nd of May, 1888.

No interruption to traffic has taken place. (App. 9, p. 116.)

By the construction of the Carillon dam, the water at that point has been raised 9 feet. Above this point, for a distance of nearly 7 miles, as far as the foot of Grenville Canal, the level of the river has been raised, and, consequently, the depth of water on the lower sill of the entrance lock of that canal has been increased, and the necessity of using the Chute à Blondeau Canal, situated between these points, is obviated.

GRENVILLE CANAL.

Length of canal.....	5 $\frac{3}{4}$ miles.
Number of locks.....	5
Dimensions of locks.....	200 feet by 45 feet.
Total rise or lockage.....	43 $\frac{3}{4}$ "
Depth of water on sills.....	9 "
Breadth of canal at bottom	40 to 50 feet.
Breadth of canal at surface of water.....	50 to 80 feet.

From the head of the Carillon Canal to the foot of the Grenville Canal, there is a navigable stretch of 5 $\frac{1}{2}$ miles.

This canal, by which the Long Sault Rapids are avoided, is about 56 miles below the city of Ottawa.

The canal was closed on the 30th of November, 1887, and re-opened on the 2nd of May, 1888.

(See App. 9, p. 116.)

UPPER OTTAWA RIVER.

CULBUTE LOCKS AND DAMS.

Number of locks.....	2
Dimension of locks.....	200 by 45 feet.
Total rise, or lockage.....	18 to 20 "
Depth of water on sills.....	5 "
Aggregate length of dams.....	625 "

From the Grenville Canal to the city of Ottawa, a distance of about 56 miles, the river is navigable. Beyond the city, for a distance of 107 miles, to L'Islet or Culbute, continuous navigation is rendered impracticable by the undermentioned rapids :—

The Chaudière, the Descheness, the Chats, the Chenaux, the Portage du Fort and the Grand Calumet.

The Culbute works, situated at L'Islet, surmount the Culbute and L'Islet Rapids on the north channel of the Ottawa.

These works comprise two locks and three continuous dams, all built of wood. The dams reduce the rapids to smooth water, enabling the river to be navigated from the head of the locks to Des Joachims, a distance of 37 miles.

There is a navigation route of 80 miles with a minimum depth of 7 feet at extreme low water, between Des Joachims and Bryson; making a total above and below Culbute of 117 miles. (App. 9, p. 117.)

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.	{ 33 ascending 14 descending.
Total lockage..... 446 $\frac{1}{4}$	{ 282 $\frac{1}{4}$ rise and 164 fall, } at high water.
Dimensions of locks.....	134 by 33 feet.
Depth of water on sills, 5 feet; navigable depth through the several reaches.....	4 $\frac{1}{2}$ feet.
Breadth of canal reaches at bottom.....	{ 60 " in earth. 54 " in rock.
Breadth at surface of water.....	80 " in earth.

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

From the summit, the route towards Ottawa follows the River Rideau, and that towards Kingston follows the River Catarqui. The whole duty of keeping up the water to its proper level is effected by the reserves, given in detail below.

These may be divided into three systems, viz:—

1. The summit level, supplied by the Wolfe Lake system. 2. The eastern descending level to Ottawa, supplied by the River Tay system, discharging into Lake Rideau. 3. The south west descending level to Kingston, supplied by the Mud Lake system, formerly known as the Devil Lake system, discharging into Lake Openacon.

Lake Openacon 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 Catarqui. This river, rendered navigable by dams at various points, affords a line of navigation to Kingston.

The navigation stopped at Ottawa and at Kingston Mills on the 25th November, 1887, and recommenced on the 3rd of May, 1888.

Navigation throughout the year was uninterrupted.

The traffic of the canal shows increase.

Continued drought produced lowness of water in the canal, but the level of the water in the descending reaches from the summit level to Ottawa, was maintained up to the close of navigation, at the full height required. On the descending reaches, however, from the summit level towards Kingston, the water fell below navigation height, which is 5 feet 10 inches, namely, at Newboro, the first descending lock, by the first week of September, until the close of navigation when there were only 4 feet 6 inches of water on the lock sill, and on the Kingston Mills reach by the 8th of August when there were only 4 feet 1 inch of water on the upper sill. The snow fall at this end was light, and the reserve lakes consequently failed to give the water supply required. The spring freshets on the Rideau were of no importance.

In 18²⁵ Parliament voted the sum of \$20,000 "for works necessary to increase the supply of water to the canal and the Gananoque River." In pursuance of the objects of this vote, arrangements were authorized by an Order in Council of the 16th of November, 188⁶, by which the Gananoque Water Power Company undertook the execution of works raising the water-level of that river, receiving from the Government the sum of \$8,000 towards the cost to be incurred. The Company have completed their portion of the works as agreed upon. (App. 13, p. 139.)

TAY CANAL.

This canal, is a branch of the Rideau Canal, affording communication between Beyeridge's Bay, on Lake Rideau, and the town of Perth, a distance of about 6 miles.

The works, embracing the construction of a dam and two locks, 134 feet by 32 feet, with a depth, at the lowest stage of water, of 5 feet 6 inches, also the deepening of the channel of the River Tay, where required, and the cutting of a canal from Lake Rideau to the River Tay, a distance of about 1½ mile, are completed, giving communication to the town of Perth by way of the river. Basins and bridges are now being constructed in the town in connection with the canal. (App. 14, p. 142.)

RICHELIEU AND LAKE CHAMPLAIN.

This system, commencing at Sorel, at the confluence of the Rivers St. Lawrence and Richelieu, 46 miles below Montreal, extends along the River Richelieu through the St. Ours Lock to the Basin of Chambly, thence by the Chambly Canal to St. Johns and the River Richelieu, to Lake Champlain. The distance from Sorel to the boundary line is 81 miles.

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

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

Sections of Navigation.	Intermediate distance in miles.	Total distances.
Sorel to St. Ours Lock.....	14	14
St. Ours Lock to Chambly Canal.....	32	46
Chambly Canal.....	12	58
Chambly Canal to Boundary Line.....	23	81
Boundary Line to Champlain Canal.....	111	192
Champlain Canal to Junction with Erie Canal.....	66	258
Erie Canal from Junction to Albany.....	7	265
Albany to New York.....	146	411

ST. OURS LOCK AND DAM.

Length of canal.....	$\frac{1}{8}$ 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, fourteen miles from Sorel, the River Richelieu is divided by a small island into two channels. The St. Ours Lock is in the eastern channel.

There is a navigable depth of 7 feet between St. Ours Lock and Chambly Basin, a distance of thirty-two miles.

Navigation closed on the 25th of November, 1887, and re-opened on the 19th of April, 1888.

This lock, which was constructed in 1849, and has for some years been in bad condition is being thoroughly repaired. (See appendix 8, p. 109.)

CHAMBLY CANAL.

Length of canal.....	12 miles
Number of locks.....	9 “

Dimensions of locks:—

Guard Lock, No. 1, at St. Johns.....	122 feet	} From 22½ to 24 feet wide.
Lift “ “ 2.....	124 “	
“ “ “ 3, 4, 5, 6.....	118 “	
“ “ “ 7, 8, 9 combined.....	125 “	
Total rise, or lockage.....	74 “	
Depth of water on sills.....	7 “	
Breadth of canal at bottom.....	36 “	
“ “ surface of water.....	60 “	

Succeeding the 32 miles of navigable water between St. Ours Lock and Chambly Basin—a natural reservoir formed by the expansion of the River Richelieu—is the Chambly Canal, which overcomes the rapids between Chambly and St. Johns, a distance of 12 miles.

This canal was closed to navigation on the 1st of December, 1887, and was re-opened on the 8th of May, 1888.

Navigation was conducted without accident; but a detention of three days was caused in September 1887 by the smoke from forest fires and fogs.

Both at Chambly and at St. Johns the entrance piers were extensively damaged by ice in 1886-87. During the past fiscal year the latter has been entirely rebuilt and raised at a cost of \$6,000.

Owing to the unprecedentedly high water in the spring of 1887, on the River Richelieu, the canal bank between St. Johns and Ile Ste. Thérèse was partly washed away, the damage extending over a distance of three miles. Measures have been taken for the repair of the work and the raising of the banks: work to the value of \$10,636 having been executed during the year.

Portions of Locks Nos 1, 3, 4, and 6 have been rebuilt at a cost of \$35,000.

The appropriations of all of the above works of repair and improvement have been charged against Income. A new steam dredge and scows have been constructed for service on the lower division of the St Lawrence canals, the cost being \$19,240. (See App. 8, p. 10 4.)

RIVER RICHELIEU.

The work of surveying the River Richelieu between St. Johns and Rouse's Point was continued during the year. The whole of the hydrographic survey of the River between the points named has now been completed, and maps and a chart of the River have been made. (See pages 109 and 115.)

ST. PETER'S CANAL, CAPE BRETON.

Length of canal.....	about 2,400 feet.
Breadth at water line.....	55 feet.
Lock.....	one tidal lock, 4 pairs of gates.
Dimensions	200 feet by 48 feet.
Depth of water on sills.....	18 feet at lowest water.
Depth through canal.....	19 "
Extreme rise and fall of tide in St. Peter's Bay.....	4 "

This canal connects St. Peter's Bay, on the southern side of Cape Breton, Nova Scotia, with the Bras d'Or Lakes. It crosses an isthmus half a mile in width, and gives access from the Atlantic.

Navigation was closed on the 7th of January 1888, and re-opened on the 8th of April, 1888.

The works of the canal are in good order, with the exception of the retaining wall of the western side of the canal which is in bad condition. The retaining wall at the southern entrance, destroyed by the sea-worm, has been repaired. The traffic returns show the passage of 1194 vessels bound north, and 966 vessels bound south. (Ap. 17, p. 148.)

TRENT RIVER NAVIGATION.

The term "Trent River Navigation" is applied to a series of water stretches, which do not, however, form a connected system of navigation, and which, in their present condition, are efficient only for local use.

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

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

The course in contemplation was as follows :—

Through the River Trent, Rice Lake, the River Otonabee and Lakes Clear, Buckhorn, Chemong, Pigeon, Sturgeon and Cameron to Lake Balsam, the summit water, about 165 miles from Trenton; from Lake Balsam by a canal and the River Talbot to Lake Simcoe; thence by the River Severn to Georgian Bay, Lake Huron, the total distance being about 235 miles.

The execution of this scheme, commenced in 1837, was subsequently deferred. By certain works, however, below specified, sections of these waters were made practicable for navigation and for the passage of timber. A branch of the main course, extending from Sturgeon Lake south, affords communication with the town

of Lindsay, and through Lake Scugog to Port Perry, a distance of 190 miles from Trenton.

The following table gives the distance of navigable and unnavigable reaches :

	Navigable Miles.	Unnavigable. Miles.
From Trenton, Bay of Quinté, to Nine Mile Rapids....		9
“ Nine Mile Rapids to Percy Landing	19½	
“ Percy Landing to Heely's Fall Dam.....		14¼
“ Heeley's Fall Dam to Peterboro'.....	51¾	
“ Peterboro' to Lakefield		9½
“ Lakefield to a point across Balsam Lake.....	61	
	132¼	32¾
Total distance, Bay of Quinté to Balsam Lake.....		165
From Sturgeon Point on Sturgeon Lake, 43¾ miles from Lakefield, the branch through the town of Lindsay to Port Perry at the head of Lake Scugog.....	27½	

The following is a list of the works :—

MAIN LINE FROM TRENTON TO BALSAM LAKE.

	Distance from Trenton in miles.
<i>Chisholm's Rapids.</i>	
The work here consists of a canal and lock, a dam and slide.	15½
<i>Percy Landing.</i>	
A retaining boom for saw logs	28½
<i>Campbellford.</i>	
Guide booms.....	34¾
<i>Middle Falls.</i>	
The work consists of 4 dams and 2 slides.....	37¾
<i>Crow Bay.</i>	
A retaining boom.....	38
<i>Heeley's Falls.</i>	
A dam and slide.....	42¾
<i>Crook's Rapids, Hastings.</i>	
The works consist of 1 lock, 1 dam and slide for timber.....	56½
<i>Whitlas' Rapids.</i>	
The works, situated below Peterboro', consist of a lock, dam and canal.....	92¾

<i>Peterboro.</i>	
The works consist of 3 piers and 1 boom.....	94
<i>Lakefield.</i>	
The works consist of a dam and wharf	103½
<i>Young's Point.</i>	
One lock (a Provincial Government work) and dam.....	108½
<i>Burleigh.</i>	
Timber slides, 2 dams, 2 locks (new).....	118
<i>Lovesick Rapids:</i>	
One lock and dam.	119½
<i>Buckhorn Rapids.</i>	
There is a dam at this point, which is important as keeping up the level of the water of the lakes west of it, as far as Bobcaygeon, including Lakes Pigeon, and Buckhorn Chemong, 1 lock, 1 slide (new works).....	125
<i>Bobcaygeon.</i>	
There are two dams here with canal, lock and slide. These dams retain the waters of the reach as far as Fenelon Falls and Lindsay Lock	140¾
<i>Fenelon Falls.</i>	
A large slide and booms, 2 combined locks (new).....	154¾
<i>Rosedale.</i>	
An old lock maintained by the Ontario Government, giving entrance from Cameron's Lake to Balsam Lake.....	162¾

BRANCH FROM STURGEON LAKE TO LAKE SCUGOG.

<i>Lindsay.</i>	
One lock, rebuilt by the Government of the Province of Ontario in 1879. Its dimensions are 134 x 33 feet, with 5 feet of water on the sills.....	161½
The navigation is, by this work, extended to Port Perry, Lake Scugog.....	190

The water on the several reaches was maintained at a fair height.

The number of lockages on the several canals was 1,140, as against 1,574 vessels passed during the season of 1836-87.

Navigation ceased on the 25th of November, 1887, and re-opened on 25th of April, 1888.

NEW WORKS.

The new works for the improvement of the Trent Valley navigation, are at the following places:—Canals, with locks and bridges, at Burleigh Rapids, Buckhorn

Rapids and Fenelon Falls ; also dams at Lakefield and Young's Point. By these works, which are now all completed, there is afforded communication between Lakefield, $9\frac{1}{2}$ miles from Peterboro', and Balsam Lake, the headwaters of the system ; opening up a total of about 160 miles of direct and lateral navigation.

At Lakefield, $9\frac{1}{2}$ miles from Peterboro', the new dam, at the head of the Nine Mile Rapids of the River Otonabee, which maintains navigation on Lake Katchewanoe up to Young's Point, was completed during the fiscal year, 1886-87.

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

At Burleigh Rapids, 10 miles from Young's Point, a canal is being constructed about $2\frac{1}{4}$ miles in length, passing the Burleigh and Lovesick Rapids, and giving communication between Stony Lake and Deer Bay. The work, comprising the construction of three lift locks and certain dams, is completed.

At Buckhorn Rapids, 7 miles from Burleigh Rapids, a canal of about one-fourth of a mile long has been constructed, having one lift-lock. The work is completed.

At Bobcaygeon, $15\frac{3}{4}$ miles from Buckhorn Rapids, a new dam, taking the place of two old ones, is in course of construction. By these works the water level is controlled up to Fenelon Falls.

At Fenelon Falls, 15 miles from Bobcaygeon, a canal about one-third of a mile in length, with two lift locks was constructed in 1885 connecting Sturgeon Lake with Cameron Lake.

In all the above named works the locks are of the following dimensions :—

Length.....	134 feet.
Breadth.....	33 "
Depth of water on the mitre sills.....	5 "

(App. 15, p. 143, and App. 16, p. 146.)

MURRAY CANAL.

This canal extends through the Isthmus of Murray, giving connection westward between the headwaters of the Bay of Quinté and Lake Ontario.

The works on this canal, commenced under a contract given out in August, 1882, comprise a cut through the isthmus $4\frac{1}{2}$ miles long, and improvements in the way of dredging and other work to the entrance channels at either end, covering a total distance of $9\frac{1}{2}$ miles in all.

The canal has a depth of 11 feet below the lowest known water level of the lake, or of 12 feet 6 inches below ordinary lake level, and a width at the bottom of 80 feet. There are no locks.

Its western terminus is near the village of Brighton in the harbour of Presqu'île, from which point to Port Dalhousie, the entrance of the Welland Canal, the distance is about 120 miles.

Certain excavation still remains to be done to obtain the full contemplated width, and some bottom rock has to be removed near the Brighton end; the channel way through a part of the harbour is nearly completed. The piers at both the eastern and western entrances of the canal are all completed, also three out of the four bridges required. The new entrance from the Lake to Presqu'île harbour, has a width varying from 1000 feet outside the main light, to 200 feet at the entrance to the channel. The maximum depth is 16 feet.

The whole works will it is expected be completed and the canal open for traffic during the season of 1889.

SAULT STE. MARIE CANAL.

This canal is intended to be constructed on the Canadian side of the River St. Mary between Lakes Huron and Superior, being formed through St Mary's island on the north side of the rapids.

At ordinary stages of the river water there is a difference of 18 feet in the levels of the water above and below this island. The distance across the island is about two thirds of a mile. The canal will have a mean width of 150 feet and a depth of 18 feet below the lowest known water line of that part of the river. The difference in level will be overcome by one lock 600 feet in length and 25 feet in width, having guard gates at both ends facing in opposite directions.

These gates are to be worked by "Hydraulic power," the water being admitted or withdrawn at the floor of the lock.

The works, including both those for the lock and the canal are under contract; also the entrance channels at both ends.

The contracts require the whole to be completed and ready for use in May, 1892.

The canal will be crossed by the railway leading to the Sault St Marie Railway Bridge recently built. The crossing is to be made by a swing bridge of sufficient capacity to span the canal. This is to be constructed and maintained by the company concerned.

ROYAL COMMISSION ON LACHINE CANAL LEASES.

It being desirable, in view of the changed conditions consequent on the enlargement of the Lachine Canal, that an understanding should be had of the position of the several hydraulic leases on the work, a Royal Commission was appointed by an Order in Council dated the 17th of July, 1886, for the purpose of investigating the matter and reporting as to the conclusions arrived at.

The Commissioners conducted their inquiries accordingly, and on the 31st of May, 1887, reported with respect to certain matters in this connection.

COMMISSION ON THE TRENT NAVIGATION.

In view of the interest taken in the scheme for connecting the waters of the Bay of Quinté, Lake Ontario, with those of Georgian Bay, Lake Huron, it was thought advisable that the matter should receive investigation at the present time, and accordingly an Order in Council was passed on the 8th of October, 1887; authorizing the appointment of a Commission of enquiry to examine and report on the question of the expediency of extending the Trent Valley navigation. The Commission was constituted accordingly. It has not yet reported.

I have the honour to be,

Your Excellency's most obedient servant,

J. H. POPE,

Minister of Railways and Canals.

31st December, 1888.

APPENDICES.

APPENDIX No. 1.

STATEMENT showing the amount expended by the Department of Railways and Canals,
Dominion of Canada, during the Fiscal Year ended 30th June, 1888.

Name of Work.	Construction.	Repairs.	Staff and Maintenance.
	\$ cts.	\$ cts.	\$ cts.
CANALS.			
Lachine	19,414 34	19,999 64	52,229 61
do —Income.....	7,996 28		
Cornwall	67,945 74	13,933 34	16,947 84
Williamsburgh	70,128 29	8,190 13	7,646 79
do —Income.....	1,613 67		
Beauharnois do	14,411 97	14,349 49	19,325 05
St. Lawrence.....	56,482 85		
Welland.....	77,052 82	87,309 04	110,806 01
do deepening to 14 feet	350,742 87		
do damages.....	2,014 75		
do back ditches—Income.....	661 18		
do weirs and dam, Dunnville—Income.....	8,551 24		
do head gates do	1,523 44		
Sault Ste. Marie	8,145 06		
St. Anne's	18,910 55	1,380 75	2,505 61
do —Income.....	1,372 59		
Carillon	1,842 99		
Grenville	37,153 30	10,036 62	21,531 12
Culbute	7,573 99	730 60	739 50
Rideau—Income.....	18,889 48	25,478 87	33,458 83
Trent	114,879 35	5,151 42	1,770 29
Murray	146,754 37		
St. Ours.....		2,801 17	2,216 04
Chambly—Income.....	65,536 64	11,849 74	20,073 60
St. Peter's		1,588 40	3,217 77
Surveys—Income.....	7,368 76		
Arbitrations—Income.....	5,775 43		
Tay	54,166 57		
Dredge vessels—Income.....	14,419 60	5,799 83	
Royal Commission—Income.....	2,835 40		
Repairs to Lake St Francis Road—Income.....	4,133 88		
Total on Canals.....	1,188,502 50	208,599 04	292,468 06
RAILWAYS.			
Pacific	52,374 20		
Surveys—Income.....	9,208 50		
Statistics.....	115 69		
Intercolonial.....	742,385 38		3,276,441 61
do Eastern Extension.....			90,954 73
do Windsor Branch.....			24,040 33.
Prince Edward Island.....			229,639 95
Subsidies.....	1,027,011 92		
Short Line Railway claims.....	397 35		
Carleton Branch.....	504 17		
Cape Breton.....	689,450 50		
Royal Commission—Income.....	13,574 71		
Carried forward.....	.....	.....	.....

STATEMENT showing the amount expended by the Department of Railways and Canals, Dominion of Canada, &c.—*Concluded.*

Name of Work.	Construction.		Repairs.		Staff and Maintenance.	
	\$	cts.	\$	cts.	\$	cts.
Brought forward.....						
<i>RAILWAYS—Concluded.</i>						
Albert Railway Company (Loan)	3,112	13				
Fredericton and St. Mary's Railway Bridge Company (Loan).....	274,947	00				
Oxford and New Glasgow.....	280,932	35				
Total on Railways.....	3,094,043	90			3,621,076	62
Total on Railways and Canals.....	4,282,346	40		208 599 04	3,913,544	68

Total amount expended.....\$3,404,490 12

S. LEONARD SHANNON,
for Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 31st December, 1888.

APPENDIX

STATEMENT showing the amount expended on the construction and the

(Repairs not

By Whom Expenditure Incurred.	Year ending 30th June.	Lachine Canal.	Beauharnois Canal.
		\$ cts.	\$ cts.
Imperial Government.....	} Up to June 30, 1867 {	40,000 00	.....
Provincial Government.....		2,547,532 85	1,611,424 11
Dominion Government.....	1868	1,852 70	7,008 00
do	1869	2,000 00	55 00
do	1870	.....	587 50
do	1871	12,231 40	187 00
do	1872	36,708 15	27 50
do	1873	42,982 49	5,280 90
do	1874	158,618 35	26 00
do	1875	197,420 52	36 00
do	1876	327,769 39	.....
do	1877	1,439,375 73	.....
do	1878	1,484,619 63	.....
do	1879	958,053 30	.....
do	1880	369,566 74	.....
do	1881	292,165 51	.....
do	1882	252,821 33	.....
do	1883	396,496 96	.....
do	1884	189,034 41	.....
do	1885	111,215 23	.....
do	1886	210,509 42	.....
do	1887	28,772 52	.....
do	1888	19,414 34	.....
Total.....		9,119,160 97	1,624,632 01

No. 2.

enlargement of Canals of the Dominion of Canada, up to 30th June, 1888.

included.)

Cornwall Canal.	St. Lawrence Canals. — Not Apportioned	Williamsburg Canals.	St. Lawrence — Chain Vessel and Improve- ment of Navigation.	Surveys, St. Lawrence and Canals.	Welland Canal.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
					222,220 00
1,933,152 69	116,821 31	1,320,655 54			7,416,019 83
2,786 00					12,097 84
10,692 04					43,486 36
17,780 05					24,173 72
7 50					47,869 10
10,000 21		1,077 00			59,702 76
1,011 75				35,326 44	130,158 47
				26,541 30	746,420 61
1,780 00				22,611 36	1,046,714 91
			28,500 00	21,715 47	1,570,178 19
49,211 37			28,064 67	19,312 64	2,199,962 61
145,015 45			1,623 76	3,946 70	2,138,392 99
143,092 05		4,580 00		4,685 77	1,552,697 41
109,454 95			623 52	8,591 04	1,252,924 75
53,948 14			6,927 96		1,242,943 37
44,587 61			28,933 45		603,402 17
21,728 93			44,874 31		550,240 36
23,018 13		2,473 44	89,846 03		432,952 88
62,034 90		103,237 12	115,110 17		463,505 38
57,820 83		149,835 71	116,051 73		215,477 75
46,966 43		115,853 00	74,437 31		1,091,073 87
67,945 74		70,128 29	56,482 85		429,810 44
2,802,034 77	116,821 31	1,767,840 10	591,475 76	142,730 72	23,492,425 77

APPENDIX

STATEMENT showing the amount expended on the construction and the
(Repairs not

By whom Expenditure incurred.	Year ending 30th June.	St. Ann's Lock.	Carillon and Grenville Canals.	Culbute Lock.	Rideau Canal.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Imperial Government.....	Up to June 30, 1867.	.....	(*)	.....	3,911,701 47
Provincial Government.....		134,456 51	63,053 64	.....	153,062 60
Dominion Government.....	1868	.....	19,817 22	.....	7,593 67
do	1869	.....	.....	.....	.....
do	1870	.....	4,167 96	.....	.....
do	1871	.....	23,119 37	.....	11,732 88
do	1872	1,939 46	165,257 28	.....	4,967 50
do	1873	540 11	136,250 48	.....	18,070 97
do	1874	12,753 27	245,258 38	38,388 99	5,793 16
do	1875	32,627 71	339,864 76	63,659 29	9,310 85
do	1876	24,935 85	326,293 16	76,842 44	2,163 96
do	1877	30,003 08	245,738 04	56,081 87	214 11
do	1878	14,618 85	22,676 20	5,933 53	.....
do	1879	22,113 02	243,141 24	20,694 19	7,703 88
do	1880	3,054 68	281,514 27	16,688 20	355 05
do	1881	69,042 76	336,707 53	4,721 62	.....
do	1882	193,158 36	433,084 39	29,567 15	.....
do	1883	172,959 95	416,826 10	14,249 60	.....
do	1884	142,006 25	399,267 16	8,151 16	.....
do	1885	93,679 57	157,187 72	19,071 76	2,098 76
do	1886	129,681 67	104,973 24	26,385 27	.....
do	1887	45,276 08	20,747 11	7,760 88	.....
do	1888	18,910 55	38,996 29	7,573 99	.....
Total.....		1,141,757 73	4,023,851 54	395,769 94	4,134,768 86

*Expenditure not given.

[1888]

No. 2—Concluded.

enlargement of the Canals of the Dominion of Canada, &c.—Concluded.
included.)

Chambly Canal.	St. Peter's Canal.	Survey Baie Verte Canal	Murray Canal.	Trent Canal.	Tay Canal.	Sault Ste Marie Canal.	Total.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
							4,173,921 47
643,711 76	88,949 39						16,028,840 23
	21,519 72						72,675 15
	70,719 80						126,953 20
	46,193 57						92,902 80
2,872 85							98,020 10
1,906 40							281,586 26
759 00		4,877 83					375,258 44
		4,018 90					1,237,818 96
2,415 00	20 97	443 00					1,716,904 37
	11,125 00	110 75					2,389,544 21
80 00	63,330 18	22 30					4,131,396 60
	26,511 51						3,843,338 62
	107,337 75						3,064,098 61
	80,120 54						2,122,893 74
	69,434 76	520 00					2,076,411 65
	484 00		7,135 63				1,593,174 09
			84,071 68	40,767 16	4,831 80		1,747,046 85
	2,471 40		118,187 43	120,643 91	50,878 12		1,578,930 32
	16,820 15		148,902 66	121,382 84	93,473 97		1,506,720 23
	2,316 85		179,704 52	75,103 30	65,561 51		1,333,421 80
	1,087 75		142,563 66	179,541 63	49,617 93		1,803,698 16
			146,754 37	114,879 35	54,166 57	8,145 06	1,033,207 84
651,745 01	608,443 34	9,992 73	827,319 95	652,318 19	317,529 89	8,145 06	52,428,763 70

APPENDIX No. 3.

STATEMENT showing Subsidies voted for Railways as to which contracts have been entered into and payments made, up to 30th June, 1888.

Subsidies voted.		Payments.						Total to June 30, 1888.
Authority.	Amount.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	\$ cts.	
		\$	\$	\$	\$	\$	\$ cts.	
45 Vic, cap. 25...	156,800 00	144,000					8,960 00	
46 do 14...	384,000 00							
46 do 25...	80,000 00							
46 do 59...	96,000 00							
48-9 do 10...	186,295 00	32,000	37,027	186,745	202,219	232,013 00	690,004 00	
49 do 24...	28,800 00							
50-1 do 3...	96,000 00							
51 do 25...	89,600 00							
46 do 10...	70,000 00	32,000	57,600				89,600 00	
49 do 24...	12,800 00							
50-1 do 8...	272,000 00		49,090	41,000	60,580	24,158 00	174,828 00	
47 do 25...	115,200 00		32,000	76,800	61,200	40,050 00	210,050 00	
46 do 8...	76,800 00							
50-1 do 24...	32,000 00							
47 do 8...	32,000 00							
49 do 10...	57,600 00		25,088				25,088 00	
47 do 8...	48,000 00		48,000				48,000 00	
45 do 14...	660,000 00		154,440	1,051,590	78,370		1,284,400 00	
46 do 25...	680,000 00							
47 do 8...	128,000 00							
48-9 do 59...	19,200 00							
49 do 10...	32,000 00			128,000	18,200	159,400 00	305,600 00	
48-9 do 59...	140,800 00							
47 do 8...	211,200 00							
Written off by 51	150,858 00			60,342			60,342 00	
Vic, cap. 3...	60,342 00							
48-9 do 59...	72,000 00			64,972	4,950		69,922 00	

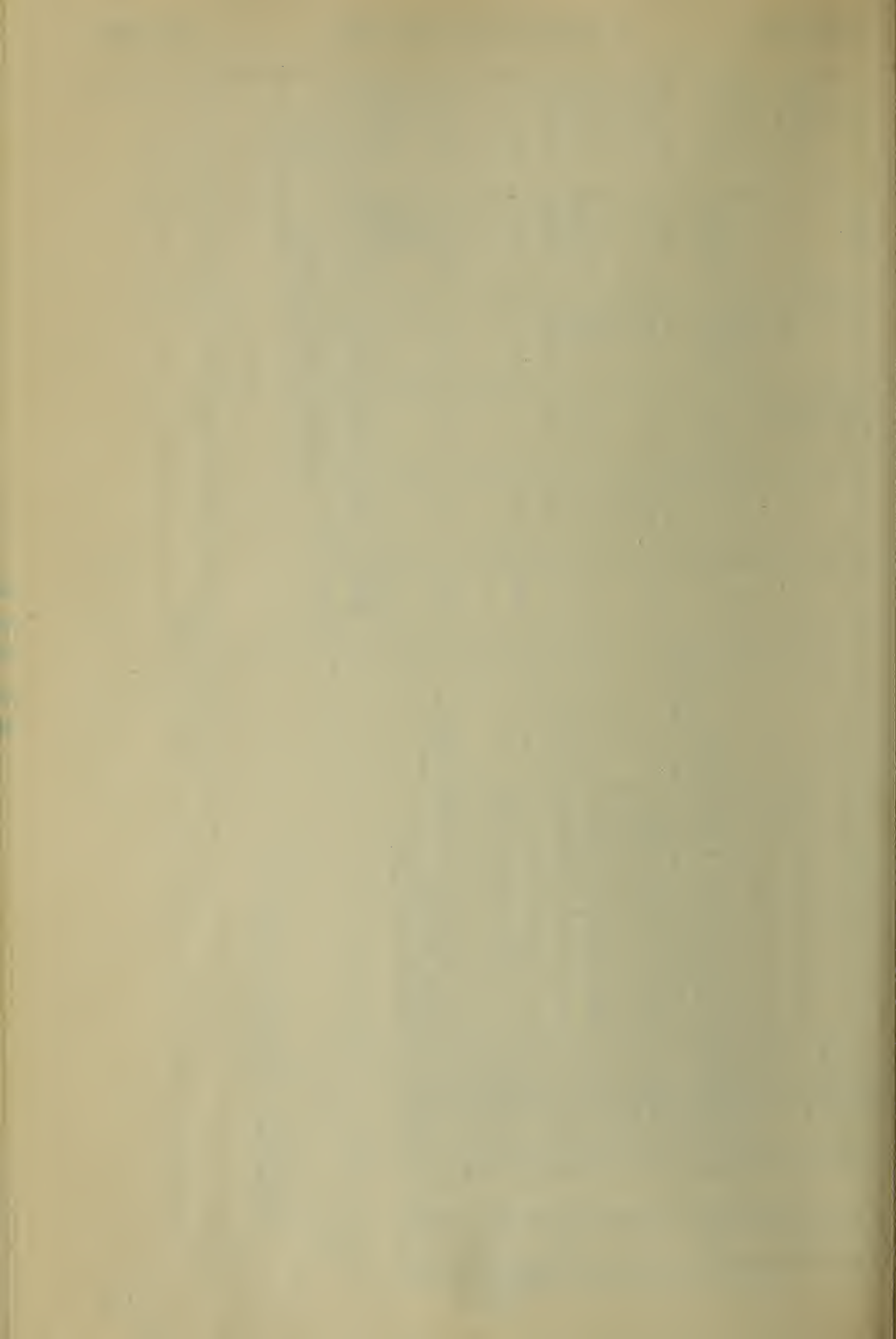
Railways.

International Railway, Quebec
 Quebec and Lake St. John Railway, Quebec.
 Napanee, Tamworth and Quebec Ry., Ont.....
 Pontiac Pacific Junction Railway, Quebec.....
 Caraqueet Railway, N. B.....
 Great Northern Railway, Quebec
 Kingston and Pembroke Railway, Ontario.....
 Northern and Pacific Junction Ry., Ontario.....
 Northern and Western Railway, N. B.....
 Quebec Central Railway, Quebec.....
 Montreal and Sorel Railway, Quebec.....

48-9	do	30,000 00	Montreal and Champlain Junction, Ry, Q	30,000	16,400 00	46,400 00
50-1	do	64,000 00	Elgin, Peticodiac and Havelock Ry, N.B.	38,400	38,400 00	38,400 00
46	do	38,400 00	St. Louis and Richibucto Railway, N.B.	22,400	22,400 00	22,400 00
51	do	44,252 82	Canada Atlantic Railway, Ontario	48,480	44,384	92,864 00
48-9	do	96,000 00	Esquimaux and Nanaimo Railway, B.C.	422,520	327,480	750,000 00
47	do	22,400 00	Erie and Huron Railway, Ontario	96,000	96,000 00	96,000 00
48-9	do	96,000 00	Baie des Chaleurs Railway, Quebec	250,000	50,300 00	300,300 00
47	do	38,400 00	New Brunswick and P. E. Railway, N.B.	97,440	16,000 00	113,440 00
47	do	750,000 00	St. Lawrence, Lower Laurentian and Saguenay Railway, Quebec	64,430	28,383 00	92,813 00
47	do	96,000 00	L'Assomption Railway, Quebec	11,200	11,200 00	11,200 00
46	do	32,000 00	Great Eastern Railway, Quebec	19,200	19,200 00	19,200 00
47	do	96,000 00	Irondale, Bancroft and Ottawa Ry, Ontario	15,000	15,000 00	15,000 00
49	do	160,000 00	Buctouche and Moncton Railway, N.B.	40,480	20,573 57	61,053 57
47	do	96,000 00	Albert Southern Railway, N.B.	1,000	18,428 57	19,428 57
48-9	do	51,200 00	Lake Temiscamingue Colonization Railway, Q	14,400	3,000 00	17,400 00
50-1	do	65,200 00	Joggins Railway, N.S.	26,138 78	26,138 78	26,138 78
49	do	33,400 00	Temiscouata Railway, N.B.	249,684 00	249,684 00	249,684 00
50-1	do	4,000 00	Leamington and St. Clair Railway	32,000 00	32,000 00	32,000 00
45	do	240,000 00	Toronto, Grey and Bruce Railway, Ontario	14,656 00	14,656 00	14,656 00
48-9	do	258,000 00	Dominion Lime Co.	11,840 00	11,840 00	11,840 00
48-9	do	44,800 00	West Ontario Pacific Railway	60,000 00	60,000 00	60,000 00
50-1	do	6,400 00	Drummond County Railway	15,057 00	15,057 00	15,057 00
49	do	16,000 00		2,171,249	1,406,533	5,216,068 92
50-1	do	22,400 00		403,245	1,027,041 92	
49	do	256,000 00		208,000		
50-1	do	96,000 00				

S. LEONARD SHANNON,
for Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 31st December, 1888.



APPENDIX No. 4.

CANADIAN PACIFIC RAILWAY.

OFFICE OF THE ENGINEER IN CHIEF,

OTTAWA, 26th October, 1888.

SIR,—The Honorable Minister has expressed a desire to be informed as to the general condition of the Canadian Pacific Railway throughout its entire length, and especially as to those sections traversing mountainous or hilly districts, among precipitous bluffs and along steep mountain slopes where land slides are to be guarded against and in which the line crosses deep ravines spanned by trestle and other wooden structures.

I have therefore the honor to report that during the month of July last I personally made a careful, I may say somewhat critical, examination of the section between Donald and Vancouver, and that I twice passed over the entire line from Ottawa to Vancouver, observing from the rear of the train the running condition of the road.

I furthermore caused every structure and the works of every description to be carefully inspected by an engineer during August and September last, upon those sections which are most difficult and costly to maintain, viz. between Callander and Port Arthur, 650 miles, and between Banff and Vancouver, 564 miles, and, from the information thus obtained, I am pleased to be able to pronounce the road to be in good running condition. Some of the materials of the structures are commencing to decay, and many of the ties are rotting, but gangs of carpenters and trackmen are constantly engaged in renewing these materials and maintaining the efficient condition of the works.

On the mountain sections as might be expected, earth and rock slides sometimes occur, requiring great watchfulness and care on the part of the employees of the railway. As on other roads, so in this, rock loosened by the action of heavy rains and frost should be periodically barred down, and working trains should be brought into service each season to remove the debris from the slopes of the cuttings.

On part of the line this service was receiving every attention, and I may presume that before the season closed it would extend to all those portions of the railway requiring such attention.

In these mountainous sections, great precautions appear now to be taken to insure the safe passage of trains, and so far as I can learn, the number of casualties during the last summer has been very small, and the trains ran with great regularity.

The snow protection in these regions is extensive, and substantial in character. The officers in charge of operation, who have had several years' experience in the Rocky Mountains, are of opinion that the road is so fully guarded against snow slides that the service is not likely to be interrupted from this cause. The company are also taking precautions against snow blockades, by the introduction of powerful rotary snow shovels, and it is confidently expected that these machines will be effectual against the heaviest drifts which they may encounter.

During the past year, very extensive additions have been made to the engine power and car stock, so that the means of transport will probably meet all requirements. The elevator capacity at Port Arthur has also been largely increased, and this will greatly facilitate the movement of grain from Manitoba and the North-West.

In fact, I consider the railway to be in excellent running condition, and very well equipped.

The time has certainly arrived when preparations should be made to replace year by year, many of the wooden pile and trestle structures by solid embankments or other permanent work, until these timber structures shall have disappeared, and I observed that several steam excavators were being set in place along the line for that purpose.

The traffic seems to be in a most encouraging condition. During the nine months ended on the 30th September, 1887, and 1888, the figures are :—

	1887.	1888.
Gross earnings.....	\$7,904,469	\$9,371,430
Working expenses.....	5,807,566	7,078,551
Net earnings.....	<u>\$2,096,903</u>	<u>\$2,292,879</u>

When it is remembered that the railway has scarcely been in operation for three years, this is truly a surprising development, which must be felt by every interest throughout the Dominion, and which establishes convincingly the necessity of the Canadian Pacific Railway to Canadian progress.

I have the honor to be, Sir,

Your obedient servant,

COLLINGWOOD SCHREIBER,
Engineer in Chief.

A. P. BRADLEY, Esq.,
Secretary Department Railways and Canals.
Ottawa.

APPENDIX No. 5.

CANADIAN GOVERNMENT RAILWAYS,
OFFICE OF THE CHIEF ENGINEER AND GENERAL MANAGER,

OTTAWA, 17th September, 1888.

SIR,—I have the honor to present my annual report upon the Oxford and New Glasgow and the Cape Breton divisions of the Government railways now under construction.

OXFORD AND NEW GLASGOW DIVISION.

This division commences at the Oxford Junction Station of the Intercolonial Railway and passes through the Counties of Cumberland, Colchester and Pictou, to Brown's Point Junction on the Pictou Town Branch of said railway, it is 67·60 miles in length, and has a branch 4·75 miles in length to the harbor of Pugwash; it runs through a fine agricultural country with considerable population, and passes in close proximity to the towns of Oxford, Pugwash, Wallace, Tatamagouche and River John.

The grades and general alignment are favorable, the maximum grade being 53 feet to the mile and the minimum radius of curve 955 feet.

The road bed is designed to be broad and well formed, the structures will be of a most permanent character, the culverts and piers and abutments of bridges will be of strong, well built solid masonry and the bridge superstructure will be of steel, the rails will also be of steel. The ties will be laid two feet centres, and the road will be well ballasted. The water service will be very efficient, and the station houses are of neat design. The road when completed will be first class in all respects and should be cheap to maintain and operate.

For construction purposes the line has been divided into seven sections as follows, viz:—

Main Line.

	Miles.
1. Oxford Junction to Oxford Village.....	3
2. Oxford Village to Pugwash Junction.....	13
3. Pugwash Junction to Wallace.....	7
4. Wallace to Mingo Road.....	17
5. Mingo Road to Brown's Point.....	27·60
	67·60

Pugwash Branch.

6. Pugwash Junction to Giles Cove	4
7. Giles Cove to Pugwash Harbor	·75
	4·75
Total.....	72·35

1. Messrs. McDonald & O'Brien are the contractors for the construction of the road between Oxford Junction and Oxford Village.

2. Messrs. McDonald, O'Brien & Cook are the contractors for the grading and masonry of the section between Oxford Village and Pugwash Junction.

[1888]

3. MESSRS. McDonald, O'Brien & Cook are the contractors for the grading and masonry of the section between Pugwash Junction and Wallace.

4. MESSRS. Stewart & Jones are the contractors for the grading and masonry of the section between Wallace and Mingo Road.

5. MESSRS. Gray, McManus, Trites & Co., are the contractors for the construction of the section between the Mingo Road and Brown's Point.

6. Mr. Donald Sutherland is the contractor for the grading and masonry of the section between Pugwash Junction and Giles Cove.

7. MESSRS. McDougald & Giles are the contractors for the grading, masonry and wharf of the section between Giles Cove and Pugwash Harbor.

The ties for the sections of road between Oxford Village and the Mingo Road including the branch from Pugwash Junction to Pugwash Harbor are being supplied under contract with Mr. R. L. Black and Mr. D. Campbell.

No arrangements have yet been made for the steel bridge superstructures, the erection of station houses and water services, and the tracklaying and ballasting on the sections between Oxford Village and the Mingo Road, including the Pugwash Branch; but the time has now arrived when contracts may be made to advantage for the steel bridge superstructures, the station buildings and water services.

Provision for the carrying on of the tracklaying and ballasting on the section of road between Oxford Village and the Mingo road including the Pugwash Branch may to advantage be delayed for a time.

I have recently closely inspected the works under construction upon this line, and find them being faithfully executed both as regards the materials used and the workmanship. The mason work is composed of a fine quality of large durable stone, well and strongly put together, the bridge masonry is especially massive. The most important pieces of mason work at present built are several large arch culverts, a high pier and two large abutments for Wallace River bridge, two heavy abutments for the passage of the Wallace road under the railway, two piers and two abutments for the River John bridge, and three abutments for bridges passing highways under the railway near Tatamagouche. In addition to the structures above referred to, a number of substantial box and beam culverts have been built, those upon Stewart & Jones' contract have the neatest and most workmanlike appearance, indicating the touch of first class mechanics, although those on the other sections are believed to be equally strong and substantial. All the arch culverts and bridge masonry show skill in construction and a careful selection of material—if the mason work is vigorously prosecuted by all the contractors to the close of the season and the weather prove favorable for railway works, I see no reason why the entire masonry on the line should not be completed this year. The points requiring diligent attention are the foundations of the pivot pier, and other remaining pier, of the Wallace River bridge on Messrs McDonald, O'Brien & Cook's contract, the abutment and piers of the French and Waugh Rivers on Messrs. Stewart & Jones' contract. I have urged upon these gentlemen the necessity of prompt action in commencing and vigorously prosecuting these erections and I have every confidence they will do so.

The wharf at Pugwash being built by Messrs. McDougald & Giles is very nearly completed, and when finished will, I believe, be a strong structure.

The grading between Oxford Station and the Mingo Road has been much retarded by the wetness of the season. The material in many of the larger cuttings being of a stiff sticky clay makes it impossible to work these cuttings during dripping weather, hence they are not so far advanced as could be desired, and it is possible some of them will not be finished this year, but if the weather clears up and continue fine for the remainder of the working season, and the contractors go energetically to work and prosecute their work vigorously, the contracts may all yet be complete before New Years day.

Messrs. McDonald & O'Brien have practically completed their contract between Oxford Junction and Oxford Village, and this section of road is in condition to be opened for traffic. This section is thoroughly ballasted and a good surface has been put on the track.

On Messrs. Gray, McManus & Trites contract, between Mingo Road and Brown's Point, there should be no difficulty whatever in finishing all the work this year, excepting, perhaps, the ballasting, and this may be accomplished if the weather is favorable for the rest of the season and the work is pushed forward energetically. About six miles of track is laid from Brown's Point and two miles additional track-laying will reach the ballast pit, so that once this point is reached the track-laying and ballasting can proceed simultaneously, and the other works should be completed in advance so as to admit of the track-laying being proceeded with without interruption, and as the station buildings and water service are in course of erection and well in hand it all depends upon the energy displayed in prosecuting the works for the next few months as to whether or not this section of the road will be completed and in condition for traffic, as required by their contract, by the close of this season. I am pleased to be able to state that the works of construction, so far as they have advanced, appear to be a credit to the contractors and also to the Government engineers and inspectors employed upon the line, and I trust to seeing the works carried through to completion in an equally satisfactory manner.

The following is a list of the equipment provided:—

Engines	9
Box cars.....	72
Platform cars.....	10
Eastman heater cars.....	10
Vans.....	2
Cattle cars.....	6
	=

CAPE BRETON DIVISION.

This division embraces a trunk line of railway from Point Tupper on the Cape Breton shore of the Straits of Canso, opposite the terminus of the Eastern Extension Railway at Mulgrave to a point near Leache's Creek, a distance of 78 miles, with an extension into the town of North Sydney, 5 miles, and also an extension into Sydney, 13.75 miles, and a connection with the International Coal Company's Railway, 1.25 miles, giving an aggregate mileage under construction of 98 miles.

For the purposes of construction the line has been divided into two sections as follows, viz. :—

	Miles.
1. Point Tupper to Grand Narrows.....	45.5
2. Grand Narrows to Sydney, and North Sydney and Spur....	52.5
Total.....	98.0

1. For the construction of the section between Point Tupper and Grand Narrows Messrs. Isbester & Reed are the contractors.

2. For the construction of the section between Grand Narrows and Sydney and North Sydney Messrs. Sims & Slater are the contractors.

In the first place with a view of testing the practicability of holding a wharf at Point Tupper the most suitable point for crossing with the ferry boat from Mulgrave, the terminus of the Eastern Extension Railway, a contract was made with Mr. O'Donohue for the construction of a crib 40 by 80 in 16 feet of water at low tide, to form a section of the wharf. This he completed, and it stood the test of the run of ice last winter without a scratch, and moreover could be reached by the ferry boat at times when all the other ports were blocked with ice, so that the fact is established I think beyond doubt that the right point for the eastern terminus of the Cape Breton Railway has been selected.

1. Messrs. Isbester & Reed, upon executing their contract last autumn, organized at once for active operations, laying in large quantities of supplies and sending in a very complete working outfit. They at once explored for quarries and located a number, which showed most favorable indications for an ample supply of suitable stone, but as each was worked into, this stone ran out after quarrying some 5,000 or 6,000 yards and delay occurred in consequence as several of the quarries had to be abandoned and diligent search resulted in no new discoveries. The stone procured, though large, heavy, durable and suitable for making good solid mason work, is not so neat in appearance as that procured at Wallace, and used on the Oxford and New Glasgow Railway. A 10 foot arch culvert, several bridge abutments, the pedestals and abutments of two of the steel trestles, and a number of box culverts have been built, the work is solid and substantial. The steel bridge superstructures and trestles are all delivered and the timber for the floor system, and the erection of some of the larger trestles will be commenced at once, but I have no expectation of the culverts and bridgework being completed before next spring. The earthwork is largely composed of a stiff clay interspersed with boulders which when worked in wet weather becomes so churned up by the horses and carts passing over it, that it is impossible to work it until it dries up, and as the weather the last six weeks has been very wet, scarcely a day passing without a downpour of rain, the grading has been much delayed. Even should the balance of the season prove fine and dry it will be impossible to finish the work this year, there being only about 40 per cent. of the grading done. There are about 20,000 ties delivered, the expectation being that the greater portion of the ties will have to be procured in New Brunswick during the coming winter, as also will the lumber for the station buildings and the water services; however, I can see no difficulty in the tracklaying being proceeded with in the spring, and in having the entire work completed and the road ready for traffic by the 1st November, 1889.

Messrs. Sims & Slater commenced work on their contract for the construction of the section between the Grand Narrows and North Sydney and Sydney in the winter of 1886 and prosecuted the work during the following year until December, 1887, having been favored with a most propitious season for carrying on works of railway construction, it having been almost unprecedentedly dry.

The clearing of the right of way was done and considerable progress had been made with the grading, but very little masonry had been built and the quarries were in a most unsatisfactory condition, the daily output of stone therefrom being very trifling, and the organization, if organization it could be termed, for carrying on this class of work was very defective; in fact at the time they were relieved of the management of the contract the works were dragging along very slowly, the workmen and mercantile community having apparently lost confidence in them. So unsatisfactory was the state of affairs that it became necessary for the Government to take the work out of the contractors hands' and finish it to the best possible advantage. The contractors' surety having been informed by her advisers that she could complete the work without loss to herself, urged, through her solicitors, to be allowed to carry it through to completion; consent was given to this arrangement, but as month after month passed and the returns came in, it became evident that she could not do so, and she asked that other arrangements be made; and in the month of June last the Government assumed control of the work and at once arranged for vigorous prosecution by jobbing out the grading, cribbing, &c., in small contracts and organizing efficiently for carrying on the mason work by day's labor. Several scows for carrying stone from the quarries to the sites of the structures were built, steam tugs chartered to tow them, additional teams employed to haul the stone, the force very largely increased in the quarries, and about eight gangs of builders and a large number of stone cutters were employed at the site of the structures, as well as a force preparing the foundations.

The station buildings were let to a responsible contractor and the work generally is making good progress. The masonry, of which there will be about 16,000 cubic yards, will, I have no doubt, be finished this year. The crib wharfing will also be

completed this season, but the grading and the station buildings will probably not be fully completed until next spring. A number of steel bridge superstructures have been erected and the balance should be in place before next spring.

About 2,000 tons of rails are to be delivered at the Grand Narrows this season, and it is proposed to deliver an equal quantity at Sydney in the early spring, so that the laying of the track may be proceeded with from both ends at the same time until the entire line is covered; while this work is in progress the ballasting of the road will be carried on.

The work on this section is being conducted under the careful supervision of Mr. Hiram Donkin, an engineer favorably known in the profession for his ability, energy, close application to work, his uprightness of character, and for his frugal management of work in his charge, who, with the faithful aid of his staff, will, I am satisfied, carry the work through with economy and despatch, in an efficient manner, so as to have this division ready for traffic by September next.

The present proposition is to cross the Grand Narrows by a steam train ferry, and to this end preparations are being made, but it may be worth considering whether or not a steel bridge resting on iron cylinders filled with concrete would not be preferable. The length of such a structure would be 1,600 feet.

The quantity of rolling stock already provided is, engines 8, box cars 25, platform cars, 80.

It will therefore be observed that if I am correct in my conclusions both the Oxford and New Glasgow and the Cape Breton Divisions of the Government railways will be completed and in condition to be opened for traffic next autumn.

I have the honor to be, Sir,

Your obedient servant,

COLLINGWOOD SCHREIBER,
Chief Engineer and General Manager.

APPENDIX No. 6.

CANADIAN GOVERNMENT RAILWAYS.

OFFICE OF THE CHIEF ENGINEER AND GENERAL MANAGER,

OTTAWA, 20th October, 1888.

Mileage table of the Canadian Government Railway System in Operation

	Miles.
Intercolonial Railway.....	894
Eastern Extension Railway.....	80
Windsor Branch Railway.....	32
Prince Edward Island Railway.....	211
	<u>1,217</u>

Sir,—Herewith I have the honor to submit to you the reports and accounts of the working of the railways in operation, under my charge, during the year ended the 30th June, 1888.

The Pictou Town Branch of the Intercolonial Railway, 14 miles in length, was opened for traffic on the 28th November last, making the aggregate length of the Government railways, in operation, at the close of the year 1887-88, 1,217 miles, the average over the whole year being 1,210 miles.

The result of the year's business of these railways may be stated as follows:—

Name of Railway.	Average mileage per year.	—	Amount.		Profit.		Loss.		
			\$	cts.	\$	cts.	\$	cts.	
Intercolonial.	386	Earnings.....	2,912,783	85					
		Working expenses...	3,276,441	61					
							363,657	76	
Eastern Extension.....	80	Earnings.....	70,552	20					
		Working expenses...	90,954	73					
							20,402	53	
Windsor Branch.....	32	One-third Earnings..	24,553	55					
		Maintenance.....	24,040	33					
						513	22		
Prince Edward Island	212	Earnings.....	158,363	62					
		Working expenses...	229,639	95					
							71,276	33	
						513	22	455,336	62
								513	22
Total.....	1,210							454,823	40

INTERCOLONIAL RAILWAY.

Upon reference to the foregoing table, it will be seen that the earnings of this railway, for the year under consideration, are short of the working expenses by \$363,657.76.

This result may be largely attributed to the heavy cost of keeping the traffic moving during the snow storms of last winter, the large volume of freight carried at unremunerative rates, the cost of additions and improvements such as are usually charged to capital account by railway companies, but which have been treated as part of the working expenses in the case of the Intercolonial Railway, and the expensive and costly repairs to the Richmond wharf.

The following table shows the gross earnings, the tonnage of freight, and the number of passengers carried in each year since the 1st July, 1876, when the railway was opened as a through trunk line.

Years.	Average Miles in Operation.	Earnings.	Tons of Freight carried.	Numbers of Passengers Carried.
		\$ cts.		
1876-77.....	714	1,154,445 35	421,327	613,428
1877-78.....	714	1,378,946 78	522,710	618,957
1878-79.....	714	1,292,099 69	510,861	640,101
1879-80.....	825	1,506,238 48	561,924	581,482
1880-81.....	840	1,760,393 92	725,577	631,245
1881-82.....	840	2,079,262 66	838,956	779,99½
1882-83.....	840	2,370,921 10	970,961	878,600
1883-84.....	847	2,353,647 26	1,001,163	920,870
1884-85.....	861	2,368,153 65	970,089	914,785
1885-86.....	866	2,383,200 77	1,008,545	889,864
1886-87.....	867	2,596,009 83	1,131,334	940,144
1887-88.....	886	2,912,783 85	1,275,995	996,194

The above statement of the gross earnings, the receipt of freight and the number of passengers, shows a material increase over the corresponding figures of previous years. The Hon. Minister may be interested in knowing that the fresh fish business has developed very considerably, the quantity carried during the year having been 4,450 tons.

It is expected that during the coming winter the volume of ocean borne traffic will increase very materially, and that the quantity of coal going to points west of the Chaudière will be greater than heretofore. To ensure the rapid transport of this freight, the box car stock is being increased by 200 cars, and there will be about 22 more locomotives in the service than there were last winter, when, as is well known, great difficulty was experienced in moving the traffic promptly, owing to the insufficiency of the engine power, in consequence of which, the engines were run day and night, in order to push the freight forward, and to cause as little annoyance to shippers as possible.

A difficulty, however, now presents itself. There is not stable room enough to house our engine stock, and no less than 20 or 30 engines are nightly exposed to the weather in the open air at Moncton. It has also been found impossible to effect the necessary repairs in the Government shops, as they are insufficient in size to receive the number of engines offering for repairs. I therefore propose to ask for an appropriation on capital account, to cover the cost of a full circle engine house at Moncton, an addition of 112 feet by 200 feet to the machine shops there, and some additional machinery. Unless these be provided, the engine power must suffer severely from exposure and from want of proper maintenance.

The following is a statement of the quantity and classes of rolling stock purchased on capital account up to 30th June, 1887, and of the additions made during the last fiscal year:—

	Engines.	Passenger Car Stock.					Conductors' vans.	Box cars.	Platform cars.	Coal cars of three several kinds.	Snow ploughs.	Wing ploughs.	Flangers.
		1st class sleepers and parlors.	1st class.	2nd class sleepers.	2nd class.	Baggage, mail, &c.							
Total to 30th June, 1887.....	164	12	69	6	76	47	79	1529	1442	2038	31	10	20
Additions in 1887-88.....	.....	3	.....	.....	.....	.....	.....	106	8	148	6	.....	*3
	164	15	69	6	76	47	79	1635	1450	2186	37	10	17

*These three flangers have been converted into snow ploughs at the charge of working expenses.

The following rolling stock has been rebuilt during the year 1887-83 to maintain the stock, at the charge of working expenses:—

	Engines	Passenger Car Stock.					Conductors' vans.	Box cars.	Platform cars.	Coal cars.	Snow ploughs.	Wing ploughs.	Flangers.
		1st class sleepers and parlors.	1st class.	2nd class sleepers.	2nd class.	Baggage, mail, &c.							
1887-88.....	4	1	.....	.....	1	5	1	20	90	47	2	....	3

The public begin to appreciate the comfort of the two parlor cars running between St. John and Halifax which were much better patronized during the past summer than in that of 1887. The sleeping cars are now not only run upon the night express trains, but upon such of the English mail "Specials" from Halifax and Rimouski as are run at night. To enable this latter service to be performed three additional "sleepers" have been provided. The arrangement will add greatly to the comfort of the passengers landing at Halifax and Rimouski from the English mail steamers. The sleeping car "Miramichi" which was destroyed by fire in September, 1888, has been rebuilt during the year and is now in service.

Every precaution is now taken to guard against the destruction of these cars by fire. They are heated by steam from the engine, and lighted by electricity, both of which are great improvements on the old modes of heating and lighting.

The European mails, which are landed at Halifax in winter, and at Rimouski in summer, received good despatch over the Intercolonial Railway, and, with the exception of one or two occasions during the winter, made excellent time.

The locomotives procured during the last two or three years are of a much heavier type than those originally in the service, in consequence of which it has

been necessary to increase the strength of the iron bridges by means of additional bracing, at considerable cost to the working expenses. It also became necessary to introduce a new and stronger floor system to these bridges, and this was also charged to working expenses.

During the year, 88 miles of the light steel rails were lifted and replaced by 67 lb. steel rails. With the heavy rail renewals which have been going on for some time past, the permanent way should be in very fine condition. Unfortunately, however, the new rails are proving to be, in many cases, of very poor quality, and are wearing very badly. Every precaution has, however, been taken to ensure a good wearing rail. They are inspected by a competent inspector, and are guaranteed by the makers for seven years, and all rails that fail within that period the manufacturers are bound to replace free of cost to the Government.

The rails are now being examined with a view of preparing a demand on the manufacturers to replace those which have failed up to this date.

CAPITAL ACCOUNT.

The expenditure on works under this heading, during the year, may be stated as follows:—

Total cost of road and equipment to 30th, June 1887. \$44,995,982 42
Increased accommodation at Halifax, St.

John, Moncton and Rivière du Loup	\$ 32,157 93	
Original completion.....	10,004 12	
Branch lines.....	352,881 52	
Rolling stock.....	258,334 81	
Approaches to Sackville Wharf.....	1,398 20	
Under crossing at Bathurst.....	4,083 26	
Coal shed at Amherst.....	567 50	
Additional machinery.....	9,770 25	
Servis tie plates.....	12,571 50	
Snow sheds and fences.....	38,998 75	
Appliances for heating by steam and lighting by electricity.....	21,617 54	
		742,385 38

It appears that a sum was paid to the New Brunswick Government in 1887 by the Department of Railways, in connection with the purchase of the section of the Intercolonial Railway between the Missiquash and Painsec Junction, and which did not pass through the railway books at Moncton, and therefore appears for the first time this year of.....

	149,441 40
	<u>\$45,887,809 20</u>

Less refund of a sum paid into court in a land claim case, and which was not used.....

	50 20
--	-------

Total cost to 30th, June 1888.....\$45,887,759 20

This amount may be classified as follows:—

Road.....	\$39,330,105 05
Rolling stock.....	6,557,654 15
Total.....	<u><u>\$45,887,759 20</u></u>

The Pictou Town Branch has been in successful operation since the 28th November last, dispensing with the cost of maintaining the ferry service across the harbor, the steamer "Mayflower," which performed that service, being now for sale. This branch has proved a great convenience to merchants and others having occasion to visit the town, as well as to residents. It is from this branch that the Oxford and New Glasgow division of the Intercolonial Railway springs, at a point about two miles from Pictou, known as Brown's Point.

Since my last annual report, a system of heating passenger cars by steam from the engine and of lighting them by electricity has been introduced in the interest of the public safety, thus minimizing the danger of fire in case of accident. At the close of the year, 26 passenger cars and 15 locomotives had been fitted with steam heating apparatus, and 18 passenger cars with appliances for electric lighting. Both these improvements have worked satisfactorily, and appear to be appreciated by persons travelling in trains thus equipped.

The Servis tie plates have not been sufficiently long in use to enable me to form an opinion as to the extent of their utility, but there appears little doubt that they will be useful on cedar ties.

The rolling stock is in good running order, and the maintenance of the road has received careful attention, and consequently the track is in excellent condition barring the low joints caused by the failure of the new 67 lb. steel rails laid during this and previous years. This difficulty, as I have said, it appears impossible to control.

EASTERN EXTENSION RAILWAY.

Capital Account.

The capital account remains the same as in the preceding year, thus:—

Cost of road.....	\$1,088,311 97
do rolling stock.....	196,183 79
	\$1,284,495 76

The gross earnings for the year were \$70,552.20, an increase over those of the preceding year of \$6,445.10, or 9 per cent.

Owing to the decay in the bridges and ties, the expenditure in maintaining the road in an efficient state is large and will continue to be so for at least a couple of years longer. It is, however, anticipated that the working expenses will not be quite so heavy in future as they have been during the last three years, and as there is every prospect of the revenue increasing, a reduction in the loss in operating the road may be looked for. By the close of the year 1888-89, the water service will be made very efficient. In the past the Haggas system has been in use, and has been found very unsatisfactory. The station ground and wharf at Mulgrave, on the Strait of Canso, are far too small and cramped to admit of a satisfactory disposal of the business, but an extension of both is being made, and in my next annual report I hope to be able to say that the facilities for shipping goods at Mulgrave are very much improved.

Both road and rolling stock are in good running order.

WINDSOR BRANCH.

No change has been made in the operation of the Windsor Branch; the Windsor and Annapolis Railway Company continue to work the traffic, the Government maintaining the way and works.

The result of the operations of the railway during the year is as follows:—

One-third gross earnings paid by the company to the Government	\$24,533 55
Cost of maintenance of way and works.....	24,020 33
Profit.....	<u>\$ 513 22</u>

It will thus be observed that the road has been maintained at an expenditure less than the revenue by \$513.22.

The iron rails show signs of wear, and it will be necessary to renew about three miles with new steel rails during the year 1888-89. It may also be necessary to lay down a few miles of ballast.

The way and works have been maintained in good condition, and I see no reason to fear delay with the traffic this winter if the Windsor and Annapolis Railway Company provide themselves with snow ploughs of the most approved design.

PRINCE EDWARD ISLAND RAILWAY.

Capital Account.

No expenditure has been made on capital account, and the cost of the road and rolling stock remain as at the close of the preceding year.

Cost of road.....	\$3,283,051 89
do rolling stock.....	458,729 00
Total.....	<u>\$3,741,780 89</u>

Both road and rolling stock are in first-rate condition.

The rolling stock provided on capital account consists of:—

Engines.....	21
First-class cars.....	17
Second-class and baggage cars	15
Postal and smoking cars.....	3
Box cars.....	175
Platform cars.....	125
Conductors' vans.....	3
Pay cars.....	1
Snow ploughs.....	8
Flangers.....	<u>7</u>

The gross earnings for the year exceed those of any previous year, and compare with those of the first year of the railway's operation as follows:—

1875-76.....	\$118,060 96
1887-88.....	158,363 62
Increase.....	<u>\$40,302 66</u>

The traffic is thus developing from year to year.

The working expenses are large, as they include the cost of a heavy freight engine, the rebuilding of 10 platform cars of 10 tons capacity, the erection of an iron bridge at Curtiss Creek, and the building of three masonry box culverts. These are works outside of the ordinary repairs, and may be considered to be what are known as "betterments."

In former years the train service on the Cape Traverse Branch was only bi-

weekly. Last year it was made daily, but as the traffic was very trifling, it did not even pay the cost of the train service, not to speak of maintenance. At the same time I presume that the daily service is an accommodation to some people.

GENERAL REMARKS.

The steady increase year by year in the volume of traffic, both passenger and freight, is a sure indication that the various interests of the country are in a healthy condition, and that there is a regular advance in wealth and general well being. All who have been in the habit of travelling over the Intercolonial Railway since its opening, must have observed how the wilder sections of the country are being brought under cultivation, and how industries have increased in number and prosperity. The rapid increase of local freight proves the value of the railway to the districts it traverses, and is a most important consideration in estimating the future of the road.

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

COLLINGWOOD SCHREIBER,
Chief Engineer and General Manager.

A. P. BRADLEY, Esq.,
Secretary, Department of Railways and Canals.

APPENDIX No. 7.

INTERCOLONIAL RAILWAY.

OFFICE OF THE CHIEF SUPERINTENDENT,

MONCTON, N. B., 25th October, 1888.

SIR,—I have the honor to submit the following report on the working of the Intercolonial Railway during the fiscal year which ended 30th June, 1888.

I enclose the reports of the Chief Engineer and Mechanical Superintendent and the following statements prepared by the Chief Accountant and Treasurer:—

- | | |
|--|-------------------|
| No. 1. Capital Account. | |
| 2. Revenue Account. | |
| 3. Locomotive power | (Abstract No. 1.) |
| 4. Car expenses | (do 2.) |
| 5. Maintenance of way and works | (do 3.) |
| 6. Station expenses | (do 4.) |
| 7. General charges | (do 5.) |
| 8. General stores account. | |
| 9. General balance. | |
| 10. Comparative statement of averages. | |

The length of railway in operation during the whole year was 880 miles. On the 28th November, 1887, the Pictou Town Branch, 14 miles in length, was opened for traffic, making the total length of railway in operation at the close of the year 894 miles.

CAPITAL ACCOUNT.

The total cost of road and equipment on 30th June, 1887, was..	\$44,995,982 42
Add amount paid in previous years, <i>see</i> Public Accounts.....	149,441 40
	\$45,145,423 82
Less refunded on account of previous year's expenditure.....	50 00
	\$45,145,373 82

The additions during the year are as follows:—

For Halifax Extension.....	\$ 8,992 97
Increased accommodation, St. John.....	2,513 89
Increased accommodation, Moncton.....	16,653 56
Increased accommodation, Rivière du Loup	3,997 51
Completion of the Intercolonial Railway...	10,004 12
Rolling stock.....	258,334 81
St. Charles Branch.....	106,045 18
Dartmouth Branch.....	3,442 28
Dalhousie Branch.....	1,343 00
Rivière du Loup Town Branch.....	355 79
Indiantown Branch.....	9,940 45
Pictou Town Branch.....	227,924 54

[1888]

Track to wharf at Sackville.....	1,398 20	
Road crossing at Bathurst.....	4,083 26	
Coal shed at Amherst.....	567 50	
Machinery	9,770 25	
Servis tie plates	12,571 50	
Snow sheds and snow fences	38,998 75	
Appliances for heating cars with steam and lighting them with electricity.....	21,617 54	
Woodhill's claim, Halifax	3,517 00	
Legal expenses in above claim	313 28	
		\$742,385 38

Making the total cost to the 30th June, 1888.... .. \$45,887,759 20

The \$50 refunded on capital account was advanced in 1885 to pay for land on the Dartmouth Branch but was not used.

The \$149,441.40 added to last year's capital account is the balance of an amount of \$150,000 paid at Ottawa during last fiscal year to the Province of New Brunswick in settlement of an old claim.

The expenditure for Halifax Extension was for the filling of a water lot, and for the settlement of claims on account of previous years.

The expenditure for increased accommodation at St. John was for providing buildings and appliances for cleaning sleeping cars, and on account of claims.

The expenditure at Moncton was for additional workshop buildings required on account of the increased traffic.

The expenditure at Rivière du Loup was for an enlargement of the yard which was necessary in consequence of the opening of the Temiscouata Railway which joins the Intercolonial Railway at this place.

Completion of the Intercolonial Railway. This expenditure was for the settlement of land damages, &c., on account of the original construction of the line.

The expenditure on account of rolling stock was to provide additional sleeping cars, and also additional freight cars required for the increased traffic in coal and other freight.

St. Charles Branch. This expenditure was for the settlement of claims for land and other damages, and for building snow sheds and snow fences where they were found to be needed.

The expenditure at Dartmouth was in the settlement of claims for land and other damages.

The expenditure on the Dalhousie Branch was for land damages and providing two freight cars.

Rivière du Loup Town Branch. This was to pay for materials used in the extension of the wharf at Rivière du Loup.

Indian Town Branch. This expenditure was to provide freight cars and pay land damages.

The work of construction on the Pictou Town Branch was continued during the year, and the expenditure is for payments made on the several contracts. This branch was so far completed as to permit of the running of trains, and it was opened for traffic on the 28th November, 1887.

The expenditure at Sackville was rendered necessary by the completion of the New Brunswick and Prince Edward Railway, which has its junction with the Intercolonial Railway at this place.

The expenditure for machinery was to provide additional machines for the work shops at Moncton.

The Servis tie plate is a patented device which is being tried. It is designed for the purpose of increasing the life of the ties by preventing the rails from cutting into them.

The expenditure for snow sheds and snow fences was for providing such protection at places where it had not previously been, but where it had been proved to be necessary by the experience of the last two or three winters.

Twenty-six passenger train cars were fitted with steam heating apparatus, and fifteen locomotives were fitted with apparatus for supplying steam to these cars.

Eighteen passenger train cars were fitted with electric light apparatus.

REVENUE ACCOUNT.

The earnings and expenditure for the year compare as follows:—

Expenditure	\$3,276,441 61
Earnings	2,912,783 85
	\$ 363,657 76

The gross earnings for the year were \$2,912,783.85, being a considerable increase over last year, as follows:—

Earnings, 1887-88.....	\$2,912,783 85
do 1886-87.....	2,596,009 83
	\$ 316,774 02

This increase was in both passenger and freight traffic, the increase in passenger traffic being \$52,363.09, and in freight traffic \$252,146.28.

There was an increase over the previous year in the quantity of freight carried of 144,661 tons, as follows:—

	Tons.
Weight of freight carried in 1887-88.....	1,275,995
do do 1886-87.....	1,131,334
	144,661

The increase in local freight carried was 93,002 tons, and in through freight 51,659 tons.

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.	1886-87.	1887-88.	Increase.	Decrease.
Barrels flour	753,480	845,750	92,270	
Bushels grain.....	1,016,334	1,211,540	195,206	
Lumber in feet	161,168,003	196,444,819	35,276,816	
Head of live stock.....	80,782	90,439	9,657	
Other goods in tons.....	820,300	909,487	89,187	

It is gratifying to observe an increase in all the articles of freight mentioned above.

The coal traffic from the mines in Nova Scotia to the Upper Provinces still continues to increase, as will be seen by the following comparative statement for the year which ended 31st December.

	Tons.
1879	570
1880	10,246
1881	30,629
1882	35,089
1883	54,891
1884	112,898
1885	165,791
1886	175,512
1887	192,022

For several years past I have drawn attention in the annual report to the extremely low rate at which this coal is carried, and there can be no doubt that it is one of the chief causes of the annual deficit.

In passenger traffic there was an increase of 56,050 in the number carried, as follows:—

In 1887-88	996,194
1886-87	940,144
	<u>56 050</u>

In 1886-87 the increase over the previous year was 50,280 in the number carried.

WORKING EXPENSES.

The working expenses for the year were \$3,276,441.61 being a considerable increase over last year, as follows:—

1887-88	\$3,276,441 61
1886-87	2,828,115 53
	<u>\$448,326 03</u>

They compare with last year as follows per mile run by engines and by trains, and per mile of railway:—

Per mile run by engines:—

	Cents.
1887-88	55.19
1886-87	51.74

Per mile run by trains:—

1887-88	66.33
1886-87	62.67

Per mile of railway:—

1887-88	\$3,723 23
1886-87	3,265 72

The necessary repairs were made to the permanent way and structures, and all the works of the railway were maintained in a thoroughly efficient state.

The total number of new ties put into the track was 291,828.

Seventy miles of track were re-ballasted.

Fifty-one sidings, making a total length of five and a-half miles, were constructed.

The fences received necessary repairs, and one hundred and thirty-two miles of fences were rebuilt. Three kinds of fencing were used, woven wire, barbed wire and lath and wire.

Extensive repairs were made to snow sheds and snow fences, and a large quantity of snow fencing was rebuilt; the total cost being over thirty-six thousand dollars.

The buildings on all parts of the line received necessary repairs.

Three station houses, three telegraph houses, a large building for the storage of coal, and one for the storage of oil were built.

A station house and a large shed for the storage of coal were built on enlarged and improved plans.

Twelve semaphore signals were erected at places where there had been none before.

The repairs and renewals of wharves were extensive, over thirty-four thousand dollars having been expended on one of the wharves at Richmond.

There was a large expenditure for the repairs and renewals of the masonry of bridges and culverts

An iron bridge of three spans was substituted for a wooden bridge. Three pairs of iron girders were substituted for wooden ones, and one iron overhead bridge was erected in the place of a wooden one.

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

Four new locomotives were purchased to replace an equal number taken out of service.

One hundred and fifty-seven freight cars having been unfit for use, were replaced by an equal number of new cars of improved design, and which are capable of carrying much heavier loads. Six passenger train cars were also replaced by new ones of improved design. The sleeping car "Miramichi" which was burnt in September, 1886, was replaced by a new one. The cost of all these new locomotives and cars were charged to working expenses.

The work of improving the water supply for locomotives was continued, and five of the large 50,000 gallon tanks were built and fitted with steam pumps. The expenditure was much greater than last year, being over forty thousand dollars.

Many of the works above referred to were improvements made in addition to the maintenance and renewal of the original works, but the cost is charged the working expenses and against the earnings for the year.

It having been determined to try steam, taken from the locomotive, as a means of heating passenger cars, several trains were completely equipped with the necessary apparatus for the purpose and were run during the whole of last winter. The trial having established the fact that it is possible to heat cars satisfactorily by this means, other passenger trains are being fitted with the apparatus.

Several trains have also been ever since the autumn of 1887 entirely lighted with electricity.

STORES.

The value of stores purchased was.	\$1,187,201 18
The value of stores used was	1,464,343 04
The value of old materials sold was	156,577 92

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

Ordinary stores including fuel.....	\$257,246 68
Iron and steel rails.....	71,164 07
Second hand materials serviceable.....	41,873 00
Old material for sale.....	128,351 08
	<u>\$ 498,634 83</u>

The quantity of rails and old material on hand is less than last year. The old material was sold in the month of May by public tender, but the delivery of it to the purchasers had scarcely commenced at the close of the year.

GENERAL.

The ferry service across Pictou Harbor was discontinued when the railway from Stellarton to Pictou was opened for traffic 28th November, 1887, and the steamer "Mayflower" which performed that service is for sale.

During last winter some inconvenience was experienced in consequence of the failure of contractors for locomotives to deliver them at the time agreed upon.

The cost of clearing snow from the track was not so great last winter as in the winter of 1886-87, but it was considerably above the average, being over \$67,000, and to this should be added the cost of repairing snow ploughs, over \$26,000.

It gives me pleasure to state that the employes generally performed their duties faithfully and cheerfully.

I have the honor to be, Sir,

Your obedient servant,

D. POTTINGER,

Chief Superintendent.

COLLINGWOOD SCHREIBER, Esq.,

Chief Engineer and General Manager Government Railways,
Ottawa.

No. 1.—INTERCOLONIAL RAILWAY.
CAPITAL ACCOUNT, Year ending 30th June, 1888.

DR.

CR.

1887. June 30....	\$ cts.	\$ cts.	1887. June 30....	By Dominion of Canada..	\$ cts.
To Cost of road and equipment.....	44,995,992 42		45,145,373 82
Add—Amount paid in previous years. <i>Vide</i>	149,441 40		
Public Accounts.....	45,145,423 82		
Total per Public Accounts.....	50 00		
Less—Refunds on account of previous year's	45,145,373 82		
expenditure.....			
Outlay on Halifax Extension.....	8,992 97	.....		
do Increased accommodation, St. John....	2,513 89	.....		
do St. Charles Branch.....	11,506 86			
do Pictou Town Branch.....	106 045 18			
do Dartmouth do.....	227,924 54			
do Dalhousie do.....	3,442 28			
do Rivière du Loup Town Branch.....	1,343 00			
do Indian Town Branch.....	355 79			
do Rolling Stock.....	9,940 45			
do Pile approach track to wharf at Sackville....	256,334 81			
do Servis Tie Plates.....	1,398 20			
do Increased accommodation, Moncton.....	12,671 50			
do do Rivière du Loup.....	16,653 56			
do Halifax Cotton Co.'s siding, Woodhill's claim..	3,997 51			
do Machinery.....	3,517 00			
do Road crossing under I. C. R. at Bathurst.....	9,770 25			
do Appliances for lighting cars by electricity and	4,083 26			
do heating by steam.....				
do Coal shed at Amherst.....	21,617 54			
do Snow sheds and saw fences.....	567 50			
do Legal expenses in connection with Halifax Cotton	38,998 75			
do Co.'s siding.....	313 28			
do Expenditure on completion of I. C. R. between				
do Rivière du Loup and Truro (works, permanent				
do way, buildings, right of way, &c.).....				
1888. June 30....			742,385 38	By Dominion of Canada.	742,385 38
			45,887,759 20		45,887,759 20

MONCTON, N. B., 30th June, 1888

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

No. 2.—INTERCOLONIAL RAILWAY.
REVENUE ACCOUNT, Year ending 30th June, 1888.

DR.

CR.

Previous Year.	Expenditure.	Year ending 30th June, 1888.	Previous Year.	Earnings.	Year ending 30th June, 1888.
\$ cts.		\$ cts.	\$ cts.		\$ cts.
887,626 41	Locomotive power	1,135,325 00	792,678 56	Passenger traffic.....	845,041 65
668,027 57	Car expenses	769,155 84	1,657,695 76	Freight do	1,909,842 04
782,052 79	Maintenance of way and works	811,225 31	145,635 51	Mails and sundries.	157,900 16
333,576 22	Station expenses	377,959 18			
162,689 65	General charges	174,809 23	2,596,009 83	Balance.....	2,912,783 85
2,833,972 64	Car mileage	3,268,484 56	232,105 16		363,657 76
5,857 06		7,957 05			
			2,828,115 58		
					3,276,441 61

THOMAS WILLIAMS,

MONCTON, N.B.. 30th June, 1888.

Chief Accountant and Treasurer.

No. 3.—INTERCOLONIAL RAILWAY.
LOCOMOTIVE POWER—(Abstract No. 1).

Previous Year.		Year ending 30th June, 1888.
\$ cts.		\$ cts.
8,727 69	Mechanical Superintendent's salary, clerk's office and travelling expenses.....	10,436 35
212,296 96	Wages, drivers, firemen and cleaners.....	234,682 95
357,564 55	Fuel.....	463,604 82
41,464 49	Oil, tallow, waste and small stores.....	51,635 80
202,384 32	Repairs to engines, tenders and engine tools.....	290,220 04
29,340 09	Water, including pump and tank repairs.....	40,452 73
35,848 31	Miscellaneous.....	44,292 31
887,626 41		1,135,325 00

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N. B., 30th June, 1888.

No. 4.—INTERCOLONIAL RAILWAY.
CAR EXPENSES—(Abstract No. 2).

Previous Year.		Year ending 30th June, 1888.
\$ cts.		\$ cts.
54,810 70	Repairs to passenger cars.....	102,375 31
17,480 22	do postal, express and baggage cars.....	47,828 95
262,456 93	do Freight cars and vans.....	254,493 65
225,676 96	Wages of Conductors, train baggage masters and brakemen.....	250,266 85
39,263 10	Oil and waste for packing.....	36,703 85
48,823 64	Small stores and fuel.....	57,132 35
19,516 02	Miscellaneous.....	20,354 88
668,027 57		769,155 84

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N. B., 30th June, 1888.

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No. 5.—INTERCOLONIAL RAILWAY.
MAINTENANCE OF WAY AND WORKS—(Abstract No. 3).

Previous Year.	—	Year ending 30th June, 1888.
\$ cts.		\$ cts.
6,714 61	Chief and Assistant Engineers, Salaries, Clerks, office and travelling expenses	6,752 57
279,456 96	Wages in repairing roadway, fences and semaphores, including new sidings laid in	315,899 33
166,531 72	Rails and fastenings, including new sidings laid in	38,127 28
55,480 89	Ties	71,553 27
84,611 47	Timber, lumber, etc., for repairs to bridges, cattle guards, crossings, snow-sheds, fences, etc.	160,739 34
6,824 51	Repairs to wharves	36,072 19
69,730 55	Repairs to buildings and platforms, including extensions of and additions to same	85,673 84
17,162 12	Repairs to snow ploughs, flangers and tools	26,141 43
92,212 40	Clearing ice and snow	67,781 25
3,327 56	Miscellaneous	2,484 81
782,052 79		811,225 31

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1888.

No. 6.—INTERCOLONIAL RAILWAY.
STATION EXPENSES—(Abstract No. 4).

Previous Year.	—	Year ending 30th June, 1888.
\$ cts		\$ cts.
260,701 11	Salaries and Wages of Station Masters, Agents, Clerks, Telegraph Operators, Station Baggage Masters, Yard Masters, Switchmen, Watchmen and Laborers	293,981 79
72,875 11	Fuel, oil, light, stationery, tickets and other incidental expenses	83,997 39
333,576 22	Miscellaneous	377,969 18

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1888.

No. 7—INTERCOLONIAL RAILWAY.

GENERAL CHARGES—(Abstract No. 5).

Previous Year.		Year ending 30th June, 1888.
\$ cts.		\$ cts.
64,224 16	Chief Superintendent, District Superintendents, Train Despatchers, General Freight Agent, General Passenger Agent, Clerks, office and travelling expenses	65,601 92
20,884 38	Accounting Department--Salaries of the Chief Accountant and Treasurer, Traffic Auditor, Paymaster, Cashier, Clerks, office and travelling expenses	25,072 04
18,930 57	Damages to men, animals and goods	12,223 71
19,125 93	Ferry service	16,550 52
1,243 75	Telegraph expenses (not including pay to operators)	619 93
24,167 07	Miscellaneous—Printing, advertising, &c.	38,814 91
14,113 79	Agency expenses	14,897 15
162,689 65		174,809 23

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1888.

No. 8--INTERCOLONIAL RAILWAY.

GENERAL STORES ACCOUNT, Year ending 30th June, 1888.

DR.

CR.

	1897	1888	1888	1888	1888	1888	1888	1888	1888		
	To Balance.....	Purchases during year.....	Charges from other Departments... Labor..... Staff pay-rolls.....	By Issues during year.....	Sales of material, fuel, &c., to other Railways, &c.....	Sales of old material.....	Balance—	Ordinary stores, including fuel Iron and steel rails and fastenings.....	Second-hand material, service-able.....	Old material for sale.....	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
June 30....	678,109 97	1,461,333 04	35,054 37	156,577 92	257,246 68	71,164 07	41,873 00	128,351 08
June 30....	1,187,201 18 219,057 11 57,632 98 12,593 92	1,476,490 19	1,655,965 33	.....	.....	.....	.....	498,634 83	2,154,600 16

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1888,

No. 9.—INTERCOLONIAL RAILWAY.

GENERAL BALANCE, Year ending 30th June, 1888

DR.

CR.

	\$	cts.	\$	cts.
Cash.....	.....	.....	19,631	01
General stores :—	.....	.....	.....	.....
Ordinary stores, including fuel.....	257,246	68	.....	.....
Iron and steel rails and fastenings.....	71,164	07	.....	.....
Second hand material, serviceable.....	41,873	00	.....	.....
Old material for sale.....	128,351	08	.....	.....
Stations.....	.....	.....	498,634	83
Rents.....	.....	.....	2,105	04
Accident insurance.....	.....	.....	25,538	00
Unclaimed freight.....	.....	.....	11	05
Department accounts :—	.....	.....	.....	.....
Militia.....	.....	.....	.....	.....
Agriculture.....	3,910	98	.....	.....
Post Office.....	17,066	81	.....	.....
.....	45,400	24	.....	.....
Canadian Pacific Railway rolling stock.....	.....	.....	66,378	03
Chatham Branch Railway.....	.....	.....	22,046	96
Quebec Central Railway.....	.....	.....	772	49
Northern and Western Railway of N.B., traffic account.....	.....	.....	2,630	87
do do general account.....	.....	.....	.....	.....
.....	536	63	.....	.....
.....	1,917	98	.....	.....
Grand Trunk Railway, traffic account.....	.....	.....	2,454	61
Windsor and Annapolis Railway.....	.....	.....	6,402	24
New Brunswick Railway.....	.....	.....	28	01
Albert Railway.....	.....	.....	9,723	23
Elgin Branch Railway.....	.....	.....	86	34
Elgin, Pettoctiac and Havelock Railway.....	.....	.....	726	10
Kent Northern Railway.....	.....	.....	180	00
Temiscouata Railway.....	.....	.....	503	22
Canadian Pacific Railway.....	.....	.....	830	50
Central Railway of New Brunswick.....	.....	.....	429	39
Moncton and Bucouche Railway.....	.....	.....	44	96
Harvey Branch Railway.....	.....	.....	88	57
St. Martin's and Upham Railway.....	.....	.....	5,553	57
Chicago, Santa Fe and California Railway.....	.....	.....	130	00
Albert Southern Railway.....	.....	.....	12	00
Chicago and Grand Trunk Railway.....	.....	.....	5	06
Joggins Railway.....	.....	.....	6	50
Maine Central Railway.....	.....	.....	14	50
Union Freight Railway.....	.....	.....	176	00
Western Counties Railway, general account.....	.....	.....	9	76
.....
.....	.....	.....	15,893	35

	\$	cts.
Dominion of Canada.....	690,114	62
Stations.....	34,770	90
Expense.....	2,631	83
Grand Trunk Railway, general account.....	6,776	26
Delaware, Lackawanna and Western Railway.....	10	00
Bay Chaleurs Railway.....	0	25
Cumberland Railway and Coal Company.....	303	64
Ontario Car Company.....	3,323	75

No. 9.—INTERCOLONIAL RAILWAY—Concluded.
GENERAL BALANCE, Year ending 30th June, 1888.

DR.

CR.

	\$	cts.	\$	cts.
Western Counties Railway, trafficaccount	1,657	42		
Spring Hill and Parisboro' Railway	17,550	77		
Halifax and Cape Breton Railway.....	3,161	99		
Windsor Branch Railway.....	1,546	82		
Intercolonial Express Company.....	318	83		
Pullman Palace Car Company.....	2,641	86		
Allan Steamship Line.....	870	35		
Great Eastern Line.....	1,892	13		
Acadia Coal Company.....	4	00		
Intercolonial Coal Company.....	6,143	43		
Vale Coal Company.....	954	55		
Nova Scotia Steel Company.....	24	27		
Londonderry Iron Company (limited).....	6	60		
Truro Foundry and Machine Company.....	4	23		
Halifax Rolling Mills Company.....	171	45		
Coldbrook do.....	78	50		
Canada Locomotive and Engine Company.....	1,967	41		
Union Bearing Company.....	15	75		
Canada Shipping Company.....	660	84		
Prince Edward Island Steam Navigation Company.....	1,301	83		
Steamer "Admiral".....	4	04		
do "Contest".....	4,190	83		
Halifax Cotton Company siding.....	2,236	25		
Moncton do.....	10,639	07		
Remittances destroyed.....	325	00		
Town of Dartmouth.....	788	81		
Glenegary Station.....	8,000	00		
Bloomfield do.....	5	00		
Coal Branch do.....	25	21		
Weldford do.....	65	84		
St. Luce do.....	55	00		
St. Arsene do.....	80	00		
Buc do.....	6	11		
Schooner ("Mary Jane").....	22	00		
Individual accounts.....	71	30		
	6,949	11		
	737,931	25		

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N. B., 30th June, 1888.

No. 10.—INTERCOLONIAL RAILWAY.

COMPARATIVE STATEMENT of Averages, Year ending 30th June, 1888.

	1887.	1888.
Mileage of railway.....	866	880
Engine mileage.....	5,466,488	5,936,035
Train do.....	4,512,599	4,989,253
Car do.....	52,001,948	56,008,930
Receipts per engine mile..... Cents	47.49	Cts. 49.07
do mile of railway..... Dollars	2,997.70	3,309.98
Percentage of passenger earnings to gross earnings.....	Per cent 30.53	29.01
do freight do do.....	63.86	65.57
do other do do.....	5.61	5.42
Expenses per engine mile—		
Drivers, Firemen and Cleaners' wages..... Cents	3.88	3.95
Fuel.....	6.54	7.81
Oil, tallow, waste and small stores.....	.76	.87
Repairs to engines.....	3.70	4.89
Water and tank repairs.....	.54	.68
Miscellaneous.....	.65	.75
Total.....	16.07	18.95
Mechanical Superintendent's salary, office and travelling expenses.....	.16	.17
Total.....	16.23	19.12
Locomotive power per engine mile.....	16.23	19.12
Car expenses do.....	12.22	12.96
Maintenance of way and works do.....	14.31	13.67
Station expenses do.....	6.10	6.37
General charges do.....	2.88	2.94
Car mileage.....	51.84	55.06
	Deduct .10	Add .13
Total per engine mile.....	51.74	55.19
Locomotive power per train mile.....	19.67	22.98
Car expenses do.....	14.80	15.57
Maintenance of way and works do.....	17.33	16.43
Station expenses do.....	7.39	7.65
General charges do.....	3.61	3.54
Car mileage... Deduct.....	62.80	66.17
	.13	.16
Total per mile train.....	62.67	66.33
Working expenses per mile of railway.....	3,265.72	3,723.23

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1888.

[1888]

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 INTERCOLONIAL RAILWAY.

CHIEF ENGINEERS OFFICE,

MONCTON, N. B., 20th September, 1888.

SIR,—I have the honor to submit my report of the Engineering Department for the year ending 30th June, 1888.

TRACK.

The mileage of the main line and branches has been increased from 830 to 894 miles.

	Miles.
Previously reported	830
Pictou Town Branch	64
	<hr/>
Total.....	894
	<hr/> <hr/>

During the year 88 miles of rails, weighing 56 pounds to the yard, have been taken up and replaced with steel rails weighing 67 pounds to the yard.

TIES.

During the year 291,828 ties have been renewed in the main line, sidings and branches.

BALLASTING.

Ballasting was done on all divisions of the road.

Seventy and a half (70½) miles of the track were rebalasted.

SEMAPHORES.

Twelve new semaphore signals were erected during the year.

SIDINGS

Fifty-one new sidings have been put in at various points along the line, making additional accommodation to the extent of 29,248 feet, or about 5½ miles.

FENCING.

About 132 miles of barbed wire, woven wire and lath wire fence have been erected in place of old pole fences, and at points where fencing was not required before. About 32 miles of lathed wire fencing on the northern divisions were badly damaged by snow and ice breaking down the wire. This was repaired at a large cost.

The total cost of maintenance for ordinary fencing for the year has been \$86,836.68.

SNOW SHEDS AND SNOW FENCES.

8,549 lineal feet of new snow sheds were erected between Lévis and Ste. Flavie.

Of this, 5,691 feet was constructed with an iron frame of old rails covered with 1½ inch planed boards.

36,681 lineal feet of snow fencing were erected and 7,948 feet rebuilt.

Repairs were made to about 25,000 feet more of the old fence.

It is expected that the sheds with iron frames and close boarding will be almost if not quite fire proof.

WHARVES AND COAL TRESTLES.

At the DEEP WATER TERMINUS, HALIFAX,—some new piles were put in and the foundation of freight sheds strengthened.

At RICHMOND—a contract was entered into with Messrs. Connor and Donald for the rebuilding of the outside wharf with piling.

The piles under all buildings to be creasoted.

The renewal of the high level coal trestle and chute is also included in their contract.

The work was about half completed at the close of the year.

At PICTOU LANDING—a portion of the top of wharf No. 2 was renewed and the wharf was generally overhauled and repaired.

At SPRING HILL—the old shed for coaling engines at this place was destroyed by fire and a new coal shed and trestle were erected to replace it.

At AMHERST, DORCHESTER, SHEDIAC AND SUSSEX—new coal trestles for local purposes were erected.

At POINT DU CHENE—large repairs were made to the outside wharf and a portion of the old top was replanked.

At MONCTON—large repairs were made to the railway coal shed and trestle.

At NEWCASTLE—the old wharf was burned to the water's edge. It was rebuilt by contract. It was also fitted with a new and improved derrick of 7 tons capacity.

At DALHOUSIE—a portion of the top of wharf was replanked.

At STE. FLAVIE—a new coal shed 500 feet long, 25 feet wide, with a trestle approach 700 feet long was erected by contract at a cost of \$1,436.50.

At RIMOUSKI—necessary repairs were made to the wharf pending the letting by contract of further larger repairs.

At POINTE LÉVIS—necessary repairs were made to the cribwork between Lévis and Pointe Lévis and also to the cribwork south of Pointe Lévis.

BUILDINGS AND PLATFORMS.

At HALIFAX a double floor was laid in the north side of freight shed on the Deep Water Wharf through its whole length.

The outside passenger platform at the North Street station was renewed.

The roof of head house was re-covered with Sparham roofing.

The grain elevator was overhauled and repaired, and the roof of boiler house was re-covered with tar and gravel.

One side of the roof of North Street freight house re-shingled and the top of loading platform outside of shed was renewed.

At RICHMOND—one end of the stores building (brick), was repaired and covered with mastic.

The round house was thoroughly overhauled, all soft brick removed and a large portion of the exterior walls covered with mastic.

An extension was made to building over ash pit adjoining round house, to admit of the largest class of locomotives more conveniently taking coal whilst discharging their ashes.

A new door was put in the local cattle shed.

At ROCKINGHAM—a portion of the passenger platform was renewed.

At BEDFORD—necessary repairs were made to the station building and about one-half of the old platform was renewed.

WELLINGTON, ENFIELD AND SHUBENACADIE—stations were painted two good coats best lead and oil.

At the latter station new sills were put under the baggage room and the roof was re-shingled.

At TRURO—new floors were laid in the District Superintendent's and ticket offices and a portion of the roof of station was re-shingled.

The roof of engine house was re-covered with Sparham cement. A large portion of the woodwork of the ventilators was also renewed.

The old iron smoke stacks were replaced with heavy terra cotta pipes, 18 inches in diameter, fitted with hoods or caps of a similar material.

The stringers on six of the pits were renewed

The platform in front of the freight house, 150 feet long by 14 feet wide, was renewed

At VALLEY—the roof of station was re-shingled and repairs made to building and platform.

A loading platform 85 feet long by 8 feet wide was put up at Murray's siding, about one mile west of Valley.

At WEST RIVER—a bay window was put in office, new sills were put under station and general repairs made.

At LORNE'S SIDING—two and a-half miles east of Glengarry, a new loading platform, 90 feet long by 8 feet wide, was erected.

At STELLARTON—the front and end rails, roof and platform of new brick cased station were badly damaged by an explosion. The necessary repairs were made.

At NEW GLASGOW—the station master's office was enlarged and general repairs made to station and platform.

At BELMONT, WESTCHESTER, OXFORD and SACKVILLE—small coal sheds for the use of stations were erected.

At WENTWORTH—the freight house was raised and the roof shingled.

At WESTCHESTER—a new platform was erected.

Platforms at SPRING HILL, AMHERST, AULAC, SACKVILLE, ROCKLAND and MEMRAMCOOK—were overhauled and partially renewed.

At GRENVILLE—an addition was made to the dwelling apartments of the station master.

AT SALT SPRINGS—the roof of station was shingled.

At AMHERST, AULAC, SACKVILLE and MEMRAMCOOK—new hard wood floors were laid in officers and waiting rooms.

The following buildings were painted on the Central Division: Belmont Station, Wentworth freight house, Nappan Station and freight house, Amherst Station baggage room and dining saloon, Sackville and Rockland Stations.

At POINT DU CHÊNE—the roof of engine house was renewed with Sparham cement

The station master's dwelling was overhauled, repaired and painted and the station platform repaired and partially renewed.

At SHEDIAC—new hard wood floors were put in the office and waiting rooms. The building was thoroughly overhauled, repaired, shingled and painted.

At HUMPHREY'S MILL SIDING—a new loading platform, 190 feet long by 18 feet wide, was erected.

At MONCTON—a new brick blacksmith's shop, 156 by 52 feet, was erected and additions of 250 by 67 feet and 300 by 22 feet were made to the paint shop.

The station was thoroughly overhauled, repaired and the roof re-shingled.

The station, dining room and ice house were painted.

The roof of ice house was also shingled.

New floors were laid in the waiting rooms and ticket office.

The office in the freight house was enlarged and remodelled, the walls and ceiling were sheathed with wood and a new hard wood floor was laid.

Necessary repairs were made on the twelve tenement houses.

Two buildings at the rear of the machine shop had to be removed to make room for the new blacksmith shop. When this was done they were put in good repair.

At SALISBURY—necessary repairs were made to the station and the roof re-shingled.

At PETITCODIAC—the roof of freight house was re-shingled.

At SUSSEX—the office in the freight house was overhauled, lined and filled with sawdust.

NAUWIGEWALK, RIVERSIDE and COLDBROOK stations were overhauled and painted.

A new loading platform was erected at the latter station.

At ROIHESAY—a new hard wood floor was put in the general waiting room and office.

The platform at BISHOP'S SIDING was overhauled and partially renewed.

ST. JOHN—In April last a fire badly damaged the large general freight shed. The offices were gutted; the roof and covering were badly damaged; more than one half of the windows and doors were destroyed.

The necessary repairs were made.

At BERRY'S MILLS—the platform was renewed and the roof of dwelling apartments re-shingled.

At CANAAN—a roof was re-shingled and part of the platform renewed.

At ADAMSVILLE—a new passenger station and platform were erected.

At WELDFORD—a new baggage room was built at the east end of freight house.

The agent's dwelling was thoroughly overhauled, repaired and painted.

The station platform was renewed and the loading platform recovered.

At KENT JUNCTION—the station and platform were repaired. The former was painted. A large addition was made to the freight house.

At ROGERSVILLE—a fire partially destroyed the old station. A portion of the exterior walls and roof were available for a new and much larger station that was erected.

The platform was renewed and lengthened.

At BEAVER BROOK—the station was repaired and painted.

At BARTBOGUE—The roof and floors of station were repaired.

At RED PINE—the station was thoroughly repaired and painted.

A pump house was erected for stationary engine to supply 50,000 gallon tank.

At BATHURST, PETIT ROCHER, JACQUET RIVER, NEW MILLS and CHARLO—necessary repairs were made to stations and platforms.

The latter three stations were painted.

At EEL RIVER—a new floor was laid in the office, and the platform lengthened and the old portion of it renewed.

At PETIT ROCHER, BELLEDUNE and CHARLO—new loading platforms were erected.

At DALHOUSIE JUNCTION—the station was repaired and painted. A new floor was laid in the general waiting room.

At CAMPBELLTON—the station and dining saloon were repaired and painted. New floors were laid in the carpenter's and machine shops.

At FLAT LANDS—8 miles north of Campbellton, a new station, platform and coal house were erected.

At PLEASANT BEACH—7 miles south of Causapsal, a new station, platform and coal house were erected.

At SALMON LAKE—5 miles north of Causapsal, a new station, platform and coal house were erected.

At AMQUI—the station was repaired and painted.

At SAYABEC—the station was repaired and painted. A hard wood floor was laid in the waiting-room and office.

At BERNIER'S SIDING—a new station, platform and coal house were erected.

At STE. FLAVIE—the station received large repairs and was painted.

The platform was renewed and the floor and pit timbers in round house were renewed.

Several new terra-cotta smoke-stacks were put in place of rusted iron ones.

Tank-houses at Metapedia, Mill Stream, Causapsal, Amqui and Cedar Hall, received necessary repairs.

At STE. LUCE—the station was repaired and painted; the platform was renewed.

At SACRÉ COEUR—a station and platform were erected.

At ST. SIMON, ST. ARSÈNE and TROIS PISTOLES—the stations and platforms received necessary repairs. At the latter place the platform was renewed and an ice house built for the use of the dining saloon.

At ST. ELOI—the station was repaired and platform extended.

At RIV ÈRE DU LOUP—an oil house for the use of the stores department was provided. The station, engine house and train despatcher's office received necessary repairs.

An office for clerks was fitted up in the freight house.

At ST. ALEXANDRE—the roof of freight house was reshingled.

At CAP ST. IGNACE—extra land was purchased and a new station was erected. The old station was moved and converted into a freight house.

A coal house and water closet were provided and a good road approach made to the station.

At ST. THOMAS—necessary repairs were made to the station and freight shed.

At ST. PIERRE—a loading platform was erected.

At ST. FRANÇOIS—a new coal house was erected.

At CHAUDIERE JUNCTION—necessary repairs were made to a number of tenements occupied by railway employees.

At HADLOW—the coal shed was repaired and the doors of engine house renewed.

The wood work of brick cased stations at St. Paschal, St. Pierre, St. François and St. Charles was painted.

BRIDGES AND CULVERTS.

A 4 by 2½ masonry box culvert, 60 feet long, was put in near Windsor Junction to prevent the overflow of R. Adam's field.

A new pier of cut free stone was built under the Shubenacadie bridge in place of an old rubble pier that had become unsafe. Another pier of this bridge and abutments were repaired and pointed with cement.

Two piers and abutments of iron bridge at Riversdale were repaired and pointed.

An arch culvert one mile east of Stellarton was pointed, and another one in Stellarton yard extended 25 feet to admit of another track being laid to new station.

The iron superstructure of Shubenacadie bridge (box girders, 325 feet long) were thoroughly scraped and painted inside and out.

An overhead bridge at this place was also scraped and painted.

At the Experimental Government Farm, near Nappan, an old wooden overhead trestle bridge was replaced with an iron bridge of 90 feet clear span, resting on stone abutments.

One of the piers of Sackville bridge was badly damaged by running ice in the spring of 1887.

A crib work of timber filled with stone was built around it from the foundation to high water mark at a large cost. The cut waters at either end were faced with old rails. Last winter's experience goes to show that no further trouble may be expected.

An old wooden trestle bridge of 3 spans, 30 feet, at Humphrey's Mill Brook, was replaced with iron trestles and plate girders. Stone abutments were also built and the old piers partially rebuilt and pointed.

Wooden stringers at Holme's Brook were renewed and replaced with rail girders, 18 feet clear span.

A wooden bridge at Hayward's Mill Brook was replaced with steel girders of 33 feet span.

Two pairs of old rail girders, 15 feet span, replaced wooden stringers at Pallet River and Cold Brook.

Two overhead bridges near Quispamsis were repaired; the floor of one of them was renewed.

The iron bridge at Gondola Point (30 feet span) was raised and provided with a standard timber floor.

Guard rails were put on two spans (86 feet each) of Petitcodiac iron bridge.

Additional lateral bracing was provided for the following iron bridges:—

1st Crossing, Barnaby River.....	1 Span.	100 Feet.
Bartibogue.....	1 do	80 do
Nepisiguit.....	6 do	100 do
Tête-à-Gauche..	5 do	100 do
Grant's Brook.....	1 do	80 do
Mill Stream.....	1 do	80 do

The above named bridges were overhauled and all loose rivets replaced.

The following bridges were scraped and painted:—

Konchibouguacis.....	1 Span.	80 Feet.
3rd Crossing, Barnaby River.....	1 do	80 do
2nd do do	1 do	80 do
Bartibogue.....	1 do	80 do
Red Pine.....	3 do	40 do
Nepisiguit.....	6 do	100 do
Little River	1 do	60 do
Middle River.....	2 do	80 do
Mill Creek.....	3 do	60 do
Moffat's.....	8 do	60 do
Gordon's.....	1 do	40 do
McKinnon's Brook.....	2 do	80 do
Tartague River.....	1 do	40 do
Metis River.....	4 do	100 do
3 small girders between St. Flavie and Rimouski.....	27 do	
Bennett's.....	1 do	50 do

The old cross ties on the Miramichi and Restigouche bridges (17 spans of 206 feet each) were replaced with standard floors and guard rails of Georgia pine at a large cost.

Extra floor timbers were put on deck spans of Richibucto, Konchibouguacis and Barnaby River.

New floor beams and stringers were put on 24 spans between Newcastle and Campbellton.

An underbridge with stone abutments and iron girders was erected in Bathurst yard.

The old cross ties were removed and replaced with standard timber floors on the following bridges:—

Clarke's Bridge.....	1 Span	60 feet
Kane's do	1 do	20 do
Gilmour's do	1 do	60 do
Cedar Hall do	1 do	30 do
Causapséal do	3 do	100 do
West St. Thomas Bridge.....	9 do	60 do

Nine new masonry culverts were rebuilt between Rivière du Loup and Chaudière Junction.

GENERAL.

About a half mile of double track was laid at Dalhousie Junction to connect the branch with the yard.

At New Glasgow, a double track was laid from the Junction of the Eastern Extension with main line to a road crossing in the town where a flagman is kept so that he could act as switchman as well as flagman.

About two miles of side ditching was done between Nappan and Memramcook and four miles between Rivière du Loup and St. Thomas.

Necessary repairs were made to turntables at Richmond, Truro, Moncton, Newcastle, Rivière du Loup and Hadlow.

A large quantity of rip-rap was put in to protect the masonry of Sussex and St. Paschal bridges.

A stone ash pit 60 feet long with necessary connecting drains was built at St. Flavie outside of engine house.

SNOW PLOUGHS AND FLANGERS.

Numbers 3, 23 and 54 were rebuilt. Large repairs were made on Nos. 9, 11, 17, 19, 24 and 30.

Flangers Nos. 1, 10, 11 and 19 were repaired and painted.

BRANCH LINES.

Pictou Town Branch.

The contract for grading the Pictou Town Branch referred to in my report for 1887 was completed, and the branch opened for traffic on the 17th of November last.

Siding accommodation has been provided on this branch as follows:—

	Feet.
At Stellarton.....	10,352
Drummond Crossing.....	4,100
Westville.....	2,577
Sylvester Station.....	1,007
Pictou.....	5,649
Total.....	23,685 feet=4½ miles.

The coal dust used last year as ballast would not hold up the track in cuttings, and about 8,000 yards of ashes and cinders were put on the track this year. Before the line is in first class order it will have to have a light lift of good gravel ballast.

Suitable distance and station signals have been provided at Pictou, Sylvester, Westville and Stellarton.

Wrought iron turntables 55, feet in diameter, have been provided at Stellarton and Pictou.

Considerable progress was made in filling the water lot provided by the local authorities for station ground at Pictou.

A contract was entered into for the extension of the newly acquired wharf.

Very little progress was made on account of the non-delivery of the creasoted piling.

A large baggage room was built at Pictou, also a loading platform for horses and cattle and for freight being received from and shipped to Prince Edward Island.

The old station on the railway wharf was moved north about 100 feet, turned around, and converted into a suitable freight shed.

It was thoroughly overhauled, painted, shingled and placed on a stone foundation.

I have the honor to be, Sir,

Your obedient servant,

P. S. ARCHIBALD,
Chief Engineer.

D. POTTINGER, Esq.,
Chief Superintendent,
Moncton.

INTERCOLONIAL RAILWAY.

OFFICE OF THE MECHANICAL SUPERINTENDENT,

MONCTON, N. B., 22nd September, 1888.

DEAR SIR,—I beg to submit for your information the following statements of the operations of the Mechanical Department for the year ending 30th June, 1888.

A.—Statement showing the number of locomotives, and various classes of cars.

B.—Statement showing the locomotive and car mileages, and the average number of passenger and freight cars hauled per mile run by engines.

C.—Abstract of locomotive returns.

D.—Statement of the cost of locomotive power for each month during the year.

E.—General statement of the expenses of the Mechanical Department.

During the year three sleeping cars of the latest and most approved design, fitted with electric lights, 106 box cars, 8 platform and 148 twenty-ton coal cars were purchased at cost of capital and added to the rolling stock of the road.

Four locomotives were purchased and charged to revenue, to replace four condemned. There were also built at cost of revenue one sleeping, one second-class, three postal and smoking, two baggage and express, one van, twenty box, ninety platform, forty-four hopper and three 20-ton coal cars.

The box and platform cars rebuilt were of twenty tons capacity, replacing those of only ten tons, and the hopper cars were built six instead of five tons capacity.

Eleven first-class cars, fifteen second-class, five postal, three baggage and three vans have been thoroughly overhauled and strengthened in the framing, and improved generally.

Twelve refrigerator cars have been fitted with air brakes and steam pipes to enable them to be used on steam-heated passenger trains.

Three sleeping cars, six first-class, four second-class, two postal and three baggage were fitted with electric lights; two sleeping, eight first-class, seven second-class, four postal and five baggage cars were fitted with steam heating devices. Fifteen locomotives were also supplied with equipment to supply steam to trains for heating purposes.

One hundred and eleven box, 136 gondolas and flat cars and twelve refrigerator cars have had extensive repairs, almost amounting to rebuilding, and have been strengthened to carry a load of 34,000 pounds instead of 20,000 pounds as formerly. Thirty-eight passenger cars have been painted and varnished; 297 freight cars of various kinds were repainted.

Nineteen locomotives had new extension smoke-boxes, five had new tenders, thirty-nine had new cylinders, four new fire boxes, and sixteen new caps.

The rolling stock generally is in good condition.

WATER SERVICE.

Extensive repairs and additions have been made to the water service, at the cost of working expenses.

At HADLOW—section pipe repaired, and new cover put on well at river.

At STE. ANNE—tank and house burned, a tank was put up for temporary use, and a new fifty thousand gallon tank erected, eleven hundred feet 2½ inch pipe laid, and a pumping engine and boiler put up.

At RIVIÈRE DU LOUP—trestle under one of the tanks repaired.

At ISLE VERTE—a new boiler was put in.

At ST. FABIEN—the tank here becoming old and not large enough to meet the requirements of the traffic, the right of way to the stream near there was purchased, a fifty thousand gallon tank put up, three hundred and thirty-five feet 2½ inch pipe laid, a steam pump supplied and a pump house erected.

At STE, FLAVIE—seven hundred and twenty feet 2 inch pipe laid here, from tank to ash pit.

At CEDAR HALL—reservoir rebuilt.

At CAUSAPSCAL—reservoir rebuilt and fenced.

At ASSAMETGUAGHAN—repaired reservoir, and covered with plank.

At MILLSTREAM—repaired reservoir.

At CAMPBELLTON—cleaned out reservoir, and repaired main pipe.

At DALHOUSIE—rebuilt reservoir.

At JACQUET RIVER—rebuilt reservoir, and excavated five hundred feet of ditch to conduct water from spring to reservoir.

At BATHURST—repaired trestle under old tank.

At RED PINE—the tank at this place was burned in February, 1887, a fifty thousand gallon tank, eleven hundred feet 2½ inch pipe, and a steam pump were furnished to take its place.

At NEW CASTLE—reservoir and main pipe repaired.

At CALHOUNS—reservoir rebuilt.

At GLENGARRY—New trestle under tank, and new hand pump supplied.

At STELLARTON—waterpipe repaired.

At PICTOU LANDING—reservoir rebuilt and a second-hand tank put up.

At PETITCODIAC—a fifty thousand gallon tank erected here, to replace the small old one which had become useless.

At HAMPTON—a fifty thousand gallon tank has been put up here, as the old water supply is insufficient, a new source has been arranged for, and the pipe is now being laid.

The service at other stations has been kept in good order.

I have the honor to be, Sir,

Your obedient servant,

H. A. WHITNEY,

Mechanical Superintendent.

D. POTTINGER, Esq.,
Chief Superintendent,
Moncton.

A.—INTERCOLONIAL RAILWAY.

STATEMENT showing the number of Locomotives and the various classes of Cars on the 1st July, 1887, and on the 30th July, 1888.

	The Various Classes of Cars.														Total.						
	Locomotives.	First Class Sleepers.	Second Class Sleepers.	Parlor.	First Class Passenger.	Second Class Passenger.	Postal and Smoking.	Baggage & Express.	Vans.	Box.	Cattle.	Platform, 10, 15 and 20 tons.	Hoppers, 5 & 6 tons.	Gondolas, 20 tons.		Coal Cars, 20 tons.	Total.	Snow Plough.	Wing Plough.	Flangers.	Total.
On hand, 1st July, 1887, serviceable.....	164	9	6	2	68	74	17	26	81	1,452	68	1,432	695	776	569	5,272	31	10	20	61	
do do condemned.....		1			1	2			2	5	4	4			1	26					
Total.....	164	10	6	2	69	76	17	26	83	1,457	72	1,442	695	776	567	5,298	31	10	20	61	
Purchased on capital account.....		3								106		8			148	263					3
Changed from flanger to plough.....																					
Condemned, 1st July, 1887.....	164	13	6	2	69	76	17	26	83	1,563	72	1,450	695	776	715	5,563	37	10	17	64	
Condemned during year.....		1			1	2			2	5	4	10			1	26					
Total condemned.....	4						3		4	17	4	94	44	82	11	210				3	
Less—Rebuilt.....	4	1			1	2	3	3	6	22	8	104	44	32	12	236	2			3	
Add—Serviceable and repairing.....	4	1				1	3	2	1	20		90	44		3	163	2			*3	
Total on record.....					1	1		1	5	2	8	14		32	9	73					
164 13 6 2 68 75 17 25 78 1,561 64 1,436 695 744 706 5,490 37 10 17 61		164	13	6	2	68	75	17	25	78	1,561	64	1,436	695	744	706	5,490	37	10	17	61
Total on record.....	164	13	6	2	69	76	17	26	83	1,563	72	1,450	695	776	715	5,563	37	10	17	64	

*Ploughs instead.

J. SUTTON,
Mechanical Accountant.

MONCTON, N.B., 30th June, 1888.

B.—INTERCOLONIAL RAILWAY.
STATEMENT OF Locomotive and Car Mileage for Year ending 30th June, 1888.

Months.	Locomotive Mileage.		Car Mileage.					
	Passenger.	Freight.	Passenger.	Express Postal and Baggage.	Freight.	Total.	Snow Plough Mileage.	Average Freight Passenger.
1887—July	93,706	311,272	432,082	173,650	3,858,496	4,464,258	442	12.99
August	91,127	292,685	439,005	171,064	3,966,577	4,576,646	.....	13.55
September	81,519	287,631	399,449	158,755	3,814,537	4,372,741	.....	13.27
October	77,032	325,770	336,836	159,306	4,282,151	4,778,293	.....	13.14
November	77,130	319,318	346,721	154,504	4,338,526	4,739,651	892	13.27
December	73,819	352,472	331,245	165,469	4,285,455	4,782,169	6,231	12.15
1888—January	72,639	329,639	289,327	147,452	3,676,470	4,112,249	25,629	11.16
February	70,381	352,608	290,609	144,962	4,082,534	4,518,165	20,815	11.56
March	75,471	412,987	337,348	159,848	5,242,321	5,739,517	12,281	12.39
April	77,242	359,074	395,253	157,543	4,694,352	5,247,148	1,288	13.07
May	74,770	330,755	359,366	154,223	4,297,651	4,811,240	359	12.99
June	86,992	304,174	392,792	176,426	3,896,635	4,465,853	.....	12.65
Total	951,838	3,978,415	4,350,093	1,923,132	50,335,705	56,618,930	67,937	12.62

J. SUTTON,
Mechanical Accountant.

MONCTON, N.B., 30th June, 1888.

C.—INTERCOLONIAL RAILWAY.
 ABSTRACT of Locomotive Returns for the Year ending 30th June, 1888.

Months.	Hours in Steam.	Locomotive Mileage.	Consumption.				Average Consumption per 100 Miles.				
			Tons of Coal.	Pints of Oils.	Pounds Tallow.	Pounds Waste.	Miles Run to hour in Steam.	Pounds Coal.	Pints Oil.	Pounds Tallow.	Pounds Waste.
1887—July.....	45,174	474,336	12,215	33,610	14,837	8,369	10.50	5,979	7.09	3.13	1.75
August.....	44,058	455,223	12,329	29,667	15,748	8,445	10.33	6,066	6.51	3.47	1.84
September.....	43,493	442,019	12,302	26,514	14,810	7,995	10.16	6,284	5.54	3.35	1.80
October.....	47,261	478,167	13,434	27,213	16,234	8,820	10.11	6,293	5.69	3.39	1.83
November.....	47,157	474,689	13,867	27,107	14,352	8,775	10.06	6,543	5.71	3.02	1.86
December.....	52,654	512,145	15,553	30,027	17,769	9,984	9.72	6,502	5.86	3.46	1.94
1888—January.....	55,725	507,665	15,637	32,672	14,133	9,178	9.11	6,899	6.43	2.78	1.80
February.....	57,722	526,732	16,489	37,383	17,344	9,605	9.13	7,000	7.09	3.29	1.81
March.....	65,007	607,310	18,504	43,090	19,241	11,497	9.34	6,802	7.09	3.16	1.89
April.....	51,150	515,753	14,590	35,259	14,232	9,954	10.08	6,350	6.83	2.75	1.92
May.....	46,976	481,573	12,624	33,429	11,854	9,502	10.25	5,872	6.94	2.46	1.96
June.....	43,861	460,423	12,137	34,199	12,420	9,546	10.49	5,904	7.43	2.69	2.07
Total.....	600,238	5,936,035	169,681	390,170	182,974	111,670	9.89	6,403	6.57	3.03	1.88

J. SUTTON,
Mechanical Accountant.

MONOTON, N. B., 30th June, 1888.

D.—INTERCOLONIAL RAILWAY.
 STATEMENT of the cost of Locomotive Power for each month, from 1st July, 1887, to 30th June, 1888.

Months.	Miles run by Engines, and Office Expenses.	Mechanical Supt's Salary and Office Expenses.	Engine-men's wages.	Fuel.	Oil, Tallow and Waste.	Repairs to Engines, Tenders and Tools.	Water.	Miscellaneous, including Engine-houses.	Total.	Average per 100 Miles.						
										Mechanical Supt., &c.	Wages.	Fuel.	Oil, Tallow and Waste.	Repairs.	Water.	Miscellaneous.	Total.
1887—July..	474,336	888 39	17,819 93	34,160 17	4,042 76	24,700 74	2,243 51	2,802 33	86,657 83	193 76	7 20	85 5	20 0	47 0	59	18 26
Aug..	465,223	823 53	17,901 07	35,040 19	4,113 08	23,390 12	2,172 61	2,941 62	86,382 22	183 94	7 0	91 5	13 0	47 0	64	18 97
Sept..	442,019	897 63	17,366 04	35,037 77	3,626 79	27,844 70	2,235 07	2,734 09	89,742 09	203 93	7 92	82 6	30 0	57 0	62	20 30
Oct...	478,167	978 73	18,377 43	37,918 82	3,970 50	30,304 61	2,542 51	2,898 87	96,991 60	203 84	7 92	83 6	33 0	51 0	61	20 26
Nov...	474,689	919 96	18,417 65	38,773 88	3,876 58	22,863 90	7,238 79	3,378 11	95,289 67	193 88	9 18	81 1	78 1	52 0	70	20 07
Dec...	512,145	897 15	19,094 39	42,526 73	4,337 72	16,681 44	7,212 73	4,487 55	95,237 71	173 73	3 0	85 3	26 1	41 0	87	18 59
1888—Jan...	507,665	926 50	19,765 13	44,141 39	4,345 95	24,258 39	3,268 22	4,878 75	101,584 33	183 90	3 69	86 1	78 0	64 0	96	20 01
Feb...	526,732	803 18	21,268 46	46,769 27	4,806 43	24,395 85	3,788 24	5,598 84	107,430 27	164 03	8 88	91 4	64 0	72 1	06	20 39
March	507,310	826 62	23,277 51	51,046 50	5,272 92	31,162 87	4,114 97	4,254 16	119,955 55	143 83	4 10	87 15	13 0	68 0	78	19 75
April	515,763	808 43	21,478 38	40,689 15	4,500 36	31,035 12	2,026 08	3,944 46	104,481 98	164 16	1 67	89 0	87 6	01 0	29 0	20 25
May...	481,573	848 93	20,452 69	35,751 29	4,514 03	21,583 00	2,222 39	2,866 17	83,238 60	184 25	7 42	94 4	48 0	46 0	59	18 32
June..	460,423	817 27	19,464 27	21,749 66	4,228 68	22,179 30	1,387 41	3,607 36	63,333 95	184 23	4 72	92 2	64 0	30 0	78	13 77
Total.	5,936,035	10,436 35	234,682 95	463,604 82	51,635 80	290,220 04	40,452 73	44,292 31	1,135,325 00	183 95	7 81	87 4	89 1	68 0	75	19 13

J. SUTTON,
 Mechanical Accountant.

MONCTON, N. B., 30th June, 1888.

E.—INTERCOLONIAL RAILWAY.

GENERAL STATEMENT of the Expenses of the Mechanical Department, for the Year ending 30th June, 1888.

	s.
The miles run by trains.....	,939,253
do engines.....	5,936,035
do cars.....	56,608,930
do snow ploughs.....	67,937
The cost of locomotive power.....	\$1,135,325 00
The cost of car repairs:	
Repairs to passenger cars.....	\$ 102,375 31
do postal, express and baggage cars.....	47,828 95
do freight cars and vans.....	254,493 65
Oil and waste for packing.....	36,703 85
Miscellaneous.....	1,218 59
Total cost of car expenses.....	\$ 442,620 35
The cost of locomotive power per 100 miles run by trains.....	22 97
do do do engines.....	19 13
do do do cars.....	2 00
The cost of repairs to cars per 100 miles run by train.....	8 19
do do engines.....	6 82
do do cars.....	0 71
The cost of oil and waste for packing per 100 miles run by trains.....	0 74
do do do engines.....	0 61
do do do cars.....	0 06
The cost of repairs to passenger cars per 100 miles run by them.....	2 35
do postal, express and baggage do.....	2 48
do freight cars and vans do.....	0 50

J. SUTTON,
Mechanical Accountant.

MONCTON, N.B., 30th June, 1888.

[1888]

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.
1887.						
July 1...	11.00.	Special	Freight.....	J. A. Davidson	J. Stewart	155
do 3...	6.35	9	Express	A. W. Melick.....	H. Tait,	68
do 7...	23.30	Special	Passenger	E. Cannie	D. McNeil	158
do 12...	21.00	12	Freight	A. W. Melick.....	S. Watson	43
do 13...	1.40	Special	do	W. Morgan	J. McAulay,	155
do 16...	11.30	do	do	J. Barnhill.....	A. Sproule.....	8
do 22...	10.00	.....	Shunting.....	.....	H. Corns.....	23
do 30...	12.00	.....	Freight	Geo. Sears	N. McLean	40
do 31...	24.30	.....	do	Nap. Bernier.....	P. N. Michaud	143
do 31...	24.30	.....	do	do	do	143
Aug. 1...	15.30	46	Accommodation.	Geo. Levesque.....	E. Parsons	17
do 3...	9.20	Special	Working	W. Welling,	J. Devennis.....	110
do 4...	16.25	do	Freight.....	Geo. Lears.....	Jas. Cooke,	89
do 9...	20.30	9	Express .....	.....	.....	.....
do 12...	7.00	14	Accommodation.	W. H. Donkin	Jas. McDonald.....	55
do 18...	.....	.....	.....	.....	.....	.....
do 17...	5.40	3	Accommodation.	B. White.....	J. R. Moore.....	46
do 27...	15.00	.....	Shunting .....	.....	R. Wilson	12
do 28...	1.30	Special	Freight.....	W. McClafferty.....	A. Sproule.....	32
Sept. 29...	19.40	34	Express.....	Z. Lockhart,	B. Luty.....	147

RAILWAY.

Line of the Intercolonial Railway, during the Year ended 30th June, 1888.

Place of Accident.	Name of Person Injured.	Whether Passenger or Employé.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Red Pine	J. Stewart.....	Employé .	Fell off engine.....	Arm broken	
Near Hampton...	P. Francis (Ind.)	Neither ...	Found on track with head cut.	Fatal.....	Accidental.
Lause à Gile.....	Jean Landry ...	Passenger	Fell off train while in motion.	do.....	No inquest.
Sussex	Michael Cronan	do ...	Attempting to get on train in motion.	do.....	Accidental.
Moncton.....	W. H. Wilber...	Employé .	Fell from top of car.....	Head cut.....	
Pictou Landing	Unknown	Neither ...	Jumped from engine while stealing ride.	Face bruised.....	
St. John.....	W. Lockhart...	Employé .	While coupling	Finger crushed..	
Hampton.....	— Barnes (boy)	Neither ...	Jumping on cars, was run over.	Seriously injured	
St. Moise.....	J. B. Scivis.....	Employé .	Collision with special train.	Slightly do	
do	Oliver Blier.....	do ...	do do	do do	
St. Charles.....	Aug. Dionne ...	Passenger	Attempting to get on train in motion.	Leg do	
{ Penobscues Ballast Pit...	W. Dunbrack...	Employé .	Helping to load steam shovel, was struck by falling derrick.	Fatal	do
{ Sackville....	C. Hoar (boy)..	Neither ...	Jumping on cars, was run over.	do	do
Painsec.....	G. P. King (boy)	do ...	Attempting to cross track, was struck by engine.	do	do
Truro.....	J. F. McElheney	Employé .	Fell while transferring baggage.	Thigh injured...	
Elmsdale	W. H. Donkin.	do ...	Slipped while handling freight.	Back do ...	
Folleigh.....	D. McPherson.	do ...	Slipped while stepping from trolley.	Ankle broken...	
Point du Chene.	Jas. Cole	do ...	While coupling	Finger crushed...	
Truro	J. Cummings...	do ...	do	do do ..	
Near Elmsdale...	D. McDonald...	do ...	Lifting spring, &c., on train.	Back injured....	
Dalhousie Jct... W. Gardner...	do ...	do ...	While transferring baggage.	Hand crushed... ..	

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada

Date.	Time of Day.	Number of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1887.						
Sept. 2...	16.00	Special.	Working	H. Paneau	Jas. Howie..	52
do 7...	19.00	do	Freight	W. Morgan..	Jas. McAulay	149
do 9...	9.00	do	do	C. B. Humphrey	D. McQuarry	113
do 10...	19.00	do	do	W. Welling.....	J. Gratton	122
do 13...	20.55	9	Express	Jas. William.....	Geo. Ross.....	157
do 16...	11.10	49	Freight	J. Guay	F. Gosselin.....	21
do 20...	14.30	Special.	do	Geo. C. Keys.....	N. Cummings..	172
do 22...	14.00	.....	.....	.....	.....	.....
do 25...	5.15	Special.	Freight	W. Crockett.....	D Taylor	73
do 15...	20.30	do	do	A Bernier.....	W. Duncan	142
do 22...	13.40	do	do	J. L. Hebert.....	L. Duncan.....	142
do 22...	13.40	do	do	do	do	142
do 22...	13.40	do	do	do	do	142
do 22...	13.40	42	Accommodation.	D. Morin	H. Gorham	107
do 22...	13.40	42	do	do	do	107
do 24...	Night	.....	.....	.....	.....	.....
do 27...	14.45	37	Freight	D. Hunter	J. Stratton	144
do 29...	.....	.....	.....	.....	.....	.....
Oct. 1...	.....	.....	.....	.....	.....	.....
do 5...	.....	.....	.....	.....	.....	.....
do 4...	3.00	Special.	Freight	S. Nickerson.....	P. McKenna	125
do 6...	6.55	39	do	M. Cummings.....	J. Morton.....	29
do 10...	16.00	.....	Shunting .....	.....	Geo. Currie	93
do 11...	10.00	Special.	Freight	Geo. C. Keys... ..	John Edwards	62
do 18...	7.00	.....	Shunting .....	.....	P. Fogarty.....	101
do 18...	8.00	.....	do .....	.....	John LaBoute	97
do 19...	20.00	.....	do .....	.....	Chas. McHugh.....	18
do 20...	7.30	Special.	Freight	A. C. McLean	F. Miller.....	167

RAILWAY.

on the Line of the Intercolonial Railway, &c.—Continued.

Place of Accident.	Name of Person Injured.	Whether Passenger or Employé	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Rogersville	Mel Tracy.....	Employé .	While applying brake. ...	Back injured.....	
Quispamsis	C. Thompson...	do ...	While coupling.....	Finger do ...	
Newcastle	Isaac King, ...	do ...	do	do do ...	
Spring Hill J'ct.	Chas. Wilson...	do ...	do	do do ...	
Truro.....	Jas. Gaston.....	Neither ...	Fell while getting off train.	Fatally injured..	Accidental.
St. Paschal.....	A. Coubron ...	Employé .	While coupling, was run over.	Leg cut off.....	
New Glasgow....	A. McPherson.	do ...	Fell off car	Wrist broken....	
Richmond	Wm. Payne	do ...	Unloading car of axles...	Fingers crushed.	
Gloucester J'ct..	A R Leblanc.	do ...	While coupling	do do ...	
Oausapsal	H. Bastille.	do ...	While applying brake, fell between cars.	Seriously injured	
Little Metis.....	L. Duncan	do ...	Collision with No. 42 train	Fatal	do
do	Alex Grant.....	do ...	do do	Seriously injured	
do	Naz. Beaulieu..	do ...	do do	Knee do	
do	H. Gorham	do ...	Collision with special train.	Leg broken.....	
do	A. McAllister..	do ...	do do	Slightly injured.	
Moncton.....	Eliza Bailey...	Neither ...	Found lying on track....	Fatal.....	Accidental.
Bathurst.....	Geo. McGuire..	Employé .	While coupling.....	Finger crushed..	
Wentworth.....	Neil Purdy	Neither ...	Loading piling on car....	Fatal.....	No inquest.
Rogersville.....	Maud Miller. ...	do ...	Found on side of track..	do	Accidental.
Dalhousie Junc..	A. Campbell...	do ...	Jumping between cars....	Arm broken.....	
Moncton.....	J. Harvey.....	Employé .	While coupling.....	Thumb injured..	
Bartibogue.....	Peter Young....	do ...	Struck by train	Seriously injured	
Richmond	A. Drysdale...	Neither ...	Fell off hopper car	Arm dislocated .	
Stellarton	John Spain.. ..	Employé .	While coupling.	Leg broken.....	
Moncton.....	Jas. Arburg....	do ...	Stepping on engine.....	Shoulder injured	
Rivière du Loup	Jos. Cauchon...	do ...	While coupling	Hand crushed....	
Moncton.....	Wm. Lockart...	do ...	do	Fingers do ...	
Westville	J. Whalley.....	do ...	Telephone post fell on him	Head cut.	

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada

Date.	Time of Day.	Number of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1887.						
Oct. 26...	12.00	Special.	Freight	A. C. McLean	J. Ferguson	8
do 27...	12.00	do ...	do	E. S. Vey.....	M. Fuller.....	.....
do 31...	21.00	do ...	do	J. Guay.....	J. Belleau ...	28
do 31...	17.10	38	do	P. E. Heine.....	C. A. Atkinson.....	144
Nov. 1...	8.45	Special.	do	J. Michaud.....	W. E. Turner.....	84
do 5...	.....	.....	.....	.....	D. McQuarry..	113
do 7...	12.10	Special.	Freight	C. B. Humphrey	John Stewart.....	42
do 8 ..	5.20	.....	Shunting .....	.....	C. McHugh.....	18
do 11...	3.30	10	Express	C. J. Rhodes.....	John Ross.....	157
do 24...	23.30	Special.	Freight.....	.....	D. McQuarry.....	148
Dec. 2...	.....	.....	.....	.....	.....	.....
do 2...	17.15	42	Accommodat n	F. Drummond.....	John Gilker	78
do 4...	3.00	5	Freight	W. J. Campbell.....	J. Gilfillan.....	53
do 5...	5.25	Special.	do	Alex. Grant	James Sproule	170
do 5...	5.25	do ...	do	do	do	170
do 5...	5.25	do ...	do	do	do	170
do 5...	5.25	do ...	do	do	do	170
do 5...	5.25	do ...	do	do	do	170
do 5...	5.25	do ...	do	do	do	170
do 5...	5.25	do ...	do	do	do	170
do 9...	22.00	do ...	do	J. Craigie	R. Wilson	22
do 9...	10.25	63	do	W. Foster	A. Scott.....	30
do 10...	22.00	Special.	do	Alex. Mitchell	H. Cummings... ..	11
do 13...	4.24	9	Express	W. Kelly	R. Carr.....	155
do 13...	13.40	Special.	Freight... ..	W. Crockett.....	J. Stewart	45

RAILWAY.

on the Line of the Intercolonial Railway, &c.—Continued.

Place of Accident.	Name of Person Injured.	Whether Passenger or Employé	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Londonderry	J. Whalley	Employé	While coupling	Foot sprained...	
Indiantown.....	R. P. Ripley....	do ..	Slipped while getting on car.	Hip injured.....	
Ste. Valier.....	P. Pardif	do ..	Ran against semaphore wire.	Face do	
Chatham Junc...	Wm. Carbey....	do ..	While coupling	Fingers crushed	
Ste. Flavie.....	S. Leveque....	do ..	do	Hand do	
Moncton	S. Watters	do ..	While trucking freight...	Groin hurt	
Kent Junction..	C. B. Humphrey	do ..	Jumping from one car to another.	Side wrenched...	
Moncton	S. Blackney....	do ..	While coupling	Hand injured. ...	
Aulac	Ab. Young	Passenger	Fell off train while in motion.	Fatal.....	Accidental.
Campbellton...	Geo. Spears....	Employé	Fell off tender of engine	Wrist sprained...	
St. John.....	J. Henderson...	do ..	Unloading baggage from train.	Finger crushed..	
Causapscah...	A. Thomson....	do ..	While putting fire in engine.	Slightly injured.	
Hampton	W. J. Campbell	do ..	While holding brake.....	Hand & arm do	
Stellarton	Wm. Eastwood	do ..	Boiler of engine 170 exploded.	Fatal.....	do
do	Dan. Robertson	do ..	do do ..	do	do
do	Alex. Murray..	do ..	do do ..	do	do
do	Alex. Fraser...	Other ..	do do ..	do	do
do	W. E. McLean..	Employé	do do ..	Slightly injured	
do	Alex. Grant....	do ..	do do ..	do	
do	John Melnis...	do ..	do do ..	do	
do	A. Chisholm...	do ..	While shunting fell into hopper car.	Legs injured.....	
Pictou.....	A. Calder.....	do ..	Fell from top of box car.	Slightly injured.	
New Glasgow...	Jas. Pursell...	Neither ..	Found lying on side of track.	Foot cut off.....	
Near Salisbury..	J. B. Gresham..	Passenger	Ventilator in car fell on him.	Leg injured.....	
Kent Junction ...	Thos. Buckley..	Employé	While coupling	Body crushed ...	

[1888]

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada

Date.	Time of Day.	Number of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1887.						
Dec. 14...						
do 17...	16.00		Shunting		O. Brook.....	96
do 19...	12.15	Special.	Freight.....	James Daley.....	W. F. Hicks.....	119
do 20...	19.30	39	do	A. McPherson.....	P. Ashe	37
do 21...	17.45	Special.	do	W. W. Irving.....	James Stewart.....	45
Dec. 23...	7.30	Special..	Freight.....	A. C. McLean	P. Fullerton.....	124
do 23...	7.30	do ..	do	G. McElhinney.....	P. Peterson.....	123
do 28...	9.00	do ..	do	W. Welling.....	O. McGilley.....	118
do 29...	11.10		Shunting		R. James	100
do 31...	13.05	Special..	Freight.....	J. J. Daley.....	J. G. McDonald.....	121
do 31...	14 10	do ..	do	A. B. Vance	E. Blair.....	66
Nov. 1...	8.30		Shunting		W. Lovett	93
do 14...	9.00		do		P. Fogarty.....	101
do 17...	6.35	Special.	Freight.....	W. Welling.....	N Sinclair.....	125
1888.						
Jany. 5...	23.30	do ..	do	J. L. Hebert	F. Probert	149
do 7...	17.30	do ..	do	John Barry.....	A. L. Doig.....	3
do 7...	24.30	do ..	do	J. Craigie.....	P. O'Toole.....	32
do 9...	22.30		Shunting		C. McHugh.....	18
do 11...	4.00	Special..	Freight.....	G. Lamkie.....	Jno. Gratton.....	44
do 12	21.25	do ..	do	F Morency.....	W. Brock.....	141
do 13...						
do 14...	24.30	Special..	Freight.....	W. Marchesault.....	L. Dutel.....	85
do 16...	6.45	do ..	do	Geo. Sears.....	G. B. Story.....	60
do 17..	12.30		Shunting		W. Mackie.....	97
do 17...	15.35	34	Express	Geo. Walker.....	H. Turner.....	15
do 20...	9.00		Shunting		J. W. Boyd.....	95
Feb'y. 1...	21.30	Special..	Freight.....	P. Bouchard	Jas. Scott	146

RAILWAY,

on the Line of the Intercolonial Railway, &c — *Continued.*

Place of Accident.	Name of Person Injured.	Whether Passenger or Employé.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Pictou Landing.	D. Chisholm ...	Employé...	Lifting piece of iron.....	Back injured....	
Chaudière	Jos. Cannie.....	do ...	While coupling.....	Finger cut off...	
Near Dorchester	Thos Landry...	do ...	Unloading hand car was struck by train.	Fatal.....	Accidental.
Canaan.....	R. Davidson...	do ...	While turning switch....	Wrist sprained..	
do	Cbas. Reid	do ...	Fell off box car.....	Seriously injured	
Near Union	J. W. Hill	do ...	Collision with spec'l train	Seriously injured	
do	J. Fitzpatrick.	do ...	do do	Slightly do	
Amberst.	Henry McPhee	do ...	While shunting.....	Finger crushed.	
St. John.....	Wm. Lattimore	do ...	While coupling	Arm do ...	
Near Alton.....	L.F. Hennessey	do ...	Fell from train.....	Fatal.....	Accidental.
East Mines.....	Thos. Tornney	do ...	While coupling.	Thumb crushed..	
Richmond	Alex. Locke...	do ...	do	Hand injured...	
Moncton	Geo. Armstrong	do ...	Fell off car.	Leg do	
Nappan.	Wm. Manship.	do ...	While coupling	Hand do	
Sayabec..	J. L. Hebert...	do ...	While turning turntable.	Chest do	
St. Paschal.....	E. G. Charette	Neither...	Crossing track with team	Slightly crushed	
Shubenacadie...	J. Craigie.	Employé..	Train broke apart and parts collided.	Nose broken.....	
Moncton.	J. Osborne	do ...	While shunting.....	Wrist crushed ...	
Bathurst.	J. Gratton	do ...	Slipped while getting off engine.	Leg broken.....	
St. Roch.....	J. Delisle.. ..	do ...	While coupling.....	Hand injured....	
Pictou Landing.	Isaac Wall.....	do ..	Loading freight.	Knee do ...	
St. Charles.....	J. Conley.. ..	do ...	While coupling.....	Finger do ...	
Spring Hill Junc	J. C. Gunn....	do ...	do	do do ...	
Rivière du Loup	A. Fournier....	do ...	do	Hand crushed...	
Bic.....	P. Beaulieu....	Neither...	Struck by engine while crossing track.	Seriously injured	
Truro	Wm. Yeomans.	Employé..	While coupling.....	Hip injured.....	
Ste. Flavie.....	Jas. Bonville...	do ...	do	Finger injured...	

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada

Date.	Time of Day.	Number of Train	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1888.						
Feb. 3...	21.50	.....	Shunting. ....	.....	J. McHugh.	18
do 3...	12.45	45	Express.	J. Barry.	Jas. Miller.	132
do 3...	12.45	45	do	do	do	131
do 3...	8.45	Special.	Freight.	H. D. Archibald.	P. O'Toole.	32
do 4...	20.10	do ..	do	W. McClafferty.	do	7
do 2...	23.05	47	Accommodation.	B. Walker.	J. Cloutier.	85
do 6...	7.05	18	Freight.	J. W. Miller.	M. Wall.	136
do 7...	10.30	.....	.....	.....	W. Smith (N. B. Ry.).	15
do 7...	14.00	.....	Shunting. ....	.....	E. Tobin.	93 ⁺
do 12...	12.30	Special.	Freight.	D. Brownell.	Jas. Howe.	186
do 13...	11.55	30	Express.	Jno McFadyen.	J. H. Moore.	69
do 13...	13.30	Special.	Freight.	Chas H. Bass.	G. Sinclair.	89
do 14...	6.00	do ..	Plough train.	— Graves.	P. McKinnon.	45
do 16...	14.50	do ..	Snow train.	W. Hains.	J. Smith.	130
do 18...	18.28	4	Accommodation	B. White.	J. R. Moore.	46
do 18...	10.45	.....	Shunting. ....	.....	W. Appleton.	83
do 21...	8.00	Special	Freight.	S. G. Nickerson.	H. Trites.	114
do 22...	6.50	.....	Shunting. ....	.....	J. Devereaux.	6
do 25...	11.05	Special	Freight.	W. Foster.	A. Scott.	42
do 28...	10.30	do ..	do	H. Archibald.	H. Cummings.	173
do 28...	.....	.....	.....	.....	.....	.....
March 1...	8.00	.....	Shunting. ....	.....	Robt. James.	100
do 3...	8.45	Special	Freight.	Jas. McDonald.	J. Ferguson.	66
do 14...	14.00	.....	.....	.....	.....	.....
do 15...	12.30	do ..	Freight.	J. Rushton.	G. Longley.	166
do 21...	14.10	do ..	do	J. J. Daley.	J. G. McDonald.	123
do 23...	7.15	38	do	J. P. McGuire.	Jas. Stratton.	22
do 26...	20.20	35	Accommodation.	Z. Lockhart.	P. Ashe.	63

RAILWAY.

on the Line of the Intercolonial Railway, &c.—*Continued.*

Place of Accident	Name of Person Injured.	Whether Passenger or Employé	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Moncton.....	A. Harrison.....	do ...	do	Thumb do ...	
Cap St. Ignace.	J. Miller	do ...	Train derailed	Slightly do ...	
do ..	G. Langlois ...	do ...	do	do do ...	
Spring Hill Junc	Thos. Noiles... ..	do ...	Hand car struck by train	Fatal... ..	Accidental.
Evan's Siding...	W. Densmore..	do ...	While coupling.....	Fingers crushed	
St. Alexandre ...	Geo. Begin	do ...	Fell off engine	Head injured ...	
Stellarton	Thos. Lester... ..	do ...	Fell over end of car.....	Foot do ...	
St. John.....	A. Phillips.....	do ...	Knocked off ladder by engine.	Considerably injured.	
Richmond	Wm. Hartleer..	do ...	While coupling	Fatal	do
Bartibogue.....	S. Chapman....	do ...	Slipped while putting fire in engine.	Back injured ...	
Painsec.....	R. Johnston ...	do ...	Died suddenly in car ...	.....	Natural causes
Amherst	H. Harris.....	do ...	While coupling.. ..	Hand crushed...	
East New Mills..	J. Patrick (Ind)	Neither...	Struck by engine.. ..	Head injured....	
Campbellton ...	W. Thompson..	Tem. emp.	Fell off car.. ..	Fatal... ..	Accidental.
Shediac	W A McManus	Employé.	While coupling . ..	Slightly injured.	
Halifax.....	W. Pickering...	do ...	do	Leg do	
Newcastle...	W. O'Donnell..	do ...	do	Seriously do	
Ste. Flavie.....	Alph. Madore..	do ...	Struck by engine while snowelling snow.	do do	
Albion Crossing.	J. McNaughton (b y)	Neither..	While coasting on sled ran into train.	Fatal... ..	do
Hopewell.	Robt. Cullen...	Employé..	While oiling engine.	Arm crushed... ..	
Truro	Jno. Glenfield.	do ...	Semaphore arm struck his head.	Seriously injured	
St. John	Wm. McLeod..	Employé.	While coupling.....	Eye injured	
Humphrey's	J. Fitzpatrick	do ...	do	Finger crushed.	
St. John.....	H. McDevitt....	do ...	While unloading freight	Hand injured .	
Red Pine.	Albert Lyon....	do ...	Jumped from engine	Back do	
Eureka Siding..	A. Langell.....	do ...	Jumped from train.....	Leg sprained....	
Campbellton....	John Hains....	do ...	Slipped on gondola car..	Leg injured	
Dalhousie Junc't	Jas. Card	do ...	Fell off box car.....	Side do	

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada

Date.	Time of Day.	Number of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1888.						
Mar. 28...	5.30	.....	Shunting .....	.....	G. McHugh	18
do 30...	10.40	.....	do .....	.....	J. Stewart	74
do 30...	12.00	Special.	Freight.....	E. Rioux	J. Smith	37
April 4...	19.00	.....	Shunting .....	.....	J. Phinney..	33
do 5...	8.30	Special.	Freight.....	H. Archibald.....	F. Miller	167
do 10...	1.40	do ..	do	C. McDougall.....	R. Campbell.....	39
do 16..	14.00	do ..	do	T. W. Johnson	P. O'Toole	125
do 18...	9.00	.....	.....	.....	.....	.....
do 19...	12.00	Special.	Freight.....	T. W. Johnson	E. Blair	56
do 21...	16.35	34	Express	E. McKenna.....	Jas. Deveraux	6
do 26...	21.15	.....	Shunting.....	.....	C. McHugh	18
do 27...	14.20	Special	Freight.....	G. Margeon.	F. Hennessy.....	102
do 30...	18.00	.....	Shunting.....	.....	F. Probert	18
May 3...	8.45	Special.	Freight.....	A. P. Vance	J. Wall	196
do 3...	4.40	do ..	do	W. M. Thompson.. ..	{ R. H. Coggan..... A. W. White	{ 22 43 }
do 8...	9.15	.....	Shunting .....	.....	E. Tobin	93
do 12...	21.00	.....	do .....	.....	D. Yould.....	95
do 16...	4.25	Special.	Freight.....	J. P. Dubé	W. Murphy	2
do 17...	20.48	10	Express	J. Millican	H. Tait	155
do 31...	.....	.....	.....	.....	.....	.....
June 8...	23.30	.....	Shunting .....	.....	M. O'Brien.	99
do 16...	21.00	34	Express	T. Corbett.....	W. D. Martin	128
do 20...	8.05	Special	Freight.....	G. O. Keys.....	H. Cummings.....	173
do 21...	24.50	do ..	do	R. J. Rutherford	{ P. Peterson..... D. Yould	{ 8 167 }
do 23...	14.00	63	do	J. J. Daley.....	.....	.....
do 25...	16.00	Special	do	H. Archibald	P. Wilson	67

RAILWAY.

on the Line of the Intercolonial Railway, &c.—*Continued.*

Place of Accident.	Name of Person Injured.	Whether Passenger or Employé.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Moncton.....	R McIntyre....	do ...	While coupling.	Fingers crushed.	
Newcastle	Chas. Reid	do ...	do	Foot do ...	
Little Metis.....	Oscar Roussell.	do ...	Fell from engine.....	Arm injured	
Truro	Thos. Leister...	do ...	While coupling.....	Finger crushed..	
Stewiacke	W. King	do ...	Fell from engine.....	Slightly injured	
Red Pine.....	R. M Murray	do ...	Slipped on track ...	Knee do ...	
West River	—Doyle	do ...	Rail fell on foot.....	Toes do ...	
Truro	N. Hopper.	do ...	While unloading freight	Finger do ...	
Londonderry ...	Jas. Irvine	do ...	While coupling.....	do do ..	
East of St. Flavie	E. McKenna....	do ..	Fell from train.	Slightly do ...	
Moncton	J. Osborne	do ..	While coupling.....	Leg do ...	
do	D. Henders	do ...	Fell from box car.....	Seriously do ...	
do	E. Harvey.	do ...	While coupling.....	Hand crushed....	
Lorne Siding... ..	G. Kennedy....	do ...	do	do ..	
Chaham Junc't.	T. G. Stratton	do ...	do	do ...	
Richmond	F. Ritchie.....	do ...	do	do ...	
Truro	John Browa...	do ...	do	do ...	
Millstream	M. Archibald..	Neither...	Crossing track was struck by engine.	Fatal	Accidental ...
Petitcodiac.	—Dodson.	Passeng'r.	Walked or fell off train..	Slightly injured	
St. John	Chas. Mitchell.	Employé.	While moving freight....	Severely do ...	
Moncton.	A. Lockhart ...	do ...	While coupling.....	Thumb crushed.	
Jacquet River....	J. Montgomery	do ..	Trunk fell on foot.....	Toe injured.....	
Pictou Landing	D. Fraser.	do ...	While coupling	Hand crushed....	
Elmsdale	J. Fitzpatrick	do ...	do	Thumb do ...	
Truro	P. McLellan....	do ...	While cleaning lamp....	Wrist cut.	
Westville.	—McIntyre.....	do ...	While coupling	Fingers crushed.	

APPENDIX No. 7a.

EASTERN EXTENSION RAILWAY.

OFFICE OF THE CHIEF SUPERINTENDENT,

MONCTON, N.B., 18th October, 1888.

SIR,—I have the honor to submit the following report on the working of the Eastern Extension Railway for the fiscal year which ended on the 30th June, 1888.

I enclose the report of the Chief Engineer on the permanent way and works, the report of the Mechanical Superintendent on the rolling stock, and the following statements prepared by the Chief Accountant and Treasurer.

No. 1. Capital account.	
2. Revenue account	
3. Locomotive power	(Abstract No. 1)
4. Car expenses	(do 2)
5. Maintenance of way and works	(do 3)
6. Station expenses	(do 4)
7. General charges	(do 5)
8. General Balance	

The length of railway operated was the same as last year—80 miles.

The capital account remains the same as last year—\$1,284,495.76.

There is a considerable increase in the gross earnings, as follows:—

1887-88.....	\$70,552 20
1886-87.....	64,107 10
	<u>\$6,445 10</u>

This increase was in both passenger and freight traffic, and about equal proportions in each.

The expenditure compared with last year is as follows:—

1886-87.....	\$94,254 04
1887-88.....	90,954 73
	<u>\$ 3 299 31</u>

The earnings and expenditure for the year compare as follows:—

Expenditure	\$90,954 73
Earnings.....	70,552 20
	<u>\$20,402 53</u>

The whole of the permanent way and works were maintained in good repair, and some improvements were made.

To give greater facilities for traffic 690 feet of sidings were laid and several buildings and platforms were erected, and some were extended.

Fifty-one miles of new fences were built, and 33,913 new ties were put into the track.

The steam ferry boat at the Strait of Canso received considerable repairs.

The rolling stock is in good condition. One locomotive and 56 hopper coal cars were re-built, the cost being charged to working expenses.

These new hopper coal cars were built according to the improved plans of the Intercolonial Railway, and are larger and stronger than the ones they replaced, and have a carrying capacity of one ton each more than they had.

I have the honor to be, Sir,

Your obedient servant,

D. POTTINGER,

Chief Superintendent.

COLLINGWOOD SCHREIBER, Esq.,

Chief Engineer and General Manager

Canadian Government Railways, Ottawa.

No. 1.—EASTERN EXTENSION RAILWAY.

CAPITAL ACCOUNT, Year ending 30th June, 1888.

DR.

CR.

1888.		\$	cts.	1888.		\$	cts.
June 30.....	To cost of road and equipment.....	1,284,495	76	June 30.....	By Dominion of Canada.....	1,284,495	76
		-----				-----	
		1,284,495	76			1,284,495	76

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N. B., 30th June, 1888.

No. 2—EASTERN EXTENSION RAILWAY.
REVENUE ACCOUNT, Year ending 30th June, 1888.

CR.

DR.

Year ending 30th June, 1887.	Expenditure.	Year ending 30th June, 1888	Year ending 30th June, 1887.	Earnings.	Year ending 30th June, 1888.
\$		cts.	\$		cts
14,933 56	Locomotive power	17,356 01	35,619 72	Passenger traffic	38,406 43
9,336 87	Car expenses	11,766 68	20,275 83	Freight traffic	23,035 81
51,311 64	Maintenance of way works	43,845 04	8,181 55	Mails and sundries	8,109 97
7,484 87	Station expenses	7,474 28	64,107 10	Balance	70,552 20
11,187 10	General charges	10,552 72	30,146 94		20,402 53
94,254 04		90,954 73	94,254 04		90,954 73

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1888.

No. 3.—EASTERN EXTENSION RAILWAY.

LOCOMOTIVE POWER—(Abstract No. 1.)

Year ending 30th June, 1887.		Year ending 30th June, 1888.	
\$	cts.	\$	cts.
	Mechanical Superintendent's salary, Clerk's, office and travelling expenses.	75	15
3,373	47 Wages, Drivers, Firemen and Cleaners.	3,413	29
5,811	13 Fuel	7,062	81
655	98 Oil, tallow, waste and small stores	788	11
3,805	89 Repairs to engines, tenders and engine tools	4,556	68
517	10 Water, including pump and tank repairs	701	92
770	01 Miscellaneous	753	05
14,933	56	17,358	01

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N. B., 30th June, 1888.

No. 4. — EASTERN EXTENSION RAILWAY.

CAR EXPENSES—(Abstract No. 2.)

Year ending 30th June, 1887.		Year ending 30th June, 1888.	
\$	cts.	\$	cts.
1,794	78 Repairs to passenger cars	3,001	70
928	52 do postal, express and baggage cars	1,613	31
1,601	92 do freight cars and vans	1,419	28
4,367	80 Wages of conductors, train baggage masters and brakemen	4,954	97
366	65 Oil and waste for packing	303	09
196	12 Small stores and fuel	367	60
81	08 Miscellaneous	53	73
9,338	67	11,726	68

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N. B., 30th June, 1888.

No. 5 — EASTERN EXTENSION RAILWAY.
MAINTENANCE OF WAY AND WORKS—(Abstract No. 3).

Year ending 30th June, 1887.	—	Year ending 30th June, 1888.
\$ cts.		\$ cts.
21,475 18	Wages repairing roadway, fences, semaphores.	23,191 03
1,093 00	Rails and fastenings.	893 40
13,518 68	Ties	7,124 30
9,706 71	Timber, lumber, &c., for repairs to bridges, fences, &c.	9,369 66
2,745 25	Repairs to wharves	85 55
1,009 56	do buildings and platforms	1,346 98
702 30	do snow ploughs, flangers and tools.	365 88
1,023 4	Clearing ice and snow	1,426 24
40 58	Miscellaneous	39 02
51,311 64		43,845 04

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1888.

No. 6.—EASTERN EXTENSION RAILWAY.
STATION EXPENSES—(Abstract No. 4).

Year ending 30th June, 1887.	—	Year ending 30th June, 1888.
\$ cts.		\$ cts.
6,266 82	Salaries and wages of Station Masters, Agents, Clerks, Telegraph Operators, Baggage Masters, Yard Masters, Switchmen, Watchmen and Laborers...	5,928 91
1,181 63	Fuel, oil, light, stationery, tickets and other incidental expenses	1,515 37
33 42	Miscellaneous .....	.....
7,484 87		7,474 28

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1888.

No. 7.—EASTERN EXTENSION RAILWAY.

GENERAL CHARGES—(Abstract No. 5).

Year ending 31st June 1887.		Year ending 30th June, 1888.
\$ cts.		\$ cts.
1,204 83	Superintendent, Train Despatchers, Clerks, office and travelling expenses...	.....
519 62	Accounting Department, salary of the Accountant and Auditor, Clerks, office and travelling expenses	500 04
6 01	Advertising	116 10
1,386 05	Damages to men, animals and goods	409 24
7,939 05	Ferry	9,491 73
6 52	Telegraph expenses (not including pay to Operators).....	3 30
125 02	Miscellaneous	32 31
11,187 10		10,552 73

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N. B., 30th June, 1888.

No. 8.—EASTERN EXTENSION RAILWAY.

DR. GENERAL BALANCE, Year ending 30th June, 1888.

CR.

	\$ cts.		\$ cts.
General stores.....	6,599 73	Dominion of Canada.....	7,893 78
Stations.....	1,569 88	Stations.....	.....
Cash	1,065 30	Maine Central Railway.....	1,676 92
Rents.....	29 00	International Ss. Company.....	1,438 10
Fines and rewards.....	8 30	Boston and Maine Railway....	388 40
Canada Atlantic Railway.....	1 20	Bras d'Or Steamship Co.....	51 25
Cooke & Son.....	29 53		
Grand Trunk Railway	36 24		
Western Union Telegraph Co.....	572 09		
Morrison & Co.....	4 50		
Yarmouth S. S. Co.....	2 40		
Boston Halifax and P. E. I. Ss. Co..	1 25		
Departmental accounts—			
Militia Department.....\$ 80 64			
P. O. Department..... 1,448 48			
	1,529 04		
	11,448 45		11,448 45

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N. B., 30th June, 1888.

 EASTERN EXTENSION RAILWAY.

CHIEF ENGINEER'S OFFICE,

MONCTON, N. B., 20th September, 1888.

SIR,—I have the honor to submit the following report on the maintenance of the Eastern Extension Railway for the year ending 30th June, 1888.

The mileage remains the same as last year.

SIDINGS.

During the year the sidings at Barney's Brook and Antigonish were lengthened 60 and 240 feet each, respectively.

A new siding was put in at the latter place 390 feet long.

TIES.

During the year 33,913 ties were renewed.

FENCING.

During the year 51 $\frac{3}{4}$ miles of new barbed wire, lath wire, and woven wire, fencing were erected in place of decayed pole and board fencing.

The cost of the fencing was \$16,779.09, as against \$15,461.97 last year.

Large repairs were made to the snow fences and remaining old pole and barbed wire fence.

WHARVES AND COAL TRESTLES.

Necessary repairs were made to Mulgrave Wharf.

Iron bands were put around the corners of Port Hastings wharf to prevent the outting of the fenders by ice.

BUILDINGS AND PLATFORMS.

At MERIGOMISH the platform was extended 40 feet. Sixty feet of the old platform was renewed.

FRENCH RIVER platform was extended 36 feet, and 135 lineal feet of the old platform was renewed.

Necessary repairs were also made to this station.

At AVONDALE the platform was extended 72 feet.

At DEWAR'S MILLS a small freight house, 16 by 20 feet, was erected.

At BARNEY'S RIVER, JAMES RIVER and ANTIGONISH the platforms were extended 72 feet each.

At the latter place one-half of the old platform was renewed and the station painted.

An addition of 38 feet was made to the freight house and freight platform.

HEATHERTON platform was extended 72 feet.

BAYFIELD old platform was renewed.

At TRACADIE the platform was extended 72 feet.

The flag station at LITTLE TRACADIE was moved to a new site about one mile west, to a place called Linwood. A new platform was erected.

At HARBOR BOUCHE the platform was extended 72 feet. The station was thoroughly overhauled, repaired and painted.

BRIDGES AND CULVERTS.

At PINE TREE GUT 210 lineal feet of the floor was renewed and 4 new trestle bents put in.

Twenty-five new floor beams were renewed in Sutherland's River Howe truss.

A new trestle bent was put under stringer of Little Gut bridge.

Sixteen braces were renewed in Murphy's Mill bridge.

Twenty floor beams were renewed in Yankee Grant bridge.

A new floor 141 feet long was put on Dewar's trestle bridge, also on Grant's pile bridge. Five new trestle bents were also put in under this latter bridge.

New floors were put on Baxter's and McDonald pile bridges; 4 new bents were put in the former.

Large renewals were made to wooden trestle bridge near Mulgrave. A new floor and 6 new bents were put in Pirate Harbor trestle bridge.

Twenty-three floor beams, 19 braces and 12 counter braces were put in James River Howe truss. The top chord damaged by fire was also repaired.

Thirty-nine floor beams, 14 braces and 2 new bents were put in Pomquet pile bridge.

Four bents of West River pile bridge were renewed.

Forty pairs of stringers, cattle guards and open culverts were renewed during the year.

Seventy one new farm gates were put up in place of those broken and decayed.

The planking was renewed on 47 farms and 12 public crossings.

The track has been well maintained and is in good running order.

I am, Sir,

Your obedient servant,

P. S. ARCHIBALD,

Chief Engineer.

D. POTTINGER, Esq.,
Chief Superintendent,
Moncton.

EASTERN EXTENSION RAILWAY.

MECHANICAL SUPERINTENDENT'S OFFICE,
MONCTON, N.B., 10th October, 1888.

DEAR SIR,—I beg to submit the following statements concerning the rolling stock on the Eastern Extension Railway:—

It consists of:—

- 9 engines.
- 6 first class passenger cars.
- 4 second class do
- 4 postal, baggage and express cars.
- 2 conductor's vans.
- 25 box cars.
- 5 cattle cars.
- 70 platform cars.
- 150 5 ton hopper coal cars.

During the year, one locomotive, and fifty-six hopper coal cars, to carry six tons, instead of five were rebuilt, at the cost of working expenses.

The rolling stock generally, is in good condition.

The water service has been maintained, but no improvements were made, in it.

I am, Sir,

Your obedient servant,

H. A. WHITNEY,

Mechanical Superintendent.

D. POTTINGER, Esq.,
Chief Superintendent,
Moncton.

EASTERN EXTENSION RAILWAY.

RETURN of Accidents and Casualties which have occurred in Canada on the Line of the Eastern Extension Railway, during the Year ended 30th June, 1888.

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.	Place of Accident.	Name of Person Injured.	Whether Passenger or Employé.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
1888.												
June 27	7.20	66	Freight....	Finlay Ross ...	A. Dunbar....	56	Anigonish.....	— McIsaac (boy)	Neither...	While coupling cars.	Fingers crushed.	

MONCTON, N.B., 7th September, 1888.

APPENDIX No. 7b.

WINDSOR BRANCH RAILWAY.

OFFICE OF THE CHIEF SUPERINTENDENT,

MONCTON, N.B., 18th October, 1888.

SIR,—I have the honor to submit the following statements showing the results of the working of the Windsor Branch Railway for the year which ended 30th June, 1888:—

- No. 1. Revenue account.
2. Maintenance of way and works.
3. General balance.
4. Statement of earnings.

I also send you the report of the Chief Engineer on the condition of the permanent way and works.

This line, thirty miles in length, was operated during the year by the Windsor and Annapolis Railway Company on the same terms as last year, the company being allowed to retain two-thirds of the gross earnings, the balance, one-third, being paid over to the Government, the latter maintaining the line.

There is a slight decrease in the gross earnings accruing to the Government when compared with last year, as follows:—

1886-87.....	\$25,327 58
1887-88.....	24,553 55
	\$ 774 03
The gross earnings for the year amounted to.....	\$24,553 55
The expenditure for maintenance of way and works was.....	24,040 33
	\$ 513 23

The necessary repairs and renewals of the track, fences, buildings and other structures were made, and the permanent way and works are in good order.

I have the honor to be, Sir,

Your obedient servant,

D. POTTINGER,

Chief Superintendent.

COLLINGWOOD SCHREIBER, Esq.,

Chief Engineer and General Manager Canadian Government Railways,
Ottawa.

No. 1.—WINDSOR BRANCH RAILWAY.

CR.

REVENUE ACCOUNT, Year ending 30th June, 1888.

DR.

Previous Year.	Expenditure.	Year ending 30th June, 1888.	Previous Year.	Receipts and Earnings.	Amount, Year ending 30th June, 1888.
\$ cts		\$ cts.	\$ cts.		\$ cts.
26,042 33	Maintenance of way and works, Abstract No. 1.	24,040 33	7,966 42	Passenger traffic.....	8,576 04
			16,209 32	Freight traffic.	14,821 99
			1,151 84	Mails.....	1,155 52
	Balance.	513 22	25,327 58		
		24,553 55	7. 4 75		
26,042 33			26,042 33		24,553 55

R. B. BOGGS,
Acct., W. B. Ry.

MONCTON, N.B., 30th June, 1888.

Examined,
THOMAS WILLIAMS,
Chief Accountant and Treasurer.

No 2.—WINDSOR BRANCH RAILWAY.
Abstract No. 1.—MAINTENANCE of Way and Works.

Previous Year.	Particulars.	Amount.
\$ cts.		\$ cts.
7,758 53	Repairs to track	8,162 71
4,943 96	Rails and fastenings.....	127 86
2,874 50	Ties.....	3,182 00
899 79	Bridges.....	816 82
65 33	Signals.....	36 34
18 80	Culverts and cattle guards.....	2,311 11
	Wharf at Windsor.....	32 25
2,931 55	Buildings and platforms.....	1,044 27
24 15	Switch locks.....	23 70
4,545 34	Fencing.....	4,797 83
18 28	Hand cars and trollies.....	112 67
173 06	Tools and repairs.....	358 57
578 43	Snow ploughs and flangers.....	1,856 93
1,122 61	Accountant's office and expenses.....	1,137 22
88 00	Miscellaneous.....	40 00
26,042 33		24,040 33

R. B. BOGGS,

Acct., W. & B. Ry.

MONCTON, N. B., 30th June, 1888.

Examined,

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

No. 4.—WINDSOR BRANCH RAILWAY.

MONTHLY STATEMENT of Receipts—One-third Earnings.

Month.	Passengers.	Freight.	Mails.	Totals.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1887—July.....	899 52	1,050 51	96 90	2,046 93
August.....	1,142 26	1,165 78	96 91	2,404 95
September.....	1,305 98	1,591 90	96 91	2,994 79
October.....	745 47	1,810 14	96 90	2,652 51
November.....	584 87	1,860 08	96 91	2,541 86
December.....	624 58	1,194 80	96 91	1,916 29
1888—January.....	388 73	843 79	95 68	1,328 20
February.....	380 51	894 37	95 68	1,370 56
March.....	517 96	1,175 17	95 68	1,788 81
April.....	543 66	1,171 07	95 68	1,810 41
May.....	585 29	1,202 50	95 68	1,883 47
June.....	857 21	861 88	95 68	1,814 77
	8,576 04	14,821 99	1,155 52	24,553 55

R. B. BOGGS,

Acct., W. B. Ry.

MONCTON, N.B., 30th June, 1888.

Examined,

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

No. 3.—WINDSOR BRANCH RAILWAY.

DR.

GENERAL BALANCE.

CR.

1888.	\$ cts.	1888.	\$ cts.
June 30. Windsor and Annapolis Railway..	2,256 69	June 30. Intercolonial Railway.....	318 83
Stores account.....	6,309 57	Dominion account.....	8,247 43
	8,566 26		8,566 26

R. B. BOGGS,

Acct., W. B. Ry.

MONCTON, N.B., 30th June, 1888.

Examined,

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

[1888]

 WINDSOR BRANCH RAILWAY.

CHIEF ENGINEER'S OFFICE,

MONCTON, N.B., 20th September, 1888.

SIR,—I have the honor to submit the following report on the maintenance of the Windsor Branch for the year ending 30th June, 1888.

TRACK.

The mileage remains the same as last year

SIDINGS.

An addition of 100 feet was made to Dawson's siding and a suitable loading ground provided.

TIES.

9,541 ordinary ties and 3 sets of switch ties were renewed last year.

BALLASTING.

4,350 yards of ballast were put in track where needed.

SIGNALS.

Necessary repairs were made to semaphore, switch, and station signals throughout the line.

FENCING.

17 miles of old pole fencing have been replaced with barbed wire and lath wire fencing.

Necessary repairs were made to the remaining fence.

BUILDINGS AND PLATFORMS.

Platforms were renewed at Three Mile Plains and Beaver Bank Stations. An extension of 25 feet was made to the latter.

A small wood shed was built at Mount Uniacke and a drain made through heavy rock cutting.

Some repairs were made to the station house at Windsor and a drain was provided from the cellar with a suitable trap to prevent the tide flowing in at high water.

At Ellershoushe the loading platform was extended and made permanent by building a cedar crib in front and filling in solid with earth at the back of it and a layer of coarse stone and gravel on top.

The cattle pens at Beaver Bank and Newport were renewed.

BRIDGES AND CULVERTS.

The masonry of Carroll's, Sackville, Big Bog and Jordan's bridges was overhauled and repaired.

New stringers were put in St. Croix bridge, and masonry was overhauled and repaired.

A Stone culvert 2 miles west of Windsor Junction was rebuilt.

A wooden box culvert at Three Mile Plains crossing was replaced with a masonry culvert.

A wooden box culvert $\frac{1}{2}$ of a mile west of Newport Station was replaced by a masonry culvert.

An old rubble masonry culvert that had caved in near Newport was replaced with a cedar box culvert.

The tracking is in good order and not a wheel has been off the rail during the whole year.

I am, Sir,

Your obedient servant,

P. S. ARCHIBALD,

Chief Engineer.

D. POTTINGER, Esq.,

Chief Superintendent,

Moncton.

APPENDIX No. 7c.

PRINCE EDWARD ISLAND RAILWAY.

SUPERINTENDENT'S OFFICE,

CHARLOTTETOWN, P.E.I., 1st Sept., 1888.

SIR,—I have the honor to submit the following report on the working of the Prince Edward Island Railway for the fiscal year ended 30th June, 1888.

I enclose the following statements prepared by the Accountant and Auditor:—

- No. 1. Capital account.
 2. Revenue account.
 3. Locomotive power (Abstract No. 1.)
 4. Car expenses (do 2.)
 5. Maintenance of way and works (do 3.)
 6. Station expenses (do 4.)
 7. General charges (do 5.)
 8. Statement of general stores account.
 9. General balance.
 10. Comparative statement of averages.

CAPITAL ACCOUNT.

The total expenditure on capital account to 30th June, 1887, was.....	\$3,741,780 89
No additions being made during the year, the total expenditure to 30th June, 1888, was the same as the previous year.....	<u>3,741,780 89</u>

REVENUE ACCOUNT.

The gross earnings for the year amounted to.....	\$158,363 62
Previous year.....	155,303 37
Increase.....	<u>\$ 3,060 25</u>

Included in the earnings for the year 1886-87 is the sum of \$9,000 received for special mail service. As you are aware this service was not performed during the past year, otherwise our increase would have been about \$12,000.

The earnings per mile of railway compare with the previous year as follows:—

1886-87.....	\$739 53
1887-88.....	754 11

An increase per mile of.....\$ 14 58

The length of road operated in each year was the same, namely, 210 miles.

[1888]

STATEMENT.

	Passengers Carried.	Earnings.
1886-87	130,067	\$66,334 95
1887-88.....	131,246	66,943 28
Increase.....	<u>1,179</u>	<u>\$ 603 33</u>

	Tons of freight carried.	Earnings.
1886-87.....	53,587	\$71,152 52
1887-88.....	59,603	80,399 79
Increase.....	<u>6,016</u>	<u>\$ 9,247 27</u>

	Earnings.
Mails and sundries, 1886-87.....	\$17,815 90
do 1887-88.....	11,020 55
Decrease	<u>\$6,795 35</u>

The engine mileage compared with last year was :—

1886-87.....	316,763
1887-88.....	306,924
Decrease	<u>9,839</u>

The train mileage compared with last year was :—

1886-87.....	258,457
1887-88.....	248,410
Decrease	<u>10,047</u>

The car mileage compared with last year was :—

1886-87	1,249,892
1887-88	1,309,922
Increase	<u>60,030</u>

EXPENDITURE.

The working expenses, as compared with last year, were as follows :—

1886-87.....	\$204,237 45
1887-88.....	229,639 95
Increase.....	<u>\$ 25,402 50</u>

Included in the above expended on new works are the following items :—

Iron bridge at Curtis Creek.....	\$ 3,141 66
New locomotive	7,700 00
Moving freight shed at Cape Traverse	232 00
Stone box culvert at Swinehammers' Cut.	405 29
do do near Tignish.....	272 79
do do near Alberton.....	586 60
Total new works.....	<u>\$12,388 34</u>

Increase over last year in :—

Sleepers	\$10,106 97	
Fencing.....	4,590 03	
		<u>14,697 00</u>
Total		<u>\$27,085 34</u>

TRACK.

Eight hundred and fifty iron rails have been renewed. Nine thousand four hundred and forty steel fish plates have been put in track, to replace broken iron ones. Twelve steel rail frogs were put in.

SIDINGS.

At Hunter River, Full's siding was moved to his mill, and 80 feet added to its length. At Charlottetown the siding room was increased by the addition of 1,545 feet. Rolls Bay siding was extended 50 feet.

SLEEPERS.

During the year 74,781 sleepers have been put in the track. Thirty-eight sets of switch sleepers, and 25 switch frames, and 20 head blocks, with switch frames, have been renewed.

BALLASTING.

Seven thousand three hundred and twenty-two cubic yards of ballasting were distributed where most needed. The greater part of this was hauled a distance of 60 miles. Nine hundred and eighty-four cubic yards of earth were used to widen embankments.

BRIDGES, CATTLE GUARDS, &c.

At Alberton, the wharf track bridge received new wall plates, and other necessary repairs.

At Intervale, a stone box culvert 4 feet by 6 feet and 13 feet from the base of rail to surface of paving, was put in to replace the old bridge.

Northam Bridge received new wall plates.

Richmond, Ellerslie, and Wellington Bridges had new centre bents. Richmond bridge received new top sleepers.

New braces were put under Breadalbane Road and Elliott's Bridges.

Miller's Bridge received new wall plates and general repairs.

The old wooden bridge at Curtis Creek has been replaced by three 26 feet iron girders and stone abutments.

Pino Brook Bridge received a new top and stringers

At Charlottetown, two bridges on the breast-work have been re-built.

Mount Stewart Bridge received new floor beams and stringers.

Morell and Mudgell Bridges had general repairs.

At Souris the overhead bridge received a new covering and stringers.

Two culverts near Charlottetown have had tops and stringers renewed.

A masonry culvert was rebuilt at the Pottery, $1\frac{1}{2}$ miles from Charlottetown.

A masonry box culvert 2 feet by 4 feet was built at Swinehammer's embankment.

Four timber culverts were put between Mount Stewart and Georgetown to carry off the surface water.

Two pipe culverts and 18 French drains were replaced by culverts.

New cattle guards have been put in at a road east of Mill River, at Toban Road two miles east of Conway, and at a new road east of Coleman Station.

Twenty-one cattle guards have been renewed.

BUILDINGS AND PLATFORMS.

Alberton Station and wharf freight shed have been reshingled.

Mill River and Harper's flag station have been rebuilt.

A flag station was erected at Pawe's siding and a platform 140 feet long was put down.

St. Nicholas flag station was rebuilt and a platform 140 long was put down.

At Summerside the station building was repaired and painted. The coal shed on the wharf was raised and received extensive repairs.

At Cape Traverse the freight shed was removed on to the wharf, as the piles upon which it stood were badly eaten by the teredo worm.

At Charlottetown a brick furnace for tempering springs was built in the blacksmith shop. Five hundred and fifty feet of flooring were laid in the round house, 500 feet were laid in the carpenter shop, and 3,350 feet of flooring and 500 feet of timber were laid in the machine shop. The engine pit was rebuilt.

At Mount Stewart 5,000 feet of 3 inch plank were used in partly renewing the station platform.

At Morell 500 feet of boards were used for covering the station platform.

At Souris 500 feet of deal were used in repairing the floor of the round house. The coal shed received a new front and was otherwise repaired.

At Georgetown the roof of the baggage room was renewed.

WHARVES.

Alberton wharf received new side fenders, two new mooring posts, and other necessary repairs.

At Charlottetown two cars of brush, 50 tons of hard stone, and 15 pieces of timber were used in repairing the wharf. Eighteen thousand feet of plank were used to repair the roadway on the wharf. One hundred feet of the breastwork at the east end of the approach to the station was renewed.

At Georgetown the wharf received 100 tons of stone, 3 cars of brush, and 8 pieces of timber. Four thousand feet of 3 inch plank were used to repair the roadway on the wharf.

The breastwork at St. Peter's Bay received 50 tons of stone, 200 yards of earth and 3 cars of brush.

At Souris ten thousand feet of 3 inch plank were used to repair the covering on the wharf. Five hundred yards of clay were used in repairing the approach to the wharf.

FENCING.

Twenty-four miles of fence (originally spruce poles) were replaced with barb wire. Nineteen and one-quarter miles of old board fence were replaced with barb wire, woven wire and Everett fencing. One thousand feet of Everett fence was erected at Hunter River. Five hundred feet of snow fence was built. Five thousand five hundred and seventy-three feet of snow fence was rebuilt.

One hundred and twenty-five farm gates, and 120 gate posts were renewed. On 20 farmers road crossings new planks were laid down.

SEMAPHORE SIGNALS, &C.

All semaphores, switch frames, targets, telegraph signals and outside lamps have received attention when necessary and are in good condition.

WATER SERVICE.

Tracadie, Morell, Mount Stewart and Ashton tanks received new coverings and boxes.

STORES.

The purchase of stores during the year amounted to \$80,407.98.

The value of stores on hand to 30th June, 1888, was:—

General stores.....	\$ 80,066 53
Coal.....	4,474 42
Rails and fastenings.....	22,270 34
Old material serviceable.....	7,932 00
Total.....	<u>\$114,743 29</u>

These stores have for the most part been purchased by tender and contracts, which follows out the practice of previous years.

I enclose a return of accidents and casualties which have occurred on the railway during the year.

I am pleased to say that the roadbed, buildings and rolling stock are in good condition.

I have the honor to be, Sir,

Your obedient servant,

J. UNSWORTH,

Superintendent.

COLLINGWOOD SCHREIBER, Esq.,

Chief Engineer and General Manager Government Railways,

Ottawa.

No. 1.—PRINCE EDWARD ISLAND RAILWAY.

DR.

CAPITAL ACCOUNT.

CR.

1887.		\$ cts.	1887.		\$ cts.
June 30	To cost of Road and Equipment to date.	3,741,780 89	June 30	By Dominion of Canada ...	3,741,780 89
1888.			1888.		
June 30	To Expenditure, Year ended 30th June, 1888.		June 30	do do	
		3,741,780 89			3,741,780 89

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1888.

No. 2.—PRINCE EDWARD ISLAND RAILWAY.

REVENUE ACCOUNT for Year ended 30th June, 1888.

Previous Year.	Expenditure.	Year ended 30th June, 1888.	Previous Year.	Receipts.	Year ended 30th June, 1888.
\$ cts.		\$ cts.	\$ cts.		\$ cts.
56,534 30	Locomotive power, per Abstract No. 1.	66,390 76	66,334 95	Passenger traffic.	66,943 28
33,924 96	Car expenses, per Abstract No. 2.	32,158 91	71,152 52	Freight traffic.	80,399 79
76,309 25	Maintenance of way and works, per Abstract No. 3.	92,339 10	17,815 90	Mails and sundries.	11,020 55
25,321 38	Station expenses, per Abstract No. 4.	26,712 41	155,303 37	Total Receipts.	158,363 62
12,147 56	General charges, per Abstract No. 5.	12,038 77	48,934 08	Balance.	71,776 33
204,237 45	..... Totals.....	229,639 95	204,237 45	..... Totals.....	229,639 95

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1888.

No. 3.—PRINCE EDWARD ISLAND RAILWAY.

LOCOMOTIVE POWER—(Abstract No. 1).

Previous Year.	Details.	Year ended 30th June, 1888.
\$ cts.		\$ cts.
1,240 41	Mechanical Superintendent's salary, clerks, office and travelling expenses ...	1,272 37
15,335 85	Wages of drivers, firemen and cleaners.. .. .	15,690 49
11,625 67	Fuel.....	13,539 59
2,276 46	Oil, tallow, waste and small stores.. .. .	2,291 98
24,286 24	Repairs to engines, tenders and engine tools	20,685 43
547 85	Water, including pump and tank repairs	783 07
1,221 82	Miscellaneous.....	2,127 83
56,534 £0	..... Totals.....	66,290 76

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1888.

No. 4.—PRINCE EDWARD ISLAND RAILWAY.

CAR EXPENSES—(Abstract No. 2).

Previous Year	Details.	Year ended 30th June, 1888.
\$ cts.		\$ cts.
9,262 08	Repairs to passenger cars	7,776 34
1,219 24	do postal and baggage cars	994 16
7,036 53	do freight cars and vans.. .. .	6,712 69
12,777 75	Wages of conductors, train baggage masters and brakemen.....	12,707 53
540 19	Oil and waste for packing	515 46
2,353 95	Small stores and fuel.....	2,818 53
735 22	Miscellaneous.....	634 29
33,924 96	..... Totals.....	32,158 91

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1888.

No. 5.—PRINCE EDWARD ISLAND RAILWAY.
 MAINTENANCE of Way and Works—(Abstract No. 3).

Previous Year.	Details.	Year ended 30th June, 1888.
\$ cts.		\$ cts.
419 96	Engineer's salary, clerks, office and travelling expenses.....	411 96
41,479 07	Wages in repairing roadway, fences and semaphores.....	45,235 69
3,448 65	Rails, chairs and spikes	4,957 31
6,713 18	Sleepers	16,880 15
8,572 59	Timber and lumber for repairs to bridges, cattle guards, fences, &c.....	13,685 83
1,897 96	Repairs to wharves.....	1,284 53
6,525 39	do buildings and platforms	5,075 18
2,689 00	do snow ploughs, flangers and tools.....	2,757 82
4,503 45	Clearing ice and snow	2,050 63
76,809 25	.....Totals.....	92,339 10

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1888.

No. 6.—PRINCE EDWARD ISLAND RAILWAY.
 STATION EXPENSES—(Abstract No. 4).

Previous Year.	Details.	Year ended 30th June, 1888.
\$ cts.		\$ cts.
19,099 88	Salaries and wages of station masters, agents, clerks, telegraph operators, station baggage men, yardmasters, switchmen, watchmen and laborers.	19,546 66
6,221 50	Fuel, oil, light, stationery, tickets and other incidental expenses.....	7,165 75
.....	Miscellaneous .....	.....
25,321 38	.....Totals.....	26,712 41

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1888.

No. 7.—PRINCE EDWARD ISLAND RAILWAY.

GENERAL CHARGES (Abstract No. 5).

Previous Year.	Details.	Year ended 30th June, 1888.
\$ cts.		\$ cts.
5,273 94	Superintendent's and train despatcher's salaries, clerks, office and travelling expenses.....	4,783 09
5,228 69	Accountant and auditor's, paymaster's and cashier's salaries, clerks, office and travelling expenses.....	5,237 33
514 17	Advertising.....	477 04
362 54	Damages to men, animals and goods.....	211 80
540 09	Telegraph expenses (not including pay to operators).....	642 10
228 13	Miscellaneous.....	687 41
12,147 56	Totals.....	12,038 77

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P. E. I., 30th June, 1888.

No. 8.—PRINCE EDWARD ISLAND RAILWAY.

STATEMENT of General Stores Account, Year ended 30th June, 1888.

1887.	DR.	\$ cts.	\$ cts.
June 30...	To balance brought forward.....		114,155 01
1888.			
June 30...	To purchase during the year.....	80,407 98	
	Charges from other Departments.....	10,800 47	
	Pay-rolls.....	2,615 40	
			93,823 85
1888.	CR.		
June 30...	By issues during the year.....		207,978 86
			93,235 57
	Balance. { Ordinary stores..... \$80,066 53 }		
	{ Fuel..... 4,474 42 }		
	{ Rails and fastenings on hand. 22,270 34 }		
	{ Old material, serviceable..... 7,932 00 }		
			114,743 29

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P. E. I., 30th June, 1888.

No. 9.—PRINCE EDWARD ISLAND RAILWAY.

DR.

GENERAL BALANCE.

CR

	\$ cts.		\$ cts.
General stores.....	114,743 29	Dominion account	117,922 23
Cash.....	2,284 40	Accident insurance.....	4,624 31
Stations.....	743 85		
Militia Department.....	91 02		
Anglo-American Telegraph Co.....	46 43		
Judge Weatherbee	30 00		
Sidney Grey.....	25 00		
Post Office Department.....	4,582 55		
Total.....	122,546 54	Total.....	122,546 54

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1888.

[1888]

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No. 10.—PRINCE EDWARD ISLAND RAILWAY.

COMPARATIVE STATEMENT of Averages for Year ended 30th June, 1888.

Details.	1888.	1887.
Mileage of railway open.....	210	210
Engine mileage.....	306,924	316,763
Train do.....	248,410	258,457
Car do.....	1,309,922	1,249,892
Receipts per engine mile..... Cents	51.59	49.02
do mile of railway..... Dollars	754.11	739.53
Percentage of passenger earnings to gross receipts.....	42.27	42.71
do freight do do.....	50.77	45.82
do other do do.....	6.96	11.47
Expenses per engine mile—		
Drivers, firemen and cleaners' wages.....	5.11	4.84
Fuel.....	4.42	3.67
Oil, tallow, waste and small stores.....	0.75	0.72
Repairs to engines.....	10.00	7.67
Water and tank repairs.....	0.26	0.17
Miscellaneous.....	0.69	0.38
Mechanical Superintendent's salary, office and travelling expenses.....	21.22	17.45
	0.41	0.39
Total..... Cents	21.63	17.84
Locomotive power per engine mile.....	21.63	17.84
Car expenses do.....	10.48	10.71
Maintenance of way and works do.....	30.09	24.09
Station expenses do.....	8.70	7.99
General charges do.....	3.92	3.84
Total per engine mile..... Cents	74.82	64.47
Locomotive power per train mile.....	26.73	21.87
Car expenses do.....	12.94	13.13
Maintenance of way and works do.....	37.17	29.52
Station expenses do.....	10.75	9.80
General charges do.....	4.85	4.70
Total per train mile..... Cents	92.44	79.02
Railway expenses per mile of railway..... Dollars	1,093.52	972.56

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P. E. I., 30th June, 1888.

PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL SUPERINTENDENT'S OFFICE,

CHARLOTTETOWN, 20th August, 1888.

SIR,—I beg to submit for your information the following statements, showing the operation of the Mechanical Department of this railway for the fiscal year ending 30th June, 1888:

A.—Monthly statement of the cost of locomotive power.

B.—Statement of the performance and consumption of locomotives.

C.—Monthly statement of car mileage.

D.—Statement showing the number of locomotives, cars, snow ploughs and flangers.

E.—Comparative statement of the expenses of the Mechanical Department for the years 1886-87, and 1887-88.

In July last a heavy freight engine was purchased to replace engine No. 10, condemned. The cost of this engine has been included in working expenses. Engines 4, 6, 12, 14 and 18 have received new fire boxes and tubes.

Ten 10-ton platform cars have been rebuilt during the year to replace an equal number worn out in the service.

By reference to Statement D it will be seen that the stock of locomotives, cars, snow ploughs and flangers provided on capital account consists of:—

- 21 locomotives.
- 17 first-class passenger cars.
- 15 second class passenger and baggage cars.
- 3 postal and smoking cars.
- 175 box cars.
- 125 platform cars.
- 3 conductor's vans.
- 1 pay car.
- 8 snow ploughs
- 7 flangers.

I am pleased to be able to report that the efficiency of the rolling stock has been well maintained during the year, and is in good condition.

I have the honor to be, Sir,

Your obedient servant,

J. UNSWORTH,

Superintendent and Mechanical Superintendent.

COLLINGWOOD SCHREIBER, Esq.,

Chief Engineer and General Manager Government Railways,

Ottawa.

PRINCE EDWARD

MECHANICAL

A.—STATEMENT of the cost of Locomotive

Months.	Miles run by Engines, less Ballasting.	Cost of				
		Enginemen's Wages.	Fuel.	Oil, Tallow, Waste, &c.	Repairs.	Water, including tank and pump repairs.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1887—July.....	30,996	1,450 10	1,079 86	209 88	2,537 82	95 88
August.....	31,165	1,420 07	1,166 76	205 94	1,294 12	4 76
September.....	30,673	1,326 70	996 12	183 76	2,333 07	70 77
October.....	30,551	1,319 25	1,284 62	336 85	2,422 49	80 07
November.....	30,932	1,373 52	1,380 49	213 09	2,263 15	143 45
December.....	21,633	1,180 33	1,037 20	189 07	3,183 15	205 44
1888—January.....	19,386	1,233 13	1,082 50	169 78	3,029 55	56 46
February.....	20,521	1,363 31	1,012 50	152 25	3,127 61	72 09
March.....	20,214	1,333 05	1,017 00	153 52	2,717 41	31 75
April.....	17,934	1,103 87	872 58	125 51	2,846 64	7 01
May.....	22,238	1,205 19	1,290 96	185 71	2,707 68	13 44
June.....	30,711	1,381 97	1,339 00	166 62	2,222 74	1 95
Totals.....	306,924	15,690 49	13,539 59	2,291 98	30,685 43	783 07

ISLAND RAILWAY.

DEPARTMENT.

Power, for the Year ended 30th June, 1888.

Miscellaneous, including expenses of Office and Engine Houses.		Average per mile run.						
		Total.	Enginemen.	Fuel.	Oil, Tallow, &c.	Repairs.	Water.	Miscellaneous.	Total.
\$ cts.	\$ cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
289 84	5,663 38	4·68	3·49	0·68	8·19	0·31	0·94	18·29
277 28	4,368 93	4·56	3·74	0·66	4·15	0·01	0·89	14·01
277 84	5,188 26	4·32	3·24	0·60	7·61	0·23	0·91	16·91
296 59	5,739 87	4·32	4·20	1·10	7·93	0·26	0·97	18·78
342 34	5,716 04	4·44	4·46	0·69	7·31	0·46	1·11	18·47
315 73	6,110 92	5·48	4·78	0·88	14·71	0·95	1·46	28·24
341 65	5,893 07	6·36	5·48	0·87	15·62	0·30	1·76	30·39
343 93	6,071 69	6·64	4·93	0·74	15·24	0·35	1·68	29·58
269 52	5,522 25	6·59	5·03	0·76	13·44	0·16	1·33	27·31
280 20	5,235 81	6·15	4·86	0·70	15·88	0·04	1·56	29·19
206 19	5,609 17	5·42	5·81	0·84	12·17	0·06	0·92	25·22
159 09	5,271 37	4·50	4·36	0·54	7·23	0·01	0·52	17·16
3,400 20	66,390 76	5·11	4·41	0·75	9·99	0·26	1·11	21·63

J. UNSWORTH,
Superintendent and Mechanical Superintendent.

PRINCE EDWARD

MECHANICAL

B.—STATEMENT of the Performance and Consumption

Months.	Hours in Steam.	Train Mileage.				Miles run by Engines.			
		Passenger.	Freight and Mixed.	Ballasting.	Piloting.	With Train.	Light.	Shunting	Total
1887—July	3,930	11,819	13,705	1,679	.....	27,203	337	5,285	32,825
August	4,453	11,630	14,284	6,236	35	32,185	70	5,946	38,201
September	4,088	10,917	14,446	2,392	150	27,905	70	5,100	33,475
October	3,943	10,958	14,217	1,117	49	26,341	10	5,487	31,838
November	4,013	10,808	14,506	1,072	133	26,519	14	5,671	32,204
December	3,141	2,046	14,445	59	489	17,039	22	4,642	21,703
1888—January	3,166	44	13,102	12	2,264	15,422	91	3,890	19,403
February	3,584	536	13,057	.....	2,952	16,545	204	3,772	20,521
March	3,543	192	14,310	.....	1,174	15,676	291	4,247	20,214
April	2,570	520	13,196	.....	151	13,870	62	4,002	17,934
May	3,343	2,228	14,080	1,460	800	18,568	111	5,219	23,898
June	4,031	11,250	13,914	2,197	.....	27,361	215	5,757	33,333
Totals	43,805	72,748	167,262	16,224	8,200	264,634	1,497	59,418	325,549

ISLAND RAILWAY.

DEPARTMENT.

of Locomotives, for the Year ended 30th June, 1888.

Total Mileage.		Average Mileage.			Consumption.				Consumption per 100 Miles run by Engines.			
Cars.	Snow Ploughs.	* Average of Cars per mile run with Train.	Miles to one hour in Steam.	Of cars to one of Engine.	Bushels of Coal	Pints of Oil.	Pounds of Tal-low.	Pounds of Waste.	Bushels of Coal	Pints of Oil.	Pounds of Tal-low.	Pounds of Waste.
138,402	.....	5.08	8.35	4.23	11,981	1,120	818	459	36.49	3.41	2.49	1.52
177,250	.....	5.51	8.58	4.64	15,209	1,237	832	560	39.81	3.23	2.17	1.46
139,225	.....	5.01	8.19	4.16	12,484	1,066	644	484	37.29	3.18	1.92	1.44
143,616	.....	5.46	8.07	4.48	14,189	1,233	838	579	44.57	3.87	2.66	1.63
146,253	44	5.54	8.02	4.54	15,563	1,203	767	527	48.32	3.73	2.38	1.63
99,849	.....	6.03	6.91	4.60	11,037	1,071	668	470	50.56	4.9	3.06	2.16
67,852	5,070	5.16	6.13	3.49	10,625	979	643	381	54.75	5.04	3.31	1.96
66,590	9,745	4.90	5.72	3.24	10,195	923	660	368	49.68	4.49	3.31	1.79
86,278	1,782	5.95	5.70	4.26	10,212	757	641	398	50.51	3.74	3.17	1.96
72,992	.....	5.32	6.98	4.07	7,574	660	571	362	42.23	3.68	3.18	2.01
133,770	.....	7.55	7.15	5.59	12,704	1,002	941	472	53.16	4.19	3.93	1.97
150,881	.....	5.51	8.26	4.53	13,865	1,284	937	508	41.59	3.85	2.81	1.52
1,422,959	16,641	5.55	7.43	4.37	145,639	12,535	8,987	5,548	44.79	3.85	2.76	1.39

*Deduct piloting in making these averages.

J. UNSWORTH,
Superintendent and Mechanical Superintendent.

PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

C.—MONTHLY STATEMENT of Car Mileage, Year ended 30th June, 1888.

Months.	First-Class.	Second-Class and Baggage.	Postal and Smoking.	Box and Stock.	Platform.	Total.
1887—July.....	29,581	28,375	12,713	42,528	25,205	138,402
August.....	29,681	29,321	14,534	44,184	59,530	177,250
September.....	25,823	27,802	12,248	47,486	25,866	139,225
October.....	27,671	30,551	9,271	61,812	14,311	143,616
November.....	25,134	29,057	9,952	64,887	17,223	146,253
December.....	16,474	18,544	10,431	44,357	10,043	99,849
1888—January.....	13,410	14,513	7,725	21,959	10,246	67,853
February.....	13,424	15,132	7,099	18,434	12,501	66,590
March.....	14,840	16,777	7,142	21,155	26,364	86,278
April.....	14,329	16,099	6,756	25,590	10,218	72,992
May.....	16,779	16,669	12,758	55,642	31,922	133,770
June.....	25,873	27,046	13,150	50,286	34,526	150,881
Totals.....	253,019	269,886	123,779	498,320	277,955	1,422,959
LESS—Ballasting.....	.....	2,970	9,611	1,128	99,328	113,037
Balance.....	253,019	266,916	114,168	497,192	178,627	1,309,922

J. UNSWORTH,

Superintendent and Mechanical Superintendent.

PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

D.—STATEMENT showing the Number of Locomotives and the various classes of Cars and Snow Ploughs on hand 30th June, 1887 and 1888.

Particulars.	Locomotives.	Classification of Cars.								Snow Ploughs.	Total.	
		1st Class.	2nd Class and Baggage.	Postal and Smoking.	Box and Stock.	Platform.	Vans.	Pay Car.	Total.			flangers.
On hand 30th June, 1887, serviceable.. .. .	21	17	15	3	175	120	3	1	334	8	7	15
do do condemned . . . . .	.....	.....	.....	.....	.....	5	.....	.....	5	.....	.....	.....
Total stock 30th June, 1887.....	21	17	15	3	175	125	3	1	339	8	7	15
Condemned on hand 1st July, 1887.. .. .	.....	.....	.....	.....	.....	5	.....	.....	5	.....	.....	.....
do during the year.....	1	.....	.....	.....	.....	10	.....	.....	10	.....	.....	.....
LESS :—	1	.....	.....	.....	.....	15	.....	.....	15	.....	.....	.....
Purchased and charged to working expenses..	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Re-built. ....	.....	.....	.....	.....	.....	10	.....	.....	10	.....	.....	.....
ADD :—	.....	.....	.....	.....	.....	5	.....	.....	5	.....	.....	.....
Serviceable and repairing.....	21	17	15	3	175	120	3	1	334	8	7	15
Total on record 30th June, 1888.....	21	17	15	3	175	125	3	1	339	8	7	15

J. UNSWORTH,
Superintendent and Mechanical Superintendent.

PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

E.—COMPARATIVE STATEMENT of the Expenses of the Mechanical Department, for the Year ended 30th June, 1888.

	1888.	1887.
	\$ cts.	\$ cts.
The miles run by trains were.....	248,410	258,457
do engines were.....	306,924	316,763
do cars were.....	1,309,922	1,249,892
do snow ploughs were.....	16,641	27,285
The cost of locomotive power was.....	66,390 76	56,534 30
do repairs to cars was.....	15,483 19	17,517 85
do labor, oil, and waste for packing, was.....	515 46	540 19
do repairs to passenger cars was.....	7,773 34	9,162 08
do do postal and smoking cars was.....	994 16	1,219 24
do do freight cars and vans was.....	6,712 69	7,036 53
The cost of locomotive power per 100 miles run by trains was.....	26 74	21 87
do do do engines was.....	21 63	17 84
do do do cars was.....	5 06	4 52
The cost of repairs to cars per 100 miles run by trains was.....	6 23	6 77
do do do engines was.....	5 03	5 53
do do do cars was.....	1 18	1 40
The cost of labor, oil and waste, for packing, per 100 miles run by trains was...	0 20	0 20
do do do engines was.....	0 17	0 17
do do do cars was.....	0 04	0 04
Repairs to passenger cars per 100 miles run by trains were.....	3 13	3 58
do postal and smoking cars were.....	0 40	0 47
do freight cars and vans were.....	2 72	2 72

J. UNSWORTH,
Superintendent and Mechanical Superintendent.

PRINCE EDWARD ISLAND RAILWAY.

RETURN of Accidents and Casualties which have occurred on the Prince Edward Island Railway, during the Year ending 30th June, 1888.

Date.	Time of Day or Night.	No. of Train	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.	Place of Accident.	Name of Persons Injured.	Whether Passenger or Employé.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
1887.												
July 6...	5:50p.m.	...	Special....	J. R. Scott....	N. Watson.....	16	Emerald	Henry Corner....	Employé.	Caught between Passenger car and Van white coupling.	Body bruised.	
Oct. 11.	9:30a.m.	...	.....	.....	H. Jraswell...	2	Summerside	John H. Burns...	Employé.	While shunting in yard got arm caught between the bumpers of two flat cars.	Arm severely bruised.	
1888.												
March 6.	2:50p.m	1	Accommodation...	F. Kelly.....	{ John Yeo.... { D. Pound...}	3 5	Portage	P. Laferty.....	Employé.	Fell off flat car.	Head and face injured.	

[8881]

APPENDIX No. 8.

DEPARTMENT OF RAILWAYS AND CANALS,
SUPERINTENDING ENGINEER'S OFFICE,
MONTREAL, 29th October, 1888.

SIR,—I have the honor to submit my report on the various works under my charge, for the fiscal year 1887-88, ended on the 30th June last.

These works are the Lachine and Beauharnois Canals, on the River St. Lawrence, and the Chambly Canal and St. Ours Lock, on the Richelieu River.

These canals have been maintained in an efficient state, without accident or interruption to the traffic.

Statements are annexed showing the amount collected for fines, damages, &c., together with monthly returns of the highest and lowest water registered at the lower and upper entrances of each canal, and on each of the mitre sills of St. Ours Lock.

LACHINE CANAL.

This canal was closed on the 30th November, 1887.

The water was drawn off on 18th April, 1888, and let in again on the evening of the 30th of same month. Navigation was fully opened on the morning of 1st May.

While the water was out of the canal all the works under water received the necessary repairs, and no detention of any kind was caused to the trade during the year.

During season of navigation the water was kept at a good height in all the levels, both for navigation and manufacturing purposes.

During the winter months and until the latter part of March, the water was so low in Lake St. Louis that it was found impossible to allow all the mills and factories, using the water, to work at the same time, as, by doing so, the water on the summit level would have been drawn down, and the slope walls on both sides of the canal on that reach would have been seriously injured by the lowering and raising of the ice, and to prevent such an eventuality, one-half of the mills and factories were obliged to work at night and the other half by day.

From 1st July, 1887, until the close of season of navigation, 30th November of same year, the trade through this canal was much brisker than it was during the months of May and June, specially the grain trade.

While the water was out in April and for the first time since the canal was last enlarged, the water became so low in the river at the lower entrance that the bottom of the Wellington Basin, and of the nineteen feet channel, leading from it to Lock No. 2 was dry in many places. These dry parts stood above the nineteen feet bottom from twelve to fifteen inches, and some large boulders which had been displaced by the dredge, while at work in 1885, were exposed to view.

Advantage was taken of the low state of the water to lower these projecting points and to remove these boulders.

Previous to the removal of these obstructions, ships drawing eighteen feet, often touched bottom and were liable to be damaged; since then, however, vessels drawing eighteen feet six inches have passed up and down through this channel, to and from

Wellington Basin, without any difficulty, which was a great saving to the owners, by not having to lighten their vessels six inches.

All the mechanical structures and other works in connection with this canal, have been kept in the best condition possible.

The weir and head gates of the mills and factories at Basin No. 2, except those at Ogilvie's Royal Mills, received general repairs and four of the wicket or swing gates of Weir No. 4, were replaced by new ones and the bottom and side sheeting of the tail race renewed.

In accordance with permission granted to the Montreal Street Railway Company, a double track was laid by them on the Wellington Street bridge to cross the canal with their cars, the work being done in the manner and according to the conditions contained in lease No. 9,046, dated 25th May last.

The laying of this track has proved a great boon to the people residing in the Point St. Charles district, and has not interfered with the general trade over the bridge.

The old wooden stationary road bridge, which stood across the supply and regulating weir for the mills and factories, on the north-west side of the canal, at Lock No. 3, was removed and replaced by a new one.

The stone roads, approaches and ramps leading to and in connection with the bridges, basins, wharves, &c., as well as Mill Street received close attention and are in fair order.

The River St. Pierre, which passes through the Lachine swamp lands, as well as the new cut (three miles in length) which was made in 1878, through said lands, and all the off-take drains in connection with the canal, were thoroughly cleaned and kept in good order.

However, this new cut was entirely blocked up in September last; this was caused, as already reported to the Department, under date the 9th September, 1887, by the Grand Trunk Railway Company, in connection with the double tracking of of the Lachine division of the Grand Trunk Railway by depositing a large quantity of gravel at the junction of the old and enlarged River St. Pierre, at Brodie's culvert.

The weight of this gravel forced the black marl to move, thereby blocking the new cut completely for a distance of over one hundred feet in length, and flooding the lands above.

The Grand Trunk Railway Company was duly notified to remedy the evil complained of, and warned that, in case of claims being made, they were expected to bear the cost of damages sustained by the farmers or proprietors.

The electric plant for lighting the canal, from the lower entrance to St. Gabriel Lock, is now in full operation. There are one hundred and sixty 50-candle power lamps, of the Edison incandescent system, distributed one hundred and fifty feet apart, on line of canal, from Lock No. 1 to Lock No. 3, and around the basins between these two points.

The under water lead pipe cables, furnished by the agent of the Edison Light Company, having given out, they were replaced by new ones.

These cables have proved to be efficient and under the management of our electricians, this system of incandescent lighting has given satisfaction; but I still adhere to the opinion already expressed in my last annual report, that this mode of lighting is more suitable for inside lighting, and not to be compared for outside purposes, with the arc light, and I would here recommend that the latter system be adopted on this canal.

This change could be done at a comparatively small cost and once in force, would prove more efficient and less expensive.

The amount voted for repairs, for the fiscal year ending	
30th June last, was.....	\$20,000 00
The expenditure amounted to.....	19,999 64
Leaving an unexpended balance of.....	\$ 0 36

NEW WORKS.

During the month of February last, two foot passenger bridges, $3\frac{1}{2}$ feet wide outside, were placed on each side of the Mill Steet Bridge (No. 1).

This much-needed improvement, which has given entire satisfaction to the public, has cost \$2,059.42

A new iron swing bridge to replace the old wooden structure which stood over the old canal, immediately above Lock No. 5, at Lachine, was built under contract by Messrs. Rousseau & Mather, of the Montreal Bridge Company.

This bridge is eighty-five feet in length by eighteen feet wide, with a roadway of sixteen feet clear inside. It is a substantial structure and can be worked readily by one man.

The masonry in connection with it was built by our employés, the total cost being sub-divided as follows;—

Masonry in bridge seat, &c.....		\$1,698 17
Iron bridge as per tender.....	\$ 3,275 00	
Extras for alterations in dimensions.....	586 16	3,861 16
		<u>\$5,459 33</u>

BEAUHARNOIS CANAL.

This canal was closed on the 1st December, 1887, and re-opened to navigation on 1st May 1888.

No accident occurred and consequently there was no interruption to navigation during the fiscal year.

The work done during the lapsed year is described under two headings, viz. :—
Ordinary Repairs and Income

REPAIRS.

Lock and Lock Gates.

One pair of gates were built and placed in the lower end of Lock No. 10 and the old gates were brought down to the workshop and taken apart. The foot bridge of the lower gates of Lock No. 14, was repaired and new knees placed to the lower gates of Locks Nos. 14 and 18. One of the sluice gates of Lock No. 10, was renewed and ladders placed in the man-holes of Locks Nos. 8, 10 and 12.

The gates of Lock No. 6, the upper gates of Lock No. 8 and the lower gates of Lock No. 12, were raised and new heel plates provided for same.

New lamps with their posts were erected at each of the locks and supplied with ladders for cleaning and lighting them.

Bridges.

Two new swing bridges were built and placed, one at the crossing leading to St. Timothy and the other one at Lock No. 8; the segment beds of these two bridges as well as those of the swing bridges at Locks Nos. 8 and 9, were renewed.

The swing bridges at Locks Nos. 7, 9, 13 and 14, were replanked and also the bridge over the waste weir at Lock No. 8.

Several farm bridges were rebuilt over the back ditches on the south side of the canal, and all the others maintained in good order.

Banks, Dykes, Dams, &c.

The dyke at Hungry Bay, which had been seriously damaged during the last fiscal year, underwent considerable repairs.

The excavation in the dyke caused by the waters of Lake St. Francis were filled, the slope of the road repaired and over three hundred toises of broken stone utilized in macadamizing about two miles of said road dyke, which were afterwards covered with gravel.

The canal banks have been maintained in good order.

The sides or slope were repaired and the canal bank on the towpath or north side has been macadamized for a distance of about two miles, the whole being covered with a layer of good gravel.

The culvert wells, discharges, drains and side ditches were cleaned last summer, and in the spring were cleared of snow and ice.

The weeds were removed on both sides of the canal at the proper time.

The mooring piers and wharves at the foot and head of the canal were kept in good order.

The wharf belonging to Mr. Daoust, of St. Timothy, which had been considerably damaged by the men employed in carting stone for the St. Zotique road was thoroughly repaired, and the landing wharf above the St. Timothy bridge on the south side was partially rebuilt.

Four new guard posts were placed, two at Lock No. 7, and one each at Locks Nos. 8 and 9.

One hundred and seventy-five mooring posts were set on both sides of the canal, where required.

Buildings, Fences, &c.

The lockmasters', lockmen's houses and lock shanties were repaired and painted, and the canal workshop was lengthened by twenty-two feet.

The sum voted for repairs for fiscal year 1887-88 was. \$14,350 00

The expenditure amounted to. 14,349 49

Leaving an unexpended balance of.....\$ 0 51

INCOME.

Main Feeder Buntin's Paper Mills.

A sum of \$15,000 having been placed in the Supplementary Estimates of 1887, and voted towards the rebuilding and enlarging of the main feeder to the paper mills of Mr. Buntin at Valleyfield, work was commenced in July of that year.

This feeder was widened by twelve feet and lengthened by at least fifty feet. The walls were taken down entirely on the south side and partly on the north side. The north side masonry was rebuilt with cement mortar, as well as fifty feet at lower end on south side, the remainder being dry rubble masonry.

The wing walls at the upper entrance of said feeder were built of cut stone cement masonry, resting on a concrete foundation.

The six old weir gates at the upper entrance were removed, thus giving an opening 50 by 10 feet, which gives between 400 or 500 cubic feet of water, instead of 144 cubic feet formerly supplied to the feeder through said wicket gates of 6 by 4 feet.

There are five head races or flumes opening from the main feeder on the lots leased to Mr. Buntin; one of these flumes, however, on lot No. 4, is not utilized by him. Another large flume with four sluice gates, 6 by 4 feet, was built at the lower end of the feeder which could be utilized when the Government lease lot No. 6.

A substantial iron fence was built on both sides of the feeder, and a bridge 50 by 36 feet placed over the upper entrance.

The amount voted towards this improvement was.....\$15,000 00

The expenditure amounted to..... 12,363 15

Leaving an unexpended balance of.....\$ 2,636 85

Telephone.

A private telephone line has been erected on this canal, between Melocheville and Valleyfield. There are nine stations, all connecting with each other and with head office at Valleyfield, an annual rent of \$25 being charged for this exchange connection.

This telephone service has proved very valuable, not only for the canal administration, but also for the interests of navigation.

The sum voted for this telephone line was.....	\$1,500 00
The expenditure amounted to.....	1,022 85
	<hr/>
Leaving an unexpended balance of.....	\$ 477 15
	<hr/> <hr/>

CHAMBLY CANAL.

This canal was closed by ice on 1st December, 1887, and reopened on 8th May, 1888.

No accident occurred, and with the exception of three days' delay caused to navigation, not only on the Chambly Canal, but in all the eastern portion of Canada, by fogs and forest fires on the 27th, 28th and 29th of September, no detention was caused to the trade.

The work done during the fiscal year is described under two headings, viz. : Ordinary Repairs and Improvements chargeable to Income.

REPAIRS.

One pair of lock gates were built and placed in the upper recesses of Lock No. 3, and another pair in the lower recesses of Lock No. 8. Five pairs of old spare gates were repaired and placed under shelter in case of accident.

The gates of Locks Nos. 1, 4, 5 and 6 were repaired at their respective locks during the winter, and the iron work in connection with them overhauled. All the gates with their balance beams were painted.

The swing bridges were kept in good order and painted.

The dwelling-houses provided for the permanent men employed on the staff, and the guard houses at each of the locks were repaired and painted. Five of these dwelling-houses had their roofs covered with painted Canada plate and gutters placed where needed.

The canal workshops and outbuildings were whitewashed.

The west side of the long entrance pier at the foot of the canal at Chambly, was sheeted with two inch plank, placed perpendicular in order to better secure it against the action of the ice.

Fifty-three damaged mooring posts were removed and replaced by new ones.

Owing to the construction of the new by-wash above Lock No. 2, on south side of canal, the superintendent was enabled to easily unwater and clean the bottom of Locks Nos. 3, 4, 5 and 6, and to renew partially the bottom planking.

The masonry of the upper breast wall of Lock No. 3, which prevented the true mitring of the gates, was taken down and rebuilt.

Lapalme's by-wash, at the foot of Isle Ste. Thérèse, was rebuilt and the bridge way widened to twelve feet.

Considerable repairs were made to the garde corps between St. John's and Bridge No. 3; four miles in length of this railing being completely rebuilt.

The posts were set again and those which were decayed or otherwise damaged replaced.

The six inch square wooden top rail, which was expensive to keep in repair, has been replaced by a $\frac{3}{4}$ inch steel wire cable, with metallic caps on head of each post. This has not cost any more than the wooden rail and will last much longer.

It would be advantageous to continue the renewal of this railing or garde-corps ; for the remaining portion of it, once renewed as above, the cost of maintenance would be trifling.

A forge, for canal purposes, has been installed in a commodious building, convenient to the main workshops. The costly cartage from the private forge, at the village of Chambly Basin to the workshops, has been done away with ; the wrought iron and castings finished, which were furnished by the blacksmith, at the rate of eight cents per pound, are now purchased at trade price and prepared ready for the work in the canal shop at a cost not exceeding four cents per pound.

On the large quantity of iron employed during the fiscal year a considerable saving has been affected.

The slope walls were repaired and the canal bottom cleaned, during the month of April.

The walls of all the locks were pointed with Portland cement, and the projecting stones in the masonry trimmed.

Repairs to swing and road bridges, culverts, ditches, fences and ferry scows, have been made when required and in such a manner as to ensure the efficient working of the canal during the year.

Two additional docking trestles, were built with a view of converting Lock No. 7, into a dry dock for repairing vessels, which might be damaged in the canal or elsewhere.

The lower guide pier at Lock No. 5 was entirely rebuilt.

A lamp was placed on the east or towpath side of the canal, at each of the locks, to prevent accidents.

The Government ground surrounding the Superintendent's office at Chambly, which was in such a bad state as to make it an eye-sore to the public, has been levelled and covered with green turf ; gravel walks were made and trees planted, &c.

Muskrats' holes in the canal bank on the river side, at Ile St. Thérèse, were discovered in good time and the damage done speedily repaired, no delay being caused thereby to navigation.

The sum voted for repairs, for fiscal year 1887-88, was.. \$13,850 00

The expenditure amounted to..... 11,823 74

Leaving an unexpended balance of..... \$ 2,026 26

which it is the intention to utilize towards the purchasing of materials and machinery required for the erection of a saw mill and finishing shop in connection with the canal.

IMPROVEMENTS CHARGEABLE TO INCOME.

The work done on this canal during the lapsed fiscal year under the head of Income, is subdivided as follows :—

Rebuilding Upper Entrance Pier, St. John's.

This pier, which is fifteen feet in width, extends from above Jones' bridge for a distance of 1,450 feet, thus forming the harbor of St. John's.

It was formerly built on each face with two tiers of timber superposed, the sides being bound together by cross ties. The action of the ice and high waters had so disjoined it that the whole structure looked like a complete ruin.

This pier was entirely rebuilt, but with an additional tier. Bottom floorings were placed at every twelve feet alternately and bonded with large stones, and all the intervening spaces also properly filled with stones. The sides were sheeted with 2-inch plank placed perpendicular and the top covered with 2-inch pine plank, fifteen feet long.

The upper extremity of the pier has been protected by an ice breaker. This pier is now utilized by the teamsters for the towing of vessels in the harbor of St. John's.

The special appropriation for this work was	\$6,000 00
The expenditure amounted to.....	5,999 67
	<hr/>
Leaving an unexpended balance of.....	33
	<hr/>

Dredging canal and raising banks.

The dredging fleet was employed from 1st July, 1887, to close of navigation in widening and deepening the canal between Wood's Creek by-wash to Jones' bridge.

Several large boulders, which were a source of danger to vessels at low water, were removed.

Cuts of six hundred feet in length were made at each of the bridges Nos. 4 and 6, and elsewhere for the meeting of vessels, and the excavated material utilized in raising the towpath between Langelier's bridge and Ile Ste. Thérèse.

Several scow loads of puddle clay were deposited at Locks Nos. 1, 3, 4 and 6, and at site of proposed by-wash above Lock No. 2.

Owing to the extensive repairs to the machinery of the dredge, which were completed only in June, the dredge did not work during the two months following the opening of navigation.

The appropriation for dredging was.....	\$10,150 00
The expenditure amounted to.....	9,068 51
	<hr/>

Leaving an unexpended balance of..... \$1,081 49

which will be utilized in purchasing in July: 1888, the coal required for the dredge.

Repairs to Canal Embankment (Rivér Side).

Owing to the unprecedented high waters of the Richelieu River, in the spring of 1887, the canal embankment, on the east or river side between Langelier's bridge and Ile Ste. Thérèse, was partly washed away, for a distance of fully three miles; the dry stone wall facing on the river side gave way, and the towpath crumbled down so much so that at certain places, it did not measure more than eight or ten feet across.

Quarries were opened and stone purchased from several parties, and a special force detailed to rebuild the damaged embankment.

The bank has been raised at different points from 12 inches to 18 inches and widened to twenty feet, the east or river side being faced with a heavy dry rubble wall to protect it against the high spring waters of the Richelieu.

On the 30th June, 1888, this rubble wall was built as far as Depelteau's farm.

The appropriation for this special work was.....	\$12,500 00
The expenditure amounted to.....	10,636 84
	<hr/>

Leaving an unexpended balance of..... \$1,863 16

which will be utilized during July and August, 1888, in completing the wall, as intended, as far as Ile Ste. Thérèse.

Rebuilding of Locks Nos. 1, 3, 4 and 6.

Considerable preparations were made during the fall of 1887, towards the rebuilding of portions of above named locks. Sixteen hundred barrels of cement and a large quantity of lumber, timber, iron, sand, cut and quarry stone were purchased

and employed in these works. Eleven derricks and a steam pump were placed in position where required.

At Lock No. 1, two coffer dams were erected above and below the lock to unwater it; all the masonry from above the lower recesses was taken down and rebuilt as well as the two guide piers at the upper end on each side of the upper entrance.

The west side chamber wall of Lock No. 3, from the lower to the upper recess, was taken down and rebuilt.

At Lock No. 6, the lower portion of the chamber on the west side, including the wing wall, recess and backing behind the same, as well as the chamber wall on the east side of the lock, were rebuilt.

On the 19th of April, when everything was ready for the opening of navigation it was discovered that through action of frost the west chamber wall of Lock No. 4 was projecting forward to such an extent that it was absolutely necessary to rebuild it.

Therefore 74 feet of the chamber, including the recess and wing walls, were taken down and re-built in the short space of 15 days, and on the 6th of May the canal was opened to traffic.

A few days after the water was let into the canal it was discovered that the west chamber wall of Lock No. 4, and last chamber wall of Lock No. 6, which had just been re-built, were standing out of line, which will entail the re-building of the backing next winter, in order to straighten the face walls.

This accident is, no doubt, attributable to the fact that the puddle trenches, at the upper extremities of said Locks Nos. 4 and 6, which had been filled some years ago, were empty. When let into the canal, the water found its way between the backing and walls, washing away the fresh cement, bringing down the backing against the walls and setting them out of line, as above stated.

By means of iron braces attached to a timber frame, placed in the ground, 20 feet behind the walls, these projecting portions were kept in position, and will stand during the present season, but it will be absolutely necessary to straighten them next winter.

The appropriation for this work was.....\$35,000 00

The expenditure amounted to..... 34,999 95

Leaving an unexpended balance of..... \$ 0 05

By Wash above Lock No. 2.

This important improvement which was strongly urged in my last annual report has been made.

This by-wash has been located 300 feet above Lock No. 2, on the east side, and at the foot of the long reach, which extends from the guard lock at St. John's, a distance of about $9\frac{1}{2}$ miles.

This stretch of canal contains the water of a branch of the Richelieu River, known as the "Petit Chenal" of the Rivière des Iroquois, and of numerous ditches and farm drains on each side.

When the bridge piers at Bridge No. 1 will be ready to receive the stop logs to be provided, accidents to the bank which were formerly frequent in that portion of the canal, will seldom occur, if at all, and in the event of such an occurrence, the damage will be repaired with hardly any detention to navigation.

The frame work of this by-wash is 12 feet in height, with an opening on the canal measuring 24 feet, and on the river side 16 feet 6 inches, provided with three wicket gates of 4 feet by 3 inches each

The tail-race, which is 378 feet long by 14 feet wide, extends to the Richelieu River, with a surface fall of 25 feet.

A dry rubble wall has been built, one on each side of the raceway, but in order to prevent them from being undermined by the water rushing through it, the bottom will have to be sheeted with plank for a certain distance.

A traffic bridge, 30 feet by 16 feet, was built on the public road, at the crossing of the tail race, 200 feet from said by-wash.

This by-wash has proved very useful in keeping dry the bottom of the locks under course of reconstruction last winter, as it was not necessary to erect any dam or use a steam pump.

The appropriation for this work was.....	\$3,500 00
The expenditure amounted to.....	3,499 72
Leaving an unexpended balance of	<u>\$ 0 38</u>

Renewal of Machinery of Dredge No. 1.

The dredging fleet was thoroughly overhauled and repaired during the winter; the hull of the dredge and scows were caulked and painted.

The machinery of the dredge was partly renewed; a new steel boiler was purchased and placed in position, the engine proper repaired, and a new 1-inch crane chain provided to replace the old one, which was too weak.

The amount granted was.....	\$5,800 00
The expenditure amounted to.....	5,799 83
Leaving an unexpended balance of	<u>\$ 0 17</u>

Building Telephone Line.

A private telephone wire was strung by the Bell Telephone Company on their posts for the use of this canal between St. John's and Chambly.

Telephone lines, connecting the canal workshop, the Superintendent's residence and office, and the Collector's residence and office with the main line, were also erected by our own men.

There are three distinct telephone lines converging to the Superintendent's residence or office as required, besides an exchange connection at Chambly agency of Bell Telephone Company, for which an annual rental of \$25 is paid.

These isolated lines converging to the Superintendent's office or residence enable him to have a constant supervision over the canal and render the management much more efficient.

There are nine telephonic stations on the main line between Chambly and St. John's, four on the line connecting the workshops, and four on the Superintendent's line, including the Montreal agency at Chambly Basin.

Ample provision of tools, exchange apparatus and material for repairs of said lines has been made, and the lines are kept in proper order by our own employés.

It is estimated that the telephone service on this canal effects a yearly saving of the cost of its erection by doing away with carriage hire, delay to works and otherwise giving facility to prevent accidents.

The only trouble experienced is the induction with the line of the Bell Telephone Company, which is strung on the same poles as our line between Chambly and St. John's. The company intend to sell their line, and I would here advise its purchase by the Government in order to improve the service on the main line.

The sum voted for this work was.....	\$1,500 00
The cost of erection amounted to.....	1,244 95
Leaving an unexpended balance of.....	<u>\$ 255 05</u>

Portion of which it is the intention] to utilize in completing and improving the service.

New Steam Dredge.

A new steam dredge and scows under construction for service on the lower division of the St. Lawrence Canals are now completed and will be despatched to do the dredging contemplated on the Beauharnois Canal, as provided for in fiscal year estimates for 1888-89.

The appropriation voted towards the construction of this dredging fleet was.....	\$19,240 00
The expenditure amounted to	19,238 65
Leaving an unexpended balance of.....	<u>\$ 1 35</u>

ST. OURS LOCK.

This lock was closed to navigation on 25th November, 1887, and re-opened on 19th April, 1888.

There was no accident, nor was it necessary to impose any fine for violation of canal regulations.

The walls of the lock were pointed where required and the bottom cleared of sand and gravel. Some leaks under the mitre sills and walls of the lock were stopped with gravel. The lock gates were also raised and adjusted.

The old lock gates which had been repaired during last summer were placed under a shed, which was built for that purpose, to keep them in good order.

One of the lower piers which had been damaged by the high spring water was repaired and refilled with stone.

Nine scow loads of gravel were unloaded along the upper side of the dam to prevent damages to foundations.

The banks of the island at the north-west or upper extremity of the lock were protected with stone purchased for that purpose.

The ice was cut away from the piers and lock gates, and the gates were loaded to prevent their being lifted by high water in the spring.

The booms were removed in the fall, placed in winter quarters and replaced in the spring.

Thirteen wheelbarrows were made and fourteen old ones repaired.

The Superintendent's house, outbuildings and fences received some repairs and were kept in good order.

The scows for the repairs of that station, as well as the ferry scow, were repaired and the mooring posts and lamp posts were renewed where required.

Preparations are now being made towards overhauling the foundations of the lock, which have shown signs of weakness; an appropriation of \$50,000 having been affected for that purpose.

The sum voted for repairs on the St. Ours lock and dam, was.....	\$2,975 00
The expenditure amounted to.....	2,801 17
Leaving an unexpended balance of.....	<u>\$ 173 83</u>

RICHELIEU RIVER.

The survey on the Richelieu River between Rouse's Point and Chambly, was continued during the year. All the lowlands between St. John's and Rouse's Point [1888]

as well as South River were explored and surveyed. A complete survey of the River St. John's and Fryer's Island with soundings was also made.

I append the report of Mr. L. G. Papineau, C. E., P. L. S., in charge of the survey on the subject.

I have the honor to be, Sir,

Your obedient servant,

E. H. PARENT,

Superintending Engineer.

A. P. BRADLEY, Esq.,
Secretary Railways and Canals, Ottawa.

LACHINE CANAL.

STATEMENT of Amounts collected for Wood Dues and Winterage of Vessels during the Fiscal Year ended 30th June, 1888.

Date.	Items.	Amounts.
		\$ cts.
1887-88...	Wood dues	466 48
	Winterage	91 56
	Total.....	558 04

JOHN O'NEILL,
Collector.

CANAL OFFICE,
MONTREAL, July, 1888.

LACHINE CANAL.

STATEMENT of Basin, Wharfage and Bank Dues collected during the Fiscal Year ended 30th June, 1888.

Date.	Items.	Amounts.
		\$ cts.
1887-88...	Basin dues.....	1,720 56
	Wharfage dues	47 97
	Bank dues	21 00
	Total.....	1,789 53

J. B. DESCHAMPS,
Pro Collector.

CANAL OFFICE,
LACHINE, July, 1888.

LACHINE CANAL.

STATEMENT of Fines and Damages collected during the fiscal year ending
30th June, 1888.

Date.	Names of Vessels.	Name of Owners.	Fines.	Damages.	Totals.
1887-88.			\$ cts.	\$ cts.	\$ cts.
Nov. 16....	Schooner Reine des Agnes.	N. Pagé .....	.....	8 00	8 00
June 22....	Raft of floated timber.....	J. B. & Grier.....	10 00	.....	10 00
		Totals	10 00	8 00	18 00

JOHN O'NEILL,
Collector.

CANAL OFFICE,
MONTREAL, July, 1888.

BEAUHARNOIS CANAL.

STATEMENT of Fines and Damages collected during the Fiscal Year ended
30th June, 1888.

Date.	Names of Vessels.	Name of Owners.	Fines.	Damages.	Totals.
1887.			\$ cts.	\$ cts.	\$ cts.
July 5.....	Barge "Ontario"	Ogdensburgh C. & T. Co...	10 00	.....	10 00
Nov. 9.....	Propeller "Acadia"	A. H. Malcomson. ....	.....	20 00	20 00
		Totals	10 00	20 00	30 00

J. F. BEIQUÉ,
Superintendent.

CANAL OFFICE,
MELOCHEVILLE, July, 1888.

CHAMBLY CANAL.

STATEMENT of Fines and Damages collected during the Fiscal Year ended
30th June, 1888.

Date.	Name of Vessels.	Name of Owners.	Fines.	Damages.	Totals.
1887.			\$ cts.	\$ cts.	\$ cts.
July 1 ...	Scow "Union St. Joseph" ...	P. St. Amand.....	.....	19 60	16 60
do 21...	do "St. Bernardin"	G. Gill	5 00	.....	5 00
Aug. 6 ...	Barge "Robins"	C. Robins	5 00	.....	5 00
do 22..	do do	do .....	.....	2 00	2 00
do 22...	Scow "M. Robidoux"	M. Robidoux .....	.....	6 00	6 00
Sept. 2 ...	do "St. Bernardin"	G. Gill .....	.....	4 00	4 00
do 26...	Barge "Cooper"	A. Cardinal .....	.....	1 50	1 50
do 28...	Scow "Providence"	E. Vairille.....	.....	2 50	2 50
Nov. 3 ...	do "St. Joseph"	E. Lussier.....	.....	2 50	2 50
1888.					
June 27—	Barge "Jessie Billings" ...	J. Lowell.....	.....	2 60	2 60
		Totals.....	10 00	40 70	50 70

D. MARTEL,
Collector.

CANAL OFFICE,
CHAMBLY, July, 1888.

LACHINE CANAL.

STATEMENT showing the Depth of the River Water on the Mitre Sills of Lock No. 1 at lower entrance and Lock No. 5 at upper entrance during the Fiscal Year ended 30th June, 1888. (From Lockmaster's Returns.)

Months.	Lock No. 1, Lower Sill.		Lock No. 5, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1887.	ft. in.	ft. in.	ft. in.	ft. in.
July.	19 7	18 8	12 7	11 10
August	18 7	17 4	11 9	10 11
September	17 6	16 6	11 0	10 4
October.	16 11	16 3	10 8	10 2
November.....	16 6	15 10	10 4	9 10
December.....	30 10	16 0	11 3	9 10
1888.				
January	33 8	26 3	11 7	9 7
February	28 1	24 0	11 7	8 2
March	28 6	24 8	10 7	8 10
April	36 3	22 2	11 9	10 6
May	24 8	21 0	14 11	11 11
June	23 0	20 11	14 10	12 10

BEAUHARNOIS CANAL.

STATEMENT showing the depth of the river water on the Mitre Sills of Lock No. 6, at lower entrance, and Lock No. 14, at upper entrance, during the fiscal year ending 30th June, 1888. (From Lockmaster's Return.)

Months.	Lock No. 6, Lower Sill.		Lock No. 14, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1887.	ft. in.	ft. in.	ft. in.	ft. in.
July	13 4	11 9	13 0	12 1
August	11 10	11 4	12 3	11 10
September	11 2	10 4	12 3	11 9
October	10 3	10 0	12 1	11 2
November.....	9 11	9 8	12 0	11 0
December.....	13 0	9 11	12 0	10 10
1888.				
January.....	22 6	13 0	12 11	11 10
February.....	22 0	17 6	12 4	9 11
March.....	23 1	18 0	11 11	10 3
April.....	18 0	13 0	12 6	11 10
May.....	14 10	11 2	12 4	11 11
June.....	13 6	12 7	12 2	11 10

CHAMBLY CANAL.

STATEMENT showing the Depth of the River Water on the Mitre Sills of Lock No. 9, at lower entrance, and Lock No. 1, at upper entrance, during the Fiscal Year ending 30th June, 1888. (From Lockmaster's Returns.)

Months.	Lock No. 9, Lower Sill.		Lock No. 1, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1887.	ft. in.	ft. in.	ft. in.	ft. in.
July	12 6	10 10	9 6	8 3
August	11 2	9 6	8 9	7 6
September	9 8	8 6	7 8	7 0
October	8 8	7 9	7 10	7 0
November.....	10 4	7 6	8 0	6 5
December.....	12 4	9 4	8 0	7 6
1888.				
January.....	13 8	11 7	8 0	7 4
February.....	14 1	12 10	8 2	7 3
March.....	18 5	12 9	9 4	7 5
April.....	20 0	16 6	10 6	9 4
May.....	18 5	16 2	12 6	9 7
June.....	16 1	12 10	12 4	10 7

ST. OURS LOCK.

STATEMENT showing the depth of the River Water on the Mitre Sills of St. Ours Lock during the Fiscal Year ending 30th June, 1888. (From Superintendent's Return.)

Months.	Lock No. 1, Lower Sill.		Lock No. 1, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1887.	ft. in.	ft. in.	ft. in.	ft. in.
July	11 3	9 9	10 8	9 4
August.....	9 10	8 4	9 8	8 4
September.....	8 4	7 3	8 9	7 11
October.....	8 3	6 8 $\frac{1}{2}$	8 2	7 8
November.....	7 9	6 7	9 4	7 4
December.....	10 9	7 9	9 8	8 7
1888.				
January.....	11 10	10 5	9 2	8 4
February.....	10 11	9 9	9 0	8 5
March.....	15 5	9 10	12 0	8 8
April.....	20 0	16 7	16 0	13 3
May.....	18 7	15 2	14 11	13 3 $\frac{1}{2}$
June.....	16 3	12 10	13 2 $\frac{1}{2}$	10 11

APPENDIX No. 8a.

SUPERINTENDING ENGINEER'S OFFICE,

MONTREAL, 9th November, 1888.

SIR,—I beg to enclose herewith, to be annexed to my annual report, forwarded to the Department on the 29th ultimo, the annual report of Mr. L. G. Papineau, C. E., P. L. S., on the hydrographic survey of the Richelieu River for the fiscal year 1887-88.

I have the honor to be, Sir,

Your obedient servant,

E. H. PARENT,

Superintendent Engineer.

A. P. BRADLEY, Esq.,

Secretary Department of Railways and Canals,
Ottawa.

RICHELIEU RIVER SURVEY,

ST. JOHN, 1st July, 1888.

SIR,—In reference to the hydrographic surveys made by my assistants and myself under your superintendence during the fiscal year ending 30th June, 1888, I have the honor to report that the survey of Richelieu River, between St. John's and the United States boundary, was completed by the examination of the low lands adjoining the Richelieu, from Sabrevois to South River, on the east shore, and from the Village of St. Valentine to Sturgeon Point on the west shore.

In September, 1887, we made an examination of South River, in view of ascertaining what improvements could be made to the bed of this stream, for navigation purposes and a direct communication with Missisquoi Bay, and also how the neighboring lands would be affected by a change of level in the Richelieu.

In October the survey above referred to was interrupted and we returned to St. John's, to resume the examination of that portion of the river, below the St. John's Rapids. This survey was continued as far as the head of Isle St. Thérèse Rapids $7\frac{1}{2}$ miles distant from St. Johns.

Towards the end of November we returned to St. John's and resumed office work. We were engaged up to June of the present year in completing the plans of the river from St. John's to Rouse's Point, adding to the work already done the survey of the low lands made during 1887 and reducing these plans to a smaller scale, and also in preparing plans and profiles having reference to the project of the Hydraulic and Manufacturing Company of St. John's and Iberville, for the improvement of the Richelieu River.

The plans of the upper portion of the Richelieu made to a scale of 1,000 feet to one inch, now deposited in your office, form a complete series which could be put together to form a sheet of convenient dimensions and would give valuable information to the navigation if it was printed and published.

I have the honor to be, Sir,

Your obedient servant,

L. G. PAPINEAU,

Assistant Resident Engineer.

E. H. PARENT, Esq.,

Superintending Engineer of Canals,
Montreal.

APPENDIX No 9.

OTTAWA RIVER CANALS.

SUPERINTENDING ENGINEER'S OFFICE,

OTTAWA, 14th August, 1888.

SIR,—I have herewith the honor to transmit my annual report for the fiscal year ending 30th June, 1888, upon the Ottawa River Canals.

CONSTRUCTION.

All works coming under the head of "Construction" were completed prior to the 30th June, 1887.

MAINTENANCE.

Ste. Anne's Canal.

This canal was closed on the 28th November, 1887, and reopened for traffic on the 2nd May, 1888.

Ordinary repairs have been made to the locks and lock gates, the guide lights for the upper entrance, Government buildings, roads, fences, &c., and eight buoys have been placed above and below the locks for the better guidance of vessels. Two day signals for the upper entrance channel have been also provided.

A length of eighty feet of old protection cribbing, south of the old lock, has been completely renewed, and 230 feet above the same lock has received necessary renewal and repair, inclusive of the ice breaker at its head.

The pier work here is now all in good order excepting that built by the Grand Trunk Railway Company in 1853-54, south of the canal basin, which still wants attention.

CARILLON CANAL.

Lock Nos. 1 and 2

Ordinary repairs to the lock gates and machinery have been made here, and the towing path, fences, roads and bridges have received the necessary attention.

A wharf for the deposit of fuel, supplies, &c., for steamers, and which was much needed, was built during the winter of 1887-88 on the north side of the canal, close to the outlet lock. This wharf is composed of a row of crib work 100 feet long, ten feet wide and nine feet high.

This canal was closed on 30th November, 1887; reopened, 2nd May, 1888.

GRENVILLE CANAL.

Locks Nos. 3, 4, 5, 6 and 7.

The same remarks apply here as to the Carillon Canal. It was closed and opened on the same dates. Such repairs as were found necessary received attention. Locks, lock gates, roads, fences, towpaths, slopes with all the various bridges and culverts have received careful examination and, where needed, repair or renewal.

I would remark here that new swing bridges will ere long have to be erected at Locks Nos. 5 and 7. The old ones are rapidly getting past repair, rendering their substitution a necessity.

CULBUTE CANAL.

Such repairs as were absolutely necessary have been done at the locks here and at the draw bridge at Chapeau Village.

With the exception of an occasional steamer, belonging to the Upper Ottawa Improvement Company, nothing has passed through the locks during this year.

I have the honor to be, Sir,

Your obedient servant,

D. STARK,

Superintending Engineer.

A P. BRADLEY, Esq.,

Secretary Department of Railways and Canals,

Ottawa.

 APPENDIX No. 10.

CORNWALL, 11th August, 1888.

SIR,—Enclosed herewith please find annual report on the Cornwall Canal, for the fiscal year ended 30th June, 1888.

I have the honor to be, Sir,

Your obedient servant,

D. A. McDONELL,

Superintendent.

A. P. BRADLEY, Esq.,
Secretary Department of Railways and Canals,
Ottawa.

CORNWALL, 11th August, 1888.

SIR,—I have the honor to submit the following annual report on the works under my charge, for the fiscal year ended 30th June, 1888.

The Cornwall canal was maintained in an efficient state, until the 4th December, 1887, when it was closed by ice; was opened for navigation on the 2nd of May, 1888, and continued in good working order up to the 30th June last.

The work executed during the past season comes under the head of ordinary repairs and construction.

Rebuilding one pair lower lock gates.

General repairs to all lock gates, supply weirs and bridges.

Making seven new lock-gate knees, ten sheaves.

Raising pier at foot of canal, by three courses of timber.

Raising embankment from Gault Factory to Lock No. 18, to guard against the rise of water, when the ice shoves in winter.

Repairing slope walls, cleaning out side ditches and drains, and repairing lock houses.

I have the honor to be, Sir,

Your obedient servant,

D. A. McDONELL,

Superintendent.

A. P. BRADLEY, Esq.,
Secretary Department of Railways and Canals,
Ottawa.

APPENDIX No. II.

WILLIAMSBURG CANALS.

MORRISBURGH, 15th August, 1888.

SIR,—I have the honor to submit my report of the working and condition of the Williamsburgh Canals (embracing the Farran's Point, Rapide du Plat, Point Iroquois Junction and Gallops Canals) for the fiscal year ending the 30th June, 1888.

These canals were maintained in good order and without any interruption to navigation during the season thereof; they were closed for the winter on the 5th of December, 1887, and re-opened on the 2nd May, 1888.

FARRAN'S POINT CANAL.

A new block was placed on the coping for hanging lock gate and a new knee was put into lockgate. General repairs were also done to both upper and lower gates of the locks. The sheaves defective in chain-holes were removed, and new ones placed instead. The ice breaker and pier at the foot of the canal injured by ice owing to the high water at the time of the ice breaking up this spring, will require to be repaired during this fall. The banks are in good repair.

RAPIDE DU PLAT CANAL.

The new lock gates and lock at the head at this canal have been in use since the opening of navigation this spring. Repairs necessary were done to the lock gates at Lock No. 23, at the foot of the canal. The pier at the head of this canal injured by the ice at the breaking up will require to be partially rebuilt. The pier and dock at the foot of the canal were repaired and the banks kept in good order. Some difficulty was experienced during the early part of the season from the low water in the River St. Lawrence, and in keeping up the canal to its proper depth while locking, but this will be remedied by the supply weir now in progress of building.

IROQUOIS JUNCTION AND GALLOPS CANAL.

The gates at Lock No. 25, Iroquois, were taken out and rebuilt. The gates at Locks No. 26 and 27 received repairs where requisite. The swing bridges at Locks Nos. 25 and 26 received repairs and were kept in good order. The banks and several piers on these canals, as well as the booms in Point Iroquois Canals have been duly maintained. The buoys on the St. Lawrence under my charge between Johnstown and Dickinson's Landing were replaced this spring, and maintained in their proper positions.

The buoy boat and repair scow were repaired.

I annex a statement showing the depth of water on the sills of the several locks at the entrances and outlets of these canals during the year.

I have the honor to be Sir,

Your most obedient servant,

A. G. MACDONELL,

Superintendent Williamsburgh Canals.

A. P. BRADLY, Esq.,
Secretary, Department of Railways and Canals,
Ottawa.

STATEMENT showing the Extreme Depth of Water on the Mitre Sills of the several Locks during the year ended 30th June, 1888.

FARRAN'S POINT CANAL.

Months.	Lock No. 22, Lower Sill.		Months.	Lock No. 22, Lower Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1887.	ft. in.	ft. in.	1888.	ft. in.	ft. in.
July.....	11 3	10 9	January.....	10 3	8 0
August.....	10 9	9 10	February.....	10 5	7 5
September.....	10 4	9 4	March.....	9 2	8 0
October.....	10 0	9 4	April.....	9 8	8 10
November.....	9 6	8 6	May.....	9 8	8 10
December.....	9 4	8 2	June.....	9 9	9 4

RAPIDE DU PLÂT CANAL.

Months.	Lock No. 23, Lower Sill, Foot of Canal.		Lock No. 24, Upper Sill, Head of Canal.	
	Highest.	Lowest.	Highest.	Lowest.
1887.	ft. in.	ft. in.	ft. in.	ft. in.
July.....	11 4	10 9	11 6	10 6
August.....	10 9	9 11	10 9	10 3
September.....	10 7	9 0	11 0	9 8
October.....	10 4	9 0	11 6	8 10
November.....	9 1	8 4	9 6	8 3
December.....	9 1	7 8	9 0	8 0
1888.				
January.....	9 6	7 9	8 9	6 6
February.....	8 6	6 8	7 3	5 10
March.....	8 10	7 1	8 3	6 9
April.....	9 6	8 4	9 10	8 3
May.....	9 6	8 9	10 6	9 3
June.....	6 9	9 0	10 3	9 5

POINT IROQUOIS AND GALLOPS CANAL.

Months.	Point Iroquois Canal. Upper Sill—Lock No. 25. Foot of Canal.		Gallops Canal. Upper Sill—Lock No. 27. Head of Canal.	
	Highest.	Lowest.	Highest.	Lowest.
1887.				
	ft. in.	ft. in.	ft. in.	ft. in.
July.....	14 6	10 8	11 11	11 2
August.....	13 11	12 6	11 7	10 9
September.....	13 6	11 9	11 6	10 0
October.....	14 0	11 9	11 6	9 11
November.....	12 0	10 11	10 5	9 0
December.....	11 9	10 3	10 0	9 2
1888.				
January.....	11 0	8 6	9 6	8 6
February.....	9 6	8 0	8 7	7 6
March.....	10 11	8 9	9 10	8 2
April.....	12 3	10 7	10 4	9 3
May.....	12 4	11 0	10 4	9 11
June.....	12 6	11 10	10 6	9 8

[1888]

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 APPENDIX No. 12.

 WELLAND CANAL.

SUPERINTENDENT'S OFFICE,

ST. CATHARINES, 4th October, 1888.

SIR,—I have the honor of herewith submitting my report on the condition of the working of the three canals under my charge, viz. ; the Old, the New, and the Feeder, for the year ending 30th June, 1888.

The canals have been operated successfully throughout the year without serious accident.

The harbor at Port Colborne requires widening opposite the elevator, without further delay, to afford safety for the long vessels now using it, this is more particularly shown on the plan I forwarded to the Chief Engineer last year. The harbor at Port Dalhousie requires to be dredged next spring on the east side, where there is for a considerable distance only from 4 to 9 feet of water for a distance of 40 feet out from the face of the pier, rendering it impossible for vessels to tie up for that long stretch.

The canals were closed on 5th December, 1887, and opened 1st of May, 1888.

I have the honor to be, Sir,

Your obedient servant,

WILLIAM ELLIS,

Superintendent.

A. P. BRADLEY, Esq.,

Secretary Department of Railways and Canals.

Ottawa.

NEW WELLAND CANAL—DETAILS OF WORK OF REPAIRS AND MAINTENANCE,

DIVISION No. 1.—FROM PORT DALHOUSIE HARBOR TO LOCK No. 13.

Port Dalhousie Harbor.

Removed rotten top timbers at various places and replaced with new.

Gate Yard and Shop (Port Dalhousie).

Built new shed for storing timber, lumber, tools and engines ; size, 115 by 35 feet ; 14 feet posts.

Built new pile driver with steam hoisting apparatus and engine ; size of scow, 22 by 40 feet ; 5 feet depth of hold, leaders 45 feet high, plated with iron.

One hundred and fourteen new snubbing posts turned, and 20 new posts, extra size, made for spare posts.

Two scows drawn out on skidways, caulked and generally overhauled and repaired and re-launched; the other scows, pontoons, floats, &c., were all carefully put away and moored for the winter; the old land pile driver repaired and put on scow for floating use; sheet pile driver repaired and put in good order; made fifty new extensions, five new gates (for fences), one hundred new wedges, ten lamp ladders, two bridge ladders and five lock ladders. Scow "Red Rover" overhauled and made into a ferry scow for Chippewa Creek; the old floating pile driver scow leaders and top work all taken off and scow repaired and sent to Dunnville. Platforms and stairs made and put down at lock houses, also stairs for descending banks to water closets; twenty new ladders made for Division No. 2. Bridge notice boards and posts made, painted and put up at several swing bridges: all valuable timber for winter stored away in shed built for that purpose; new shutters made and fitted on storekeeper's house.

Lock No. 1, Bridge No. 1, and Level.

Put on two new long opening cables to lock gates; twenty-four water wheels and four shafts repaired; also two bridges and one binder on head of lock gates; put on five new brass matrixes, one new sheave and two cranks, twenty-one sets gearing and 13 shafts repaired; put on four walings, also twelve new steel water wheel shafts; twelve shaft boxes cast and rabbeted, twelve couplings, twelve top cast boxes, twelve lignum vitae boxes, and twelve oak shaft fenders and four new short shafts in water wheels; put on one new foot bridge, 6 by 31 by 26 oak; 37 rag bolts put in head gate sills, and twenty-five rag bolts drove in foot gate sills and sill bed; seven round iron piles, $3\frac{1}{2}$ inches in diameter, 9 to 12 feet long, drove through mitre sills; sills, braces and king sill, with pile driver, heads of piles rounded and countersunk and washers of flat iron; put on one new screw, two new intermediate gears, one short cable and one new valve, seventy-five cords of stone put in at foot of retaining wall, to prevent wall and side of bank sliding into channel; bridge replanked and screwed up truss rods, set cams, and put plates on top chord.

Lock No. 2 and Level.

Repaired hand rail and lifting rod; also 11 water wheels. Put on new extension pieces, new spur and crown wheel, 1 new valve crank, 2 new brass matrixes and washers, and 1 new short cable. Repaired 13 water wheel shafts, 3 cables, and 1 intermediate gear. Cut stone out for drum box, repaired crib and 4 set of locking chains; 3 new pinions and 3 sets of shaft walings put on.

Lock No. 3, Bridge No. 2 and Level.

Repaired 7 water wheel shafts, 6 walings, 2 pinions and set screws; also 2 sets of locking chains and sister hooks, and 3 sets of gearing. Put on 15 new wood boxes and 1 new cable. Repaired 5 water wheels, and 12 water wheel shafts capped, and 2 new extension pieces put on; also 1 new intermediate gear, one collar repaired, and new cone roller frame put in. Dressed out stone for crab drum box, and repaired crab and locking chains. Put on 1 new mast and long shutting chains.

Swing bridge re-planked and cut locking block on rest piers, and put spliced plates on top chord where broke. Towpath bridge replanked. 4,942 yards ditches opened from Lock No. 3 to Welland Canal avenue to carry soakage water from canal and sewerage water from St. Catharines.

Lock No. 4 and Level.

Eight sets of gear repaired; 2 new crown wheels and pinion put on; 1 crab, 2 valve cranks repaired; painted snubbing posts. 15 new wood boxes, 20 wood screws, 3 cone rollers, 1 extension, 2 guards, 1 waling, 12 caps for shafts and 1 bronze pinion put on.

Repaired 1 cannon, 6 shafts, 2 valves, 2 water wheels, 2 crabs and 1 crab drum; extension to foot boards; repaired and put rests under hand rail; cone roller frame repaired and new roller put in; 1 new piece of wheel shaft put in, and balance repaired.

Towpath bridge replanked.

Lock No. 5 and Level.

One new extension, 3 new pinions, 2 new pinion cables, 6 new wood boxes, 12 new caps to cover top of wheel shafts, 5 new brass matrixes, 2 brass washers, 1 new locking gear and chain put on lock gates. Seven sets of gearing repaired, and 2 sets shifted; 5 water wheels and 1 opening cable and chain repaired; 1 new steel plate put in for turntable. Repaired hand rail and put piece under to receive ends of rail, and put in 1 set screw, 2 new shaft guards and 1 new shutting chain.

Painted snubbing posts.

Bridge No. 3, Lake Street.

Floats repaired; 24 new chains and eye-bolts, new fenders and 24 new shackles, 2 new pieces of pine, 12 by 12 feet 30 feet long, put in floats; the end cribs have been built up three courses higher with 12 by 12 feet timber, and the crib filled up with stone; approaches repaired.

Bridge overhauled and put in good working order and replanked. Screwed up truss rods and put spliced plates on top chord.

Bridge No. 4, Railway Bridge.

Floats repaired with 8 new chains, plates and eye bolts, 3 pieces, 12 by 12 inch pine, 30 feet long put in float cribs at both ends of bridge; raised 3 courses 12 by 12 inch pine and filled up with stone. Put new waling in bridge and replanked. Put new cams and rests on rest pier, also new safety rollers under bridge.

Lock No. 6, and Level.

Repaired twenty-four sets gear, seven water wheel shafts, one extension, three cone rollers, two water wheels, two crabs, two valve hoods, and one clifting rod; put on two new crown water wheels, three pinions, four new steel opening cables (long), two short cables and two new brass matrixes, new plate put between friction of turntable.

Took stone out of mitre sill, repaired two sets lockings and sister hooks; waste weir bridge replanked and new stringers put under. Built 1,368 feet, fences.

Lock No. 7, Bridge 5, and Level.

Repaired five water wheels, one crab, four sets gearing, two cone rollers, three sets locking chain, and put on two new cranks (for valves) twenty-seven new shaft boxes, two new pinions, one new cone roller, two shaft walings, one set screw gearing, four new brass matrixes, one new clutch and standard, one new shutting chain, and three new shaft feeders, changed all the gearing from fast to slow motion. Took out bent shaft repaired it and replaced. Repaired broken valve and removed piece from between gate and sill; built 2,700 feet fencing and repaired 120 feet.

Bridge No. 6, Niagara Street.

Repaired floats with nine new shackles, 5 new eye bolts, and put in three pieces of pine 12 inches by 12 inches by 30 feet long; three pieces oak waling put in bridge; and broken plank replaced by new ones; one piece of oak put in for cluster pile brace, put new piece of timber in section of top chord with spliced plates in bridge 250 yards of earth were put in to raise lot at bridge approach, also 264 feet of fence built and 1,300 feet ditching.

Lock No. 8, and Level.

Repaired 9 sets gearing, 3 shafts, 2 set locking chains, 2 waterwheels and 3 crabs; put on 2 new long opening cables, 2 new pinions, 1 new bridge, 10 bridge bolts, 2 new intermediate gear, 1 extension, 15 wood, 5 shaft boxes and 2 new shutting chains, 6 sets of gearing changed from old to new and 2 new valve screws put in, removed stone from mitre sill and put two iron straps from bridge to lock gate to hold bridge down, spliced one cable.

Lock No. 9, and Level.

Repaired 2 sets gearing and put on 3 new shafts, 6 shaft walings, 10 wood shaft boxes, 1 new pinion, 1 new short opening cable, 2 new cone rollers, 1 new crown water wheel and new caps on top of shafts, also repaired 2 shutting chains, 3 water wheels and shaft boxes for same; repaired 2 valves and 1 extension, also 1 collar, and put iron plate to bridge, 4 feet long, 4 inches wide, $\frac{5}{8}$ inch iron, 2 through bolts $1\frac{1}{2}$ inch by 3 feet long. Took out broken binder and put in new one bolted through bridge.

Bridge No. 7, (Queenston Road).

Put 3 new pieces pine. Five new plates, chains and eye-bolts in floats. Cribs at each end raised 3 courses of timber, 12 inches by 12 inches, and filled up with stone. Floats patched up to answer until new ones could be made. Built 2 new bridges over ditch at public highway. Screwed up truss rods of swing bridge, and put long plate on top chord where broken.

Lock No. 10, and Level.

Repaired 2 water wheels, 3 shafts, 7 sets gearing, 3 crabs and levers, 1 set locking gear, 2 valves, 2 opening cables, 1 shutting chain.

Put on 15 new wood boxes, 2 new pinions, 2 new crown water wheels, 1 new intermediate gear, 7 new brass matrixes, 2 new long opening cables, and put brass washers and steel plate under spur wheels, 3 pieces shaft waling and 2 extensions put on. Took stone out of mitre sill and repaired 2 valve screws and put stay rods from bridge to gate. Took out left No. 1 lock gate and hung a new spare gate in place, changed all gearing and machinery from old gate to new, put on new waling for gearing guards, new shaft waling, 6 wood boxes, 3 new water wheels and cut away corbel for cross heads and put new stay rods on right No. 1 gate.

Bridge No. 8, Homer Road.

Repaired floats with three eye-bolts, seven shackles and one new strap; put one piece pine, 12 inches by 12 inches, by 22 feet, in bridge; truss rods screwed up and put spliced plates on top chord; cribs at both ends of bridge raised three courses, 12 inch by 12 inch pine, and filled up with stone; floats overhauled and put in order; two new fence gates hung, and 120 feet of fencing repaired.

Lock No. 11, and Level.

Repaired shutting chains and adjusted screws; repaired clutch on head gates, locking chain, crabs, gearing and shafts; put in new lifting rod and one new adjusting screw; repaired one short opening cable and cut away corbel to lower cross head.

Lock No. 12, and Level.

Put on four new brass matrixes and one new waling, broken by steamer "Clinton" repaired cross heads, shutting chains, one short opening cable, two crabs and chains. Cut corbel to get straight lead for adjusting screws and cut out two cross heads. Repaired set screws on cannon and one set of gearing.

DIVISION No. 2.—FROM FOOT OF LOCK No. 13 TO BRIDGE No. 13 (MARLATTS).

Lock No. 13, Bridge No. 9, and Level.

Put on three new brass matrixes and washers, one new extension step and one new opening cable; repaired intermediate gear, three water wheels, two wheel shafts, fenders on head gates, one extension step, two valves and opening cables; put steps and platform to lock house and cellar; screwed up truss rods, and re-set cams of swing bridge.

Lock No. 14, and Level.

Adjusted lock gates, repaired rollers, matrixes, valve, screws, water wheels, two opening cables, two cross heads, two adjusting screws and crabs; put on two new clutches, one new water wheel shaft and two new brass matrixes, four sets gearing overhauled and repaired.

Removed obstruction from under lock gate.

Lock No. 15, and Level.

Repaired rollers, crabs, cables, pinions, water wheels and extension steps; put on three new brass matrixes and washers, two new cables, one new extension step and one adjusting screw; repaired one cross head and 12 sets gearing and put on four brass washers and pinion.

Lock No. 16, and Level.

Repaired six sets gearing, one cross head, two water wheels, one water wheel shaft and three brass matrixes; put on three new clutches and one adjusting screw, and put three brass washers under standard wheel; one corbel cut away for cross head; put on two new crown wheels, one pinion, one new shaft and three new shaft walings.

Lock No. 17, and Level.

Put on six new brass matrixes, one new intermediate gear, one new bridge on head gate, one new clutch post, three new extension steps, one new pinion and one new opening cable, repaired nine sets gearing, one water wheel and shafting, and put two new fenders on wheel shafts; repaired fences on St. David's Road, in numerous places broken by contractors raising the banks of canal, cleaned out St. David's Road Tunnel twice.

Lock No. 18, and Level.

Repaired and put in working order twelve sets gearing, three water wheel valves, and straightening two wheel shafts; cut away corbel for cross head; repaired cross head and put in one adjusting screw; put two new straps from bridge to top of lock gate to keep bridge from rising while the valves are being closed, removed obstruction from under lock gate, put on one new pinion and repaired three opening cables, also put steps and platform to lock house.

Lock No. 19, and Level.

Twelve sets gearing overhauled and put in working order, and two water wheel shafts repaired. Put on two new pinions, one new spur wheel, new intermediate gear, three new steel set screws, two new sets gearing, four new clutches, two new extension steps, two new opening cables, and seven new shaft boxes. Cut away corbels for two cross heads, and drilled out broken set screws. Put steps and platform to lock house, repaired valve gearing on waste weir, also mitre sill and apron of lock.

Lock No. 20, and Level.

Repaired two water wheel shafts, four brass matrixes, one adjusting screw and twelve sets gearing; put on one new pinion, one new corbel and one new valve screw, cut away corbel for adjusting screws. Put new steps and platform to lock house.

Lock No. 21, and Level.

Repaired valve and rods on head gates; took out obstruction from under lock gate, and repaired valve; repaired four sets gearing, one cross head and three brass matrixes; put on two new water wheels, one pinion and two new brass matrixes. Put steps and platform to lock house.

Lock No. 22 and Level.

Repaired twelve sets gearing, five water wheel shaft, one spur wheel one intermediate gear, and four water wheels. Put on two new brass matrixes, one new extension, and one new gear on crab, also put on one new opening cable and repaired two. Repaired and raised four lock gate beds in pond for spare lock gates, repaired plates.

Lock No. 23 and Level.

Repaired nine sets of gearing, ten shaft boxes, one water wheel shaft, one brass matrix, and cut top corbel away to lower cross head, and put on one short binder.

Lock No. 24, Bridge No. 10, and Level

Repaired twelve sets gearing, one valve, two water wheel shafts, one pinion, one adjusting screw and bar also three water wheels. Put on new waling, one new collar, one new pinion, two new opening cables.

Repaired rack at Hoover's Culvert. Put new locking bolt on bridge and spliced bottom chord.

Bridge No. 11 (Railway Bridge).

Repaired floats with new eye-bolts and chains, also repaired fender work, and end of crib. Put drain in bank on west side of canal, dug down 3 feet and filled with broken stone to carry off soakage from foot of Lock No. 24, put new key in rock shaft of locking gear.

Lock No. 25, Bridge No. 12, and Level.

Repaired twelve sets gearing, put on three water wheel shafts and one water wheel.

Took out twelve water wheel shafts, straightened and replaced them. Took off all water wheels repaired and replaced same.

Put on two new brass matrixes four extensions, five new wood shaft boxes, one adjusting screw on four lock gates. Repaired two opening cables and put on two new ones.

Guard Lock.

Repaired roller on turntable of lock gate, also repaired two opening cables and put on one new.

Bridge No. 13, Marlatt's.

Repaired floats with new eye-bolts and plates, also fender work.

DIVISION No. 3—FROM BRIDGE No. 13 (MARLATT'S) TO AQUEDUCT AT WELLAND.

Bridge No. 14. (Allanburgh).

Repaired fenders of bridge and approaches of same with 66 lineal feet, 10 by 12 inch oak waling, renewed bridge fenders, dwelling houses, built new kitchen, and woodshed, 16 by 36 feet, one and one half stories, also new stone vault to W. C. Painted and papered both houses, built new fence, graded and ditched the lot, screwed up truss rods of bridge and put on spliced plates.

Bridge No. 15 (Port Robinson).

Repaired floats, one bridge put new brace in approach of bridge 12 by 12 inch by 40 feet, oak. Put spliced plates and bolts over joints in top chord. Cut one inch off west end of bridge which had been moved bodily with centre pier by steamer "Tilley."

Port Robinson Lock.

In fair order.

Port Robinson Storehouse.

Painted the storehouse.

Port Robinson Ferry.

Repaired sidewalk and floats at ferry.

CUSTOMS AND COLLECTOR'S OFFICE.—*Port Robinson.*

Built new side walk.

Bridge No. 16 (Quaker Road).

Put spliced plates and bolts over joints in top chord, and put in new truss rods.

Banks, Ditches, &c.

Cleaned out ditches and repaired banks throughout the divisions. Cleaned out stone road ditch three times. Built new stone culvert, and covered same with flag stone on Hurricane Road, also rebuilt stone cow-pass, and built bridge over same.

Put in new snubbing posts near Welland. Removed old bridge and built new stone culvert south of Bridge No. 16, west side of the canal, and covered same with flag-stone.

Built new stone abutments, and bridge north of Bridge No. 16, west side of the canal.

Repaired Burgas Creek bridge, north of Welland, west side of the canal.

Painted boathouse at Port Robinson, also caulked tool and workmen's boats, Nos. 1 and 2.

Filled up hole and widened road approach in front of Mrs. Jordan's property, Port Robinson. Cleaned out, widened and deepened ditch along Mrs. Marr's farm, east side of canal, 1,978 feet long.

Built new fence along mill race, Port Robinson, 336 feet long.

DIVISION No. 4—FROM AQUEDUCT, WELLAND, TO PORT COLBORNE HARBOR.

Welland Lock.

Repaired crab. Built stone foundation under lock house. Removed old lock gates from new aqueduct and brought them to gate yard Lock No. 22, old canal, for renovation and to replace others worn out.

Bridge No. 17 (Welland).

Put spliced plates and bolts over joints in top chord.

Bridge No. 19 (Junction).

Put spliced plates and bolts over joints in top chord.

Air Line Ferry (Humberstone).

Float bridge placed across canal for winter use, removed in spring and put away.

Bridge No. 21 (Humberstone).

Bridge replanked. Put spliced plates and bolts over joints in top chords.

Floats (Rock Cut).

Floats removed out of contractors way numerous times, and repaired same again after each frequent rise of lake and level.

Port Colborne, Lock and Bridge.

Repaired vessel gauge, put new lock on bridge and spliced plates and bolts over joints in top chord.

Harbor, Port Colborne.

Built new Tay Dock, 350 feet long and 24 feet 6 inches wide, boated stone and filled behind new Tay Dock, also boated, delivered and levelled stone along slopes in harbor.

Boated stone and lengthened breakwater and repaired floats in harbor.

Built two protection fences alongside of pier to prevent sand blowing into harbor, 200 feet long and 6 feet high.

Overseers and Lock Tenders' Dwellings, &c.,

Built 67 feet picket fence and 181 feet board fence and gate around lock tenders' dwellings, also planted sundry trees; repaired lock tenders' dwellings, and put culvert and drain under public road.

Custom and Toll Collector's Office.

Built new toll collector's and customs office opposite lock, with all proper fittings and accommodations, and removed old office fixtures into new. Fitted building with hot air furnace and gas pipes.

Built 235 feet picket fence with gate and 44 feet board fence with double gate; planted trees, levelled up grounds, built a new sidewalk and water closet, painted office, &c.

Back Ditches, Culverts, Banks &c.

Cleaned out back ditch south of Welland, east side of canal, cleaned out and repaired back ditch south of Lyon's Creek culvert, west side of canal. Cleaned out back ditches, west side of canal, south of Welland, and filled up holes; length of back ditches cleaned out 5 miles, made new ditch 800 feet long, west side of canal, between Welland and Junction; repaired banks of canal throughout whole length of division.

OLD WELLAND CANAL.
DETAILS OF REPAIRS AND MAINTENANCE OF THE WORKS OF THE OLD WELLAND CANAL.*Lock No. 1, Bridge and Level.*

Three crabs and chains repaired and one new spindle put in; three new snubbing posts put in and painted. Floats repaired and replanked. The long floats thoroughly repaired after the winter while the water was drawn out of the canal. The swing

bridge was raised and pivot repaired. New plank and sheet piles put in, braces straightened up and other repairs. New hinges put on trap door of draw bridge also new plank and stringers. Diver repaired valves in lock gates and toe roller, took plate out of roller frame and repaired one sheave.

Lock No. 2, Bridge and Level.

Repaired and raised ballast box of bridge, put in $4\frac{3}{4}$ inch truss rods under centre of box outside of bridge. Rebuilt crib work of bridge at ship yard from below water line to proper height to receive bridge. Built thereon a double truss bridge, size 57 by 12 feet, 5 stringers, 6 by 12 inches, covered with 3-inch pine; built two pontoons and secured bridge to same. Reduced height of rollers under bridge at Lock No. 2, and adjusted rods. Repaired railing on head gates broken by schooner "Jessie McDonald." Put three new joists in heel end of bridge. Repaired apron of floats below lock. Put new cable on foot gate and repaired broken lock cable. Repaired track under foot gate. Put new iron head blocks on all 4 lock gates to replace oak ones. Raised bridge at Welland Vale Works, also raised socket of same, and lowered bridge to place; laid new 3 inch oak plank on toe approach. Put new sill down for railing on upper side at heel of bridge. Raised all four gates at lock on toe and screwed up suspension bars. Built new kitchen at lock tender's house, 12 by 14 feet, 7 feet 6 inches ceiling, balloon frame outside and inside sheeted, matched floor and hung one sash door between old building and kitchen, fitted and hung outside doors on kitchen, shingled roof of kitchen, also roof of kitchen adjoining house; painted all new work 3 coats, put new covers on cisterns of both houses, brick lined both cisterns. Raised kitchen of adjoining house and put stone foundation under. Put new eavetrough and conductors on same; repaired broken plaster with V sheeting. Repaired and replanked approach Lock No. 2 bridge. Raised and repaired towing paths with stone facing and put in six new snubbing posts.

St. Paul Street Bridge (St. Catharines).

Repaired fender work of bridge. Built new stairway. Put $2\frac{3}{4}$ inch rods through a 2 by 2 inch iron cross head from behind gearing of bridge to needle beam to hold gearing in place. Replanked bridge, and put new stringers on lower side. Tightened truss and stay rods.

Lock No. 3, and Level.

Built new kitchen at locktender's house, size 12 by 14 feet, posts 7 feet high, rough sheeting and battens. Matched floor and shingled roof. Put new shutting gear on all four lock gates and put new timbers under and reset crabs; replaced chains with wire cables, cut off beams and rounded ends of same. Shifted foot board irons and made platforms at both sides of crabs, reduced width of slash boards on waste weir and put two new rods in weir and repaired old ones. Took old collar off foot lock gate and replaced with new one, also took off broken anchor on same gate and repaired and replaced. Repaired apron at foot of waste weir and covered plank with 4 by $\frac{1}{2}$ inch iron straps to prevent ice from cutting same. Put in thorough order apron and foot of Lock No. 3; took off old planking and took out old sheet piling, removed three long broken cross sills and replaced them with extra large new oak timber across between lock walls. Drove two rows of square piles across between the wing walls of lock and bolted them to timbers, and filled up vacancies with concrete and replanked throughout. Pointed up the wing walls of lock.

Canal Office, &c.

Fitted outside sash on all the windows of the first storey and 6 windows in basement, made and hung one pair of inside swinging doors for hall of office, made extensive repairs to barn, put new sills under the whole building, new joists in first floor, new floor in first storey, put in 5 new posts and spliced 2 old ones, also new studding, girts and sheeting where required. Built an addition on front of barn, 9 feet

by the width and height of building, made four new window frames, repaired old ones, made three new windows, one new door and frame, and one batten door, repaired old ones. Put frame for sliding doors in front end of barn and hung doors. Fitted, glazed and painted sash. Covered roof with metallic shingles and put on new galvanized iron trough and water pipes, made box drain, 10 inches by 14 inches by 20 feet for front of barn. Dug out foundation and put stone wall under sills of barn.

Lock No. 4, Bridge and Level.

Rebuilt bridge between floats, put in four new stringers, built new apron on floats and covered bridge and apron with 3-inch pine. Repaired bridge leading from heel-path to Thorold road, put in 5 new 6-inch by 12-inch stringers and covered with 3-inch pine, also put in 18 new posts under railing and put angle irons on four end posts. Repaired bridge on heel-path above gas works, put in 5 new stringers, 6-inch by 12-inch, covered with 3-inch pine, size of bridge 14 feet by 12 feet. Put new foot boards on head gates of lock and repaired lock of bridge. Put new shutting gear on head lock gates, also new timber under and re-set crab. Swing bridge replanked and tightened bolts in head castings of lock gates and put in new ones. Shifted foot board irons.

Lock No. 5, Bridge and Level.

Raised bridge on pivot and adjusted rods of same, put 21½-inch bolts through balance beam, took bands off beam. Put new stop bolt in bridge. Repaired apron of waste weir. Put new timber under and re-set crabs at lock gates. Put new slash boards on waste weir.

Lock No. 6, and Level.

Put 2 by 1½ inch bolts through balance beam. Took out guide rods, repaired and replaced them. Put new through eye-bolts in head lock gate. Put new pine beam on foot lock gate, also new timber under and reset crab. Put new slash boards on waste weir, repaired apron of same and put four new gates in waste weir.

Gate Yards and Shop (St. Catharines).

Built two new lock gates for foot of Lock No. 3 launched, painted, and laid them in pond at gate yard. Repaired 27 wheelbarrows, made sundry patterns, seventy white ash handles for ice chisels, prepared sheeting for inside of hydraulic aqueduct. Repaired bridge on heel path side below yard, put in four new stringers, 6 by 8 inches by 12 inches by 35 feet long, covered them with 2-inch pine. Prepared a sill of planking for St. Paul Street Bridge, spliced cables for lifting scow, made box drain 10 by 14 inches by 20 feet for tow path below St. Paul Street Bridge, made six new wheelbarrows, and commenced repairing and rebuilding sundry lock gates hauled out last season.

Lock No. 7, Bridge and Level.

Raised bridge on pivot, put new planking on coping, also five new joists in toe of bridge, replanked same and repaired heel approach of bridge. Repaired apron of waste weir and put in four new gates, also put in two snubbing posts.

Hydraulic Race.

Changed washers on bolts in aqueduct, replaced them with 6 by 6 square. Caulked and paved seams where they showed leaks, sheeted inside and bottom of aqueduct with dressed and jointed inch lumber. Repaired bridge across race on Thorold Road. Took up plank lower side of Street Railway track and put 3-inch pine on top of stringers and relaid plank. Repaired and replanked bridge over chute between Nos. 2 and 3 Raceways. Put new rack across head of raceway at Lock No. 11. Repaired fences, also repaired and protected banks of raceway with stone facing. Repaired and extended dry stone walls. Kept the raceway clear of ice winter and spring, night, day and Sundays.

Lock No. 8, and Level.

Repaired apron of waste weir, put on iron bars to prevent ice from cutting the apron and put in four new gates in waste weir.

Lock No. 9, and Level.

Raised foot lock gates and put new brasses under them. Built new foot bridge across head of lock for winter use, size 28 feet by 4 feet, covered with 2 inch pine, with hand rail on both sides. Repaired apron of waste weir and put iron straps on same for protection against ice, also put four new gates in weir. Tore out old bridge across channel above waste weir and dug out for and built dry stone wall foundation, and built new bridge across waste weir, 114 feet by 12 feet, five stringers 6 by 8 inches by 12 feet, bolted at joints, covered with 3-inch pine railing on both sides 6 by 6 posts and rail dressed. Painted railing three coats, made and put in box drain, 10 inches by 14 inches and 28 feet, under roadway to bridge. Put in two snubbing posts.

Lock No. 10, and Level.

Replanked bridge across waste weir, put on new slash board, new rod, and repaired and replaced old ones; also refitted rollers and reset them. Took out head lock gate, heel path side, turned it up and took off old planking, replanked with new, and put gate in place again. Put new shutting gear on both head gates; put new timbers under and reset crab at both head gates. Built a rough house 6 by 8·7 feet high for shelter for lock tender. Put new foot boards on head gates. Drew the level down and put in one new gate in waste weir in place of one carried out by pressure of water. Put new crab at head lock gate tow path side. Repaired apron of waste weir and put in three new gates in waste weir. Put in five snubbing posts.

Lock No. 11, and Level.

Rebuilt bridge across hydraulic raceway at spoke factory; put new sill on stone work; four new stringers, covered them with three inch pine. Rebuilt fence at end of bridge, and replaced gates. Put new slash boards and repaired rods of waste weir, repaired apron of waste weir, put on new iron straps and four new gates put in; stopped leak in bank of waste weir. Repaired and raised tow path and put in two snubbing posts.

Lock No. 12, and Level.

Took out one pair old lock gates and put in one pair new ones, and put in two snubbing posts.

Lock No. 13, and Level.

Took off broken anchor on foot gate, heel path side, repaired and replaced same, and put in three snubbing posts.

Lock No. 14, and Level.

Put new window sash and glass in lock tender's house. Built new timber bridge on roadway across waste weir. Took out one old lock gate and put in one new, reset two crabs and put new platforms under, stopped leak in bank of waste weir and put in four snubbing posts.

Lock No. 15, Bridge and Level.

Put new window sash and glass in lock tender's house and new slash boards on waste weir. Put down new crab foundation and one new collar in lock gate. Repaired break in bank of waste weir and put in four snubbing posts.

Lock No. 16, and Level.

Put new window sash and glass in lock tender's house, built new storm house and painted same. Put down new crab foundations and took out one pair old lock

gates and put new pair in place; the old gates taken to gate yard, Lock No, 21. Set one pair crabs and platform, stopped leak in bank of waste weir and put in four snubbing posts.

Lock No. 17, and Level.

Put new window sash and glass in lock tender's house, built new storm house and painted same. Repaired leak in bank of waste weir.

Lock No. 18, and Level.

Put new window sash and glass in lock tender's house, and built new storm house and painted same. Repaired break in bank of waste weir, also repaired cellar of lock tender's house.

Lock No. 19, and Level.

Put new window sash and glass in lock tender's house and built new storm house and painted same.

Lock No. 20, and Level.

In good order.

Lock No. 21, and Level.

Built 120 feet of board fence around lock-tender's house. Filled thirteen cords stone under waste weir apron; washed out and put down new apron afterwards. Took out one pair old lock gates and hung one pair new ones; dispensed with balance beams.

Gate Yard and Shop, Thorold.

Repaired crane scow "Hercules" with new streak, 20 feet, also repaired machinery and put in new shaft. Rebuilt six wheelbarrows, also rebuilt one pair lock gates for the following locks, viz., Nos. 12, 14, 16 and Allanburgh.

Built new pile driver and put same on crane scow "Hercules," with 2,500 pound hammer.

Filled up derrick scow "Alexander;" caulked and painted same. Caulked and painted tool and workman's boats for Division Nos. 3 and 4, new canal. Painted decks of crane scow "Hercules." Brought six pair old gates from Locks Nos. 12, 14, 16 and Allanburgh; hauled them out on marine railway to be rebuilt.

Rebuilt three pair old lock gates, and built new ferry boat for Port Colborne Ferry.

Levelled up and underpinned marine railway.

Lock No. 22, and Level, and Keefer Bridge.

Put new crab on lock. Laid 12 lineal feet new floor on Keefer swing bridge.

Lock No. 23, and Level.

Built new wood shed in rear of lock tender's dwelling, 12 feet by 16 feet, 8 feet high.

Repaired leak in bank of waste weir.

Lock No. 24, Bridge and Level.

Replanked swing bridge. Built new side-walk 6 feet by 40 feet. Took up side-walk and repaired with stone and cement the leak in lock in front of Coulons and Cloy's houses. Put new concrete floor in cellar of Coulon's house and repaired cement floor in Cloy's house, cellar damaged by leakage from canal. Built new abutments south side of slope at Welland Mills, 12 feet by 16 feet by 8 feet, and filled it with stone and earth. Repaired leak in bank of waste weir.

Lock No. 25, and Level.

Built new foot bridge across head of lock. Removed obstructions out of waste weir, also removed a lot of sunken timber obstruction from and repaired long rack above lock. Repaired leak in bank of waste weir and faced bank of mill race at Lawson's Mill with stone, 500 feet in length.

Guard Lock.

Raised lock gates and put in new brasses, one new collar and cravat.

Hurst's Swing Bridge.

Built new temporary bridge across canal, 100 feet by 12 feet. Built new stone abutment 16 feet by 16 feet by 17 feet and erected new swing bridge. Made new approaches at each end roadway, 60 feet long, and macadamized also new approach on canal, east side, 200 feet long, both waled and braced. Repaired approaches, west side, with 60 feet timber, and stone filling floor of bridge, 85 feet by 12 feet.

Marlatt's Swing Bridge.

In good order.

Allanburgh Swing Bridge.

Put new stone foundations under bridge tenders house, also 2 new storm houses over doors, rebuilt kitchen and wood-shed, and new blinds all around dwelling, and new floor on verandah.

Allanburgh Lift Lock.

Took out one pair old lock gates and hung one pair new ones.

Put down new platform and re-set two crabs.

Put in dam at foot of lock, and cleaned out lock bottom and removed dam afterwards. Cleaned out ditches and filled up holes about lock.

Allanburgh Guard Lock and Bridge.

Repaired swing bridge, caulked old canal supply race valves with straw and manure to admit of repairs to lower part of canal. Repaired supply race by filling with stone behind walls, and remove caulking, &c.

Three Mile Level to Junction with new canal.

Repaired leak in Higgin's waste weir.

Guard Lock.

Two new head gates were built, and put in Guard Lock at Dunnville, and the old gates drawn out at foot of lock and cut up, the old irons taken off and put up in new gates. The old chains taken off and replaced with new ones.

Swing Bridges.

The Marshville and Stromness swing bridges received new stringers and needle beams, and new top covering. The toe approaches received new sleepers and were replarked. All the swing bridges have been raised on their pivots, and properly balanced, and track levelled when disturbed by frost. The slopes and approaches to all swing bridges have been filled with clay and covered with gravel and stone when washed out.

Lock and Bridge Houses.

All the lock houses and bridge shanties have been repaired and painted, and the locks and bridges supplied with tamarack poles and timber lifters.

Locks.

The mitre sills of Dunnville, Port Maitland and Junction Locks have been cleaned out and all sediments and accumulations behind the gates taken out, and the sheeting on the back of the gates repaired. The old arm and frame of the lock opener on west side of head gates on Port Maitland lock has been renewed.

FEEDER CANAL.
FROM FEEDER JUNCTION TO DUNNVILLE AND PORT MAITLAND—23 MILES.

From Dunnville to Stromness and Port Maitland, distance $6\frac{1}{2}$ miles, there are 2 locks, 4 swing bridges, 3 waste weir, with 36 stop gates, bridge 600 feet long by 18 feet wide, 1 apron below dams 640 feet long, 2 piers 10 by 18 by 15 feet, 26 flood gates, 1 tool house, 1,000 feet boom timber in Grand River above dam to prevent drift wood and rubbish from entering waste weir, 1,785 feet embankment, 8 head gates at entrance of mill ponds, 12 stationary bridges with an aggregate length of 1,800 feet, 2 lock-tender's houses, 1 overseer's house and office, 1 repair scow, 3 punts, 1 pile driver, 2 piers, and harbor with a depth of water from Lake Erie to outlet of canal of 19 feet, and to lock an average of 9 feet at low water mark. From Stromness to Bolton Ditch, Marshville and Junction, $16\frac{1}{2}$ miles, 1 lock, 3 swing bridges, 2 stationary bridges, 1 sluiceway, 3 culverts and 2 back ditches.

The supply of water has not been nearly so good as during the previous year, as a consequence the mills on this division were confined to two days per week during the month of August and three days per week during the month of September, after which month the mills ran full time. There has been but one accident during the year, caused by a small pleasure yacht running into the swing bridge at the Bolton Ditch, and knocked the bridge off the pivot, but no serious damage. All sunken logs and other obstructions have been removed out of Feeder Channel, rubbish and brush carried down the drains and ditches into the culverts have been taken out, piled up and burnt. Driftwood and rubbish carried down the Grand River by the spring freshets and lodging in the guard lock, were taken out, drawn away and burnt.

Waste Weir.

Logs, stumps and roots of every description, which had accumulated in front of the waste weir gates and valves, were taken out and dumped below the weirs, and thus carried by the current into the river lake. The screws of the upper waste weir have all been carefully cleaned, the valves were taken off, straightened and replaced.

Dam, Apron and Stationary Bridges.

Flood gates on the dam repaired, and 400 feet of the apron above the dam has been covered with stone brought from Port Colborne by scows. The old decayed sleepers underlying the top covering of the stationary bridges has been taken out and replaced with new, and all worn out and broken plank taken out and replaced with new.

Float Bridge.

The float bridge at Petit Road was replanked, hinges repaired and chain renewed.

Canal Banks.

Towpaths repaired throughout, and faced with stone where urgently needed.

GENERALLY.

All the gearing connected with the lock gates, waste weirs, bridges, &c., and machinery, have been renewed when necessary and kept in good order throughout.

All thistles and weeds have been cut as usual on Government property, and ditches and culverts everywhere cleaned out, and deepened where necessary. All bridges blocked up for winter use.

I have the honor to be, Sir,

Your obedient servant,

WILLIAM ELLIS.

A. P. BRADLEY, Esq.,

Secretary Department of Railways and Canals.

FINES AND DAMAGES.

I have collected during the fiscal year from masters and owners of vessels the sum of \$10 in fines for violation of canal regulations, and the sum of \$297 for damages to the works, making a total of \$307, which amount has been handed to H. H. Collier, Esq., Collector for the Port of St. Catharines, and I append a statement in detail herewith marked "A."

I also append statements marked "B" and "C," showing the greatest and lowest depth of water on the mitre sills at Port Dalhousie and Port Colborne Locks (new and old) in each month during the fiscal year ending 30th June, 1888; also a comparative statement of the average for the month of June, 1887, and 1888, which shows the water has been 73 inches lower at Port Dalhousie and 1 foot $\frac{1}{2}$ inch lower at Port Colborne (new locks) and Port Dalhousie old lock 1 foot $10\frac{1}{2}$ inches lower and Port Colborne old lock 1 foot $2\frac{1}{2}$ inches higher than for the same month in the year 1887.

"A."

STATEMENT of Fines and Damages collected from Vessels controverting Canal Regulations for the Fiscal Year ending 30th June, 1888

Date.	Name of Vessel.	Fines.	Damages.	Total.
1887.		\$ cts.	\$ cts.	\$ cts.
July 10.....	Tug "Mitchell.".....	5 00		
do 18.....	Scow "Sir Charles.".....	5 00		
Sept. 23.....	Schooner "Jessie McDonald.".....		10 00	
Nov. 14.....	Steamer "Tecumseh.".....		167 00	
do 27... ..	Schooner "Emerald.".....		50 00	
1886.				
May 31.....	Steamer "Rhode Emily."..... (This boat did not pass through again until 14th May, 1888.)		70 00	
		10 00	297 00	307 00

Handed to H. H. Collier, Esq., Collector, St. Catharines.

"C."

STATEMENT showing the Depth of Water on the Lower Mitre Sill of Old Lock No. 1, Welland Canal, at Port Dalhousie, for the Fiscal Year ending 30th June, 1888.

Months.	Lower Sill.		Months.	Lower Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1887.	ft. in.	ft. in.	1888.	ft. in.	ft. in.
July.....	15 1	14 7	January.....	12 8	12 3
August.....	14 10	13 11	February.....	12 6	12 1
September.....	14 1	13 5	March.....	12 10	12 3
October.....	13 6	13 0	April.....	13 4	12 7
November.....	13 1	12 7	May.....	13 5	13 0
December.....	12 10	12 6	June.....	13 4	13 1
			ft. in.		
			Average, June, 1887.....		
			do.....		
			15 2		
			13 3½		

STATEMENT showing the Depth of Water on the Upper Mitre Sill of Old Lock No. 27, Welland Canal, at Port Colborne, for the Fiscal Year ending 30th June, 1888.

Months.	Upper Sill.		Months.	Upper Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1887.	ft. in.	ft. in.	1888.	ft. in.	ft. in.
July.....	14 0	13 0	January.....	12 10	11 3
August.....	13 5	12 9	February.....	12 1	11 1
September.....	13 10	12 2	March.....	13 2	10 11
October.....	15 9	11 6	April.....	12 11	11 4
November.....	13 3	11 3	May.....	13 0	11 11
December.....	14 6	11 7	June.....	13 4	11 4
			ft. in.		
			Average, June, 1887.....		
			do.....		
			13 10		
			15 2½		

APPENDIX No. 13.

RIDEAU CANAL.

RIDEAU CANAL OFFICE,
OTTAWA, 8th October, 1888.

SIR,—I have the honor to submit my annual report on the state of the works under my charge for the fiscal year ending 30th June, 1888.

Navigation closed at Ottawa and Kingston Mills 25th November, 1887.

Opened in 1888 at Ottawa and Kingston Mills 3rd May.

The water, in the descending reaches from the summit level (Upper Rideau Lake), was maintained so as to give full navigation depth on the sills of the different locks until the close of navigation.

On the descending reaches from the summit level, towards Kingston, the water fell in the first week of September below the height required for navigation on the sill of the upper lock at Newboro', as fixed by the ordnance standard to be 5 feet 10 inches, and continued falling until the close of navigation when there was only 4 feet 6 inches on the sill.

On the Kingston Mills' reach the water at the opening of navigation stood 6 feet 6 inches on the sill of the upper locks at Kingston Mills, but fell below 5 feet 10 inches, the ordnance standard height for navigation, on the 8th August, and continued falling until the close of navigation when there was only 4 feet 1 inch of water on the upper sill. The spring freshets in the Rideau River amounted to almost nothing, owing to the gradual melting of the snow together with the cool nights.

At the Kingston end the snow fall was light and we were not able to get our usual reserve of water in Mud, Openicon, Sand and Cranberry Lakes, for which we have now to depend upon to supply the Kingston Mills level.

The reserves formerly held back by dams on the Rock, Buck and Devil Lake systems, having been abandoned by their owners, are no longer available, and the surplus water is now delivered into the navigation during the spring freshets when not required.

The sites of the dam controlling the Rock Lake system has been acquired, and it is contemplated to rebuild this winter. There has also been correspondence with Mr. Chaffey for the purchase of the sites of the dams controlling the Buck Lake system.

Owing to the general lowness of water prevailing through the canal this summer, arising from the continued drought, complaints are made by the forwarders of the accumulation of gravel and clay in the several cuts, and at the foot of the water locks. Our present appliances are insufficient to remove them, and the best we can now do is by the tedious and expensive process of making a channel by a diver and assistant. A dredge suitable for the canal should be procured without delay and kept at work deepening the cuts and removing the numerous shoals which have gradually accumulated since the canal was built.

The principal repairs to the works at the different stations were as follows:—

Kingston Mills.

Swing bridge repaired, general repairs in lock gates, new chain blocks, and timber delivered for one pair of gates.

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Brewer's Lower Mills.

Extension of pier and renewal of wharf, gravel on dam, and sundry repairs to station.

Brewer's Upper Mills.

One pair of new swing beams, four new chain blocks, one pair of gates repaired.

Morton's Dam.

Repairs to dam.

Jones' Falls.

One new swing beam, new chain blocks, and repairs to retaining wall.

Davis's.

Four new chain blocks and sundry repairs to gates, new house for lock laborer.

Chaffey.

One pair of swing beams and general repairs.

Newboro'.

Rebuilt high bridge 80 feet span, and rebuilt west stone abutment, repaired and grouted abutment, east side.

Narrows.

Repairs to lockmaster's house, and general repairs to lock.

Poonamalie.

Timber delivered for lock gates.

Smith's Falls (detached).

One pair of lock gates renewed, one swing beam on upper gate, and new chain blocks.

Smith's Falls (combined).

One pair of new lock gates, and general repairs to station.

Old Stys.

General repairs to station, timber delivered for two pairs of lock gates.

Edmond's Rapids.

General repairs, and repairs to embankment.

Kilmarnock.

Repairs to bulkhead.

Merrickville.

Renewed one pair of lock gates, long dam renewed, and repairs to masonry in upper and lower basin. Timber on hand for two pairs of lock gates.

Olowe's Quarry.

Rebuilt wing wall of lock, repairs to stone dam, one new swing beam, and new chain blocks.

Nicholson's Rapids.

Bulk-head renewed, repairs to lower gates, timber delivered for one pair of gates.

Burritt's Rapids.

Renewed long dam.

Beckett's Landing.

Renewed long bridge.

Lorne Bridge.

Replanked.

Manotick.

Renewed main bulk-head, repaired boom at head of island.

Long Island.

General repairs to locks, stone cut and delivered for new sill and coping stones for lock.

Black Rapids.

Built wooden apron to strengthen long flat dam, filled with stone and sheeted with nine inch timber.

Repaired three piers and filled the same with stone, sheeted top of dam with two inch plank, and placed 600 yards of clay behind the same.

Hogsback.

Gravel delivered on dam and small repairs to station.

Hartwell's.

Small repairs to station and one swing beam.

Little's Bridge.

Timber delivered for new swing bridge.

Ottawa.

One pair of lock gates, No. 3, 2 pairs of sluice frames, 10 chain blocks, repairs to No. 2 lock gate, repairs to wharf round basin.

Works done for which Special Appropriations were made.

Wharf extension at Ottawa towards Maria Street Bridge, 200 feet was built and completed according to contract.

New bridge over the Rideau River at Manotick, built and completed according to contract.

New iron swing bridge, with approaches and crib wharfing over the head lock at Smith's Falls, was completed, with the exception of the swing, fencing, side walls, &c., which, it is expected, will be ready for traffic this fall.

Navigation was maintained without any break or stoppage, save the low water at Newboro and Kingston Mills, on which account some of the boats had to lighter up.

There was considerable increase of traffic through the canal.

I have the honor to be, Sir,

Your obedient servant.

F. A. WISE,

Superintending Engineer.

A. P. BRADLEY, Esq.,
Secretary Department of Railways and Canals,
Ottawa.

APPENDIX No. 14.

TAY CANAL.

RIDEAU CANAL OFFICE,**OTTAWA, 8th October, 1888.****REPORT OF PROGRESS FOR THE YEAR ENDING 30TH JUNE, 1888.**

The contractors for the Tay Canal from Craig Street to Beveridge's Bay completed their contract in September last, and moved their dredges out of the canal.

A contract was entered into with Messrs. Davis & Co., this spring, to complete the canal from Craig Street to the Old Basin at Perth.

In the spring we raised the water in the canal to nearly the proposed navigation height, and allowed excursion steamers to run at their own risk from Perth to the Rideau navigation, which was taken advantage of, and boats drawing 5 feet passed through to the lake.

As soon as the contractors commenced work on the extension, the water was lowered to enable them to work to the best possible advantage.

I have the honor to be, Sir,

Your obedient servant,

FRED. A. WISE,

Superintending Engineer.

A. P. BRADLEY, Esq.,

Secretary Department of Railways and Canals.

Ottawa.

APPENDIX No. 15.

TRENT CANAL.

ENGINEER'S OFFICE,

PETERBOROUGH, 31st July, 1888.

SIR,—I have the honor to submit the annual report on the works under my charge for the fiscal year ending 30th June, 1888.

Navigation on the different stretches closed about the 25th of November and opened again on the 20th of April.

Notwithstanding the very dry weather of last season the water was maintained at a fair height. While on the question of water supply I might mention that there need never be any scarcity of water on these works, in fact a supply of water equal in volume to the average June flow could be had, if the upper reservoir were managed in the interests of navigation instead of only in the interests of lumbermen and the reservoirs maintained in a good state of repair. Soon the lumbering operations will be over and then these reservoirs used by them can be utilized in the interests of navigation. In connection with this I might state that last fall one lumberman built on his limits no less than nineteen dams, and many of these being quite extensive works—one dam being over 40 feet in height and 200 feet long, and damming the water back for miles over barren tracts of land.

The following works recently constructed by the Department of Railways and Canals were handed over to my charge on 3rd May, and navigation commenced on the completion of the swing bridges, viz.:

At Fenelon Falls, lock, canal and swing bridge.

At Buckhorn, lock, canal and swing bridge.

At Lovesick, lock and dams.

At Burleigh, lock, swing bridge and dams.

At Young's Point, a dam.

At Lakefield, a dam.

There has been considerable traffic already through the locks at Buckhorn, Lovesick and Burleigh, and this will increase when the obstructions are removed and the channels buoyed. This work is about to be commenced.

During the past year three new steamboats have been placed on the waters from Lakefield to Balsam Lake. There are now thirteen steamboats on this stretch.

The total number of lockages was 1,140, the greatest number being at Bobcaygeon, viz., 592.

Traffic on the stretch above Lakefield has greatly increased since the lumbermen have been compelled to keep a separate channel through Katchewannoe Lake.

Navigation was uninterrupted except for a short time near the close of the season when the water was drawn off from Pigeon and Buckhorn Lakes to facilitate the works of repair at the Buckhorn dam.

The works at the different stations between Trenton and Balsam Lake together with the repairs executed are as follows:—

Roseāale.

At this station there is a lock and dam under the control of the Government of Ontario.

Fenelon Falls.

The works here consist of a canal, lock (double lift) and swinging bridge, recently constructed by the Department of Railways and Canals.

Lindsay.

The works here are a dam and lock, the latter being under the control of the Government of Ontario. The dam is in good condition.

Scugog River.

The snags were removed from the river, a light was kept on the beacon at the mouth of the river last season.

Bobcaygeon.

The work here consists of a canal, lock and two dams, a number of new braces were placed on the lower side of the dam and the dam gravelled, an appropriation has been made for a new dam which is greatly needed. An appropriation was made last year to re floor the lock chamber with plank. Upon further observations with the aid of a diver I found that the proposed repairs would be inadequate so I deemed it better to postpone this work till a larger appropriation for a more permanent work was obtained. This work will be proceeded with at the close of navigation. The work on the lower gates was deferred till the work of flooring is being done.

Buckhorn.

At this station there is a canal, lock, swing bridge, flat dam and sluiceways. A short swing dam on the south side about 80 feet long, was in such a condition that some immediate steps were necessary to be taken in order to prevent its going out control of the water during the spring freshet as was noticeable during the past spring during the spring freshets. Part of the appropriation for the Indian River dam was taken for this purpose and two new sluiceways were constructed and the old mud dam removed. This has been a great improvement and has given a much greater control of the water during the spring freshet as was noticeable during the past spring when the water only reached a point at 27 inches on the cap of the dam, which is some 18 inches lower than the ordinary spring freshet mark.

Lovesick.

The works here are three stop log dams and a dock recently constructed.

Burleigh.

The works here consist of two stop log dams, a flat dam, a double lift lock and a swing bridge, all recently constructed.

Indian River.

Two small piers were placed in the "cut" at the outlet of the Stoney Lake into the Indian River leaving a sluiceway seven feet in width (provided with stop logs) between them. This dam was built in such a manner as to alter the escape of this river in the spring as little as possible. A head of two feet and a-half above zero can be held in Stoney Lake by means of this dam.

Young's Point.

A lock and swing bridge are situate here, which are under the control of the Government of Ontario, also a stop log dam recently constructed by the Department of Railways and Canals.

Lakefield.

At this point there is a stop-log dam recently constructed.

Whitlaw's Rapids.

The works here are a lock stop log dam and a flat dam. Part of the lower apron of the flat dam which was removed by the ice, was replaced, and a number of the lower braces were removed. The sawdust at this point is a great nuisance, in fact many mornings it is almost impossible to open the gates at all, and the great strain necessary to open them is telling on the gates.

Otonabee River.

Works of removing obstructions at the following shoals, viz., Yankee Bonnet and Robinson's Island, was proceeded with and a fair channel was made. At the mouth of the river at Rice Lake the sawdust has completely closed two of the three channels by which this river enters Rice Lake, and is fast closing the remaining channel. An appropriation was made last year for the removal of this sawdust, but as the lumbermen continued throwing it into the river, I deemed it advisable to apply this appropriation to some more useful purpose.

Hastings.

The works here consist of a lock, swing bridge and flat dam. Part of the lower apron of the dam, together with the foundation timbers, were carried away during the spring freshets. Upon drawing off the water, it was found that the foundation under the lower apron in the remainder of the dam was in such a condition as to be liable to go out at any time. A favorable opportunity was offered by the water being drawn off to repair it, so I put a new foundation under the lower apron for the whole length of the dam. This dam is now in good condition.

Boulders were removed and a fair channel made at the bar about two miles below Hastings, and also at a point about a mile further down. These channels have a depth of 5 feet and a width of 30 feet. They require to be still widened to 50 feet and buoyed.

Heely Falls.

There is a dam at this station which creates navigation up to Hastings, a distance of sixteen miles. The season was so unfavorable for work at this dam that the work for which there was an appropriation was postponed.

Chisholm's Rapids.

The works here are a canal about half a mile in length, a lock and a flat dam. The locks are in working order, but cannot be used on account of the fixed bridges belonging to the county and the Central Ontario Railway. If these were replaced by swing bridges, a stretch of navigation, twenty-five miles in length, would be available.

I have the honor to be, Sir,

Your obedient servant,

RICHARD B. ROGERS,

Superintending Engineer.

A. P. BRADLEY, Esq.,

Secretary, Department of Railways and Canals,

Ottawa.

 APPENDIX No. 16.

 TRENT RIVER NAVIGATION.

SUPERINTENDING ENGINEER'S OFFICE,

OTTAWA, 14th August, 1888.

SIR,—I have herewith the honor to submit a report upon the various works which have been done in connection with the navigation of the Trent River (one of five feet depth on the sills of the canal locks) during the past year, between the village of Lakefield, nine miles above the town of Peterboro', and its summit level, or Balsam Lake.

Beginning with Lakefield, and taking each work in the order it comes, they are classified as follows:—

Lakefield.

Nothing has been done here except the building of a new regulating dam to control the water of Lake Katchewanoo, and this was completed in the early part of 1887.

Young's Point.

The same remarks apply. Nothing has been done since the erection of a dam to regulate the water of Stone Lake in 1885. There is a lock here to overcome the rapids between Stony Lake and Katchewanoo Lake, with a lift of seven feet.

Burleigh.

The works at this point extend from Stony Lake below them, to Deer Bay Lake above. They also include Lovesick Lake and Rapids, embracing a distance of about two and a quarter miles.

These works consist at Burleigh of two combined locks, a regulating dam across the main river to raise the water to the level of Lovesick Lake and draw out several intermediate rapids, and other smaller dams have also been constructed to control such outlets as Perry's Creek, &c. A swing-bridge has also been placed across the inlet to the upper lock to carry the travel of a colonization road there. This was the last item of work done, and it completed the whole in the month of June last.

At Lovesick, the works consist of a lock, with entrance wharfage at both ends, a regulating dam to control the water in Deer Bay, and a timber slide.

The locks at Burleigh have a lift of $25\frac{1}{2}$ feet and the one at Lovesick $3\frac{1}{2}$ feet; total lift 29 feet.

Buckhorn Canal.

The works here are situated on the north bank of the Buckhorn Rapids, and are about a quarter of a mile in extent. They consist of a lift lock from Deer Bay into Buckhorn Lake, with wharves at both entrances, a regulating dam and slide, with the excavation at both ends of the lock for the outlets of the canal. A swing-bridge has also been erected across the lock here for the accommodation of travel.

This lock leads up to the level of Buckhorn, Chemong and Pigeon Lakes, extending to Bobcaygeon. Its lift is ten feet.

Bobcaygeon.

There is a lock here some ten years old ; it was built, I believe by the Ontario Government. No work has been recently done at this point, in so far as I am aware ; the lift is eight feet.

Fenelon Falls.

This canal is in the village of Fenelon and consists of two combined locks, with a short reach of canal above them leading into Cameron Lake.

Wharfing has been built at the lower entrance, and a swing bridge has been also placed across the upper lock for the accommodation of the main entrance to the village from the westward.

Stone was got out and dressed for the contemplated pier of a swing at the Victoria Railway bridge situated a short distance above the locks, but no action with regard to this swing has yet been taken.

The placing of the above mentioned swing across the upper lock, was the last work done, and it also completed the whole of what has been done, in the month of June of the present year. The total lift here is $23\frac{1}{2}$ feet.

Rosedale.

There is an old lock at this place, which is close to Balsam Lake, and hitherto maintained by the Ontario Government. There has, in so far as I am aware, been no recent expenditure upon it. Its lift is three feet.

These embrace all the works lying between Lakefield and the summit level of a navigation that would extend from Trenton to Lake Huron, and they are all fairly completed, with the exception of some cleaning out of the channels lying between them, which is still required for the perfecting of the navigation, and various repairs or renewals to old structures, reports upon which are already before the Department.

I have the honor to be, Sir,

Your obedient servant,

D. STARK,

Superintending Engineer.

A. P. BRADLEY, Esq.,

Secretary, Department of Railways and Canals.

Ottawa.

APPENDIX No. 17.

ST. PETER'S CANAL.

OTTAWA, 28th September, 1888.

SIR,—I have the honor to submit the following with reference to the St. Peter's Canal:—

Navigation through the canal closed on the 7th January, and opened on the 28th April of the present year.

The following is a statement of the traffic through the canal during the year ended 30th June, 1888:—

Year.	Vessels.		Tonnage.		Tolls Collected.	
	North.	South.	North.	South.	North.	South.
1887.	No.	No.	Tons.	Tons.	\$ cts.	\$ cts.
July	150	102	9,432	8,160	128 15	117 48
August	171	115	6,020	5,071	142 18	53 75
September	176	146	5,641	5,351	144 50	125 20
October	180	155	12,011	10,017	194 20	165 72
November	140	110	6,274	4,606	95 14	63 86
December	94	132	9,000	5,000	105 10	175 15
1888.						
January	1	1	75	34	58	2 11
April	2	1	50	29	96	60
May	160	120	13,215	10,501	215 05	184 06
June	120	84	6,232	4,320	144 50	128 20
Totals	1,194	966	67,950	53,089	1,170 36	1,016 13

To this total of \$2,186.49 for tolls collected must be added the sum of \$450, paid as commutation by the steamer "Marion" for the season, making a grand total of \$2,636.49.

The lock and works in connection therewith remained in good order during the year, only requiring the ordinary amount of attention and repair.

I have, however, to call attention to the decayed state of the retaining wall on the western side of the canal, relative to which a special report will be submitted.

The repairs at the southern entrance to the canal, referred to in my report of last year, were satisfactorily completed.

I am, Sir,
Your obedient servant,

HENRY F. PERLEY,
Engineer in Charge.

A. P. BRADLEY, Esq.,
Secretary Department of Railways and Canals.
Ottawa.

APPENDIX No. 18.

ST. LAWRENCE NAVIGATION—TABLE OF DISTANCES—A.

FROM STRAITS OF BELLE-ILE TO PORT ARTHUR, AT HEAD OF LAKE SUPERIOR, BY WATER.

From	To	Sections of Navigation.	Statute Miles.	
			Inter-mediate.	Total to Straits of Belle-Ile.
Straits of Belle-Ile	Cape Whittle.....	Gulf of St. Lawrence.....	240	240
Cape Whittle.....	West Point, Anticosti.....	do	201	441
West Point, Anticosti.....	Father Point.....	River St. Lawrence.....	202	643
Father Point	Rimouski.....	do	6	649
Rimouski	Bic.....	do	12	661
Bic.....	Isle Verte	do	39	700
Isle Verte (opp. Saguenay)	Quebec.....	do	126	826
Quebec	Three Rivers.....	do to Tide-water	74	900
Three Rivers.....	Montreal	do	86	986
Montreal	Lachine	Lachine canal	8 $\frac{1}{2}$	994 $\frac{1}{2}$
Lachine.....	Beauharnois.....	Lake St. Louis.....	15 $\frac{1}{2}$	1,009 $\frac{1}{2}$
Beauharnois.....	Ste. Cécile.....	Beauharnois Canal	11 $\frac{1}{2}$	1,021
Ste. Cécile.....	Cornwall.....	Lake St. Francis.....	32 $\frac{1}{2}$	1,053 $\frac{1}{2}$
Cornwall.....	Dickinson's Landing	Cornwall Canal.....	10 $\frac{1}{2}$	1,065 $\frac{1}{2}$
Dickinson's Landing.....	Farran's Point.....	River St. Lawrence.....	5	1,070 $\frac{1}{2}$
Farran's Point	Upper end of Croyle's Island	Farran's Point.....	8 $\frac{1}{4}$	1,071
Upper end Croyle's Island..	Williamsburg or Morrisburg	River St. Lawrence.....	10 $\frac{1}{2}$	1,081 $\frac{1}{2}$
Williamsburg.....	Rapide Plat.....	Rapide Plat Canal.....	4	1,085 $\frac{1}{2}$
Rapide Plat.....	Point Iroquois Village.....	River St. Lawrence.....	4 $\frac{1}{2}$	1,090
Point Iroquois Village... ..	Upper end Presqu'île.....	Point Iroquois Canal.....	3	1,093
Presqu'île.....	Point Cardinal, Edwards- burg.....	Junction Canal	2 $\frac{1}{2}$	1,095 $\frac{1}{2}$
Point Cardinal.....	Head of Galops Rapids.....	Galops Canal	2	1,097 $\frac{1}{2}$
Galops Rapids.....	Prescott.....	River St. Lawrence.....	7 $\frac{3}{8}$	1,105
Prescott.....	Kingston.....	do	59	1,164
Kingston	Port Dalhousie.....	Lake Ontario.....	170	1,334
Port Dalhousie.....	Port Colborne.....	Welland Canal	26 $\frac{3}{4}$	1,360
Port Colborne.....	Amherstburg	Lake Erie	232	1,592
Amherstburg	Windsor.....	River Detroit	18	1,610
Windsor.....	Foot of St. Mary's Island...	Lake St. Clair.....	25	1,635
Foot of St. Mary's Island..	Sarnia.....	River St. Clair.....	33	1,668
Sarnia.....	Foot of St. Joseph's Island..	Lake Huron.....	270	1,938
Foot of St. Joseph's Island	Foot of Sault Ste. Marie	River St. Mary	47	1,985
Sault Ste. Marie.....	Head of Sault Ste. Marie	Sault Ste. Marie Canal..	1	1,986
Head of Sault Ste. Marie...	Pointe aux Pins.....	River St. Mary.....	7	1,993
Pointe aux Pins.....	Port Arthur.....	Lake Superior.....	266	2,259
Port Arthur to Lake Shebandowan.....				45
Lake Shebandowan to North-West Angle.....				312
North-West Angle to Winnipeg				95
Pointe aux Pins to Duluth				390

Of the 2,259 $\frac{3}{4}$ miles from the Straits of Belle-Ile to the head of Lake Superior, 71 miles are artificial navigation, and 2,188 $\frac{3}{4}$ open navigation.

Straits of Belle-Ile to Liverpool, 1,942 geographical or 2,234 statute miles.

The total fall from Lake Superior to Tide-water is about 600 feet

The steamboat voyage from Collingwood to Port Arthur is 532 miles.

APPENDIX No. 19.

TABLE of distances of Stations between the cities of Ottawa and Kingston.

No. of Station.	Name of Station.	Distances from Ottawa.	Locks.		Dams			Length of Artificial Canal at each Station, in miles.	
			No.	Lift at Low Water.	No.	Length.	Height.		
				Ft.					In.	Ft.	Feet.
1	Ottawa	0	8	82	0	3	230 1,320 1,616	18 33 14	4'00
2	Hartwell's	4 $\frac{1}{4}$	2	22	0	1	100	28	
3	Hogsback	5 $\frac{1}{2}$	2	13	6	1	320	60	
4	Black Rapids	9 $\frac{1}{2}$	1	10	0	1	300	12	
5	Long Island	14 $\frac{1}{2}$	3	27	0	3	850	63	
6	Burritt's	40 $\frac{1}{2}$	1	10	6	1	240	14	
7	Nicholson	43 $\frac{1}{2}$	2	15	2	1	500	9	
8	Clowes	4 $\frac{1}{2}$	1	10	0	1	481	16	
9	Merrickville	46 $\frac{1}{2}$	3	25	0	1	150	6	
10	Maitland	55	1	4	9	1	270	8	
11	Edmunds	59 $\frac{1}{2}$	1	10	10	1	343	8	
12	Old Slys	60 $\frac{1}{2}$	2	15	6	1	250	20	
13	Smith's Falls	61 $\frac{1}{2}$	4	33	9	2	600	24	
14	First Rapids or Poonamalie	64	1	7	9	1	260	5	
15	Narrows	83 $\frac{1}{4}$	1	4	0	1	600	9	
Total rise at low water				292	3				
				Fall.					
16	Isthmus	87 $\frac{1}{2}$	1	4	0				1'25
17	Chaffey's	92	1	12	6				0'13
18	Davis	94 $\frac{1}{2}$	1	9	0	1	300	15	0'06
19	Jones' Falls	97 $\frac{1}{2}$	4	60	0	1	300	60	0'26
20	Brewer's Upper Mills	108 $\frac{1}{2}$	2	19	0	1	200	20	1'75
21	do Lower Mills	110	1	14	2	1	200	12	4'25
22	Kingston Mills	120 $\frac{1}{4}$	4	46	8	1	6,042	14	0'25
23	Kingston	126 $\frac{1}{2}$							
Total fall at low water				165	4				
Total			47			24	15,472		16'46

APPENDIX No. 20.

TABLE showing the dates of the closing of the Canals in the Autumn of 1887 and of the opening in the Spring of 1888.

Canals.	Closing.	Opening.
Lachine Canal	30 November, 1887.	1 May, 1888.
Beauharnois Canal	1 December, 1887.	1 May, 1888.
Cornwall Canal.....	4 December, 1887.	2 May, 1888.
Williamsburg Canal.....	5 December, 1887.	2 May, 1888.
Welland Canal—		
New Canal.....	} 5 December, 1887.	1 May, 1888.
Old Canal.....		
St. Anne's Lock and Dam.....	28 November, 1887.	2 May, 1888.
Carillon Canal	} 30 November, 1887.	2 May, 1888.
Grenville Canal.....		
Culbute Lock and Dam	} 30 November, 1887.	2 May, 1888.
Chute à Blondeau		
Rideau { Kingston Mills.....	} 25 November, 1887.	3 May, 1888.
{ Ottawa.....		
St. Ours Lock.....	25 November, 1887.	19 April, 1888.
Chambly Canal.....	1 December, 1887.	6 May, 1888.
Erie Canal (New York)	1 December, 1887.	10 May, 1888.
St. Peter's Canal (Cape Breton).....	7 January, 1888.	28 April, 1888.
Trent Canal Works.....	25 November, 1887.	20 April, 1888.

APPENDIX No. 21.

STATEMENT of Contracts entered into between 1st July, 1887, and 30th June, 1888.

Railways and Canals.	Deed, Letter or otherwise, under which Contract was made.	Name of Contractor.	Date of Contract.	General Description.
Subsidized Railways.....	Contract 8,814...	Great Northern Railway Co....	Aug. 19, 1887	Subsidy agreement, from $\frac{1}{2}$ mile west of New Glasgow, to Montcalm, Que.
do	do 8,815...	Great North-West Central Railway Co.	Sept. 12, 1887	Subsidy agreement, from Brandon on Canadian Pacific Railway to Battleford, 450 miles, (land subsidy).
do	do 8,829...	Western Counties Railway Co.	July 22, 1887	Supplemental agreement, π debentures at 5 per cent., &c. (amend No. 8,701).
do	do 9,277...	Western Counties Railway Co.	Feb. 9, 1888	Agreement π debenture stock, 4 per cent. interest payable by Government.
do	do 8,901...	Dominion Lime Co.....	Oct. 12, 1887	Subsidy agreement, from junction with Quebec Central Railway in 3rd con. Dundaswell, to quarries of Dundaswell Lime Co., and Dominion Lime Co., County of Wolfe, Que.
do	do 8,910...	Harvey Branch Railway Co....	do 3, 1887	Subsidy agreement, from south end of Albert Railway to Harvey Bank, N.B., 3 miles
do	do 8,911...	Joggins Railway Co.	do 13, 1887	Subsidy agreement, from south end of subsidized portion (by 49 Vic, chap. 10) to wharves on Cumberland Basin, N.S., 1 $\frac{1}{4}$ miles.
do	do 8,915...	Montreal and Lake Maskinongé Railway Co.	Sept. 29, 1887	Subsidy agreement, from St. Felix de Valois to St. Gabriel de Brandon, Que., 10 miles.
do	do 8,944...	Guelph Junction Railway Co....	Nov. 5, 1887	Subsidy agreement, 16 miles from Canadian Pacific Railway near Campbellville to Guelph.
do	do 8,948...	Beauharnois Junction Railway Co.....	do 21, 1887	Subsidy agreement, from Ste. Martine to Valleyfield, Que., about 20 miles.
do	do 8,949...	Nova Scotia Central Railway Co.	Oct. 12, 1887	Subsidy agreement, from Lunenburg to District of New Germany, and branch to Bridgewater Railway Wharf, in all about 34 miles.
do	do 8,950...	Montreal and Champlain Junction Railway Co.	Jan. 25, 1888	Subsidy agreement, from Fort Covington to Massena Springs, 21 $\frac{3}{4}$ miles.

do	8,963...	do	Frederick and St. Mary's Railway Bridge Co	Oct.	1887	Subsidy agreement, (mortgage) Bridge between Frederic- ton and St. Mary's, N. B.
do	8,997...	do	Drummond County Railway Co.	Dec.	1887	Subsidy agreement, line from South Eastern Railway at Drummondville village to the south west branch of Nicolet River, about 12½ miles.
do	8,998	do	Belleville and North Hastings Railway Co.	do	12, 1887	Subsidy agreement, line from Madoc village to junction with Central Ontario Railway at Eldorado, 6.94 miles.
do	9,163	do	Hereford Branch Railway Co...	March 31,	1888	Subsidy agreement, Railway from International Railway in 8th Range, Cookshire, to Station 1010 in Range B, Auckland, Compton County, Que., 19½ miles.
do	9,175	do	Minudie Railway Co. (Limited)	do	26, 1888	Subsidy agreement, from junction with Jogging's Railway near River Hebert, Railway bridge to village of Minudie, Cumberland County, N.S., ½ miles.
do	9,282...	do	Dumberland Railway and Coal Co.	April 12,	1888	Subsidy agreement, Spring Hill, N.S., to Oxford and New Glasgow Railway, near village, N.S., 14 miles.
do	9,286...	do	Great Eastern Railway Co	March 16,	1888	Subsidy agreement, St. Francis River at Pierreville, to Grand Trunk Railway at St. Gregoire Station, 21½ miles.
do	9,290...	do	Lake Erie, Essex and Detroit River Railway Co.	April 6,	1888	Subsidy agreement, Walkerville, on Detroit River, to Gedar Creek Station, in Township S, Colchester, Essex County, Ont.
do	9,291...	do	Cornwalls Valley Railway Co. (Limited)	May 28,	1888	Subsidy agreement, Kentville to Kingsport, King's County, N.S.
do	9,299...	do	St. Catharines and Niagara Central Railway Co.....	March 5,	1888	Subsidy agreement, City of St. Catharines to bridge over Niagara River.
do	9,371...	do	St. John Valley and Rivière du Loup Railway Co.....	June 26,	1888	Subsidy agreement, Fredericton towards Woodstock. N.B., 44 miles.
do	9,397..	do	Baie des Chaleurs Railway Co	June 2,	1888	Subsidy agreement, to apply \$96,000 of Act 46 V. c. 25 to the 30 miles between the 40th and 70th miles, in lieu of to last 30 miles, Metapedia to Caspé-biac
do	9,442...	do	Tobique Valley Railway Co....	Sept.	4, 1888	Subsidy agreement, from Perth Centre Station of New Brunswick Railway, 14 miles towards Plaisier Roch Island.
do	9,479...	do	South Norfolk Railway Co	Aug. 23,	1888	Subsidy agreement, 17 miles, from Port Rowan to Town of Simcoe, Ont.
do	9,480...	do	Ontario and Quebec Railway Co	Sept. 4,	1888	Subsidy agreement, 65 miles, from London to Chatham, Ont.
do	9,486...	do	Napanee, Tamworth and Que- bec Railway Co.....	July 31,	1888	Subsidy agreement, 20 miles of railway, Tamworth to Tweed, Ont.
do	9,491...	do	Brantford, Waterloo and Lake Erie Railway Co	Aug. 16,	1888	Subsidy agreement, 16½ miles of railway, Brantford to Waterford, Ont.
do	9,497...	do	Qu'Appelle, Long Lake and Saskatchewan Railway and Steamboat Co....	do	31, 1888	Transport of Government supplies, Regina to Saskatoon.

STATEMENT of Contracts entered into between 1st July, 1887, and 30th June, 1888—Continued.

Railways and Canals.	Deed, Letter or otherwise, under which Contract was made.	Name of Contractor.	Date of Contract.	General Description.
Cape Breton Railway.....	Contract 8,827...	Isbester & Reid.....	July 27, 1887	Construct that part of Cape Breton Railway from Strait of Canso to the Grand Narrows, Cape Breton, N. S., 46 miles
do	do 8,494...	W. J. Sims	June 21, 1888	Grading on Cape Breton Railway, from 20th mile to 24 miles east of Grand Narrows.
do	do 8,495...	Ross & McDonald.....	do 26, 1888	Grading on Cape Breton Railway, from 24th mile to 29½ miles east of Grand Narrows.
do	do 8,496...	John McKeen & Co	do 25, 1888	Grading on Cape Breton Railway, from 42nd mile to terminus at Battery Point and branch to connect with International Coal Company's railway.
do	do 8,505...	McNeil, McDougall & McNeil...	do 19, 1888	Grading, &c., Cape Breton Railway, from Station O to 8th mile.
do	do 8,508...	McAdam & Grant.....	do 19, 1888	Grading, &c., Cape Breton Railway, from 8th to 13th mile.
do	do 8,232...	Isbester & Reid.....	Feb. 27, 1888	Construct a crib block at Point Tupper, N. S., for Cape Breton Railway.
Oxford and New Glasgow Railway	do 8,913...	McDonald & O'Brien.....	Oct. 3, 1887	Construct section of Oxford and New Glasgow Railway from Oxford Station to Oxford and Birch Ridge Road, N. S., 3 miles.
do	do 8,931...	Rhodes, Curry & Co	do 27, 1887	Station buildings at Oxford Junction of Oxford and New Glasgow Railway.
do	do 8,001...	Gray, McManus, Trites & Co ...	Nov. 18, 1887	Construct 2½ miles, Mingo to Pietou Branch, for Oxford and New Glasgow Railway.
do	do 8,037...	McDonald, O'Brien & Co.....	Jan. 5, 1888	Build Section 1, Oxford and New Glasgow Railway, Birch Hill Road to Pugwash, 13 miles.
do	do 8,039...	do	do 5, 1888	Build Section 3, Oxford and New Glasgow Railway, Pugwash Junction to Wallace, 7 miles.
do	do 8,042...	Stewart & Jones.....	Dec. 16, 1887	Build Section 4, Oxford and New Glasgow Railway, Wallace Station to Mingo Road, 17 miles.
do	do 8,044...	Donald Sutherland.....	Jan. 5, 1888	Build Section 2, Oxford & New Glasgow Railway, Pugwash Junction to Pugwash, 5 miles.
do	do 8,063...	Chas. Cammell & Co. (Limited)	Dec. 28, 1887	Supply 7,000 tons steel rails for Oxford & New Glasgow Railway, delivered on Intercolonial Railway wharf at Halifax.
do	Contract 8,226...	Archibald Campbell	Feb. 29, 1888	Supply 9,000 bellock ties for Oxford & New Glasgow Railway, delivered 7,000 between Dewais River and French River, 2,000 west and near Mingo Road.

do	do	do	do	9,234...	J. C. McDougall and T. Giles..	March 26, 1888	Construct a wharf at Pugwash Harbor, N. S., Oxford & New Glasgow Railway.
do	do	do	do	9,295...	R. L. Black.....	April 28, 1888	Supply 91,000 railway ties for Oxford & New Glasgow Railway.
do	do	do	do	9,458...	McDougall & Giles.....	July 19, 1888	Construct 3/4 mile Section of Oxford & New Glasgow Railway from Station 240 Pugwash branch to Pugwash railway wharf.
do	do	do	do	9,009...	Barrow Hematite Steel Co. (Limited).....	Oct. 5, 1887	Supply 500 tons steel flange rails, 50 lbs. per yard, and fishplates for Prince Edward Island Railway, delivered Charlottetown, P. E. I.
do	do	do	do	9,034...	Patent Nut and Bolt Co. (Limited).....	Oct. 28, 1887	Supply 4 tons of iron bolts and nuts for Prince Edward Island Railway, delivered f. o. b. ship at Barrow-in-Furness.
do	do	do	do	9,236...	John R. Larkin.....	Jan. 17, 1888	Deliver sleepers for Prince Edward Island Railway, 37,000 hemlock ties, 10,000 black spruce, between Wellington and Bloomfield Stations.
do	do	do	do	9,237...	A. McKinnon.....	do 18, 1888	Deliver sleepers for Prince Edward Island Railway, 10,000 hemlock ties at Coleman Station.
do	do	do	do	9,238...	Richard Smallman.....	do 17, 1888	Deliver sleepers for Prince Edward Island Railway, 1,500 hemlock ties delivered at O'Leary Station.
do	do	do	do	9,239...	F. T. Arsenault.....	do 17, 1888	Deliver sleepers for Prince Edward Island Railway, 1,500 hemlock ties between Northern and St. Nicholas Station.
do	do	do	do	9,240...	Robert Ellis (senior).....	do 17, 1888	Deliver sleepers for Prince Edward Island Railway, 5,000 hemlock ties at O'Leary Station.
do	do	do	do	9,241...	Donald McKenzie.....	do 17, 1888	Deliver sleepers for Prince Edward Island Railway, 500 hemlock ties at Northern Station.
do	do	do	do	9,242...	Edward Lidstone.....	do 18, 1888	Deliver sleepers for Prince Edward Island Railway, 800 hemlock ties between lot 10 and Bloomfield Station.
do	do	do	do	9,243...	Neil Buchanan.....	do 17, 1888	Deliver sleepers for Prince Edward Island Railway, 600 hemlock ties on Prince Edward Island Railway.
do	do	do	do	9,380...	Archibald & Co.	May 23, 1888	Supply 6,500 tons coal for Prince Edward Island Railway.
do	do	do	do	9,395...	Barrow Hematite Steel Co (Limited).....	do 8, 1888	Supply 400 tons steel flange, 50 lbs. per yard, for Prince Edward Island Railway.
do	do	do	do	9,396...	Bayliss, Jones & Bayliss.....	do 11, 1888	Supply 3 tons bolts and nuts for Prince Edward Island Railway.
do	do	do	do	8,927...	Intercolonial Coal Mining Co (Limited).....	July 1, 1887	Supply 24,000 tons (2,240 lbs.) of round coal for Intercolonial Railway, delivered f. o. b. on cars at Drummond siding, as required by storekeeper, for the year commencing 1st July, 1887.
do	do	do	do	8,934...	John F. Teed.....	Sept. 16, 1887	Coal shed and trestle at Amherst, N. S., for Intercolonial Railway.
do	do	do	do	8,935...	do	do 13, 1887	A 15,000 gallons water tank at Indiantown for Intercolonial Railway (Indiantown Branch).
do	do	do	do	8,936...	G. O. Dunham.....	do 12, 1887	Blacksmith's shop, Moncton, for Intercolonial Railway.

STATEMENT of Contracts entered into between 1st July, 1887, and 30th June, 1888—Continued.

Railways and Canals.	Deed, Letter or otherwise, under which Contract was made.	Name of Contractor.	Date of Contract.	General Description.
Intercolonial Railway	Contract 8,937...	C. Gagnon.	July 30, 1887	Embankment and pile bridge approach from Sackville Branch to the New Brunswick and Prince Edward Railway wharf, at Sackville, N. B., for Intercolonial Railway.
do	8,938...	R. R. Call	Aug. 23, 1887	Coal shed and trestle at Ste. Flavie, P. Q., for Intercolonial Railway.
do	8,939...	do	Sept. 9, 1887	Stone ash pit at Ste. Flavie, P. Q., for Intercolonial Railway.
do	8,940...	James Brown	Aug. 27, 1887	Addition to freight shed, Kent Junction, for Intercolonial Railway.
do	8,941...	T. C. Connor & R. C. Donald	Sept. 9, 1887	To renew No. 2 wharf at Richmond, for Intercolonial Railway.
do	8,942...	A. McQueen & H. Cameron	Aug. 17, 1887	Freight shed at Antigonish, N. S., for Intercolonial Railway.
do	8,943...	John F. Teed	Sept. 9, 1887	Paint shop at Moncton, N. B., for Intercolonial Railway.
do	8,946...	Jas. Brown	do 16, 1887	Build a coal shed and trestle at Shediac, N. B., for Intercolonial Railway.
do	8,951...	Wm. Starkey	do 26, 1887	Construct six 50,000 gallon water tanks, viz.: at Hampton, Peticodiac, Red Pine, St. Fabien, Ste. Anne and St. Charles, for Intercolonial Railway.
do	8,953...	Jas. Brown	do 21, 1887	Station building and freight room, Adamsville, N. B., for Intercolonial Railway.
do	8,954...	Jas. O. Fish	do 9, 1887	Repair wharf at Newcastle, N. B., for Intercolonial Railway.
do	8,955...	Henry White	do 12, 1887	Masonry under crossing at Bathurst, N. B., for Intercolonial Railway.
do	8,956...	D. Gallant	Aug. 31, 1887	Addition and repairs, Rogersville Station, N. B., for Intercolonial Railway.
do	8,978...	A. Grant & Sons	Sept. 9, 1887	Build a wooden overhead bridge at Morency's Crossing, for Intercolonial Railway.
do	8,979...	E. T. Nesbitt	do 16, 1887	Build snow shed at St. Arsène, for Intercolonial Railway.
do	8,980...	do	do 16, 1887	do near Isle Verte, do
do	8,981...	David Roy & Frère	Aug. 9, 1887	Build station at Cap St. Ignace, do
do	8,982...	John P. Mowat	Sept. 25, 1887	do Flatlands, do

STATEMENT of Contracts entered into between 1st July, 1887, and 30th June, 1888—Continued.

Railways and Canals.	Deed, Letter or otherwise, under which Contract was made.	Name of Contractor.	Date of Contract.	General Description.
Intercolonial Railway	Contract 9,362...	S. M. Dunn	March 17, 1888	1,450 do Newcastle and a point five miles west of Beaver Brook
do	do 9,363...	Sutherland & McQuarrie.....	do 17, 1888	do Sussex and Bloomfield
do	do 9,364...	Humphreys & Trites.....	do 10, 1888	do Ste. Flavie and Riviere du Loup.
do	do 9,356...	Canada Locomotive & Engine Co. (Limited.).....	May 25, 1888	do Boundary Creek and Penobscuis.
do	Contract 9,376...	Robt. Maxwell.....	April 16, 1888	Fourteen locomotives, heavy four-wheeled, for Intercolonial Railway
do	do 9,377...	James Graham.....	March 17, 1888	Fencing on Intercolonial Railway— Between Londonderry and Spring Hill, 5,040 rods. do Spring Hill and Amherst, 1,520 rods. do Mulgrave and Antigonish, 3,100 rods. do Windsor Junction and Truro, 2,300 rods. do Pictou Landing and St. Martin, 320 rods. do Antigonish and New Glasgow, 3,000 rods. do Riverside and Valley, 2,400 rods. do Red Pine and a point 5 miles south of Petite Roche, 775 rods. do Belladune and Jacquet River, 20 rods. do Charles and Dalhousie Junction, 75 rods.
do	do 9,378...	R. R. Call.....	April 28, 1888	Old rail girders for Intercolonial Railway— 3 pairs of 19½ feet span, 1 pair 18 feet span, 2 pairs 17½ feet span. 4 pairs of 15 feet span, 1 pair 14½ feet span, 3 pairs 14 feet span, 6 pairs 12 feet span.
do	do 9,379...	Wm. Lewis & Sons	May 1, 1888	Supply 5,000 tons steel flange rails (67 lbs. per yard) for Intercolonial Railway.
do	do 9,394...	Barrow Hematite Steel Co (Limited).....	do 8, 1888	Express business on Intercolonial Railway, extended to Eastern Extension Railway.
do	do 9,405...	Intercolonial Express Co	June 15, 1888	Supply about 15,000 tons round coal for Intercolonial Railway, for 12 months from 1st July, 1888.
do	do 9,439...	Acadia Coal Co. (Limited).....	July 15, 1888	Supply about 15,000 tons round coal for Intercolonial Railway, for 12 months from 1st July, 1888.
do	do 9,440...	Black Diamond Coal Co. (Limited).....	June 28, 1888	Supply about 15,000 tons round coal for Intercolonial Railway, for 12 months from 1st July, 1888.

do	9,443...	do	May 21, 1888	Etienne Dusault,	Additions to Intercolonial Railway wharf at Levis, Que.
do	9,450...	do	June 28, 1888	Intercolonial Coal Mining Co. (Limited),	Supply 15,000 tons round coal for Intercolonial Railway, for one year.
do	9,461...	do	July 12, 1888	Cumberland Railway and Coal Co (Limited),	Supply 125,000 tons round coal for Intercolonial Railway, for one year.
do	9,462...	do	do	Phoenix Coal Mining Co. (Limited),	Supply 20,000 tons round coal for Intercolonial Railway, for one year.
do	9,471...	do	do	S. D. Oakes,	Construct cribwork wharf at Mulgrave, N.S., for Intercolonial Railway.
do	9,472...	do	do	B. Flynn,	Construct two cribwork winter landings at Pictou, N.S., for Intercolonial Railway.
do	9,473...	do	do	J. & A. Carson,	Construct extension and alterations in passenger station at Pictou, N.S., for Intercolonial Railway.
do	9,481...	do	June 28, 1888	McQueen & Cameron,	Extend freight shed at Westville, N.S., for Intercolonial Railway.
do	9,490...	do	May 14, 1888	{ Rousseau & Mether,	Two steel or iron bridge spans over Isle Verte River, Intercolonial Railway.
do	8,947...	do	Oct. 6, 1887	{ Montreal Iron Bridge Co.,	Stone for facing or protection of Dunnville dam, Welland Canal.
do	120,567...	do	July 20, 1888	Lalor & May,	Accepted tender for 178 boundary stones, Welland Canal lands, Allanburg to Port Colborne
do	9,501...	do	Aug. 28, 1888	Heysel Bros.,	A steel lattice girder swing bridge over Chippewa Creek Welland County.
do	8,920...	do	Oct. 19, 1887	Robt. Weddell,	Approaches to swing bridge, Smith's Falls, Rideau Canal.
do	8,974...	do	Nov. 14, 1887	Mills & Corbett,	Cribs, &c., for approaches to bridge, Smith's Falls, Rideau Canal.
do	8,975...	do	do	Burb & Smith,	do
do	9,007...	do	do	do	do
do	9,406...	do	July 12, 1888	Robert Cummings,	Re-build superstructure of Manotick Bridge, Rideau Canal.
do	9,482...	do	Aug. 22, 1888	W. Davis & Sons,	Construct 200 feet crib wharf, west of Rideau Canal Basin, near Maria Street, Ottawa.
do	9,488...	do	do	Robert Weddell,	do
do	8,917...	do	Sept. 14, 1887	Alexander de Lorimier,	Build 3 bridges over Tay Canal, at Perth, Ont.
do		do		Robert Weddell,	Dry rubble wall, Lachine Canal, below Côte St. Paul Lock, about 600 feet long.
do		do		do	Road bridges, at Buckhorn, Burleigh and Fenelon Falls, Trent.

H. A. FISSIAULT.

OTTAWA, 21st November, 1888.

APPENDIX
GENERAL STATE

1st. Water Power and other Public Property leased on Canals

Date of Signature.	Term of Lease.	Lessees.	Property Leased.	For what purpose used.
<i>Intercolonial Railway.</i>				
Mar. 29, '88	1 year	Canada Ry. News Co.	License to sell books, &c., at St. John Station.	.....
July 1, '88	do	do	License to sell books, &c., on I. C. Ry train.	.....
do 1, '88	do	Jos. Fortin.....	License to sell books, &c., Point Lévis to Campbellton	.....
Feb. 21, '88	5 do	King Bros	Lease of Hadlow Wharf, County of Lévis and lots A, B, C, near it.	Wharf.....
<i>Cornwall Canal.</i>				
Mar. 13, '88	Pleasure of the Government	Lemay & Campbell.	Lot S. of Water St., Cornwall, opp. Amelia St.	Coal ground.....
<i>Welland Canal.</i>				
Oct. 11, '87	do ...	C J. Page.....	Surplus water from raceway, town of Welland.	Electric light for town.
do 26, '87	do ...	C. Swayze.....	Pt. lot 26 in 5th Con., Crowland, town of Welland.	Outbuildings....
Nov. 10, '87	50 years	St. Catharines & Niagara Cen Ry. Co. Corporation, Village, Merriton.	Railway right of way on canal lands in Thorold and Grantham.	Railway
Dec. 24, '87	21 years renewable forever.	Corporation, Village, Merriton.	Marlatt's Pond, near Guard Lock and raceway, to supply water to Merriton.	Settling pond....
Jan. 12, '88	Pleasure of the Government	Rolston & Haskins...	Pt. of Mittleberger Mill site, &c., Dunnville.	Electric light for village.
<i>Beauharnois Canal.</i>				
do 13, '88	21 years renewable forever.	Corporation, Salisbury de Valleyfield.	Water lot No. 830, at Valleyfield, below dam to Grande Isle.	Water supply for town.
do 13, '88	do ...	Valleyfield Electric Co. (Lim)	Water lot No. 830, at Valleyfield, below dam to Grande Isle.	Electric light for town.
do 13, '88	Pleasure of the Government	Estate Jas. McDonald	Water lot No. 830, at Valleyfield, below dam to Grande Isle.	Yard for grist mill.
<i>Prince Edward Island</i>				
June 23, '88	Revocable at any time.	Water Comm'rs. town of Charlottetown.	Permission to lay a water pipe under P. E. I. Railway lands near Charlottetown.	Water supply for town.
<i>Rideau Canal, &c.</i>				
May 1, '88	Pleasure of the Government.	W. W. Bedford	Part lot No. 21, 5th Con., S. Elmley, at Olivers Ferry.	Summer residence
April 28, '88	do ...	Rideau Skating and Curling Club.	Part of Reserve, S. of Deep Cut, and S. of Maria St., Ottawa.	Boat house, skating and curling club.

No. 21.

MENT SHOWING

and Railways, during the Fiscal Year ended 30th June, 1888.

Amount of Water Power Leased.	Area of Property Leased.	Date from which Lease is reckoned.	Annual Rental.	Terms of Payment.			Remarks.
				Amount of each instalment.	When Due each Year.	When first instalment was Due.	
			\$ cts.	\$ cts			
.....	.....	Mar. 1, '88	300 00	75 00	Quarterly.	Mar. 1, '88	
.....	.....	July 1, '88	1,232 56	102 71	Monthly...	July 1, '88	In advance.
.....	.....	do 1, '88	400 00	33 34	do ...	do 1, '88	do
.....	.....	June 1, '83	200 00	.....	.....	.....	Lessees to expend rental of \$200 in repairs and maintenance of wharf.
.....	15 x 90 ft. x 4 ft.	April 1, '83	10 00	10 00	April 1....	On delivery of lease.	In advance.
20 h. p.	.....	Oct. 1, '87	120 00	120 00	Oct. 1....	Oct. 1, '87	do
.....	0.03 acres.	July 1, '87	5 00	5 00	July 1....	On delivery of lease.	He paid \$20 for past occupation.
.....	.....	Nov. 10, '87	1 00	00	Nov. 10....	Nov. 10, '88	
16 x 14 in. pipes	300 x 250 ft	Jan. 1, '83	400 00	200 00	1 Jan. and 1 July..	July 1, '89	One year free of rent, to build.
25 h. p.	0.30 acres.	do 1, '88	115 00	115 00	Jan. 1....	On delivery of lease.	In advance. Cancels lease No. 8,641. Water, 25 h. p. at \$4,=\$100; land, \$15.
30 h. p.	105 x 30 ft.	Jan. 1, '87	105 00	52 50	1 Jan. and 1 July..	July 1, '87	Cancels lease, No. 8,519.
30 do ...	90 x 30 ft.	do 1, '88	105 00	52 50	do ...	do 1, '88	
.....	1,500 feet.	Oct. 1, '87	15 00	15 00	Oct. 1....	On delivery of lease.	
.....	.....	.....	Free.....	.....	.....	.....
.....	0.76 acres.	May 1, '88	3 00	3 00	May 1....	On delivery of lease.	In advance.
.....	0.83 do	April 1, '88	125 00	31 25	Quarterly.	do	do

GENERAL STATEMENT showing: 1st. Water Power and other

Date of Signature.	Term of Lease.	Lessees.	Property Leased.	For what purpose used.
			<i>Lachine Canal.</i>	
July 19, '87	5 years, then 15 years.	C. M. Acer	Part of lot No. 328, St. Ann's Ward, Montreal.	Hotel.....
Feb. 1, '88	Pleasure of the Government.	Grand Trunk Ry. Co. of Canada.	The Government Railway siding, W. of Wellington Basin, Montreal.	Loading coal cars.
Aug. 30, '87	do ...	E. Ouellette & Co....	Lot above locks at Lachine, between old canal and upper entrance of new canal.	Storing coal and wood.
Nov. 23, '87	do ...	"City of Montreal."	Canal land at waste weir, Basin No. 2, and dyke Montreal inundations.	sewerage pumping station.
do 9, '87	do ...	A. W. Ogilvie & Co.	Lot N. W. of Mill St, Montreal, N. of waste weir, Basin No. 2, for shelter in day time.	Office and shed...
May 25, '88	do ..	Montreal Street Ry. Co.	Lay a double track over Wellington St. bridge, Montreal.	Street cars.....
Jan. 18, '88	9 months.	George End	Lots 10, 11, W. of St. Gabriel Basin No. 3, Montreal.	Storing lumber..
May 1, '88	Pleasure of the Government.	Père Poulin	Lots Nos. 1 and 2, W. of St. Gabriel Basin No. 4, Montreal.	do ...
do 2, '88	do ...	Louis Fortin	Lots on N. W. side of canal at Ste. Cunegonde.	Coal yard
April 27, '88	do ...	Canadian Pacific Ry. Co lessees of Atlantic & N. W. Ry	Lay a track on spoil bank, N. of canal at Lachine.	Switch.....

Public Property leased on Canals and Railways, &c.—*Concluded.*

Amount of Water Power Leased.	Area of Property Leased.	Date from which Lease is reckoned.	Annual Rental.	Terms of Payment.			Remarks.
				Amount of each instalment.	When Due each Year.	When first instalment was Due.	
.....	600×100 ft	Dec. 1, '87	\$ cts. 600 00	\$ cts. 600 00	Dec. 1....	On delivery of lease.	Cancels lease, No. 6,866. Rent reduced to \$400 for first year, from 1st Dec., 1887. By O. C.
.....	862 ft.long	Aug. 1, '85	120 00	10 00	Monthly..	1st of each month....	
.....	13,420 ft..	May 1, '85	30 00	30 00	May 1....	do ...	And landing dues only.
.....	Dyke and 85×34 ft.	Sept. 1, '87	1 00	1 00	Sept. 1....	do ...	
.....	2,278 ft....	do 1, '87	10 00	10 00	do 1....	do ...	
.....	.....	Jan. 1, '88	1 00	1 00	Jan. 1....	Jan. 1, '88	
.....	23,214 ft...	Aug. 1, '87	200 00	200 00	.....	Dec. 17, '87	Lapsed 1st May, 1888.
.....	19,046 ft...	Jan. 16, '88	380 92	380 92	May 1...	On delivery of lease.	Cancels, No. 8,399.
.....	80×50 ft.	May 1, '88	40 00	40 00	do 1....	do ...	
.....	1,840 feet long.	do 1, '88	10 00	10 00	do 1....	do ...	

1264 PROPERTY purchased or damaged, and property sold by the Department of Railways and Canals as not being required for the Railways or Canals of the Dominion, during the Fiscal Year ended 30th June, 1888.

Date of Signature.	Vendors.	PROPERTY PURCHASED, SOLD OR DAMAGED.		For what Purpose.	Area of Land.	Amount Paid.	Remarks.
		Cape Breton Railway.					
		Lots.	County.				
Jan. 13, 1887	H. McNeil	4	Cape Breton	Cape Breton Ry....	5.72	28 60	
do 13, 1887	H. D. McNeil	5, 6	do	do	6.20	6 20	
do 13, 1887	Donald McNeil	8	do	do	2.10	2 10	
do 13, 1887	Roderick McNeil	9	do	do	2.60	5 60	
do 13, 1887	Allan McNeil	11	do	do	2.10	72 40	Of which, \$14 for quarry.
do 14, 1887	John McNeil	12	do	do	3.40	8 50	And extra clear-
do 14, 1887	John McKinnon	13	do	do	2.00	5 50	ing.
do 13, 1887	Donald McNeil	14	do	do	1.80	1 30	
do 15, 1887	John McNeil	16	do	do	1.20	3 60	
do Mar. 9, 1887	R. O. Epis Corp Diocese of Antigonish	17	do	do	3.80	152 00	
do 14, 1887	J. McKinnon	18	do	do	0 20	0 80	And extra clear-
do 15, 1887	A. McNeil	19	do	do	1.30	5 20	ing.
do 15, 1887	M. McDougall	24	do	do	7.80	62 40	
do 15, 1887	M. McKeuzie	25	do	do	1.50	12 00	
do 15, 1887	M. McDougall	26	do	do	1.40	7 00	
do 15, 1887	M. McKeuzie	27	do	do	1.30	10 40	
do 15, 1887	Neil McKeuzie	29	do	do	1.60	12 80	
do 15, 1887	John McKeuzie	30	do	do	0.80	6 40	
do 15, 1887	Donald McNeil	31	do	do	2.40	4 80	
do 13, 1887	H. D. McNeil	32	do	do	1.10	3 00	
do 31, 1887	S. McNeil	33	do	do	0.70	2 10	
do 15, 1887	John McNeil	35	do	do	4.60	9 00	
do 15, 1887	J. McDougall	36	do	do	0.90	1 80	
do 17, 1887	J. H. McNeil	37	do	do	2.40	4 80	
do 17, 1887	D. McDougall	38	do	do	2.50	12 50	
do 17, 1887	D. McKeuzie	39	do	do	1.50	9 00	
do 17, 1887	M. McDougall	40	do	do	4.50	23 50	
do 17, 1887	M. McDonald	41	do	do	1.80	3 80	
do 17, 1887	Neil McDonald	42	do	do	3.90	11 70	
do 17, 1887	Neil McKinnon	44	do	do	0.80	39 80	
do 17, 1887	Joseph McKinnon	45	do	do	0.60	3 60	

[100]

do 17, 1887 [S. McNeil]

2nd. PROPERTY purchased, damaged, or sold by the Department of Railways and Canals, &c. — Continued.

Date of Signature.	Vendors.	Purchasers.	PROPERTY PURCHASED, &c.		For what Purpose.	Area of Land.	Amount Paid.	Remarks.
			Cape Breton Railway.—Continued.					
			Lots.	District.					County.
Feb. 8, 1887	Luke Day, et al.....	Her Majesty.	184	George River.....	Cape Breton	3.33	39.96	
do 8, 1887	A. Gillis.....	do	197	do	do	6.34	19.02	
do 8, 1887	T. Dowling, et al.....	do	198	do	do	8.66	86.60	
do 8, 1887	McDonald.....	do	199	do	do	1.84	9.20	
do 12, 1887	Widow E. G. Moore.....	do	201	Rear George River.....	do	2.05	12.30	
do 12, 1887	D. McQuinn.....	do	203	Leitch's Creek.....	do	6.46	38.26	
do 12, 1887	D. McDonald, et al.....	do	204	do	do	5.49	32.84	
do 12, 1887	Eliza McDonald.....	do	206	do	do	0.43	1.29	
Mar. 14, 1887	T. F. Moore.....	do	210	do	do	2.49	400.00	
do 11, 1887	M. Musgrave, et al.....	do	212	Pt. Pleasant.....	do	15.00	150.00	
do 11, 1887	Rev. R. McQuarrie.....	do	212½	Ball's Creek.....	do	0.09	0.90	
do 11, 1887	Chas Jefferson.....	do	213	do	do	4.34	55.12	
do 11, 1887	Peter Grant.....	do	215	do	do	0.82	12.30	
do 14, 1887	J. Campbell.....	do	217	do	do	1.87	40.76	
do 14, 1887	H. Grantmeyer.....	do	218	do	do	1.44	43.20	
do 14, 1887	A. Grantmeyer.....	do	220	North-West Arm.....	do	0.97	35.96	
Sep. 22, 1887	J. Lewis, et al.....	do	223	do	do	3.26	19.56	
Feb 10, 1887	J. W. Jefferson.....	do	225	Ball's Creek.....	do	20.14	182.80	
do 10, 1887	Eliza Jost.....	do	228	Coxbeath.....	do	6.29	18.87	
do 9, 187	do	do	230	do	do	7.49	22.47	
Sep 20, 1887	A. McKinnon, et al.....	do	234, 234a	do	do	1.55	78.12	
Aug 8, 1887	J. E. Burchell.....	do	241	Sydney.....	do	1.43	235.00	
do 16, 1887	M. McFarlane.....	do	242	Gibb's Bridge.....	do	0.77	30.80	
do 15, 1887	H. McKinnon.....	do	243	do	do	1.98	250.00	
Jan. 14, 1887	J. McJongall.....	do	20	Christmas Island.....	do	0.70	5.00	
do 21, 1887	Ann McKenzie.....	do	28	do	do	1.40	8.41	
do 18, 1887	N. McLean.....	do	53	Big Pond.....	do	1.53	4.59	
do 18, 1887	J. McPhee.....	do	62	do	do	4.94	24.70	
do 19, 1887	S. McKinnon.....	do	65	Shunacadie.....	do	3.51	17.55	
do 18, 1887	J. and O. McNeil et al.....	do	74	do	do	3.82	11.75	
do 26, 1887	H. Gillis.....	do	82	Beaver Cove.....	do	4.09	20.45	
do 26, 1887	D. and J. Curry.....	do	83	do	do	2.20	17.60	
do 26, 1887	J. McSween.....	do	86	do	do	4.86	38.88	
do 27, 1887	do	do	87	do	do	3.82	19.10	

do 27, 1887/S. McKinnon.....

2nd. PROPERTY purchased, damaged, or sold by the Department of Railways and Canals, &c.—Continued.

Date of Signature.	Vendors.	Purchasers	PROPERTY PURCHASED, &c		For what Purpose.	Area of Land.	Amount Paid.	Remarks.
			Cape Breton Railway.—Continued.					
			Lot.	District.					County.
Feb. 10, 1888	J. O'Handley.....	Her Majesty.	176	Long Island.....	Cape Breton.	0.80	8 00	
do 10, 1888	A. O'Handley.....	do	177	do	do	0.83	30 75	
do 8, 1887	W. H. Johnston.	do	189, 190	George's River.....	do	1.65	14 85	
Jan. 10, 1888	A. Grant, et al.....	do	214	Ball's Creek.....	do	1.16	17 25	
Feb. 6, 1888	K. Morrison.....	do	1 H or 2	Point Tupper, Town of Guernsey.	Richmond...	0.23	2,500 00	
Apr. 7, 1888	E. and M. Dorey.....	do	6 or 3 L.	do	do	0.15	1,100 00	
Feb. 4, 1888	F. L. M. Paint.....	do	7 or 5 L.	do	do	0.23	1,100 00	
do 4, 1888	A. Embree.....	do	8, 9 or 4 L.	do	do	0.16	78 00	
do 4, 1888	J. McDonald.....	do	10 or 6 L.	do	do	0.15	400 00	Lightkeeper.
June 2, 1888	D. and P. Duff.....	do	11a.....	do	do	0.42	200 00	
Feb. 7, 1888	J. Harding.....	do	14 blk J	do	do	0.18	6 50	
do 6, 1888	J. Dowling.....	do	16 blk I.	do	do	0.03	150 00	
Apr. 7, 1888	T. Williams.....	do	20	S. of Head of Hawkesbury.	do	1.36	68 00	
Feb. 4, 1888	D. Morrison.....	do	21	do	do	5.16	£00 00	
June 2, 1888	Joha Langley.....	do	22	do	do	0.23	15 00	
Feb. 4, 1888	Jas McDonald.....	do	23	Hawkesbury.....	do	2.13	500 00	
do 4, 1888	T. Langley.....	do	24	Head waters of Hawkesbury.	do	1.92	200 00	Head of harbor.
do 29, 1888	E. D. Tremain.....	do	25	do	do	4.09	37 16	
June 2, 1888	G. H. Grant.....	do	29	do	do	8.63	68 21	
Apr. 6, 1888	J. Johnson.....	do	30	do	do	5.01	39 06	
do 9, 1888	J. R. Smith.....	do	32	Little River Coal Mines	do	3.23	25 59	
Feb. 6, 1888	W. Philpot.....	do	33, 35	Near Richmond do	do	2.95	68 46	
do 6, 1888	Eliz Ballieul.....	do	37	Rear of Hawkesbury...	do	1.09	18 78	
do 7, 1888	A. Olliver.....	do	38	do	do	5.33	43 02	
do 6, 1888	D. McIntyre.....	do	39	McIntyre's Lake.....	do	2.17	27 53	
Oct. 8, 1888	E. T. Moseley.....	do	256	Town of Sydney.....	do	*440 90	

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* This lot was taken in 1887, afterwards abandoned, land to be granted back to him by Government.

2nd. PROPERTY purchased, damaged, or sold by the Department of Railways and Canals, &c.—Continued.

Date of Signature.	Vendors.	Purchaser.	Property Purchased, Damaged or Sold.	For what Purpose.	Area of Land.	Amount Paid.	Remarks.	
Nov. 12, 1887	This Department to Her Majesty	Dept. of Interior	<i>Carillon Canal and Dam.</i>	Not required	Acres.	\$ cts.	Order in Council	
Mar. 1, 1888	J. Fitzgerald, sen.	Her Majesty	Lot 9, 1st Con. Chatham, Morrison's farm.	Carillon Dam	.....	525 00	Release.
do 9, 1888	J. Dewar	do	Lots 2, 3, 4, 5, 6, 7, or cadastral lots 183, 185, 187, 189, 191, 194, 1st con Chatham (damages)	do	.....	150 00	do
do 9, 1888	Widow C. Dewar	do	Lot 10, or cad. lot 201, 1st Con. do	do	.....	150 00	do
May 15, 1888	T. O. Noyes	do	Lots 12, 13, or cadastral lots 203, 204, 1st Con., Chatham (damages)	do	.....	30 00	do
July 26, 1888	A. Robert	do	Lot 14, or cadastral lot 205, 1st Con., Chatham (damages)	do	.....	300 00	do
			Lot 11, or cadastral lot 202, 1st Con., Chatham (damages)	do	.....		
			<i>Intercolonial Railway.</i>					
Feb. 26, 1887	Heirs L. Nadeau	do	Lots 441, 442, 443, 444, Town of Lévis, Lauzon Ward	St. Charles Branch	1,568½ feet.	5,200 00		
Apr. 12, 1887	W. C. J. Hall, et al.	do	Lot 473, Town of Lévis, Lauzon Ward	do	45,325½ do	8,000 00		
do 11, 1887	Jos. Parm	do	Lot 352, Village of Lauzon	do	2,275 do	4 50		
Feb. 28, 1887	Ed. Carrier	do	Lots 209, 210, Parish St. Joseph de Lévis	do	5.54 ac	1,475 00		
Sep. 21, 1888	Eng. Gosselin	do	Lot 145, Parish St. Charles	do	4 39 arpents	550 00		
Nov 27, 1884	do	do	Lot 153 do	do	0.13 do	137 50		
Aug 26, 1882	L. Leclerc	do	Lot 157 do	do	1.49 do	102 25		
do 26, 1882	J. Labonté	do	Lot 168 do	do	1.71 do	13 00		
do 26, 1882	J. B. Plante	do	Lot 156 do	do	2.72 do	272 00		
.....	High Admiral	do	Land at Tuf's Cove, County of Halifax, N.S.	Dartmouth Branch	5,385 ac	.....	
Oct. 5, 1887	Carleton, City of St John Branch Ry U.	do	Declaring their railway vested in Govt., from 20th Oct., 1887	I. C. Ry	Proclamation in Canada Gazette page 861.	

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2nd. PROPERTY purchased, damaged, or sold by the Department of Railways and Canals, &c.—Continued.

Date of Signature.	Vendors.	Purchaser.	Property Purchased, Damaged or Sold.	For what Purpose.	Area of Land.	Amount Paid.	Remarks.
Aug. 22, 1884	L. & C. Chabot.	Her Majesty.	<i>Intercolonial Railway—Continued.</i> Lot 154, Parish St. Charles.....	St. Charles Branch	7.40 arpents	740 00	Near line.
May 19, 1885	L. Chabot	do		do	do	427 35	Right of way.
June 4, 1862	Wm. Venner.....	do		Letters Patent to John Curtain, beach lot, Point Lévis.....	do	1.74	do
						
Jan. 25, 1888	T. Leblanc.	do	<i>Ottawa River (Culbute)—Damages by Dam at Rocher Fendu and Grand Calumet Falls.</i> Lot 11, east front Con. B, Westmeath.....	Culbute works.....	.....	50 00	Release for dam- ages.
do 25, 1888	G. Laporte.	do	Lot 12 do do do	do	.....	75 00	do
May 31, 1888	J. Comrie, et al.....	do	Lot 19 do do do	do	.....	50 00	do
June 30, 1888	P. Sullivan, et al.....	do	Lots 29, 30, 31, 32, 33, in 9th range, and 24 in north range, Calumet Island.....	do	.....	250 00	do
May 22, 1888	Cath Walsh, et al....	do	Lot 29, in 2nd Con., Mansfield.	do	.....	300 00	do (Widow Lafrance).....
Feb. 24, 1888	P. Lauzon.....	do	Lot 13, in 1st do	do	.....	350 00	Release for dam- ages.
June 28, 1888	W. & A. Frazer.....	do	Lot N. W. 3 20, 1st Con., Litchfield.....	do	.....	180 00	do
			<i>Oxford and New Glasgow Railway.</i>				
Oct. 27, 1887	J. Annis.....	do	Lot 65, at Wallace, County of Cumberland...	U. & N. G. Ry	0.987.....	6 00	
do 27, 1887	Mary Harrison	do	Lot 61a do do	do	2.86.....	14 30	
Dec. 17, 1887	D. Mingo	do	Lot 18, River John, County of Pictou	do	3.80.....	19 50	
do 19, 1887	A. Sutherland.....	do	Lots 19, 21 do do	do	5.97.....	80 84	

2nd. PROPERTY purchased, damaged or sold by the Department of Railways and Canals, &c.—Continued.

Date of Signatures.	Vendors.	Purchasers.	PROPERTY PURCHASED, &c.		For what Purpose.	Area of Land.	Amount Paid.	Remarks.
			<i>Oxford and New Glasgow Railway — Con.</i>					
			Lots.	District.				
				Pictou ..		\$	cts.	
Dec. 17, 1887	W. Matheson	Her Majesty.	22	River John.....	O. and N. G. Ry...	7 44	1 86	
do 31, 1887	J. McKenzie	do	27	do	do	4 40	0 56	
do 17, 1887	D. Ross	do	28	do	do	29 00	2 90	
do 17, 1887	A. Langill	do	29	do	do	12 48	1 56	
do 17, 1887	J. Lang	do	30	do	do	10 51	1 55	
do 17, 1887	J. Tattre	do	30 1/2	do	do	6 51	0 93	
do 17, 1887	J. D. Langill	do	31	do	do	11 50	1 15	
Feb. 3, 1888	L. Langill	do	32	do	do	11 40	1 24	
do	J. S. & P. A. Langill	do	33	do	do	16 24	2 32	
Dec. 17, 1887	D. Langill	do	35	do	do	35 00	1 75	
do 17, 1887	M. Reid <i>et al.</i>	do	37	do	do	9 36	1 17	
do 17, 1887	F. Mitchell	do	38	do	do	11 00	2 30	
do 17, 1887	J. A. Douglas	do	43	do	do	20 07	2 23	
Feb. 3, 1888	P. Grant	do	44, 47	do	do	91 84	6 66	
Dec. 17, 1887	N. Langill	do	48	do	do	50 40	2 52	
do 17, 1887	N. Bigney	do	51	do	do	50 00	4 31	
Feb. 3, 1888	J. Sutherland	do	54	do	do	40 33	4 25	
do 3, 1888	H. Munro	do	56, 53	do	do	37 12	2 11	
do 3, 1888	W. Bigney	do	57	do	do	38 40	2 54	
do 3, 1887	D. Bigney	do	59, 61	do	do	135 80	6 79	
do 3, 1887	A. Sutherland	do	60	do	do	3 44	0 43	
do 3, 1887	A. Munro	do	64	do	do	27 56	1 06	
Jan. 6, 1888	J. McCabe	do	65, 70	do	do	29 61	2 82	
Feb. 16, 1888	H. Carter	do	1	River Philip, Oxford	do	70 38	4 08	
do 16, 1888	T. Fillmore	do	2	Oxford	do	10 34	1 28	
do 16, 1888	S. M. Henley	do	3	do	do	6 80	0 85	
do 16, 1888	Isaac Gordon	do	4	do	do	6 80	0 85	
do 16, 1888	E. Weatherhead	do	5	do	do	34 58	5 32	
do 16, 1888	A. Doncaster	do	6	do	do	13 72	1 59	
do 16, 1888	H. Thompson	do	7	do	do	12 36	1 62	
do 16, 1888	H. Thompson	do	8	do	do	6 24	0 78	
do 16, 1888	R. Thompson	do	9	do	do	9 44	1 18	
do 16, 1888	George Thompson	do	9 1/2	do	do	3 12	0 39	
Mar. 23, 1888	W. S. McConnell	do	90	Meadowville.....	Pictou ..	85 22	4 02	

2nd. PROPERTY purchased, or damaged, or sold, by the Department of Railways and Canals, &c.—Continued.

Date of Signature.	Vendors.	Purchasers.	PROPERTY PURCHASED, &c.		For what Purpose.	Area of Land.	Amount Paid.	Remarks.
			<i>Oxford and New Glasgow Railway — Con.</i>					
			Lots.	District.					County.
Mar. 28, 1888	James McConnell	Her Majesty	88, 89, 91	Back Meadows	Pictou	8.52	216 49	
do 27, 1888	D. Bigney	do	73	River John	do	3.11	15 55	
do 27, 1888	E. P. Langill	do	41, 71	do	do	{ 2.54 0.72	28 35	
Feb 3, 1888	J. J. McDonald	do	80, 80½	River John Road	do	5.64	28 20	
Mar. 28, 1888	F. Redman	do	75	River John	do	3.70	25 90	
do 27, 1888	J. McLennan	do	39, 49	do	do	{ 2.00 2.30	60 20	
do 28, 1888	W. Clark	do	85	do	do	2.00	32 00	
do 28, 1888	W. Henry	do	76	do	do	4.80	23 04	
do 28, 1888	A. McConnell	do	87, 89	Meadowville	do	4.33	173 20	
do 26, 1887	Jas. Fraser	do	17½	River John	do	0.73	3 65	
do 28, 1888	D. Clark	do	83	do	do	4.02	20 10	
Apr. 6, 1888	W. Frehll	do	133	Lyons' Brook	do	2.85	57 00	
do 7, 1888	W. Sobey	do	125	West River Road	do	2.19	37 23	
do 9, 1888	J. T. Paulin	do	156	do	do	0.94	40 00	
do 9, 1888	H. Mackenzie	do	138	do	do	0.94	32 90	
do 7, 1888	D. H. Purves	do	143	do	do	1.14	57 00	
do 7, 1888	W. McConnell	do	139	do	do	0.96	33 60	
do 7, 1888	J. W. Blackie	do	126	Lyons' Brook	do	0.08	1 60	
do 7, 1888	W. McDonald	do	127	do	do	3.20	64 00	
do 7, 1888	Mary McKenzie	do	124	West River Road	do	2.09	33 44	
do 7, 1888	T. Dunn	do	132	do	do	2.83	70 75	
Feb. 16, 1888	Joseph Mingo	do	1, 1½	Tatamagouche	Colchester	2.78	22 24	
do 16, 1888	W. Forbes	do	11	do	do	2.91	14 50	
do 16, 1888	W. C. Munro	do	10	do	do	16.27	200 12	
do 16, 1888	J. W. McLeod	do	9	do	do	2.21	44 20	
do 16, 1888	J. Munro	do	8	do	do	0.06	1 00	
do 16, 1888	D. Jondrie	do	7	do	do	9.54	95 40	
Feb. 28, 1888	J. Stevenson	do	5	do	do	1.19	24 99	
do 16, 1888	J. Simmons	do	6	do	do	2.22	25 02	
do 16, 1888	W. Stevenson	do	4	do	do	0.96	14 40	
do 16, 1888	J. W. Stevenson	do	2	do	do	0.95	19 00	
Apr. 27, 1888	S. Bigney	do	50	River John	Pictou	2.84	60 00	

2nd. PROPERTY purchased, or damaged, or sold by the Department of Railways and Canals, &c.—Continued.

Date of Signature.	Vendors.	Purchasers.	Property Purchased, or Sold, or Damaged.	For what purpose used.	Area of Land.	Amount	Remarks.
Feb. 4, 1888	Manuel Alvez.	Release to Her Majesty.				\$ cts.	
May 14, 1887	A. H. Talbot.	Deed to Her Majesty.	<i>Canadian Pacific Railway.</i>				
			Loss of improvements at Chaurthen, Indian Reservation, Yale District, B.C.	Can. Pac. Ry.		862 50	
Jan. 1, 1887	W. Carnaby.	do	S. W. ¼ 7 and N. ½ N. W. ¼ 6, S. W. ¼ 6 and S. ½ N. W. ¼ 6, Tp. 8, R. 4 E., Pembina Branch.	do	12.00 acres.	60 00	Torrens' certificate, 30th Nov., 1887 (Wm. Wallace)
do 13, 1881	J. Eccles.	do	do	do	0 04 do	10 00	
do Mar. 12, 1881	A. D. Lepine.	do	173, St. Norbert	do	1 68 do	1 00	
do Dec. 10, 1887	Merchants' Bank of Canada.	do	175 do	do	1.68 do	1 00	
Nov. 24, 1887	Beatty & McKenzie.	do	N. W. ¼ and N. ½ S. W. ¼ 19, Tp. 5, R. 4 E., Pembina Branch.	do	6 00 do	50 00	
Dec. 13, 1887	J. D. Lafferty.	do	S. W. ¼ and N. ½ N. W. ¼ 19, Tp. 8, R. 4 E., Pembina Branch.	do	6 00 do	30 00	
Oct. 4, 1887	Gavin Ross.	do	S. E. ¼ and S. ½ N. E. ¼ 1, Tp. 8, R. 3 E., Pembina Branch.	do	6 00 do	48 00	
May 16 } 1887	Richard & Peters and Scottish Ont. and Man. Land Co., Limited.	do	N. W. ¼ 32 Tp. 1, R. 3 E., Pembina Branch.	do	4.76 do	23 80	
Mar. 5, 1888	Man. & N. W. Land Co., Limited.	do	S. E. ¼ 12, Tp. 8, R. 3 E., Pembina Branch.	do	4.00 do	20 00	
Feb. 3, 1885	And. Hepburn.	do	54, St. Agathe, Pembina Branch.	do	2.60 do	41 60	And interest.
April 8, 1885	Eliz. Hepburn.	do		do		60 00	
May 29, 1888	Mary Bryson.	do	S. W. ¼ 27, Tp. 3, R. 3 E., Pembina Branch.	do	5.48 do	40 00	
July 18, 1888	Maria Flammont, or L. H. Hunter.	do	S. E. ¼ 1, Tp. 5, R. 3 E., Pembina Branch.	do	{ 4.00 do	72 30	Torrens' certificate Dufrost station.
June 25, 1888	H. T. Champion.	do	S. W. ¼ and S. ½ N. W. ¼ 19, Tp. 8, R. 4 E., Pembina Branch.	do	{ 3.23 do	5 00	
Oct. 2, 1888	W. L. Watt.	do	S. E. ¼ and L. S. 10 of Sec. 19, Tp. 6, R. 3 E., Pembina Branch.	do	6.00 do	30 00	Torrens' certificate
				do	5.00 do	30 00	do

Aug. 16, 1888	Man. Mortgage and Investment Co., Limited	do	do	30 and 31 Ste. Agathe, Pembina Branch.	do	.....	{ 3 56 do } { 3 56 do }	206 80
do 10, 1887	C. D. Crawford	Release to Her Majesty	do	<i>Trent Valley Canal.</i> Lakefield Village, lots 5, 6, plan 21, or lot 26, 8th Con., Smith, damaged by Lakefield dam	do	Trent Navigation..	.....	75 00
do 8, 1887	A. W. Robson	do	do	Lot 4, plan 2, or lot 7, 8th Con., Smith, damaged by Lakefield dam	do	.....	.....	25 00
do 2, 1887	R. Tully	do	do	1, 2, 3, 5, George st, 13, 14, 15, N. Smith st., or pt. 27, 8th Con., Smith, damaged by Lakefield dam	do	.....	.....	100 00
do 15, 1887	J. O. Carveth	do	do	13, 14, subd. of S. E. ¼ 26, 8th Con., Smith, damaged by Lakefield dam	do	.....	.....	120 00
do 23, 1887	Geo. Cochrane	do	do	2, 3, S. Smith st., 14, 15 N., Concession st., or pt. 27, 8th Con., Smith, damaged by Lakefield dam	do	.....	.....	40 00
do 13, 1887	J. Isbester	do	do	Blocks 11, 12, sub. of 26, 8th c., Smith, damaged by Lakefield dam	do	.....	.....	250 00
do 30, 1887	A. Miller	do	do	Lot 31 in 10th Con., Smith, damaged by Lakefield dam	do	100 00
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Sept. 6, 1887	T. Harrington	do	do	Lot 13, 11th Con., Smith, damages by Lakefield dam	do	100 00
do 8, 1887	Silas Cox	do	do	Lot 3, 4, on plan 21, Lakefield Village, or pt. 26, 8th Con., Smith, damages by Lakefield dam	do	.....	.....	160 00
do 10, 1887	J. M. Dinwoodie	do	do	Lot 3, Burham st., Lakefield Village, or pt. 26 or 17 in 8th Con., Douro, damages by Lakefield dam	do	.....	.....	100 00
do 14, 1887	J. L. Simpson <i>et al.</i>	do	do	Park lot 1 of 27, in 8th Con., Smith, damages by Lakefield dam	do	.....	.....	400 00
do 16, 1887	M. Phelan	do	do	Subd. 7 of 26, in 8th Con., Smith, damages by Lakefield dam	do	.....	.....	25 00
Aug. 15, 1887	A. Wilson	do	do	N. ¼ and S. W. ¼ 22, in 5th Con., Douro, damages by Lakefield dam	do	.....	.....	150 00
Sept. 22, 1887	H. W. Pearson	do	do	Block 11 of S. E. ¼ 26, in 8th Con., Smith, damages by Lakefield dam	do	.....	.....	150 00
do 28, 1887	{ J Young (owner) W. Pope (lessee) }	do	do	Lot 36 in 12th Con., Smith, damages by Lakefield dam	do	.....	.....	50 00
do 19, 1887	Jane Clarke <i>et al.</i>	do	do	Lot 1 S. Smith st., 13 N. of 8th Con. S., Lakefield, in Smith, damages by Lakefield dam	do	.....	.....	100 00
Oct. 7, 1887	D. Smith	do	do	Subd. 8, 9, of plan 21, Lakefield, or pt. S. E. ¼ 26, 8th Con., Smith, damages by Lakefield dam	do	.....	.....	300 00
do 6, 1887	J. P. Strickland	do	do	Lots 5, S. George st., 9, N. Smith st., plan 5, Lakefield, damages by Lakefield dam	do	.....	.....	150 00

2nd. PROPERTY purchased, or damaged, or sold by the Department of Railways and Canals, &c.—Continued.

Date of Signature.	Vendors.	Purchasers.	Property Purchased, Sold or Damaged.	For what purpose used	Area of Land.	Amount.	Remarks.
Oct. 31, 1887	J. Hull.....	Her Majesty.	<i>Trent Valley Canal—Continued.</i>	Trent Navigation.	Acres.	\$ cis.	And steam saw-mill, &c.
Nov. 14, 1887	Corporation Lakefield Village.....	do	Lot 3, in 4th Con., Burleigh, damages by Young's Point dam.....	do	.....	1,200 00	
do 16, 1887	J. C. Sherin.....	do	Damage to roads, &c., in village, by Lakefield dam.....	do	.....	600 00	
do 22, 1887	T. Gordon.....	do	Park lot, W. $\frac{1}{2}$, N. George st., Lakefield, damages by Lakefield dam.....	do	.....	100 00	
do 22, 1887	T. Gordon.....	do	Park lot, W. $\frac{1}{2}$, N. George st., Lakefield, damages by Lakefield dam.....	do	.....	100 00	
Dec. 9, 1887	J. Edwards ...	do	Subd. 15, 16, plan 21, Lakefield, damages by Lakefield dam.....	do	.....	50 00	
do 3, 1887	Geo. Johnson.....	do	E. $\frac{1}{2}$ 26, in 7th Con., Smith, Lakefield, damages by Lakefield dam.....	do	.....	40 00	
do 5, 1887	Cath. P. Traill.....	do	3, N. of Clements st., Lakefield, damages by Lakefield dam.....	do	.....	50 00	
do 19, 1887	R. C. & G. W. R Strickland.....	do	7 in 2nd, 8 in 4th and 8th in 5th Con., Harvey, damages by Burleigh Falls dam.....	do	.....	750 00	
Feb. 14, 1888	Trustees of Methodist Church at Lakefield.....	do	5, E. of Water st., or pt. 17 in 8th, Douro, damages by Lakefield dam.....	do	.....	300 00	
do 3, 1888	R. Carter <i>et al.</i>	do	1, Crescent, Lakefield, or pt. 17 in 8th, Douro, damages by Lakefield dam.....	do	.....	50 00	
Apr. 28, 1888	Eliz. Chalmers <i>et al</i>	do	37 in 12th Con., Smith, damages by Young's Point dam.....	do	.....	125 00	
May 1, 1888	J. Griffin <i>et al.</i>	do	Park lot 1, Lakefield, 27 in 8th, Smith, damages by Lakefield dam.....	do	.....	250 00	
do 8, 1888	Indian Department..	O. O. to Her Majesty... Release to Her Majesty.	Islands 20, 21, 30, 30a, above Burleigh Falls..	do	.....	300 00	Transferred to this Dept. by O. O.
do 22, 1888	P. P. Young.....	Her Majesty.	38 in 12th Con., Smith, damages by Young's Point dam.....	do	.....	250 00	

[1888]

Date	Applicant	Description	Deed to Her Majesty	Release to Her Majesty	Location	Canal	Value	Notes	
Dec. 3, 1887	A. McLaren	.....	Do to Her Majesty	.....	Lot 24 in 10th Con., N. Elmsley	Tay Canal	1,100 00	And flood part lots 24, 25. (Receipt for interest, \$79.75, Aug 13, 1888)
Aug. 11, 1888	R. E. Matheson	.....	do	.....	do	do	500 00	18 00 6 00
<i>Williamsburgh Canals.</i>									
Apr. 28, 1887	T. Perry	.....	Release to Her Majesty	.....	Damages to W. ½ lot 13, 1st Con., Edwardsburgh, running ranges	Galops Canal	35 00	
do 28, 1887	G. Anderson	.....	do	.....	Damages to E. ½ lot 14, 1st Con., Edwardsburgh, running ranges	do	35 00	
do 28, 1887	J. Driver	.....	do	.....	Damages to W. ½ lot 14, 1st Con., Edwardsburgh, running ranges	do	35 00	
do 28, 1887	G. Bolton	.....	do	.....	Damages to E. ½ lot 13, 1st Con., Edwardsburgh, running ranges	do	100 00	
<i>Welland Canal.</i>									
Oct. 21, 1887	W. H. Bell	.....	Release to Her Majesty	.....	Lot 213, Thorold	Damages by removal of bridge	250 00	
do	G. Thompson	.....	do	.....	Lot 213 do	do	150 00	
do	M. McAniff	.....	do	.....	Lots 2, 3, south Main St., Port Robinson	do	100 00	
do	Mrs W. Houston et al	.....	do	.....	Raising Niagara St., St. Catharines, &c.	.....	25 00	
do	R. Harcourt	.....	do	.....	Block C, Welland, and lots L N M, or 27 in 5th Con., Crowland	Welland race way	100 00	
do	Widow of John McRae et al	.....	do	.....	Loss of business on lot B (27 in 1st Con., Humberstone	Obstructing East St., Pt. Colborne	480 00	
do	Eliz. Walters et al	.....	do	.....	W. pt. 11, W. of One St., Town of Cayuga	Dunville Dam	67 00	
do	W. Snider et al	.....	do	.....	W. ½ 12, Dochstader tract, Canborough	do	107 00	
do	Security Loan and Savings Co., St. Catharines	.....	do	.....	do	do	1 00	
do	A. J. Burke (fawcett et al)	.....	do	.....	do	do	251 00	Alabastine, &c.
do	E. Lyburner et al	.....	do	.....	Lots 8, 9 do	do	60 00	
do	A. S. Gill, et al	.....	do	.....	Lot E ½ 12 do	do	100 00	
do	W. McConnell	.....	do	.....	Lot S. E. pt. 2, Jones tract, N. Cayuga	do	15 00	
do	W. A. Chryslor et al	.....	do	.....	Lots 30, 31, 2nd Con., Cayuga	do	180 00	
do	R. Walker et al	.....	do	.....	Lot 7, Jones' tract do	do	650 00	
do	W. H. Merritt et al	.....	do	.....	Lots pts. 31, 32, 33, 2nd Con., Cayuga	do	15 00	
do	V. Maul	.....	do	.....	Lots 1, 2, Hurff tract, Cayuga	do	75 00	
do	Estate W. O. Kesle	.....	do	.....	Lot pt. 6, 2nd Con., Dunn	do	150 00	
do	New England Co.	.....	do	.....	Lot 13, Jones' tract, N. Cayuga	do	150 00	
do	C. & J. Smith	.....	do	.....	Lot 1 do	do	193 00	
do	C. & J. Smith	.....	do	.....	Lot 4, Dochstader tract, Canborough	do		

[1887]

2nd. PROPERTY purchased, damaged or sold by the Department of Railways and Canals, &c.—Continued.

Date of Signature.	Vendors.	Purchaser.	Property Purchased, Damaged or Sold.	For what Purpose.	Area of Land.	Amount Paid.	Remarks.
Jan. 4, 1888	H. E. Kennedy.....	Dead to Her Majesty... Release.....	<i>Wellton Canal—Continued.</i>				
do 4, 1888	do	do	Lots 21, 22, in 1st Con., Grantham	Canal enlargement	0 41	500 00	
do 21, 1888	Ham & Matthews....	do	Damages to lots 21, 22, in 1st Con., 21 in 2nd Con., Grantham.....	do .....	.....	.....
do 21, 1888	John Matthews.....	do	Loss of business on Lot A, east of East St., Port Colborne.....	do .....	.....	1,000 00	
do 3, 1888	S. & C. McNeal.....	do	Damage to buildings on lot A, east of East St., Port Colborne.....	do .....	.....	125 00	
do 3, 1888	O. McNeal (tenant).	do	Damage to buildings on Lot 2, N. Frazer St., Port Colborne.....	do .....	.....	295 00	
Mar. 8, 1888	E. McMahon.....	do	Damage to Railway Hotel, on lots 3, 4, N. Frazer St., Port Colborne.....	do .....	.....	290 00	
Apr. 19, 1888	Cath. Morrison.....	do	Damage to lots 23 in 1st Con., 23 in 2nd Con., Grantham, and 1 in front of 1st Con. south of Frazer St., Port Colborne.....	do .....	.....	485 00	
June 29, 1888	Widow of Bishop J. B. Fuller.....	do	Damage to lot C, East St., Port Colborne....	do .....	.....	44 00	
July 27, 1888	Calvin & Son.....	do	do do A, Donaldson, subd. of 14 in 5th, Grantham.....	do .....	.....	285 00	
Apr. 28, 1888	W. Anderson <i>et al.</i> ...	do	Damage to schooner "Bavaria," and by str. "Prussia" to lock gates.....	do .....	.....	150 00	
May 12, 1888	E. N. Misener.....	do	Damage to lot S, 5, in 2nd Con., Dunn.....	Dunnville Dam.....	.....	1,000 00	Mutual release.
Mar. 6, 1888	E. Beamsley.....	do	do lots 6, 8, Dochstader tract, Canborough.....	do .....	.....	100 00	
			Damage to S. pt. 5, Dochstader tract, Canborough.....	do .....	.....	115 00	
				do .....	.....	85 00	

[1888]

AGREEMENTS

Respecting Subsidies granted by the Dominion Government to aid in the construction of Railways, entered into by certain Railway Companies with the Minister of Railways and Canals, during the Fiscal Year ended 30th June, 1888.

3rd. AGREEMENTS respecting subsidies granted by the Dominion Government to
with the Minister of Railways and Canals, during

Date of Signature.	Name of Railway Company.	Line of Railway to be Constructed.	Acts of Canada Granting Subsidy.	Amount of Subsidy.	
				Per Mile.	Not exceeding in the whole
1887.				\$	\$
Aug 19	Great Northern Railway Co.	From New Glasgow to Montcalm.....	49 Vic., c. 10.	3,200	57,600
Sept. 12	Great North-West Central Railway Co.	From Brandon to Battleford (land subsidy).	49 Vic., c. 11.	6,400 acres per mile.	.....
1888.					
June 6	Montreal and Western Railway Co.	From St. Jérôme to Lachute aux Iroquois (in lieu of subsidies granted by 46 Vic., c. 25, and 47 Vic., c. 8).	49 Vic., c. 10.	5,161	361,270
do 27	Lake Temiscamingue Colonization Railway Co.	From Long Sault to Lake Kippewa, and at Rapids Micharge, La Cave, Les Erables, La Montague—wharves, etc., (in lieu of 48-49 Vic., c. 59, and 49 Vic., c. 10).	50-51 Vic., c. 24.	3,200	33,600 12,400
1887.					
Oct. 12	Dominion Lime Co...	From 3rd to 6th ranges, Dudswell ...	50-51 Vic., c. 24.	3,200	22,400
do 3	Harvey Branch Railway Co.	From Albert Railway southern terminus to Harvey Bank, N.B.	50-51 Vic., c. 24.	3,200	9,600
do 13	Joggins Railway Co.	From end of part subsidized by 49 Vic., c. 10, to wharves, Cumberland Basin, N.S.	50-51 Vic., c. 24.	3,200	4,000
Sept. 29	Montreal and Lake Maskinongé Railway Co.	From St. Felix de Valois to St. Gabriel de Brandon.	49 Vic., c. 10.	3,200	32,000
Nov. 5	Guelph Junction Railway Co.	From Campbellville to Guelph.....	50-51 Vic., c. 24.	3,200	51,200
do 21	Beauharnois Junction Railway Co.	From Ste. Martine to Valleyfield.....	50-51 Vic., c. 24.	3,200	96,000
Oct. 17	Nova Scotia Central Railway Co.	From Lunenburg to New Germany, and branch to Bridgewater Railway wharf.	50-51 Vic., c. 24.	3,200	108,800
1888.					
Jan. 25	Montreal and Champlain Junction Railway Co.	From Salmon River, at Fort Covington, to Massena Springs.	50-51 Vic., c. 24.	.....	64,000
1887.					
Oct. 12	Fredericton and St. Mary's Railway Bridge Co.	Bridge over River St. John, Fredericton to St. Mary's.	50-51 Vic., c. 26.	.....	300,000
Dec. 1	Drummond County Railway Co.	From Drummondville to south-west branch River Nicolet.	50-51 Vic., c. 24.	3,200	96,000
do 12	Belleville and North Hastings Railway Co.	From Madoc to Eldorado	48-49 Vic., c. 59, 49 Vic., c. 10.	1,500 1,700	10,500 11,900
1888.					
Mar. 31	Hereford Branch Railway Co.	From International Railway, at Eaton, to Hereford.	49 Vic., c. 10.	3,200	108,800
do 26	Minudie Railway Co. (Limited)	From Joggins Railway, at River Hebert railway bridge, to Minudie.	50-51 Vic., c. 24.	3,200	17,600
Apr. 12	Cumberland Railway and Coal Co.	From Spring Hill to Oxford and New Glasgow Railway.	50-51 Vic., c. 24.	3,200	44,800
Mar. 16	Great Eastern Railway Co.	From River St. Francis, at Pierreville, to St. Gregoire Station.	50-51 Vic., c. 24.	3,200	96,000

aid in the construction of Railways, entered into by certain Railway Companies the Fiscal Year ended 30th June, 1888.

Number of Miles to be Subsidized.	Maximum Grade, Feet per Mile.	Radius of Curvature, not less than—	Width of clearing each side.	Width of Cuttings.	Embankments.	Steel Rails, lbs. per lineal yard.	When to be Completed.	Remarks.
No.	Feet.	Feet.	Ft.	Ft.	Ft.	Lbs.		
18	53	1,433	50	20	16	56	Aug. 1, 1890	
450	60	933	50	20	14	56	{ Jan. 1, 1888 do 1, 1889 do 1, 1890 do 1, 1891	50 miles. 100 do 150 do 150 do
70	80 with exceptions.	638	50	20	15	56	Aug. 1, 1890	
9½ 2	106 105	637 and exceptions.	50	14	10	30	do 1, 1889	
4½ 100	103	955	50	20	16	56	June 30, 1888	
3	80	955	50	20	16	56	do 30, 1888	
1¼	108	477	50	20	16	56	do 30, 1888	
10	53	1,146	50	20	16	56	Dec. 1, 1888	
16	53	1,910	50	22	16	56	Jan. 1, 1889	
20	38	and exceptions. 1,146	50	20	16	56	Oct. 1, 1889	
34	80	882	50	20	16	56	Dec. 31, 1889	
21¾	36	1,146	50	20	16	56	Aug. 1, 1891	
.....	.....	.....	66	22	17	.....	May 1, 1890	
12½	{ 63 80 }	1,433 with exceptions.	50	20	16	56	Aug. 1, 1891	O.C. for 80 feet gradient, at Drummondville.
6¾ 100	106	819	50	20	16	56	Dec. 1, 1888	
34	66	933	50	20	15	56	Aug 1, 1890	
5½	{ 53 66 }	933	50	20	15	56	March 1, 1889	
14	106	955	50	20	15	56	Aug. 1, 1891	
21½	27	3,830	50	20	15	56	March 1, 1889	

3rd. AGREEMENTS respecting subsidies granted by the Dominion

Date of Signature.	Name of Railway Company.	Line of Railway to be Constructed.	Acts of Canada Granting Subsidy.	Amount of Subsidy.	
				Per Mile.	Not exceeding in the whole
1888.				\$	\$
Apr. 6	Lake Erie, Essex and Detroit River Railway Co.	From Walkerville to Cedar Creek Station.	50-51 Vic., c. 24.	.....	118,400
May 28	Cornwallis Valley Railway Co.	From Kentville to Kingsport.....	50-51 Vic., c. 24.	3,200	41,600
Mar. 5	St. Catharines and Niagara Central Railway Co.	From St. Catharines to Niagara River bridge.	50-51 Vic., c. 24.	3,200	38,400
June 25	St John Valley and Rivière du Loup Railway Co.	From Fredericton towards Woodstock	49 Vic., c. 10, 50-51 Vic., c. 24.	3,200 3,200	70,400 70,400

NOTE.—June 2, 1888, Baie des Chaleurs Ry. Co., to apply \$96,000 to the 30 miles from 40th to 70th miles, subject to approval of Parliament. 49 Vic., c. 17, extends time for completion of the 100 miles to 1st Dec., 1888.

OTTAWA, 9th November, 1888.

Government to aid the construction of Railways, &c.—*Concluded.*

Number of Miles to be Subsidized.	Maximum Grade, Feet per Mile.	Radius of Curvature, not less than—	Width of clearing each side.	Width of Cuttings.	Embankments.	Steel Rails, lbs. per lineal yard.	When to be Completed.	Remarks.
No.	Feet.	Feet.	Ft.	Ft.	Ft.	Lbs.		
27	40	1,433	50	20	15	56	July 1, 1889	
13	{ 53 70 }	955	50	20	15	56	do 1, 1889	
12	85	{ 955 716 }	50	20	15	56	Aug. 1, 1888	O. C. for 716 feet curvature.
{ 44	70	955	50	20	15	56	July 31, 1890	

H. A. FISSIAULT.

ALPHABETICAL LIST of Railways Subsidized by the Dominion Government.

A.D	Designation of Act.	APPROPRIATION OF GRANT WITH DESCRIPTION OF LINE SUBSIDIZED.	CONDITIONS OF GRANT UNDER THE SUBSIDY ACTS.						
			Rate per Mile. Money and Land.	Estimated Number of Miles.	If per Mile. Total for the whole work not to exceed— \$	If for a term of years. Amount and duration of instalments.	Total Subsidy. Money. Land.	Total Subsidy. \$ Acres.	
1887	50-51 Vic., c. 23.	Alberta and Athabasca Ry. Co., Bow River on C.P.R., between Calgary and Crowfoot, to point near Town Plot of Edmonton.	6,400 acres	300				1,920,000	
1886	49 Vic., c. 10.	Albert Ry. Co., Salisbury to Hopevell.						15,000	
1888	51 Vic., c. 3.	do iron rails, 726 tons.		20	64,000			14,665	
1884	47 Vic., c. 8.	For a line, Annapolis to Digby.						63,000	
1885	48-49 Vic., c. 59.	Brockville, Westport and Sault Ste. Marie Ry. Co., Brockville to Westport.		40	128,600			128,000	
1885	48-49 Vic., c. 59 }	Belleville and North Hastings Ry. Co., Madoc to Eldorado.		7	10,800 }				
1886	49 Vic., c. 10... }	Beauharnois Junction Ry. Co., St. Martin's towards St. Anicet		20	11,900 }			22,400	
1887	50-51 Vic., c. 24.	Branford, Waterloo and Lake Erie Ry. Co., Branford to Hag- gersville or Waterford or some intermediate point on Canada Southern Railway.	3,200		96,000			96,000	
1886	49 Vic., c. 10.	Buctouche and Moncton Ry. Co., Moncton to Buctouche.	3,200	18	57,600			57,600	
1887	50-51 Vic., c. 24.	do do from W. end of section sub- sidized to Moncton.	3,200	30	96,000			96,000	
1874	37 Vic., c. 14.	Canada Central Ry., Pembroke to Callander.	3,700	2	6,400			6,400	
1883	46 Vic., c. 25.	Carquet Ry. Co., Bathurst to Carquet.	12,000	120	1,440,000			1,440,000	
1884	47 Vic., c. 8.	do Carquet to Shippegan Harbor.	3,200	36	115,200			115,200	
1887	50-51 Vic., c. 24.	do Lower Carquet to Shippegan.	3,200	24	76,800			76,800	
1886	51 Vic., c. 3.	do iron rails, 4,052 tons.		7	32,000			32,000	
1885	48-49 Vic., c. 59.	Central Ontario Ry. Co., Osee Hill or Rathburn to Bancroft.		20	64,000			64,000	

ALPHABETICAL LIST of Railways Subsidized by the Dominion Government.—Continued.

A. D.	Designation of Act.	CONDITION OF GRANT UNDER THE SUBSIDY ACTS.						Total Subsidy.		
		APPROPRIATION OF GRANT WITH DESCRIPTION OF LINE SUBSIDIZED.	Rate per Mile. Money and Land.	Estimated Number of Miles.	If per mile. \$	If for a term of years.	Total for the whole work not to exceed—	Amount and duration of instalments.	Money.	Land.
									\$	\$
1884	47 Vic, c 8 ...	International Ry. Co., Montreal to Harbors of St. Andrews, St. John and Halifax.....	\$	351	\$	\$70,000 for 15 yrs., \$30,000 for 20 yrs, or \$250,000 p.an. for 20 yrs.....				
1885	48-49 Vic, c. 58	Intercolonial Ry., Branch of, Derby Station to Indian town.	3,200	14	140,000			140,000		
1886	49 Vic, c. 10	Joggins Ry. Co., McCann Station to Joggins.	3,200	12	38,400			38,400		
1887	50-51 Vic, c. 24	do from S. end to the Wharves.	3,200	1 1/2	4,000			4,000		
1887	50-51 Vic, c. 24	Jacques Cartier Union Ry. Co., to extend and complete the line			20,000			20,000		
1888	51 Vic, c. 3	Kent Northern Ry., iron rails 2,549 tons.....						58,334		
1884	47 Vic, c. 8	Kingston and Pembroke Ry. Co., Mississippi to Renfrew.....	3,200	15	48,000			48,000		
1885	49 Vic, c. 10	L'Assomption Ry. Co., L'Assomption to L'Epiphanie.....	3,200	3 1/2	11,200			11,200		
1887	50-51 Vic, c. 24	Lake Erie, Essex and Detroit River Ry. Co.....		27	118,400			118,400		
1885	48-49 Vic, c. 59	Lake Temiscamingue Colonization Ry. Co., Long Sault to Lake Temiscamingue	3,200	8	25,600			25,600		
1887	50-51 Vic, c. 24	do do to overcome rapids of the Ottawa River, at La Micharge, La Cave Les Erables and La Montagne, and for construction of Wharves and Landings at such Rapids, do do Long Sault to Lake								
1887	50-51 Vic, c. 24	Kippewa	3,200	10 1/2	33,600			33,600		
1885	48-49 Vic, c. 59	Leamington and St. Clair Ry. Co., Comber to Lake Erie	3,200	14	44,800			44,800		
1887	50-51 Vic, c. 24	do do from N. end of section subsidized to Comber.....	3,200	2	6,400			6,400		
1885	48-49 Vic, c. 60	Manitoba and North-Western Ry. Co., Portage la Prairie to 20 M. from Prince Albert.....	6,400 acres	430					2,752,000	
1886	49 Vic, c. 11....	do do Branch from Toddburn to Shellmouth	6,400 do	26					166,400	
1885	48-49 Vic, c. 60	Manitoba South-Western Colonization Ry. Co., Winnipeg to White Water Lake	6,400 do	150					960,000	

ALPHABETICAL LIST of Railways Subsidized by the Dominion Government.—Continued.

A. D.	Designation of Act	APPROPRIATION OF GRANT WITH DESCRIPTION OF LAND SUBSIDIZED.	CONDITION OF GRANT UNDER THE SUBSIDY ACTS.					Total Subsidy.	
			Rate per Mile. Money and Land.	Estimated Number of Miles.	If per mile. Total for the whole work not to exceed—	If for a term of years. Amount and duration of instalments.	Money.	Land. Acres.	
1887	50-51 Vic., c. 24.	Oshawa Ry. and Navigation Co., Port Oshawa towards Baglan.	\$ 3,200	7	\$ 22,400	.....	.....	22,400	.....
1884	47 Vic., c. 8.....	Provincial Government of Quebec { Montreal to Quebec.....	6,000	159	954,000	.....	.....	2,394,000	.....
1886	49 Vic., c. 10.....	do do Ottawa.....	12,000	120	1,440,000	.....	.....	.....	.....
1888	51 Vic., c. 3.....	Parry Sound Colonization Ry. Co., Parry Sound to Sandridge. Port Arthur, Duluth and Western Ry. Co., from Port Arthur to Gun Flint Lake.....	3,200	40	128,000	.....	.....	138,000	.....
1884	47 Vic., c. 8.....	Pontiac Pacific Junction Ry. Co., Hull to Pembroke.....	3,200	84½	271,200	.....	.....	271,200	.....
1888	51 Vic., c. 3.....	do do from 3 miles east of Pembroke to Pembroke.....	3,200	85	272,000	.....	.....	272,000	.....
1885	46-49 Vic., c. 60.	do do for bridging River Ottawa at Oulbute	3,200	3	9,600	.....	.....	41,100	.....
1887	50-51 Vic., c. 23.	Qu'Appelle, Long Lake and Saskatchewan Ry. and Steamboat Co., Regina to Long Lake.....	3,400 acres	22½	.....	.....	.....	.....	142,784
1884	47 Vic., c. 8.....	do do near Elbow N. Saskatchewan with branches to Prince Albert and Battleford.....	6,400 do	325	.....	.....	.....	.....	2,080,000
1888	51 Vic., c. 3.....	Quebec Central Ry. Co., Beauce Junction to International boundary.....	3,200	66	211,200	.....	.....	211,200	.....
		do do St. Francis Station to near Moose River on Atlantic and North-Western Ry.....	.....	90	.....	.....	.....	.....	.....
1882	45 Vic., c. 14.....	Quebec and Lake St. John Ry. Co., St. Raymond to Lake St. John	3,200	120	384,000	.....	211,91.54 p.a'n. for 20 years.	288,000	.....
1883	46 Vic., c. 25.....	do do St. Raymond to Lake St.	3,200	25	80,000	.....	.....	384,000	.....
1885	48-49 Vic., c. 59.	John (additional).....	3,200	32	96,000	.....	.....	80,000	.....
1886	49 Vic., c. 10.....	Ry. to St. Raymond.....	3,200	32	96,000	.....	.....	96,000	.....
		do do 50 miles north of St. Raymond to Lake St. John (additional).....	.....	(95)	186,295	.....	.....	186,295	.....

1887 50-51 Vic., c. 24.	do do	Quebec to Lake St. John	3,200	9	28,800	28,800
1887 50-51 Vic., c. 24.	do do	—being portion uncovered by previous subsidies				
1887 50-51 Vic., c. 24.	do do	Lake St. John towards Chicoutimi or Chicoutimi towards Lake St. John	3,200	30	96,000	96,000
1887 50-51 Vic., c. 24.	do do	Richmond Hill Junction on Northern Ry. to Richmond Hill Village	3,200	5	16,000	16,000
1885 50-51 Vic., c. 24.	do do	South Norfolk Ry. Co., Port Rowan to Simcoe	3,200	17	54,400	54,400
1884 47 Vic., c. 8.....	do do	St. Louis, Richibuctoo and Buctouche Ry. Co., Richibuctoo to St. Lawrence and Lower Laurentian and Saguenay Ry. Co., Grand Piles to Junction with Lake St. John Ry.	3,200	7	22,400	22,400
1887 50-51 Vic., c. 24.	do do	St. John Valley and Rivière du Loup Ry., Fredericton to the Village of Prince William	3,200	22	70,400	70,400
1887 50-51 Vic., c. 24.	do do	Village of Prince William towards Town of Woodstock	3,200	22	70,400	70,400
1883 46 Vic., c. 26...	do do	St. John Bridge and Railway Extension Co., to build bridge and connections.	3,200	7	22,400	\$500,000 loan.
1886 49 Vic, c. 10...	do do	For a line, St. Eustache to Lachine	3,200	18	57,600	22,400
1886 49 Vic, c. 10...	do do	For a line, St. Eustache to Ste. Placide	3,200	18	57,600	57,600
1886 49 Vic., c. 10...	do do	Stewiacke Valley and Lansdowne Ry. Co., from a point on International Ry. through Stewiacke Valley towards Iron Mines, &c.	3,200	25	80,000	80,000
1888 51 Vic., c. 3.....	do do	Steel Company of Canada N. S., iron rails, 587 tons	3,200	5	16,000	11,964
1886 49 Vic., c. 10.....	do do	Toronto, Grey and Bruce Ry. Co., Glenannan to Wingham	3,200	5	16,000	16,000
1882 45 Vic., c. 14...	do do	Temiscouata Ry. Co., Rivière du Loup to Edmundston	\$3,200 for 75 m.	83	240,000	498,000
1885 48-49 Vic, c. 58}	do do	Branch from Edmundston towards St. Francis River	\$2,800 for 75 m.	83	258,000	
1887 50-51 Vic, c. 24.	do do	For a line, Truro to Newport	\$6,000 for 8 m.	30	96,000	96,000
1887 50-51 Vic, c. 24.	do do	Robique Valley Ry. Co., Perth Centre towards Plaister Rock	3,200	49	156,800	156,800
1887 50-51 Vic., c. 24.	do do	Western Counties Ry., Yarmouth to Annapolis	3,200	14	89,600	89,600
1884 47 Vic., c. 25...	do do	Winnipeg and Hudson's Bay Ry. Co., Winnipeg to Hudson's Bay	6,400 acres in Man.	225		500,000
	do do		12,800 ac in N. W. T.	425		6,880,000
1886 49 Vic, c. 11....	do do	Wood Mountain and Qu'Appelle Ry. Co., from Wood Mountain via Qu'Appelle and Fort Qu'Appelle to the Manitoba and North-Western Ry.	6,400 acres	240		1,536,000
1886 49 Vic., c. 10....	do do	West Ontario Pacific Railway Co., Ingersoll via London to Chatham, Ont.	3,200	80	256,000	256,000
1887 50-51 Vic., c. 24.	do do	Vaudreuil and Prescott Ry. Co., Vaudreuil towards Hawkesbury	3,200	30	96,000	96,000
1887 50-51 Vic., c. 24.	do do	For a line, Mount Forest to Walkerton	3,200	24	76,800	76,800
1887 50-51 Vic., c. 24.	do do	Woodstock towards Centreville	3,200	20	64,000	64,000
1887 50-51 Vic., c. 24.	do do	For a bridge over the St. Lawrence at Coteau Landing on the line of the Canada Atlantic Railway				15 per cent. on value of the structure...
						180,000

[1888]

APPENDIX No. 24.

VOTES granted under Subsidy Acts, cancelled or amended by Subsequent Acts of Parliament.

GRANTS CANCELLED OR AMENDED.

Year.	Act.	Granted to.	General description of Line Subsidized.	Amount.	—	Authority for change.	Amount of revote.	Remarks.
1883	46 Vic., c. 25.....	Gatineau Valley Ry.	For first 50 mile section of their railway from Hull Station.	\$ 160,000	Cancelled	48-49 Vic., c. 59, 1885.	\$	
1883	46 Vic., c. 25.....	Great American and European Short Line Ry. Co.	For 80 miles from Oansto to Louisburg or Sydney.	256,000	Amended.	47 Vic., c. 8, 1884	256,000	Amended by striking out "to the G. A. and E. Ry. Co.," inserting word "the" for "their" and omitting the words and figures "50 miles of."
1883	46 Vic., c. 25.....	Northern and Western Ry. Co.	From I. C. R., near Miramichi to Morans near Demphy Village.	102,400	Cancelled	47 Vic., c. 8, 1884	128,000	
1883	46 Vic., c. 25.....	Montreal and Western Ry. Co.	For first 60 mile section out of St. Jérôme, P. Q.	160,000	Cancelled	49 Vic., c. 10, 1886		
1884	47 Vic., c. 8.	Gatineau Ry. Co.	For a line from Kazabazua to Le Desert.	160,000	Cancelled	48-49 Vic., c. 59, 1885.	320,000	For 62 miles, Hull to Le Desert in lieu of subsidies granted by 46 Vic., c. 25, and 47 Vic., c. 8.
1884	47 Vic., c. 8.....	Napancee, Tamworth and Quebec.	Tamworth to Bogart or Bridge-water.	70,400	Cancelled	48-49 Vic., c. 59, 1885.	70,000	Again cancelled.
1884	47 Vic., c. 8.	Montreal and Western Ry. Co.	From end of line subsidized towards Le Desert.	160,000	Cancelled	49 Vic., c. 10, 1886	361,279	\$5,161 per mile in lieu of subsidies under Act 46 Vic., c. 25, and 47 Vic., c. 8.
1884	47 Vic., c. 8.....	For a Railway.....	St. Andrews to Lachute.	22,400	Amended.	49 Vic., c. 10, 1886	22,400	For 7 miles to connect with C. P. R.
1884	47 Vic., c. 8.....	For a Railway.....	From Grand Piles to Lake Edward.	217,600	Cancelled	48-49 Vic., c. 59, 1885.	217,600	Again cancelled.

1855 48-49 Vic, c. 59.	Napawee, Tamworth and Quebec.	Tamworth towards Bogart and Bridgewater.	70,000	Amended. 49 Vic, c. 10, 1886	For 18 miles of their railway in place of 16 miles.
1855 48-49 Vic, c. 59.	For a Railway	For 8 miles of railway from Long Sault to foot of Lake Temiscamingue.	25,600	Amended. 50-51 Vic, c. 24, 1887.	For 4 short sections of 2 miles, in lieu of a portion of 2 miles out of the 8 miles subsidized.
1855 48-49 Vic, c. 59.	For a Railway	From Grand Piles to Lake Edward.	217,600	Amended. 50-51 Vic, c. 24, 1887.	Granting subsidy to St Lawrence, Lower Laurentian and Saguenay Ry. Co.
1886 49 Vic, c. 10.	Carsquet Ry. Co.	For 10 miles, Lower Carsquet to Shippegan.	33,900	Amended. 50-51 Vic, c. 24, 1887.	For 7 miles in place of 10 miles subsidized.
1886 49 Vic, c. 10.	Lake Erie, Essex and Detroit Ry. Co.	For 37 miles, Windsor to Leamington.	118,400	Amended. 50-51 Vic, c. 24, 1887.	For 27 miles in place of 37 miles subsidized.
1886 49 Vic, c. 10.	Lake Temiscamingue Ry Co.	For wharves and landing stages.	6,000	Cancelled 50-51 Vic, c. 24, 1887.	
1886 49 Vic, c. 10.	For a Railway	For 28 miles, from Perth Centre to near Plaster Rock.	89,600	Amended. 50-51 Vic, c. 24, 1887.	To Tobique Ry. Co, for 14 miles of same line.
1886 49 Vic, c. 10.	For a Railway	From point on C. P. R. to Eganville.	70,400	Amended. 51 Vic, c. 3	To Ottawa and Parry Sound Ry. Co.
1887 50-51 Vic, c. 24.	Massawippi Ry. Co.	Magog to Ayer's Flat.	32,070	Amended. 51 Vic, c. 3	To Massawippi Ry. Co.
1886 49 Vic, c. 59	Thunder Bay Colonization Co.	Murillo to Crooked Lake.	271,000	Amended. 51 Vic, c. 3	To Port Arthur, Duluth and Western Ry. Co.
1887 50-51 Vic, c. 24	Saguenay and Lake St. John Ry. Co.	For 30 miles, Lake St. John towards Chicoutimi, or Chicoutimi towards Lake St. John.	96,000	Amended. 51 Vic, c. 3	To Quebec and Lake St. John Ry. Co.
1857 50-51 Vic, c. 24	Temiscouata Ry. Co.	For 30 miles, Edmunston towards St. Francis River.	96,000	Amended. 51 Vic, c. 3	For 20 miles, from Edmunston towards St Francis River.
1884 47 Vic, c. 8.	Quebec Central Ry. Co.	Beauce Junction to International Boundary.	211,200	Amended. 51 Vic, c. 3	To complete line from St. Francis Station to Moose River and in lieu of balance of unearned subsidy under 47 Vic, c. 8.
1855 48-49 Vic, c. 59.	Ottawa, Waddington and New York Ry. Co.	Ottawa to Waddington.	19,200	} Subsidy lost by lapse of time.	{ \$ 19,429 paid.
1884 47 Vic, c. 8.	Albert Southern Ry. Co.	Hopewell to Alma.	51,200		{ 31,771 forfeited.
1883 46 Vic, c. 25.	Baie des Chaleurs Ry.	Metepediac to Paspébiac.	620,000		{ 300,300 paid.
1884 47 Vic, c. 8.	Central Ry. Co.	Head of Grand Lake to J. C. R.	128,000		{ 319,700 forfeited.
1884 47 Vic, c. 8.	Irondale, Bancroft and Ottawa Ry.	Victoria Branch of Midland Ry. to Bancroft.	160,000		{ All forfeited.
1884 47 Vic, c. 8.	Ontario Pacific.	Cornwall to Perth.	281,600		{ \$ 15,000 paid.
					{ 145,000 forfeited.
					All forfeited.

