
DOMINION OF CANADA.

ANNUAL REPORT

OF THE

MINISTER OF RAILWAYS AND CANALS

FOR THE PAST

FISCAL YEAR FROM 1ST JULY, 1886, TO 30TH JUNE, 1887,

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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1888.

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REPORT

1886-1887.

*To His Excellency the Most Honourable the Marquess of Lansdowne,
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, 1887.

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 (Appendix 1, page 3) will be found a statement 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.

*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, 1887.

CANADIAN PACIFIC RAILWAY.

This Report does not deal with the various branches and extensions of the Company, but merely with the main portion forming the line of communication between the Atlantic and Pacific as to which Government aid has been afforded.

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
	Total, Montreal to Port Moody, Burrard Inlet.	2,891

The company have extended their line by building a branch, 15 miles long, from Port Moody west to Vancouver, on Burrard Inlet. They have also a branch to New Westminster, on the River Fraser.

The beginning of the fiscal year 1886-87 found the company's line completed and in operation from ocean to ocean, the first through train having left Montreal for Port Moody on the 28th of June, 1886.

The following, though appearing in last year's Report, is here repeated, as recounting action taken during the fiscal year for the closing of matters between the Government and the company under their contract, and the several financial arrangements entered into from time to time with which the Government has been concerned, the company's indebtedness to the Government being discharged.

On the 30th of March, 1886, an agreement was entered into, subject to the approval of Parliament, by which the company undertook to pay to the Government the amount stated therein to have been actually advanced them out of the \$20,000,000 secured by first mortgage bonds, namely, \$19,150,700, which amount constituted its indebtedness, together with the interest thereon, as provided in the

Act, and the Government on its side agreed to accept a portion of the company's lands for the balance, namely, \$9,880,912, with interest, the value of such lands to be computed at \$1.50 an acre.

On the 2nd of June, 1886, assent was given to an Act 49 Vic., chap. 9, ratifying the above agreement.

Steps were at once taken to carry it into effect. On the 1st of May, 1886, the company paid \$9,987,347.28, and on the 1st of July, a further sum of \$9,163,352.72, making the total, \$19,150,700.

The amount of the balance to be covered by the acceptance of lands being \$9,880,912, or with interest up to the 1st of May, 1886, \$10,189,521.33, the land grant will be reduced by an equivalent number of acres, computed, as fixed by the Act, at \$1.50 per acre, namely, 6,793,014 acres, leaving the company's land subsidy 18,206,986 acres.

By special provision of this Act, 49 Vic., chap. 9, authority was given for the release of the security held under the terms of the company's contract to ensure the continuous operation of the road for ten years, should the retention of such security appear unnecessary in the public interest on the completion of the railway to the seaboard and its being opened for traffic. This security was \$5,600,000 of land grant bonds.

On the 2nd of November, 1886, an Order in Council was passed authorizing the closing up of all the matters outstanding between the Government and the company, and a final agreement was signed, accordingly, on the 15th and 20th of that month, comprising the acceptance by the Government of the work executed by the company, as fulfilling the conditions of their contract; the transfer to and acceptance by the company of the portions of the road constructed by the Government, subject to adjustment by the Government of deficiencies, if any, in respect of the construction of the western section; the payment to the company of the balance of their subsidy; the release of the security held for operation, and the deposit by the company with the Government of \$1,000,000 of land grant bonds as security that the company will, whenever required by the Government, improve the portion of their line passing Mount Stephen, in the Rockies. A copy of this agreement, together with the Order in Council authorizing it, will be found in the appendices on page 179.

The arrangements immediately contemplated in the above mentioned agreement have been duly carried out, and the whole road is now the property of the Canadian Pacific Railway Company.

PAYMENTS TO CANADIAN PACIFIC RAILWAY COMPANY.

Subsidy Account.

Amount of subsidy under the contract.....	...	\$25,000,000 00
Amount paid up to the end of the fiscal year 1882-83 (30th June, 1883)		\$7,533,076 60
Amount paid during fiscal year 1883-84		7,254,208 27
do do 1884-85		6,862,201 00
do do 1885-86		2,890,427 00
From 1st July, 1886, to 31st December, 1886 (balance).....		460,087 13
		\$25,000,000 00

CANADIAN PACIFIC RAILWAY LOAN ACCOUNT.

Exclusive of the Interest calculations.

PAYMENTS by Government to the Canadian Pacific Railway Company during the fiscal years—

1883-84.....	\$10,953,462
1884-85.....	9,701,438
1885-86.....	995,800
	\$21,650,700

To pay 3 per cent. dividends half yearly on \$65,000,000 stock up to August 17, 1893.....

7,380,912

\$29,031,612

PAYMENTS by the Canadian Pacific Railway Company to the Government—1886.

May 1 Cash.....	\$ 9,987,347
July 1 Cash.....	9,163,353
Land purchased by the Government from the Company to cover the balance at \$1.50 per acre.....	9,880,912
	\$29,031,612

ALGOMA BRANCH, AND SAULT STE. MARIE RAILWAY BRIDGE.

By the Act 49 Vic., chap. 9 (1886), it was provided that the company might on payment and settlement of their indebtedness to the Government, issue mortgage bonds on their line of railway, constructed and to be constructed, between their main line (at Sudbury Junction) and the Sault Ste. Marie, the proceeds to be applied to the completion of the branch and the bridge over the River St. Marie the by-laws authorizing such issue being approved by the Governor in Council

The company having duly passed such by-laws, they were approved by an Order in Council dated the 19th of May, 1887, and the company proceeded to construct the remaining portion of the branch, namely, from Algoma Mills to the Sault. A bridge across the River St. Marie, under the charter granted to the Sault Ste. Marie Bridge Company, has also been built. By the completion of this branch and bridge direct communication is made with the American railway system. The work has been carried on rapidly, and at the date of the present report (Dec. 31st, 1887) both the branch and the bridge are practically completed.

Under the company's contract with the Government they are entitled to receive for this branch the lands required for the road bed, stations, station grounds, etc., in so far as such lands are vested in the Crown.

COMMUNICATION EAST AND SOUTH FROM CALLANDER.

The Canadian Pacific Railway Act of 1874 made provision for the construction under subsidy of a line to connect the eastern terminus with existing or proposed railroads to the east. On the 4th of November, 1874, the subsidy of \$12,000 a mile authorized by that Act was granted by Order in Council to the Canada Central Railway Company for 120 miles of an extension of their road to a point about 85 miles from Georgian Bay (from which bay it was, at that time, proposed to run a branch line east,) the amount of this subsidy aggregating \$1,440,000. On the 18th April, 1878, an Order in Council passed, which was ratified by a resolution of the House of Commons on the 7th of May, authorizing the acceptance of a proposal made by that company to build a connecting line from their road at Pembroke westward, to a point, at the south-east corner of Lake Nipissing, further west than had originally been contemplated, for the subsidy named. The work was commenced, and the road was completed in 1883. This railway was acquired by the Canadian Pacific Railway Company, who also acquired the road between Pembroke and Ottawa, 105 miles. The company purchased in 1882 the section between Ottawa and Montreal known as the Western Division of the Quebec, Montreal, Ottawa and Occidental Railway, built and owned by the Province of Quebec, the length of this road being 140 miles, and in the year 1885 they acquired, under special statutory provision, the line of the North Shore Railway between Montreal and Quebec, also built by the Provincial Government, thus completing the line of railway communication between the coasts of the Atlantic and the Pacific.

South from Callander, communication with the Ontario railway system is made by a subsidized line, the Northern Pacific Junction Railway.

The following table shows the total length of the road on the main line completed by the company in each year so as to admit of the running of regular trains thereon :—

	Miles.	Total.
By the close of 1881.....	161	161
do 1882.....	440	601
do 1883.....	473	1,074
do 1884.....	358	1,432
do 1885.....	477	1,909
	===	===

The following shows the dates on which, by Order in Council, authority was given for the transference to the company of possession and right to operate portions of the line constructed by the Government:—

By Order in Council of the 9th of April, 1881,—the Pembina Branch and the portion between Selkirk and Cross Lake.

By Order in Council of the 12th of January, 1882,—the portion between Telford (Cross Lake) to Rat Portage.

By Orders in Council of the 2nd and 30th of April, 1883,—“Section B” from Eagle River to Kee watin (3 miles west of Rat Portage), also covering operation from Prince Arthur's Landing.

By Order in Council of the 29th of July, 1885,—Savona's Ferry, Lake Kamloops, to Port Moody.

By an Order of the 2nd of November, 1886, and an agreement thereunder of the 15th and 20th, the portions of the road constructed by the Government were transferred and conveyed to the company “free and clear of all liens and charges thereon existing or due by the Government at the time when the possession and right to run and work such portions were respectively transferred to the company by the Government,” but subject to adjustment and correction in respect of the western section.

The following shows the several statutes and agreements executed thereunder respecting the Canadian Pacific Railway Company and the Government— :

Act.	Deed.	Object.
44 Vic., ch. 1, 1881.....	21st Oct., 1880.....	Contract.
45 Vic., ch. 53, 1882.....	.....	Change of pass through Rockies.
	10th Nov., 1883.....	10 year dividend security.
47 Vic., ch. 1, 1884.....	7th March, 1884....	Loan, \$22,500,000.
48-49 Vic., ch. 55, 1885....	25th July, 1885....	1st mortgage bond issue.
48-49 Vic., ch. 58, 1885....	19th Sept., 1885....	To acquire the North Shore Railway.
49 Vic., ch. 9, 1886.....	30th March, 1886..	To repay loan and close accounts.

NORTH SHORE RAILWAY.

Under the provisions of the Act passed in 1885, 48-49 Vic., cap. 58, the grant of a sum of \$1,500,000 was authorized as a subsidy to secure free access to the port of Quebec for the trains and traffic of the Canadian Pacific Railway; the arrangements to be facilitated by the acquisition of the North Shore Railway by the Government from the Grand Trunk Railway by means of such subsidy, and the subsequent transfer or lease of the road to the Canadian Pacific Railway Company.

The said sum of \$1,500,000 was arrived at as follows:—

By the Act 47 Vic., ch. 8 (see No. 23), there was granted for the extension of the road from St. Martin's Junction to Quebec a subsidy not exceeding.....	\$ 960,000
Also by the same Act (see No. 34), for a line between the Jacques Cartier Union Railway Junction and St. Martin's Junction, a subsidy not exceeding.....	200,000
Also by the Act 48-49 Vic., ch. 58 (see No. 64), (which united the two above mentioned subsidies in the one object of obtaining free access for the traffic of the Canadian Pacific Railway from St. Martin's Junction to Quebec), a further subsidy not exceeding.....	340,000
Total.....	\$1,500,000
*Of this, the amount applied to the purchase of the road was.....	530,000
Balance.....	\$970,000

This balance was expended in the purchase of bonds of the road.

Under special agreements to this end, dated the 19th of September, 1885, executed under authority of an Order in Council of that date, the said road from St. Martin's Junction to Quebec was acquired by the Government and transferred to the Canadian Pacific Railway Company.

Attached to the present report will be found diagrams, prepared by the Chief Engineer of Government Railways, showing in comparative form the length of the several trans-continental routes from Liverpool to Yokohama, Japan, and Shanghai, China. The speed by rail is reckoned at 32 miles an hour, and by steamer at 16 miles.

*A further sum of \$35,373.04 was temporarily paid by the Government to the Grand Trunk Railway Company on account of fuel taken over. This amount has to be refunded by the Canadian Pacific Railway Company.

 GOVERNMENT RAILWAYS IN OPERATION.

The several lines operated and maintained by the Government during the past fiscal year, ended the 30th June, 1887, were :—

	Miles.
The Intercolonial and its extensions.....	880
Eastern Extension Railway.....	80
Windsor Branch (maintained only).....	32
Prince Edward Island.....	212
Total mileage.....	
1,204	

Details respecting these railways and their operation will be found in Appendix No. 5, p. 10, 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, Quebec, to Halifax, is 688 miles in length.

The length of roads operated was increased by the completion of the Indian-town Branch of the Intercolonial, fourteen miles in length.

The General Revenue Accounts for 1886-87 show the following as the financial position of these roads for the past fiscal year. The average length of road operated for the whole fiscal year was 1,191 miles, the Indian town branch not having been opened until the 1st of December, 1887 :—

	Expenditure.	Earnings.	Profit.	Loss.
—	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Intercolonial	2,828,115 58	2,596,009 83	.....	232,105 75
Eastern Extension.....	94,254 04	64,107 10	.....	30,146 94
Windsor Branch (earnings, one third of entire receipts).....	26,042 33	25,327 58	.....	714 75
Prince Edward Island.....	204,237 45	155,303 37	.....	48,934 08
Total loss on working.....	.....	.....	.....	311,901 52

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
	— 192
	—
	880
	===

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
	—
	10.5
	===

Capital Account.

The total cost of the road and equipment chargeable to capital account at the close of the fiscal year, 1885-86, according to last year's report, was.....\$44,172,743.16]

The expenditure charged to capital account for the year ended 30th June, 1887, is as follows :—

Halifax extension.....	\$ 12,613 07
Increased accommodation, St. John.....	18,547 66
Settlement of claims connected with the original construction of the Intercolonial Railway	4,146 35
For rolling stock.....	67,516 37
Sleeping cars.....	14,237 11
Applying air brakes to locomotives.....	78,506 94
St. Charles Branch.....	230,103 79
Dartmouth Branch.....	5,334 92
Dalhousie Branch.....	2,082 50
Rivière du Loup Town Branch.....	6,938 87
Indiantown Branch.....	9,141 45
Pictou Town Branch.....	248,133 48
Amount paid on judgment in case of Windsor and Annapolis Railway vs. Western Counties' Railway and the Queen.....	125,936 75
	<u>\$823,239 26</u>
Making the total cost up to 30th June, 1887.....	<u><u>\$44,995,982 42</u></u>

Revenue Account.

The gross earnings for the year were.....	\$2,596,009 83
The working expenses were.....	2,828,115 58
	<u>\$ 232,105 75</u>
The gross earnings, compared with those of the previous year, show an increase of.....	<u>\$ 212,809 06</u>
The value of the stores in hand, including steel rails and fuel, at the end of the year 1886-1887, was..	<u>\$ 678,109 97</u>

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

	Miles.
1886-87.....	5,466,488
1885-86.....	4,823,353
	<u>643,135</u>

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

1886-87	52,001,928
1885-86	47,211,083
Increase	4,790,845

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

1886-87	4,512,599
1885-86	4,039,877
Increase	472,722

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

	Cents.
1886-87	51.74
1885-86	51.61
Increase	0.13

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

1886 87	62.67
1885 86	61.61
Increase	1.06

Expense per mile of railway:—

1886 87	3,265 72
1885-86	2,891 10
Increase	374 62

The gross tonnage carried was:—

	Tons.
1886-87	1,131,334
1885-86	1,008,545
Increase	122,789

The total number of passengers carried was:—

1886-87	940,144
1885-86	889,864
Increase	50,280

Compared with last year there was an increase of 50,280 in the number of passengers and an increase of 12,789 tons in the freight carried, an increase also of \$212,809.06 in the earnings of the road. The expenditure exceeded the receipts, and that by a considerable sum, \$232,105.75, but as in former years, the working expenses of the Intercolonial have been charged with the cost of works of improvement and addition of a character usually placed to the capital account, and to this cause is largely due the extent of the year's expenditure. The exceptionally severe snow storms of the winter also entailed heavy cost; the direct expenditure for clearing snow being \$92,000, over double the average cost for the last six years, while the indirect cost may be set down as at least \$100,000.

The expensive work of substituting 67 lb. steel rails for the 56 lb. rails in use, has been continued; 78 miles having been laid with the heavier rail.

One hundred and forty-three miles of new fences of improved pattern were built during the year; 40 new sidings were put in, and various other means were adopted for increasing the efficiency and security of the road, as to which the detail reports to be found in the annexed appendices give evidence.

The freight traffic increase of the year has extended to the following important articles, amongst others:—Flour, grain, lumber, live stock and coal. With regard to the last named, the development of which is a matter of peculiar interest both to the coal producing districts and the Upper Provinces, there has been a steady increase throughout the last few years, the quantity carried last year being 175,512 tons as against 165,791 in the previous year, and 570 tons in the year 1879. The low rate charged for transport and the distance of haulage of cars back to the mines, empty, render this branch of traffic, though advantageous to the country, unremunerative to the road.

The sleeping car service has been conducted by the Department, and the extension of the system to the second class passenger travel has been found to work to their comfort and satisfaction. Sleeping cars are being provided in the trains meeting the mail steamers at Rimouski in summer and Halifax in winter. This mail train service during the summer has been carried on with a speed and regularity which, in the winter months, owing to the heavy snow storms affecting the road, it was found impossible always to maintain.

On page 11 of the appendices will be seen a table showing the extent of the freight and passenger traffic year by year since the year 1876-77 (when the railway was opened as a through trunk line) together with the yearly earnings. Its study will give an interesting general view of the business of the road during this period.

WINDSOR BRANCH.

The Windsor and Annapolis Railway Company are permitted to continue the operations of this line, which is 32 miles in length; the arrangement being that the
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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, whose chief officer performs the duty.

The earnings and expenditure for the year ended the 30th June, 1887, were as follows :—

Expenditure for maintenance of way and works.....	\$26,042 33
Gross earnings accruing to the Government.....	25,327 58
Excess expenditure.....	715 75

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

1886-87	\$25,327 58
1885-86	23,658 11
Increase	1,669 47

Expenditure in comparison with that of the previous year :—

1886-87	\$26,042 33
1885-86	19,229 49
Increase.....	\$ 6,812 84

The additional cost of the year's operations is due to the substitution of steel for iron rails on a portion of the road, the construction of a new station and freight house, and the laying of new sidings.

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, 1887, to \$1,284,495 76, no addition having been made to capital amount during the year.

The expenditure of the year amounted to.....	\$94,254 04
The gross earnings were.....	64,107 10

Loss.....	\$30,146 94

The earnings of the road, in comparison with those of the year 1885-86, show a decrease of \$2,786.01, the cause operating adversely last year being still in force, namely, the absence of the large fish traffic from the Straits of Canso; American fishermen being barred from landing their fish in Canada.

The expenditure during the past fiscal year was somewhat less than that of the previous year. it comprised the sum of \$28,980.65 for renewals of ties and fencing.

The facilities for communication between Port Mulgrave and Halifax have been improved by the running of a through train, to the advantage of Cape Breton travel.

INDIANTOWN BRANCH.

This branch of the Intercolonial extends from Derby Station, on that road, up the South-West Miramichi River to Indiantown, a distance of 14 miles. The work was placed under contract in September, 1884. It is now completed and in operation.

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 Stelarton to the town of Pictou. On the 17th of November an Order in Council was passed approving of a location by the adoption of which the length of the line will be 13.84 miles, and authorizing the proceeding with the work. Contracts were accordingly entered into on the 22nd of December, 1886, to this end. Though not fully completed at the close of the fiscal year, the work was far advanced.

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.....	13
Royalty Junction to Charlottown.....	5
Mount Stewart to Souris.....	39
	<u>57</u>
	<u>211½</u>
	<u><u>211½</u></u>

Capital Account.

The total cost of the road and equipment chargeable to capital account at the close of fiscal year 1885-86 was.....	\$3,735,980 89
The expenditure charged to this account for the year ended the 30th June, 1887, being the amount expended on new coal shed and extension of yard at Charlottetown.....	5,800 00
	<u>5,800 00</u>
Total expenditure on capital account to the 30th of June, 1887.....	\$3,741,780 89
	<u><u>3,741,780 89</u></u>

Revenue Account.

The working expenses and receipts for the year ended 30th of June, 1887, were :—	
Gross expenses.....	\$ 204,237 45
Gross earnings.....	155,303 37
	<u>155,303 37</u>
Excess of expenditure over earnings.....	\$ 48,934 08
	<u><u>48,934 08</u></u>
The gross earnings, compared with those of the previous year, were :—	
1885-1886.....	\$ 155,584 36
1886-87.....	155,303 37
	<u>155,303 37</u>
Decrease.....	\$ 280 99
	<u><u>280 99</u></u>
The gross expenditure, compared with that of the previous year, was :—	
1885-86.....	\$ 216,744 34
1886-87.....	204,237 45
	<u>204,237 45</u>
Decrease.....	\$ 12,506 89
	<u><u>12,506 89</u></u>

The engine mileage was :

	Miles.
1886-87... ..	316,763
1885-86... ..	310,434
Increase.....	6,329

The train mileage was :—

1885-86.....	249,848
1886-87.....	248,864
Decrease.....	984

The car mileage was:—

1885-86.....	1,235,647
1886-87.....	1,249,892
Increase.....	14,245

The value of the stores on hand on the 30th June, 1887, was \$114,155.01.

The road and its equipments have been satisfactorily maintained throughout the year.

CAPE TRAVERSE BRANCH.

This line was opened for traffic on the 22nd January, 1885. Its object is to facilitate communication between the Prince Edward Island Railway and the Intercolonial. The branch leaves the island railway at County Line station and runs to Cape Traverse, a distance of thirteen miles. 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. The working of this service is satisfactory.

CARLETON BRANCH RAILWAY.

In the year 1885 Parliament voted the sum of \$85,000 "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

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River St. John, N.B., a distance of $3\frac{68}{100}$ 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 8th 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 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, pecuniary 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..... 256,600
 (NOTE.—This was amended by the Act 47 Vic., cap. 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, nor exceeding in the whole..... 89,600
14. To the Quebec and Lake St. John Railway Company, for 25 miles of their railway, from St. Raymond to Lake St. John, in the Province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 80,000
 In addition to the subsidy granted by the Act forty-fifth Victoria, chapter fourteen.
 (NOTE.—Further subsidized by the Act 43-49 Vic., ch. 59, 49 Vic., ch. 10, and 50-51 Vic., ch. 24.)

- 15.** For a railway from the Intercolonial Railway at Petitcodiac to Have-lock Corner, in the Province of New Brunswick, 12 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 33,400
- 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 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

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
- 26.** To the Gatineau Railway Company, for a line of railway from Kazuabazua 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 Mississipi to Rentrew, 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..... 32,00

- 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 Harbor, 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 Pasobiac, twenty miles, in the Province of Quebec, a sum not exceeding in the whole..... 300,000
- 43.** For a branch of the Intercolonial Railway, from Derby Station to Indiantown, fourteen miles, a sum not exceeding in the whole... 140,000

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose, shall be granted to such companies, respectively; the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to construct and complete the said railways, respectively. All the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of July next and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, except the line mentioned in the fourth section of this Act, which shall be commenced within one year, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed, in comparison with that of the whole work undertaken, to be established by the report of the said Minister. The subsidies to the Province of Quebec shall be capitalized and the interest shall be payable at such time and in such manner as the Government of Canada shall agree upon with the Government of the said Province. The two subsidies last mentioned in the list are for works to be constructed by the Government of Canada.

“Provided always, that the granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights, as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized as the Governor in Council may determine.”

By the special Act 47 Vic., cap. 6 (1884). (*Assented to 19th April, 1884*):—

44. Relating to an agreement with the Province of British Columbia, authority was given *inter alia* for the grant of a subsidy to “the Esquimalt and Nanaimo Railway Company” in aid of the construction of a line of railway and telegraph between the points named; such subsidy to be in lands *en bloc* on Vancouver Island, the boundaries being fixed by the Act, and in money..... \$750,000

By the Act 48-49 Vic., cap. 59 (1885). (*Assented to 20th July, 1885*):—

45. To the Ottawa, Waddington and New York Railway and Bridge Company, for a line of railway from Ottawa to Waddington, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 166, 100

- 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
- 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 Victoria, chapter 25, and 47 Victoria, 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 miles west of Johnson's, a subsidy not exceeding \$1,600 per mile, and from one and a half miles west of Johnson'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 *vid* 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 connecting 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*):—

52. “ 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 harbors of St. Andrews, St. John and Halifax, *viâ* Sherbrooke, Moosehead Lake, Mattawamkeag, Harvey, Fredericton and Salisbury, a subsidy not exceeding eighty thousand dollars per annum for twenty years, forming 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 harbors 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 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 harbor of Quebec, in such 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 Car-

tier 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 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 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
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 Québec, thirty-four miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 103,800
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'Épiphanie, in the Province of Quebec, three miles and a half, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole 11,200
78. To the Montreal and Western Railway Company, for seventy miles of their railway from St. Jérôme, north-westerly towards 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 a 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* Douglastown to a point on the River Miramichi, opposite the Town of Chatham, in the Province of New Brunswick, six miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 19,200
- 92.** For a railway from a point on the Canadian Pacific Railway to Eganville, in the Province of Ontario, twenty-two miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 70,400
- 93.** To the Belleville and North Hastings Railway Company, for seven miles of their railway from the Village of Madoc to the Junction with the Central Ontario Railway at Eldorado, in the Province of Ontario, a subsidy (in addition to the subsidy of \$1,500 per mile granted by 48-49 Victoria, chapter 59) not exceeding \$1,700 per mile, nor exceeding in the whole..... 11,900

(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*):—

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 (*additional*) 4,000
- 101.** To the Moncton and Buctouche Railway Company, for two miles of their railway from the west end of the portion subsidized by the Act forty-ninth Victoria, chapter ten, to Moncton, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole (*additional*). 6,400
- 102.** To the Beauharnois Junction Railway Company, for thirty miles of their railway from St. Martin's towards St. Anicet, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole 96,000
- 103.** To the Harvey Branch Railway Company, for three miles of their railway from the southern terminus of the Albert Railway to Harvey Bank, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 9,600
- 104.** To the Brantford, Waterloo and Lake Erie Railway Company, for eighteen miles of their railway from the Town of Brantford to the Village of Hagersville or the Village of Waterford, or some intermediate point on the Canada Southern Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 57,600
- 105.** To the Guelph Junction Railway Company, for sixteen miles of their railway from its junction with the Canadian Pacific Railway to the Town of Guelph, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole 51,200
- 106.** To the Massawippi Railway Company, for ten miles of their railway from a point on the Atlantic and North-Western Railway, near the Village of Magog, to Ayer's Flat Station, on the Massawippi Valley Railway, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole 32,000
- 107.** To the Napanee and 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 [1887]

	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
111.	For a line of railway from Mount Forest to Walkerton, twenty-four miles in length, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	76,800
112.	To the Oshawa Railway and Navigation Company, for seven miles of their railway from Port Oshawa towards Raglan, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	22,400
113.	To the Saguenay and Lake St. John Railway Company, for thirty miles of their railway from Lake St. John towards Chicoutimi, or from Chicoutimi towards Lake St. John, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
114.	To the Great Eastern Railway Company, for thirty miles of their railway from the River St. Francis to the Arthabaska Railway, at St. Grégoire Station, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.....	96,000
115.	To the Ontario and Pacific Railway Company, for six miles of their railway from the northern end of the portion subsidized by the Act 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 had 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 (*substituted*)..... 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 (*substituted*)..... 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 (*additional*)..... 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 (*additional*)..... 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 (*in addition to the subsidy granted by Act 48-49 Vic., Ch. 59.*) 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 (*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*)..... 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
- 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
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- 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 construction of which subsidies are granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council; and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the Company with the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon completion of the work subsidized, except as regards the subsidy for the bridge over the St.

Lawrence River upon which shall be paid fifteen per cent. of the value of work done on monthly progress estimates, certified by the Chief Engineer, and upon the approval of the Minister of Railways and Canals.

The granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights, as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

Notwithstanding anything contained in the Act forty-fifth Victoria, chapter fourteen, or in the Act forty-sixth Victoria, chapter twenty-five, the balances of the sums granted for a railway from St. Raymond to Lake St. John and to the Quebec and Lake St. John Railway Company by the said Acts respectively, which have not yet been paid by the Government, may be paid at any time within one year from the passing of this Act, subject to the conditions in the said Acts contained.

LAND SUBSIDIES.

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

134. "The Governor in Council is hereby authorized, in aid of the construction of a railway from some point on the Canadian Pacific Railway to Hudson's Bay, to make a free grant of not more than six thousand four hundred acres for each mile of railway within Manitoba, and not more than twelve thousand eight hundred acres for each mile in the North-West Territories."

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

135. 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.

136. 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.

137. 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.

- 138.** 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:—

- 139.** 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.
- 140.** 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, *vid* 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.
- 141.** To the Wood Mountain and Qu'Appelle Railway Company, Dominion lands to the extent of six thousand four hundred acres for each mile of the company's railway for the whole distance commencing at a point in township number four, in range number thirty, west of the second meridian, in the Dominion lands system of survey, passing through the town of Fort Qu'Appelle, to join the Manitoba and North-Western Railway at a point to be fixed for that purpose by the Governor in Council, about two hundred and forty miles.

The said grants, and each of them may be so made in aid of the construction of the said railways respectively, in the proportions and upon the conditions fixed by the Orders in Council made in respect thereof,—each of the said enterprises

being respectively subject to any modification thereof which may hereafter be made by the Governor in Council; and, except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively of the cost of survey of the lands and incidental expenses at the rate of ten cents per acre in cash on the issue of the patents therefor.

By 50-51 Vic., cap. 23 (1887). Assented to 23rd June, 1887.

142. 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 Edmondton, about three hundred miles.
143. 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.
144. 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, 1887.

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

For the year	1883-84.....	\$ 208,000
	do 1884-85.....	403,245
	do 1885-86.....	2,171,249
	do 1886-87.....	1,406,533
		\$4,189,027*
Add to the above for the six months that have elapsed since, namely from the 30th of June, 1887, to the 31st December, 1887.....		\$643,280
	Total payments to date.....	\$4,832,307

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 or to the Fredericton and St. Mary's Bridge Company.

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 *vid* Derry's Corner being adopted,

The time for completion has been extended to 1st of July, 1888. Up to the 31st of December the sum of \$1,000 has been paid from the company's subsidy.

* Note—A tabulated statement of these payments will be found on page 8, Appendix 3.

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 Metapedia 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 Metapedia 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 of 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.

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 of June, 1887, there was paid to the company the sum of \$250,000. Further payments have since been made, making the total payments up to the 31st of December, 1887, \$300,300.

The location has been approved up to the 30th mile by an Order in Council of the 15th of October, 1886, and before the end of December, 1887, plans approved by the Department for a further distance, up to the 40th mile, were submitted.

Beauharnois Junction Railway Company.

(See No. 102.)

By the Railway Subsidy Act, 50-51 Vic., ch. 24, the grant of a subsidy not exceeding \$96,000, was authorized in favour of the Beauharnois Junction Railway Company, 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 1st of December, 1888. By the order first named approval was also given to the location of the road from its junction with the Montreal and Champlain Junction Railway, at St. Martin's to Valleyfield, $19\frac{69}{100}$ miles. Up to the 31st of December, 1887, no portion of the subsidy has been paid, but an inspection of the road for a distance of ten miles was requested by the company.

Belleville and North Hastings Railway Company.

(See No. 54.)

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 the 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, but no portion of the subsidy has been paid up to the 31st of December, 1887.

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 \$123,000 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 31st of December, 1887, no portion of the subsidy has been paid.

Buctouche and Moncton Railway Company.

(See No. 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 Intercolonial 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, making the total subsidy \$102,400.

Under an Order in Council of the 10th September, 1886, an agreement, dated the 16th 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 \$40,480 had been paid from the company's subsidy.

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 being the 1st of October, 1886.

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, a subsidy not exceeding \$180,000 was authorised for the Coteau bridge across the River St. Lawrence.

Caraquet Railway Company.

(See Nos. 7, 41, 63 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 Harbor, amounting to \$192,000, have been granted to them. An agreement was executed under date the 20th of 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 \$61,200 making the total payments up to the end of December, 1887, \$170,000. Towards the end of the month, on inspection of the works, an Order in Council was passed authorizing payment of a further sum of \$10,100, but the money had not been paid at the close of the year.

Central Railway Company.

(See No. 40.)

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 Sussex and St. John, N.B.

Under the authority of an Order in Council of the 5th of June, 1886, a contract was made with the Central Railway Company, on the 7th of 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.

Up to the 31st of December, 1887, no portion of the subsidy had been paid.

Chignecto Marine Transport Railway Company.

(See No. 5.)

On the 3rd of February, 1882, this company (which received incorporation the same year, by Act 45 Vic., chap. 76) made a proposal to the Government for the construction of a line of railway for the transport of ships overland across the Isthmus of Chignecto from Tidnish, on 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., chap. 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 up 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., chap. 18 (1886), this agreement was confirmed and ratified.

Dominion Lime Company.

(See No. 108.)

By the Act 50-51 Vic., chap. 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, an Order in Council dated the 31st of December, 1887, has authorized payment of the sum of \$11,840.

Drummond County Railway Company.

(See No. 99.)

By the Railway Subsidy Act of 1887, 50 51 Vic., chap. 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.

Under the authority of an Order in Council of the 12th of November, 1887, which also approved of the location plans for 12½ 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.

No portion of the subsidy had been paid up to the 31st of December, 1887, but an inspection has been asked for by the company.

Erie and Huron Railway Company.

(See No. 30.)

By the Act 47 Vic., chap. 8, authority was given for the grant of a subsidy not exceeding \$96,000 to this company for a line from Wallaceburg to Sarnia, and a contract was entered into with them on the 27th of August, 1885, under an Order in Council of the 6th of that month, the line to be completed by the 1st July, 1887. Under Orders in Council, the last dated the 5th of December, 1886, the whole amount of the subsidy, \$96,000, has been paid, the road being duly completed and inspected.

Esquimalt and Nanaimo Railway Company.

(See No. 44.)

Under the authority of Orders in Council passed in June, 1883, the Honorable Sir Alexander Campbell, during the summer of that year, visited British Columbia, with a view to the settlement of matters in abeyance between the Provincial and Dominion Governments, and arrangements were provisionally entered into by him in respect of the building of a line of railway between Esquimalt and Nanaimo by a company to be subsidized by the Dominion Government.

The arrangements in question were conditional upon approval being accorded by the Legislature of the Province of British Columbia, and by the Parliament of Canada. Subject to such approval, their adoption was sanctioned by an Order in Council of the 27th September, 1883.

By an Act of the Provincial Legislature, sanctioned on the 19th December, 1883, but known as Act "47 Vic., chap. 14," and by an Act of the Dominion Parliament, 47 Vic., chap. 6, such approval was accorded.

These arrangements were expressed in articles of agreement dated the 20th of August, 1883. They comprised the grant of a subsidy in money of \$700,000, together with the land in Vancouver Island granted by the Province to the Crown for the purposes of railway construction; materials for construction of the railway and telegraph to be admitted free of duty; the whole line between Esquimalt and Nanaimo to be completed by the 10th of June, 1887.

A company, "the Esquimalt and Nanaimo Railway Company" was duly incorporated under the provisions of the Act, and proceeded vigorously with the work of construction. Up to the 31st of December, 1885, however, no portion of the subsidy had been paid, the reason for non-payment being that the work done did not comply strictly with the conditions of the contract.

By the specification attached to the company's agreement they were restricted to curves of a radius of not less than 800 feet. In the actual construction, however, a sharper curvature was adopted, and Parliament, by a special Act (49 Vic., ch. 15), and with the concurrence of the Provincial Legislature, agreed to accept the same as complying with the requirements of the Subsidy Act.

In accordance with the authorization so given, an Order in Council was passed on the 14th of June, 1886, cancelling preceding Orders in respect of location, and accepting the location of the entire line 71½ miles, with the curves adopted by the company.

Under authority of Orders in Council, during the fiscal year 1885-86, the sum of \$122,520 was paid, and during the fiscal year 1886-87, the remainder, making a
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total of \$750,000, \$37,500, of the subsidy, as representing the 5 per cent. security to be temporarily held under the contract, after completion, to ensure the making good of any possible defects, was so held until paid under the authority of an Order in Council of the 4th of March, 1887. The railway and telegraph line were duly completed, and, after inspection, permission was given to the company on the 17th of September, 1886, to open their road for public traffic.

Fredericton and St. Mary's Bridge Company.

By the special Act 50-51 Vic., chap. 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. Under an Order in Council of the 10th of December, 1887, the company have, so far, received an advance of \$78,984. The estimated cost is \$370,000. The work will connect the Fredericton Railway at Fredericton with the Northern and Western Railway at St. Mary's.

Great Eastern Railway Company.

(See No. 88.)

By the Act 49 Vic., chap. 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, has been paid under an Order in Council of the 27th of March, 1887.

Great Northern Railway Company.

(See Nos. 33, 37.)

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.

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Under the authority of an Order in Council of the 3rd of 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, and 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 of July, 1887, the contract being made on the 19th of August. The road to be completed by the 1st of August, 1890. No payment had been made up to the 31st of December, 1887.

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.

Guelph Junction Railway Company.

(See No. 105.)

By the Subsidy Act, of 1887, 50-51 Vic., chap. 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.

Up to the 31st of December, 1887, no portion of the subsidy had been paid.

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.

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
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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 $2\frac{8}{100}$ 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., ch. 8 (1884), the Irondale, Bancroft and Ottawa Railway Company were subsidized, to an extent not exceeding \$160,000 for a line, about 50 miles long, to connect the Victoria Branch of the Midland Railway with the village of Bancroft.

With the sanction of an Order in Council of the 10th July, 1886, a contract was made with the company on the 19th of August, 1886, the first 10 miles to be completed by the 1st of December, 1866, 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.

Joggins Railway Company.

(See No. 76.)

By the Act 49 Vic., ch. 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 the 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 of the 5th of October, the line to be completed by the 1st of November, 1887.

In November, 1887, the company gave notification that the road was ready for public traffic and inspection.

A further subsidy to this company not exceeding \$4,000 having been authorized by the Act 50-51 Vic., ch. 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.

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**Lake Temiscamingue Colonization Railway Company formerly "La Société de
Colonisation du Lac Temiscamingue."**

(See No. 55 84 and 119.)

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 have been 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."

In September, 1887, an inspection of the section between the foot of the Long Sault, and Lake Temiscamingue was made, and from the subsidy available for this distance, 6 miles, namely 19,200, up to the 31st of December, 1887, the amount paid to this company is \$17,400.

L'Assomption Railway Company.

(See No. 77.)

By the Act 49 Vic., ch. 10, the grant of a subsidy not exceeding \$11,200 was authorized for a short line of railway, 3½ miles long, connecting the village of L'Assomption with the North Shore Railway at L'Epiphanie.

Under date the 16th of September, 1886, a contract, as authorized by an Order in Council of the 28th of August, was entered into with L'Assomption Railway Company for the work in question, the line to be completed by the 1st of January, 1887. Notification of completion was given in January last, and on inspection the balance due the company, has been paid, the total payment being \$11,200.

Leamington and St. Clair Railway Company.

(See No. 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.

Montreal and Champlain Junction Railway Company.

(See No. 51 and 125.)

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., ch. 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, but the contract had not been signed up to the close of the year.

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, about 10 miles, between St. Félix and St. Gabriel de Brandon, near Lake Maskinongé, the road to be completed by the 1st of December, 1888. Up to the 31st of December, 1887, no portion of the subsidy had been paid.

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 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 10th of November, 1886, payments have been made, amounting in all to \$63,922, 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.

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.

Up to the close of the fiscal year, payments have been made to the extent of \$97,440 under Orders in Council. No further payments were made, but towards the end of the year an inspection showed the road completed (with the exception of some minor work) and an Order in Council was passed on the 31st of December, 1887, authorizing payment of a further sum of \$12,150, which with the sum of \$3,850 retained, and the previous payments, makes up the sum of \$113,440, the actual value of the subsidy.

Napanee, Tamworth and Quebec Railway Company.

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

In 1883 Parliament authorized a subsidy of \$89,600 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, the balance of the subsidy then due was paid under an Order in Council of 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 which on examination had been found to be 22 miles long in place of 18. Up to the 31st of December 1887, no contract has been made for either of these two last subsidies.

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 111½ 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 finishing the work. No further payments have been made up to the 31st of December, 1887.

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, *via* 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 Indian-

town, and authorized the grant to this company of a subsidy of \$128,000 in aid of their railway from Fredericton to the 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, has been approved of by Orders in Council, and the road having been duly completed and inspected, the whole of the subsidy, \$128,000, has been 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 26th 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-mile deep water extension. Under date the 12th of August, 1887, they have entered into an agreement covering the two miles in question, the amount of subsidy available being \$6,400.

At the present date, the 31st of December, 1887, the whole road between Gibson, opposite Fredericton, and Indiantown has been completed and is in opera-

tion, the actual distance being $95\frac{1}{2}$ miles. The total subsidy provided was \$313,600. The amount found to be actually applicable is \$305,600, of this there has been paid to date the sum of \$20,000, and under date the 31st of December, after inspection of the work, an Order in Council has been passed for the payment of the balance, \$75,600.

The portion connecting Indiantown with the Intercolonial Railway, 14 miles, having been built by the Government as a branch of 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 No. 129)

By the subsidy Act of 1837, 50-51 Vic., ch. 24, the Nova Scotia Central Railway Company were subsidized for 34 miles of their railway, to an extent not exceeding \$108,800. Under an Order in Council of the 16th of September, 1887, the company were admitted to contract on the 17th of October, 1887, the 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 branch, about 12 miles long, south from Lunenburg to Bridgewater, the whole to be completed by the 31st of December 1889. No portion of the subsidy had been paid up to the 31st of December, 1887.

Ontario and Pacific Railway Company.

(See No. 31,115.)

By the Act 47 Vic., chap. 8, 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 *via* Newington, Chrysler, Manotick and Franktown, the road to be completed by the 1st of July, 1888.

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

No portion of the subsidy has been paid up to the 31st of December, 1887.

Pontiac Pacific Junction Railway Company.

(See No. 25.)

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 has been 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, up to the close of the past fiscal year, to the extent of \$150,670, and subsequent to that date, namely, up to the 31st December, 1887, a further sum of \$6,960, making a total payment to date of \$157,630, covering a distance of 61 miles from Aylmer.

The location up to the 71st mile from Aylmer has been approved. The road is open for public traffic from Aylmer to Coulonge, 59 miles.

Quebec Central Railway Company.

(See No. 22.)

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 present date, December 31st, 1887, is \$60,342, covering 15½ miles of road inspected, starting from Beauce Junction.

Quebec and Lake St. John Railway Company.

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

By the Subsidy Act of 1882, a subsidy of \$384,000 was granted for a line from St. Raymond to Lake St. John. By the Act of 1883, the Quebec and Lake St. John Railway Company, engaged in the work of constructing this line, were permitted to receive a further subsidy of \$30,000. 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 up to St. Raymond, 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 \$126,295, for the portion, 95 miles, extending from the point 50 miles north of St. Raymond to Lake St. John.

By the Act 50-51 Vic., 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 (under the usual conditions) of balances payable from the subsidies granted in 1882 and 1883. The aggregate of the subsidies granted to this company is \$775,095.

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.

Up to the 31st of December, 1887, the location of the road has been approved by Orders in Council for a distance of 140 miles north from St. Raymond, and the company have notified the Department that they are ready for a further inspection up to the 140th mile.

Up to the close of the fiscal year 1886-87, there had been paid a total subsidy of 457,991. Since that date a further sum of \$189,293 has been paid, making a total up to the 31st of December, 1887, of \$647,284.

Short Line.

In what is known as the "short line" is comprised a scheme for connecting the city of Montreal, as the commercial capital of the Dominion, with Canadian Atlantic ports, by the shortest and best practicable route. This has for some years past been the subject of attention in Parliament, and in furtherance of it subsidies have, from time to time, been granted; companies have been formed and surveys have been made, both by private parties and by the Government, the outcome being that arrangements have been entered into by which it is hoped that the desired end will be obtained. The scheme may be divided into two sections, namely, — work east of Moncton and west of Moncton.

East of Moncton—Line to Sydney and Louisbourg.

(Nos. 9, 21.)

As a link in the proposed railway connection with the north-east of Cape Breton, the construction of a line, about 70 miles long, between Oxford and New Glasgow, connecting the Intercolonial Railway with the Eastern Extension Rail-

way, and avoiding a long *détour*, was authorized in 1882, a subsidy of \$224,000 being voted by Parliament for this work.

Under date the 28th July, 1882, a contract was entered into with the Montreal and European Short Line Railway Company for the building of this road, the work to be completed by the 1st of January, 1884.

The company commenced work and continued until the summer of 1883, when they ceased operations. The contract, accordingly, became null and void. As the subsidy was to be paid upon the completion of each ten mile section, and as no one section was completed, no portion of the subsidy was paid.

In the year 1885, the following appropriation was voted by Parliament:—

In aid of the Short Line Railway in Nova Scotia, for settling the unpaid claims of sub-contractors and others for labour, board, etc., in the construction of the said railway between Oxford and New Glasgow, and for acquiring their rights in the railway and in the said claims, the expenditure to be under Order in Council, and to be a first charge on the subsidy for such railway under 45 Victoria, chapter 14..... \$125,000

Under an Order in Council of the 14th August, 1885, a special commissioner was appointed, through whom a number of these claims were settled. In 1886 Parliament voted a further sum of \$25,000 for the same purpose and the commissioner has obtained full receipts and assignments from the company's contractors and other parties having interest in the road, the payments made covering liabilities of the company incurred for the construction of the road prior to the cessation of works in August, 1883. Notwithstanding the fact that there have been submitted various propositions from capitalists and others having in view the construction of the short line railway embracing Cape Breton, nothing definite or satisfactory has been arrived at, and consequently it was determined that, rather than delay longer the giving to the people of Cape Breton the advantages of railway communication, the Government should, itself, construct a line through the island.

Cape Breton Railway.

By the Act 49 Vic., ch. 14 (1886) authority was given for the construction, as a public work, of a railway from a point on the Straits of Canso to Louisburg or Sydney, the location to be determined by the Governor in Council.

After a number of surveys had been made on the island, a location from Point Tupper at the Strait of Canso, passing McIntyre Lake, the Grand Narrows and the

South Shore of the Little Bras d'Or Lake to Sydney, with a branch to North Sydney was finally adopted by an Order in Council dated the 29th of October, 1886.

The work was subsequently divided into two sections, the Eastern, about 45 miles long, between Grand Narrows and Sydney, which was let to the lowest tenderer, after public advertisement, on the 28th January, 1887, and the western section between Point Tupper and the Grand Narrows, let, also to the lowest tenderer, on the 27th of July, 1887.

The progress on the Eastern section, between Grand Narrows and Sydney, being unsatisfactory, the work was, in November last, taken out of the hands of the contractors under the terms of their agreement.

The right of way has been acquired, and the owners, in a large number of cases, have been settled with.

The total length of the road from Point Tupper to the point of extension to Sydney and North Sydney is 78 miles, the Sydney extension being 12 and the North Sydney 8 miles, making a total of 98 miles.

The municipalities of both Sydney and North Sydney are providing land for extensions of the road to points in those places which they consider to be more desirable than the termini fixed by the Government location.

West of Moncton—Atlantic and North-West Railway Company.

(Nos. 20, 63.)

In the session of 1885, after a series of careful surveys of the country, between Montreal and the points from which the harbours named can be reached by existing lines, the decision of Parliament in the matter was expressed by the grant of a subsidy in the following Act, 48:49 Vic., ch. 58:—

“ 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 man-

ner 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 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, from the Maine Central Railway Company, the privilege of acquiring running powers 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 a result an Order in Council was passed on the 14th of June, 1886, dividing the subsidy as follows:—For the portion from the River St. Lawrence to Lennoxville, 100 miles, \$71,100; the portion from Lennoxville to Moose River, a point about 8 miles east of the western boundary between the Province of Quebec and the State of Maine, 89 miles, is covered by the International Railway, already constructed. For the portion, 134 miles long, between Moose River and Mattawamkeag, a station on the Maine Central Railway, \$115,500. From Mattawamkeag to Harvey Station on the New Brunswick Railway, a distance of 81 miles, running arrangements have been made over existing roads. For the portion, 113 miles, between Harvey and a point on the Intercolonial Railway near Salisbury Station, \$63,400. The remaining distance is by the Intercolonial Railway to Moncton, 10 miles, the total distance between the River St. Lawrence and Moncton being 527 miles.

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 work not being completed, no portion of these subsidies had been paid up to the 31st of December, 1887.

The Atlantic and North-West Railway Company having under their charter, 42 Vic., ch. 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 the 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 now 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.

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 No. 59, 117.)

By an Act 43-49 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
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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, 1887, the end of the fiscal year, there had been paid to the Company the sum of \$64,430. Since that date the further sum of \$23,383 has been paid, making a total payment up to the 31st of December, 1887, of \$92,813, covering a distance of 22½ miles.

Témiscouata Railway Company—Rivière du Loup to Edmunston.

(See Nos. 3 and 62.)

Towards the construction of a line from Rivière du Loup or Rivière Ouelle, or from some point between them, to Edmunston, 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 Interoceania Railway at Rivière du Loup to Edmunston. 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. No portion of the subsidy had been paid up to the end of the fiscal year, the 30th of June, 1887, but subsequent to that date payments have been made on Orders in Council, and after due inspection, aggregating up to the 31st of December, 1887, the sum of \$166,184, and covering a distance of 50 miles.

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 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, payment of the full amount of the subsidy applicable to the work, namely, \$14,720, has been authorized by Orders in Council, the last dated the 31st of December, 1887. Of this amount the whole had been paid at that date, except the sum of \$320.

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, undertaking 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 are 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 com-

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pany 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 had not made deposit of money up to the 31st December, 1887.

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 the 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 \$800 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.

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 the handing over to the company concerned of any part of the subsidy.

Alberta and Athabasca Railway Company.

(See No. 142.)

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 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 Athabasca, 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, 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. 140.)

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 \$1.05 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

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contract itself was actually signed on the 12th of September, 1887. Under the agreement with the company they are bound to build, equip and have running by the 1st of January, 1888, 50 miles,

"	"	"	1889,	100	"
"	"	"	1890,	150	"
"	"	"	1891,	150	"
				450	miles.

The first 50 mile section is to be constructed and equipped before the granting of any portion of the subsidy.

Under date the 7th of November, 1887, an extension of time for the completion of the first 50 mile section was granted, namely, to the 1st of August, 1888.

Manitoba and North-Western Railway Company.

(See Nos. 137 and 139.)

By 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 of October, 1884, cancelling previous Orders. The date for completion was fixed by Order in Council of 6th of 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 of December, 1885, they had built and equipped 131 miles of road. An Order in Council of the 2nd of 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 of May, 1886, completion to be by the 31st of December, 1886. Under Orders in Council of the 10th and 21st of September, 1886, the line was permitted to start from Binscarth, the order first named approving the location, to Russell, up to which point the road has been built. This branch, 12 miles long, has been inspected and reported as completed.

At the present date, the 3rd of December, 1887, the main line is in operation from Portage la Prairie to Langenburg, 180 miles.

Manitoba South-Western Colonization Railway Company.

(See No. 136.)

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 43 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 was 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.....	}
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 the 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 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 of 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 60 miles, an Order in Council was passed on the 19th of March, 1887, authorizing conveyance of the subsidy for this distance. At the present date, the 31st December, 1887, the line is in operation from Winnipeg to Glenboro (northern limb) 105 miles; also on the southern limb as far as Deloraine, a point 101 miles west from Manitou, and 203 miles from Winnipeg.

Medicine Hat Railway and Coal Company.

(See No. 144.)

By the Act 50-51 Vic., ch. 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 of December, 1888.

North-Western Coal and Navigation Company.

(See No. 135.)

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. 143.)

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 30th of 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, the works on the remaining distance to the lake, about two miles, being in progress.

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.

Winipeg and Hudson's Bay Railway and Steamship Company.

(See No. 134.)

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 its 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. 25, 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)..... <u>1,600,000</u>

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 February, 1887, the Chief Engineer of Government Railways reported showing the value of work done on 40 miles of the company's road, namely, \$220,000 out of a total cost of \$272,000.

Wood Mountain and Qu'Appelle Railway Company.

(See No. 141.)

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 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 each 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.

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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. The greatest depth of water over the top of the work will be $40\frac{1}{2}$ feet, and the minimum, 15 feet.

ROYAL COMMISSION ON RAILWAYS.

As the issue of discussion in Parliament, last Session, 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 has since that time conducted enquiries in various localities interested. The Commissioners have lately prepared their report ready for submission.

CANALS.

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

1. The River St. Lawrence and Lakes.
2. The 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, 1887, 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.....	157,207 26	.....	5 00	.....	3,470 45	160,682 71
St. Lawrence.....	59,909 43	4,458 45	116 00	16,890 34	26,593 52	107,967 74
Chambly.....	17,323 50	2 00	.....	.....	45 00	17,370 50
Ottawa.....	57,693 83	.....	37 50	.....	31 00	57,762 33
Rideau.....	5,957 80	24 64	.....	211 60	1,346 75	7,540 79
Newcastle District.	359 98	.....	.....	.....	.....	359 98
St. Peter's.....	1,426 47	.....	.....	.....	.....	1,426 47
	299,878 27	4,485 09	158 50	17,101 94	31,486 72	353,110 53

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 2,384 miles—See Appendix No. 8, p. 135.

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 70½ miles; total lockage (or height directly overcome by locks) is 533¼ 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 two parallel locks, the largest being 515 feet long, 80 feet wide, with 16 feet of water on the sills, and a lift of about 18 feet. *

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):—

	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
Cort wall, guard.....	8	3
“ lower entrance.....	9	0
Beaubarnois.....	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

* From certain statements “showing the present condition, growth and requirements of the commerce from Lake Superior by the lower lakes,” published in May, 1887, under the order of the Duluth Chamber of Commerce for the information of commercial organizations interested in the navigation of the great lakes, it appears that the construction of a new and still larger lock is in contemplation, taking the site occupied by the two old locks in 1855. The dimensions of the proposed work would be, length 800 feet, width 100 feet, with 21 feet of water on the sills, the estimated cost being set down as \$1,700,000. For this work an appropriation of \$250,000 was made by Congress in August, 1886.

From statistics furnished with the above, it appears that in 1886 7,424 vessels passed through the existing canal, an increase of 38 per cent. over 1885, and representing over 4,500,000 tons of freight; further, as showing the extent of the commerce of the great lakes, in the year 1884 38,742 United States and 6,021 Canadian vessels, representing a total of 46,939 vessels or 19,645,271 tons passed through the Detroit River.

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.

Beauharnois Canal.—No enlargement works whatever have been commenced on this canal.

Cornwall Canal.—Here, two new locks have been built at the lower end, and are in use. One is under contract at the upper end, and three are untouched. Preparations are being made for the commencement of some of these other works. Out of the eleven and a half miles comprising this canal about ten and a-half remain at the 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 practically completed, leaving one yet to be dealt with. Of the prism of the canal, four miles long, about three quarters of a mile is well advanced towards completion to the requisite depth for a 14 feet navigation.

Galops Canal.—The approach to the upper entrance has been improved, the canal itself, with three locks and a total length of seven and five eighths miles, remains untouched. Full examinations have, however, been made with a view to connecting the upper entrance with the deep water channel below the rapid.

Welland Canal.—The whole of the works, including excavation throughout, are now completed, and the present depth of water on the canal will accommodate 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 has been nearly completed. In the distance between Cornwall and Beauharnois, covering Lake St. Francis, improvement of the channel would be required in a few places, and also between Beauharnois and Lachine, while excavation and clearance of the channel would be necessary over a distance of about four miles.

LACHINE CANAL.

	Old Line.	New Line.
Length of Canal.....	8½ statute miles.	8½ statute miles.
Number of locks.....	5	5
Dimensions of locke.....	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		
{ on sills..... locks....	9 “	14 “
Mean width of new canal.....	150 “	

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 $44\frac{3}{4}$ 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 and side walls, have been built to afford a navigable depth of 14 feet.

The canal was closed on the 30th of November, 1886, and opened on the 5th May, 1887.

No detention to vessels occurred during the year, nor was any damage caused to the works. The water supply during the year has been ample, and the works have been maintained in a state of thorough efficiency, with the exception of two old wooden bridges which require renewal.

A portion of the canal and the basins in Montreal have been lighted by electricity.

The report of the Superintending Engineer gives details of the repairs executed, and shows generally the condition of the canal. The use of the basins by sea-going vessels appears to be very general and the traffic of the canal has been of considerable extent. (App. 7, p. 94.)

BEAUHARNOIS CANAL.

Length of canal.....	11½ statute miles.
Number of locks.....	9
Dimensions of locks.....	200 feet by 45 feet.
Total rise or lockage.....	82½ feet.
Depth of water on sills.....	9 “
Breadth of canal on bottom.....	80 “
Breadth of canal at water surface.....	120 “

This canal commences on the south side of the St. Lawrence, 15¼ miles from the head of the Lachine Canal. It connects Lakes St. Louis and St. Francis, and passes the three rapids known respectively as the Cascades, the Cedars, and the Coteau.

The canal was closed on the 1st of December, 1886, and was reopened for traffic on the 3rd of May, 1887.

No accident or interruption to navigation occurred during the year. (See App. 7, p. 95.)

Nothing has been done towards the enlargement of this canal.

CORNWALL CANAL.

Length of canal.....	11½ statute miles.
Number of locks	6
Dimensions of locks.....	200 feet by 55 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 8th December, 1886, and re opened on the 4th of May, 1887. (See App. 9, p. 107)

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.

Of the four locks still to be dealt with, one is already under contract; also a supply weir, together with works for the improvement of the upper entrance, and arrangements are being made for the commencement of further works either on the summit level or above the town of Cornwall.

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 Williamsburgh Canals.

These canals were closed on the 4th of December, 1886, and re-opened on the 31st of May, 1887.

From a statement furnished by the Superintendent and attached to his report (p. 109) it appears that the lowest point of water level reached during the season of navigation was in January, 1887, on the Farran's Point Canal, where it stood at 8 feet 6 inches on the lower sills of the locks at the foot of the canal. The waters of the St. Lawrence continued high during the season, giving a good depth of water on all these canals. In consequence of the formation of an ice bridge from Croils Island, in February, to both the Canadian and American shores, a serious jam of ice occurred, extending for some miles to the west, and causing much injury in the Spring to the ice breaker and pier of the Farran's Point Canal; the water rising to a height of 20 feet on the lock sill at the foot of the Rapide Plat Canal.

A statement showing the highest and lowest depth of water at the locks on these canals will be found in Appendix 10, p. 109.

Navigation was carried on throughout the season without interruption. (App. 10, p. 108.)

FARRAN'S POINT CANAL.

Length of canal.....	$\frac{3}{4}$ mile.
Number of locks.....	1
Dimensions of locks.....	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 miles
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.

Steps have been taken towards the enlargement of this canal in conformity with the proportions of the general scheme. These 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, will be excavated to an extent sufficient to afford a navigable depth of 14 feet. The works are progressing. The new lock and the works in that vicinity are nearly completed.

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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 is 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 practically completed, and consequently access to this canal is found to be greatly facilitated. Preparations are being made with a view to extend the 14 feet navigation down to deep water below the rapids, placing a guard lock at that point.

GALOPS RAPIDS IMPROVEMENT.

The Galops Rapids, about seven miles below Prescott, the most shallow of the three passed by the Galops Canal, are being 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 the work of drilling and blasting is completed, but the broken up rock consequent upon these operations has to be removed by the dredging machine, and this work is in progress. It is one of considerable difficulty, owing to the rapidity of the current and the necessity of avoiding interruption to navigation. (See Appendix 16, page 132.)

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 { lift.....	26	} lift 25 guard 1
{ guard.....	1	
Dimensions.....	1 lock 270 x 45 1 " 200 x 45 1 (tidal) 230 x 45 24 150 x 26 $\frac{1}{2}$	} 270 feet x 45 feet.
Total rise or lockage.....	326 $\frac{3}{4}$ feet.		326$\frac{3}{4}$ feet.
Depth of water on sills.....	10 $\frac{1}{4}$ "	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 26 $\frac{1}{2}$ 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 26 $\frac{1}{2}$ 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	1 $\frac{3}{4}$ miles.
Number of locks.....	1
Dimension of locks	185 by 45 feet.
Total rise, or lockage.....	7 $\frac{1}{2}$ 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, 11 $\frac{3}{4}$ 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 4th December, 1886, and reopened, on the 4th May, 1887.

On pages 116 and 117 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 for the old locks, in the months of June, 1886 and 1887, and for the new lock in the month of June, 1887. From this it appears that the average height of water in June, 1887, on the new lock at Port Dalhousie, was 17 feet 10 inches, and for the new lock at Port Colborne 16 feet 6 inches.

NEW CANAL.

No serious accident 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. 11, p. 111.)

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. 11, p. 118.)

DEEPENING OF THE WELLAND CANAL.

Although the immediate object of the works for the enlarged Welland Canal now completed and in use, was the accommodation of vessels drawing 12
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feet of water, it became clear, after the commencement of the works, that a greater depth was desirable in the interests of trade, and the matter having been discussed in Parliament, and the necessary provision made, it was decided that the foundations of all permanent structures on which operations had not advanced too far to render alteration judicious should be built with a view to the ultimate adoption of a navigable depth of 14 feet throughout the canal. This course was adopted, and these locks and other permanent structures were so built. The rock excavation and the harbour works were also carried out to accord with the scheme. The work, therefore, remaining to be done at the beginning of the past fiscal year to afford the navigable depth of 14 feet throughout the new canal was the raising of the locks, weirs, and banks, and the works connected with them, from the second lock above Port Dalhousie up to the 24th lock at Thorold; also, the deepening of the summit level from Allanburgh upwards to Ramey's Bend, a distance of about $11\frac{1}{2}$ miles.

Provision having been made by appropriations granted by Parliament for the work, an Order in Council was passed on the 12th of April, 1886, awarding contracts for the several sections to be dealt with.

The works have been now completed, including those for the passage of the waters of the canal across the Welland or Chippewa River by a massive stone aqueduct, and the connection between the canal and the aqueduct being opened, vessels drawing 14 feet of water have passed through the canal without difficulty since the commencement of the season.

The following details respecting the aqueduct, though given in last year's report should find place in the present:—

This work consists of a channel way built on arches through which the river waters pass. These arches were built without accident or interruption to the course of the river, one half of the stream being dealt with at a time.

The length of the aqueduct, including the wing at either end, is about 422 feet, and the breadth, over all, $120\frac{1}{2}$ feet. The mean width of the channel way or prism is 86 feet, the bottom being 5 feet below the low water line of the river, and $11\frac{1}{2}$ feet below the high water level. The height from the bottom of the prism to the top of the coping is 26 feet; the height of the whole work from the foundations is $45\frac{3}{4}$ feet, and the segmental arches through which the waters of the river are passed under the canal waters are six in number, each of 40 feet span.

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
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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 $\frac{5}{8}$ miles.

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

- The St. Anne's Lock ;
- Carillon Canal ;
- Grenville Canal ;
- Rideau Canal ;

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

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

Sections of Navigation.	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 $\frac{3}{8}$
From Carillon Canal to Grenville Canal.....	6 $\frac{1}{4}$	57 $\frac{5}{8}$
The Grenville Canal.....	$\frac{3}{4}$	63 $\frac{3}{8}$
From the Grenville Canal to entrance Rideau Navigation.	56	119 $\frac{3}{8}$
Rideau Navigation, ending at Kingston.....	126 $\frac{1}{4}$	245 $\frac{5}{8}$

STE. ANNE'S LOCK.

	Old Lock.	New Lock.
Length of canal.....	$\frac{1}{8}$ mile.	$\frac{1}{8}$ mille.
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, 23½ miles from Montreal Harbour.

This lock was closed to navigation on the 27th November, 1886, and re-opened on the 4th of May, 1887.

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

Both the old and the new locks are available.

NEW WORKS.

The work of straightening and deepening the channel above the new lock was practically completed before the close of the fiscal year. The length of the improved channel is 4,700 feet, the breadth at bottom 100 feet, and the depth, at lowest water, 10 feet. (App. 8, p. 105.)

THE CARILLON CANAL.

Length of canal.....	¾ 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, 1886, and reopened on the 2nd of May, 1887.

No interruption to traffic has taken place. (App. 8, p. 105.)

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, 1886, and reopened on the 2nd of May, 1887.

(See App. 8, p. 106.)

 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.....	6 "
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 Deschenes, 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 navigable route of 80 miles with a minimum depth of 7 feet at extreme low water, between Des Joachims and Bryson; making a total above and below Culbute of 117 miles.

The canal was closed at the end of November, 1886, and re-opened on the 1st May, 1887. (App 8, p. 106.)

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

For table of distances of stations between Ottawa and Kingston, see Appendix 19, p. 136.

outlet, forms the River Cataraqui. This river, rendered navigable by dams at various points, affords a line of navigation to Kingston.

The navigation stopped at Kingston Mills on the 30th November, 1886, and recommenced on the 2nd of May, 1887.

At Ottawa, navigation stopped on the 29th of November, 1886, and recommenced on the 3rd May, 1887.

Navigation throughout the year was uninterrupted.

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, namely, at Newboro, the first descending lock, by the middle of September, and on the Kingston Mills reach by the 30th of July. The spring freshets on the Rideau were higher than usual, and the road bridges between the Hog's Back and the Ottawa (with the exception of the new iron bridges at New Edinburgh) were all damaged.

In 1885 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, 1885, 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 greater portion of the work has been executed. (App. 12 p. 125.)

TAY CANAL.

This canal, when completed, will be a branch of the Rideau Canal, affording communication between Beveridge'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, were carried on during the fiscal year. Both locks and the dam are completed, and the canal from the Lake Rideau to the River Tay, a distance of about $1\frac{1}{4}$ miles, is practically complete, giving communication to the town of Perth by way of the river. (App. 13, p. 127.)

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
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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 30th of November, 1886, and re-opened on the 2nd of May, 1887.

It should be observed that this lock, which was constructed in 1849, stands in need of extensive repair.

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, 1886, and was reopened on the 5th of May, 1887.

Both at Chambly and at St. Johns the entrance piers were extensively damaged by ice. The latter so seriously as to require rebuilding.

Owing to the unprecedentedly high water in the Spring on the River Richelieu, the canal built 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.

During the winter, a railway swing bridge across the canal at St. Johns was built without interruption to navigation by the Atlantic and North Western Railway Company.

The traffic on this canal has shown great increase during this year. No accident or interruption to navigation occurred. (See App. 7, p. 96.)

RIVER RICHELIEU.

The work of surveying the River Richelieu between St. Johns and Rouae's Point was continued during the year. The whole of the hydrographic surveys of
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the River between the points named has now been completed, and maps and a chart of the River are being made. (See page 104.)

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 58 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 4th of January 1887, and re-opened on the 20th of April, 1887.

The works of the canal are in good order, with the exception of the old retaining wall at the sea entrance, destroyed by the sea-worm. A special appropriation for the repair of this work was voted last year, and arrangements were made to assure the completion of the repairs in the fall of 1887. The traffic returns show the passage of 794 vessels bound north, and 655 vessels bound south. (Ap. 15, p. 130.)

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 166 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.

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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. Of this distance, 155 miles are navigable for vessels of light draught.

The following table gives the distances 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 Burleigh.....	12	
“ Burleigh Rapids.....		1
“ Burleigh Rapids to Buckhorn Rapids.....	7	
	Navigable. Miles.	Unnavigable. Miles.
From Buckhorn Rapids.....		1
“ Buckhorn Dam to Lindsay.....	36¼	
	126½	34¾
“ Lindsay to Port Perry at the head of Lake Scugog	28¾	
	155¼	34¾
Total distance, Bay of Quinté to Port Perry.....		190
Passing to Fenelon Falls the distance from Buckhorn Dam to Fenelon is.....		31½

The following is a list of the works :—

Chisholm’s Rapids.

	Distance from Trenton in miles.
The work here consists of a canal and lock, a dam and slide	15½

Percy Landing.

A retaining boom for saw logs.....	28½
------------------------------------	-----

Campbellford.

Guide booms.....	34¾
------------------	-----

Middle Falls.

The work consists of 4 dams and 2 slides..... 37 $\frac{3}{4}$

Crow Bay.

A retaining boom..... 28

Heeley's Falls.

A dam and slide..... 42 $\frac{3}{4}$

Crook's Rapids, Hastings.

The works consist of 1 lock, 1 dam and slide for timber..... 34 $\frac{5}{8}$

Whitlas' Rapids.

The works, situated below Peterboro', consist of a lock, dam and canal..... 92 $\frac{7}{8}$

Little Lake.

The works consist 3 piers and 1 boom..... 94

Burleigh.

Timber slides, 2 dams, 3 locks (new)..... 101

Buckhorn Rapids.

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, Ball, Buckhorn and Chemong. 1 lock, 1 slide (new works)..... 125

Bobcaygeon.

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..... 140 $\frac{3}{4}$

Fenelon Falls.

A large slide and booms, 2 combined locks (new)..... 155 $\frac{3}{4}$

Lindsay.

The old lock having become useless, was 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..... 161 $\frac{1}{4}$

The navigation is, by this work, extended to Port Perry, Lake Scugog..... 190

The dimensions of Dominion locks are 133 feet 6 inches x 33 feet, with 5 feet depth of water on the sills.

The Lindsay lock was constructed by, and is under the control of, the Province of Ontario.

The water on the several reaches was maintained at the standard level, namely 5 feet on the lock sills.

The number of lockages on the several canals was 1,574, as against 2,193 vessels passed during the season of 1885-86.

Repairs of somewhat extensive character was made to the Lindsay dam.

There was no interruption to navigation during the season.

Navigation ceased on the 23rd of November 1886, and re-opened on the 27th March 1887. (App. 14, p. 128.)

NEW WORKS.

The new works for the improvement of the Trent Valley navigation, for the construction of which appropriations have been voted by Parliament, 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. Their completion will give communication between Lakefield, $9\frac{1}{2}$ miles from Peterboro', and Balsam Lake, the headwaters of the system, opening up a total of about 150 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, and was found to be effective in maintaining the water level above it.

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 $2\frac{1}{2}$ 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 in progress, and its completion in readiness for navigation next season is expected.

At Buckhorn Rapids, 7 miles from Barleigh Rapids, a canal of about one-fourth of a mile long has been constructed, having one lift-lock. The work will be completed in readiness for navigation next season.

At Fenelon Falls, 32 miles from Buckhorn Rapids, 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. 14, p. 128.)

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 $9\frac{1}{2}$ 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 30 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.

A certain amount of excavation remains to be done to obtain the full contemplated width, and some bottom rock has to be removed near the Brighton end; also, a channel way must be dredged through a part of the harbour. The piers at both the eastern and western entrances of the canal are well advanced. 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. (App. 16, p. 131.)

SAULT STE. MARIE CANAL.

Surveys have been carried on with a view to the construction of a canal on the Canadian side of the River Ste. Marie. A thorough examination of the locality has

[1887]

cv

been made, and such information has been gathered as will pave the way for canal construction and the utilization of an extensive system of water power at this point.

ROYAL COMMISSION ON LACHINE CANAL LEASES.

If 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 have 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, but had not reported at the date of the present report, 31st Dec. 1887.

I have the honour to be,

Your Excellency's most obedient servant,

J. H. POPE,

Minister of Railways and Canals.

31st December, 1887.

APPENDICES.

APPENDIX No. I.

STATEMENT showing the amount expended by the Department of Railways and Canals,
Dominion of Canada, during the Fiscal Year ended 30th June, 1887.

Name of Work.	Construction.		Repairs.		Staff and Maintenance.	
	\$	cts.	\$	cts.	\$	cts.
CANALS.						
Lachine	28,772	52	22,567	81	53,113	97
do —Income.....	12,981	59				
do damages to vessels—Income	2,638	79				
Cornwall	46,966	43	12,100	29	17,520	54
Williamsburg	115,853	00	7,904	76	7,635	54
Beauharnois—Income	3,633	57	14,999	88	18,867	45
St. Lawrence.....	74,465	50				
Welland	200,559	69	76,365	80	109,371	69
do deepening to 14 ft.....	861,744	07				
do damages	8,770	11				
do back ditches—Income.....	3,828	67				
do Ports Maitland and Colborne				1,075		
St. Anne's.....	45,276	08		1,499		2,537
do —Income.....	6,054	10				
Carillon	869	14				
Grenville.....	19,877	97	10,554	41	20,011	36
Culbute	7,760	88		967		730
Rideau—Income.....	20,823	96		18,565		29,440
Trent	179,541	63		6,008		1,938
Murray	142,535	47				
St. Ours				5,864		2,175
Chambly—Income	17,911	17	20,071	37	19,053	62
St. Peter's	1,087	75		343		2,777
do —Income.....	750	00				
Surveys do	7,901	01				
Arbitrations do	6,192	53				
Tax	49,617	92				
Dredge vessels	4,345	91		649		04
Royal Commission—Income.....	2,433	76				
Total on Canals.....	1,873,193	22	199,537	88	285,172	62
RAILWAYS.						
Pacific	471,794	81				
do subsidy.....	460,087	13				
Surveys generally.....	8,514	30				
do Cape Breton and other railways.....	8,588	73				
Statistics	1,200	00				
Intercolonial.....	697,302	51			2,828,115	58
do Eastern Extension					94,254	04
do Windsor Branch					26,042	33
Prince Edward Island	5,800	00			204,237	45
Subsidies general	1,406,533	00				
Short Line Railway claims	24,157	32				
Carleton Branch	2,299	62				
Cape Breton	76,501	89				
Windsor and Annapolis	125,936	75				
Royal Commission.....	13,831	04				
Albert Railway.....	11,436	81				
Total on Railways	3,313,983	91			3,152,649	40
Total on Railways and Canals.....	5,187,177	13	199,537	88	3,437,822	02
Total amount expended.....			\$8,824,537		03	
Payment to Grand Trunk Railway Co. on account of fuel					35,373	

J. BAINE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, 31st December, 1887.

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	178,618 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	309,566 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	.....
Total		9,099,746 63	1,624,632 01

No. 2.

enlargement of Canals of the Dominion of Canada, up to 30th June, 1887,
included)

Cornwall Canal.	St Lawrence Canals. Not Apportioned	Williamsburg Canals.	St. Lawrence. — Chain Vessel and Improvement 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			622 52	8,591 04	1,252,924 75
53,918 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
46,866 43		115,853 00	74,437 31		1,091,073 87
2,734,089 03	116,821 31	1,697,711 81	534,992 91	142,730 72	23,062,615 33

APPENDIX

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

By whom Expenditure incurred.	Year ending 30th June.	Ste. Anne'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	326,203 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	.....
Total .....	.....	1,123,847 18	3,984,855 25	388,195 95	4,134,768 86

* Expenditure not given.

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.	Total.
\$ 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						93,020 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 92	1,803,698 16
651,745 01	608,443 34	9,992 75	680,565 58	537,438 84	263,363 32	51,395,555 86

APPENDIX No. 3.—STATEMENT showing Subsidies voted for Railways as to which contracts have been entered into and payments made, up to 30th June, 1887.

Subsidies Voted.		Amount.	Railways.					Payments.				Total to 30th June, 1887.
Authority.			1883-84.	1884-85.	1885-86.	1886-87.	\$	\$	\$	\$		
46 Vic, cap 25	do	156,800	\$ 144,000									\$ 144,000
45 do 14	do	384,000										
46 do 25	do	80,000	32,000	37,027	202,219	186,745						457,991
48-9 do 59	do	96,000										
46 do 25	do	89,600	32,000	57,600								89,600
47 do 8	do	272,000		49,090	60,680	41,000						150,670
46 do 25	do	115,200		32,000	61,200	76,800						170,000
47 do 8	do	76,800										
47 do 8	do	32,000										
47 do 8	do	48,000		25,088								25,088
45 do 14	do	650,000		48,000								48,000
46 do 25	do	660,000		154,440	78,370							1,284,400
47 do 8	do	125,000										
48-9 do 59	do	19,200										
48-9 do 10	do	32,000										
48-9 do 19	do	140,800										
47 do 8	do	211,200										
48-9 do 59	do	15,000										
48-9 do 59	do	30,000										
46 do 25	do	38,400										
47 do 8	do	22,400										
48-9 do 59	do	96,000										
47 do 6	do	750,000										
47 do 8	do	96,000										
46 do 25	do	320,000										
47 do 8	do	300,000										
48-9 do 59	do	118,400										
48-9 do 59	do	317,600										
49 do 10	do	11,200										
49 do 10	do	37,000										
47 do 8	do	160,000										
49 do 10	do	93,000										
47 do 8	do	51,200										
48-9 do 59	do	25,600										
			208,000	403,245	2,171,349	1,468,633						4,189,027

DEPARTMENT OF RAILWAYS AND CANALS,
December 31st, 1887.
J. B. INE,
Accountant.

APPENDIX No. 4.

CANADIAN PACIFIC RAILWAY.

OFFICE OF THE ENGINEER IN CHIEF,
OTTAWA, 10th November, 1887.

SIR,—On the 12th October, 1886, I reported the progress made with the works of construction of the Canadian Pacific Railway up to that date, and now it again becomes my duty to report progress.

THE LAKE SUPERIOR AND WESTERN SECTIONS.

The only work done upon these sections since my report of 12th October, 1886, is the renewal of the Port Moody wharf with iron piles; this work was completed in November last, and appears to be a good, sound and solid piece of work. In my report above referred to, I gave my opinion that the slopes of some of the cuttings in the valleys of the Fraser and Thompson Rivers should be flattened, and exposed stones and loose rocks removed; but nothing definite in this connection has yet been decided on, but I have had engineers upon the ground, watching the action of the weather and the freshets in the rivers upon the work generally, from the Kicking Horse Pass to Port Moody, and otherwise engaged in connection with these works. The Canadian Pacific Railway Company have taken exception to the section of the road between Savona's and Emory's Bar, alleging that the road has not been built of as high a standard as they expected it to be, or as called for by their contract, and this is, I understand, to be a subject of arbitration. I passed over these sections of road in October last, when they were certainly in excellent running condition.

THE EASTERN AND CENTRAL SECTIONS.

These sections extending from Callander to Port Arthur and Red River to Kamloops were accepted by the Government in November last as completed under the contract, with the reservation that when it should be found expedient to improve the gradients near Mount Stephen, it should be in the power of the Government to cause such improvement to be made without further expense to the public, and since that time the road through from Montreal to Vancouver has been in successful operation, except in so far as the traffic was impeded for a short time during last winter by the heavy snows in the mountains.

To guard against a repetition of this, the snow shed system has been extended during the past summer at a heavy cost, and it is now confidently expected that no serious delays will in future be caused by the snow slides in the mountains.

I have the honor to be, Sir,

Your obedient servant,

COLLINGWOOD SCHREIBER,
Chief Engineer, Canadian Pacific Railway.

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

APPENDIX No. 5.

CANADIAN GOVERNMENT RAILWAYS.

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

OTTAWA, 7th November, 1887.

Mileage Table of the Canadian Government Railways system in operation.

	Miles.
Intercolonial Railway	880
Eastern Extension Railway.....	80
Windsor Branch Railway.....	32
Prince Edward Island Railway	212
	1,204

SIR,—I have the honor to submit herewith the reports and accounts of the working of the railways in operation under my charge, during the year ended the 30th June, 1887.

The Indiantown Branch of the Intercolonial Railway, 14 miles in length, was opened for traffic on the 1st December last, making the aggregate length of the Government Railways in operation at the close of the year 1886-87, 1,204 miles, the average over the whole year being 1,191 miles.

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

Name of Railway.	Average Mileage for Year.	—	Amount.	Profit.	Loss.
			\$ cts.	\$ cts.	\$ cts.
Intercolonial	1,191	Earnings	2,596,009 83		
		Working expenses....	2,828,115 58		232,105 75
Eastern Extension.....	80	Earnings	64,107 10		
		Working expenses....	94,254 04		30,146 94
Windsor Branch.....	32	One-third earnings...	25,327 58		
		Working expenses....	26,042 33		714 75
Prince Edward Island.....	212	Earnings	155,303 37		
		Working expenses....	204,237 45		48,934 08
Total.....					311,901 52

INTERCOLONIAL RAILWAY.

The earnings of this railway for the year under consideration fell short of the working expenses by \$232,105.75 (*vide ante*).

The causes of this were, the unusually heavy expense of keeping the track open for traffic during the winter owing to the almost unprecedentedly severe storms of snow and wind; and the cost of the numerous additions and improvements, such as are usually charged to capital account by railway companies, but which have been treated as forming part of the working expenses of the Intercolonial.

The following statement 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.	Number 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	1,506,298 48	561,924	581,483
1880-81.....	840	1,760,393 92	725,577	631,245
1881-82.....	840	2,079,262 66	838,956	779,994
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

It thus appears that the gross earnings, the weight of freight, and the number of passengers carried, continue to increase. The increase in both freight and passenger traffic is about equally divided between local and through business, the net results are, nevertheless, unsatisfactory, and, I fear, will not improve so long as a large quantity of coal continues to be carried to Quebec and Ontario at the present low rates, and the cost of additions and improvements to the property charged against working expenses. Of the 753,480 barrels of flour carried, 711,528 passed down from Ontario by way of Chaudière Junction.

Although the statement I am about to make does not apply to the fiscal year under consideration, it may be interesting to the Minister to know that a very considerable trade in oysters is being developed. From the 16th September to the 8th October, 1887, the shipments over the Intercolonial from Pointe du Chêne were:—

	Barrels.
To Montreal.....	3,143
Other stations on the G. T. R.....	33
Quebec.....	3,081
St. John, N. B.....	981
Halifax.....	89
Moncton.....	221
Amherst.....	103
Other stations on the I. C. R.....	213
Total.....	7,864

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The sugar refining interests of the Maritime Provinces appear to be in a prosperous condition, judging by the shipments for the year, which were:—

	Barrels.
From Halifax.....	88,996
Moncton.....	56,992
Total	<u>143,988</u>

Considering the fact that these refineries have only been in operation for a few years, the output is certainly very encouraging.

The shipments of coal from the Maritime to the Western Provinces indicate a rapidly growing trade, having increased from 570 tons in 1879-80 to 175,512 in 1886-87.

The quantity of grain passing through the elevator at Halifax from the time when it was put in operation until the close of the last fiscal year has been:—

	Bushels.
In 1882-83	31,011
1883-84	73,387
1884-85	244,933
1885-86	378,739
1886-87	575,880
Total.....	<u>1,303,950</u>

These figures will suffice to show that the grain traffic *via* Halifax continues to expand year by year.

The bridge over the St. John River at the city of St. John, affording an outlet by rail to the traffic of the Intercolonial, by means of the New Brunswick Railway, to the western portion of New Brunswick to the cities of Portland, Boston and New York, and to the United States generally, has now been open for traffic for over a year; but owing to the operation of the Inter-State Commerce Law, the traffic in that direction has not increased as it was expected to do; that of the Intercolonial seeming still to follow mainly the old water route from St. John to Eastport, Portland and Boston; so that the measure of advantage derived by the Intercolonial Railway from the construction of this bridge is but small at present. The volume of trade in this direction would, no doubt, be much greater were it untrammelled by this law which handicaps the New Brunswick Railway so heavily.

The following statement shows the quantity and classes of rolling stock purchased on capital account up to 30th June, 1886, and 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, 1886	164	11	69	6	76	46	79	1529	1442	1828	31	10	
Additions in 1886-87.....		1				1				210			
	164	12	69	6	76	47	79	1529	1442	2038	31	10	

The following rolling stock has been rebuilt during the year 1886-87 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.							
1886-87.....	1.....	10.....	167.....	107.....	

In September, 1886, the sleeping car "Miramichi," was burned while attached to the Quebec express train. The origin of the fire is unknown. The cost of renewing this car has not entered into the working expenses of the year 1886-87.

This is the first full year in which the sleeping car service has been conducted by the Railway Department, and this has been done, so far as I can learn, fairly to the satisfaction of the travelling public. The results of this service are not so favorable as could be wished. The cost of maintaining and operating these cars was some \$24,017, and the gross receipts \$31,864, leaving a profit of \$7,847. An additional parlor car has been put on the road between Halifax and St. John, making two in all, but so far they do not appear to be appreciated by the travelling public, being very poorly patronized. The second class sleepers continue to be well patronized, and are, no doubt, a great comfort to passengers making long journeys.

The European mails have continued to be landed at Halifax in winter, but owing to a succession of heavy snow storms accompanied by gales of wind, they did not during the last winter season make their trips with their usual regularity and speed. During the summer they were landed at Rimouski, and made good time over the railway. Sleeping cars are being provided for the comfort of passengers landed from the mail steamers at Halifax and Rimouski.

Seventy eight miles of 67 lbs. steel rails have been substituted for the 56 lbs rails, to meet the wear caused by the heavy traffic and the increased weight of the loads carried.

The engines and snow ploughs received a severe shaking up in combatting the snow last winter, which has largely increased the working expenses. Nevertheless both road and rolling stock are in good serviceable condition, and the force in the workshop has been increased to insure their being maintained in a high state of efficiency.

Capital Account.

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

Construction of branch lines.....	\$501,735 01
Increased accommodation at St. John and Halifax.....	31,160 73
Old claims in connection with original construction..	4,146 35
Rolling stock.....	160,260 42
Judgment in case of Windsor and Annapolis Railway via Western Counties Railway and the Queen ...	125,936 75
Total.....	\$823,239 26

The last named item of the above expenditure, having been voted by Parliament under this heading, had, I understand, to be so charged, but it does not appear to be a proper charge against the Intercolonial Railway.

The total cost of the road and rolling stock up to the 30th June, 1887, is as follows:—

Road.....	\$38,696,663 08
Rolling stock.....	6,299,319 34
Total.....	\$44,995,982 42

The Pictou Town Branch, fourteen miles in length, was not fully completed at the close of the year, and the work of filling in, &c., at the Pictou terminus, not included in the contract with Mr. M. J. Hogan, will not be finished for some little time to come. It is the intention, however, to put the branch under traffic, some time during November instant, when the ferry between Pictou Landing and the town will be discontinued, as arranged at the time when the construction of the branch was undertaken, this being one of the conditions attaching thereto. Rolling stock for the several branches has not yet been provided, and it will be necessary to make provision in the estimates for their service during the current year.

EASTERN EXTENSION RAILWAY.

This road continues to be worked by the officers of the Intercolonial Railway, the accounts being kept distinct. It is eighty miles in length, as last reported.

Capital Account.

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

No expenditure was made on capital account during the year, but it will be necessary to give additional wharf and siding accommodation at Mulgrave, and to lay in a proper water service throughout the line during the present fiscal year. The company originally, as an experiment, laid in the Haggas' water system, which has been found quite unsuited to the traffic, and hence the necessity for one more permanent and efficient. These works should form charges against capital, and I purpose to submit an estimate of cost for the Minister's consideration.

Operating Account.

I stated in my last annual report that the renewals of bridges, must be numerous and costly for the next few years. Such has proved to be the case during the year under consideration the cost of renewals of bridges, ties and fences having been very heavy.

The results of the year's operations, as already stated, were:—

Working expenses.....	\$94,254 04
Earnings.....	64,107 10
Loss.....	\$30,146 94

As I have also pointed out the expenses were very heavy by reason of the extensive renewals of works and were about the same as in the previous year. The earnings have fallen off by several thousand dollars, owing largely to the loss of the transport of fish, of which, in the year 1884-85, over 20,000 barrels passed over the Eastern Extension, while, during the last fiscal year, there were none whatever.

The train service has been very much improved, the train leaving Halifax for Port Mulgrave, in the morning and returning in the evening, being run as a through train, thus avoiding the necessity of changing cars at New Glasgow, which existed previously. It was also put on sharper time, to accommodate the travel through Cape Breton and the Bras d'Or Lakes. The result here has been somewhat disappoint-

ing, the travel having fallen off from some unexplained cause, instead of increasing as was expected.

The road and rolling stock have been well maintained, and are in a good state of efficiency, considering the age of the structures.

WINDSOR BRANCH.

This railway is still operated by the Windsor and Annapolis Railway Company, as in former years, the Government maintaining the way and works, and receiving one-third of the gross earnings. The result of the year's operations may be summed up as follows:—

One-third gross earnings paid over by the company....	\$25,327 58
Cost of maintenance of way and works.....	26,042 33
Loss.....	<u>\$ 714 75</u>

The excess of the cost of maintenance over the one-third earnings is more than accounted for by the expenditure upon additional sidings, hay shed, and the substitution of steel for iron rails. The road is in fine running order.

PRINCE EDWARD ISLAND RAILWAY.

An increase in the earnings of this railway had been confidently looked for, but the expectations in this respect have not been realized, the earnings being about equal to those of the preceding year, which were not considered satisfactory. The passenger traffic has, as was expected, increased both in the number carried and the amount earned; but there is a falling off in the freight business, both in tonnage and earnings. This is very disappointing and quite unexpected, and I can assign no cause for it. The earnings during the last two years were:

1885-86	\$155,584 36
1886-87	155,303 37
Decrease.....	<u>\$ 280 99</u>

It is gratifying to observe that the working expenses of 1886-7, notwithstanding the cost of additions and improvements to the property charged to this account, are less by several thousand dollars than during the preceding year, as will appear from the following figures:—

1885-6.....	\$216,744 34
1886-7.....	204,237 45
Decrease.....	<u>\$ 12,506 89</u>

The net results for the last two years compare as follows:—

	1885-86.	1886-87.
Working expenses.....	\$216,744 34	\$204,237 45
Earnings.....	155,584 36	155,303 37
Loss.....	<u>\$ 61,159 98</u>	<u>\$ 48,934 08</u>

The winter mail service between the mainland and Charlottetown, *via* Cape Traverse by ice boats across the Straits of Northumberland in connection with the Prince Edward Island Railway, was well maintained, and in addition to the special mail trains, a daily train service has been put on the Cape Traverse Branch. The business done on this train is very light, but the daily service was granted by the

Minister to meet the wishes of farmers, merchants and others residing in that district, who urged upon him the necessity for such accommodation.

The road and rolling stock are in first class condition, and it can only be regretted that a road with such a carrying capacity should have so light a traffic.

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 and cattle cars.....	175
Platform cars.....	125
Conductors' vans.....	3
Pay car.....	1
Snow ploughs.....	8
Flangers.....	7

It will, therefore, be seen that no addition has been made to the rolling stock during the year.

Capital Account.

Cost of road up to 30th June, 1887.....	\$3,283,051 89
do rolling stock up to 30th June, 1887.....	458,729 00
Total.....	<u>\$3,741,780 89</u>

The expenditure charged to capital account during the year was \$5,800, which covered the cost of the extension of the Charlottetown Station yard and the construction of an additional coal shed at the same point.

GENERAL REMARKS.

The accounts of the Government Railways are submitted herewith and also the very interesting reports of the Chief Superintendent, the Superintendents, Chief Engineer and Mechanical Superintendents.

No effort has been spared by the officers to attract business to the several Government Railways on which they are employed.

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. 5a.

INTERCOLONIAL RAILWAY.

OFFICE OF THE CHIEF SUPERINTENDENT,

MONCTON, N.B., 29th October, 1887.

SIR,—I have the honor to submit the following report on the working of the Intercolonial Railway, for the fiscal year which ended 30th June, 1887.

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

- No. 1. Capital account.
 2. Revenue account.
 3. Locomotive power. (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 836 miles.

On the 1st December, 1886, the Indian Town Branch, 14 miles in length, was opened for traffic.

CAPITAL ACCOUNT.

The total cost of road and equipment on 30th June,

1886, was.....\$41,172,743 16

The additions during the year were as follows:—

For Halifax Extension.....	\$ 12,613 07
Increased accommodation, St. John.....	18 547 66
Completion of the Intercolonial Railway	4,146 35
Rolling stock	67,516 37
Sleeping cars	14,237 11
Applying air brakes to locomotives.....	78,506 94
St. Charles Branch	230,103 79
Dartmouth Branch.....	5,334 92
Dalhousie Branch	2,082 50
Rivière du Loup Town Branch.....	6,938 87
Indian Town Branch	9,141 45
Pictou Town Branch	248,133 48
Windsor and Annapolis Railway vs. Western Counties Railway and the Queen	125,936 75

823,239 26

Making the total cost to the 30th June, 1887 \$44,995,982 42

The work of constructing the Indian Town Branch was nearly completed at the close of the year.

In the spring of 1886 the construction of the Pictou Town Branch was commenced. Its total length is 14 miles, composed partly of existing railways and partly of new railway. Three miles from Stellarton to Westville were purchased from the Acadia Coal Company, two miles from Westville to Middle River were purchased from the Nova Scotia Coal Company, the balance 9 miles from Middle River to Pictou being new.

The construction of the new part and the repair of the part purchased are being done by contract.

The expenditure on the St. Charles Branch was chiefly for the settlement of claims for land damages.

REVENUE ACCOUNT.

The gross earnings for the year were \$2,596,009.83, being a considerable increase over last year.

Earnings in 1886-87.....	\$2,596,009 83
do 1885-86.....	2,383,200 77
Increase.....	<u>\$ 212,809 06</u>

This increase was in both passenger and freight traffic, the increase of passenger traffic being about \$60,000 and of freight traffic about \$150,000. There was an increase over the previous year in the quantity of freight carried of 122,000 tons.

	Tons.
Weight of freight carried in 1886-87.....	1,131,334
do do 1885-86.....	1,008,545
Increase.....	<u>122,789</u>

The increase of tonnage has been in both through and local freight and in about equal proportions in each.

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:—

	1885-86	1886-87	Increase.	Decrease.
Barrels flour.....	739,091	753,480	14,389	
Bushels grain.....	843,949	1,016,334	172,385	
Lumber in feet.....	116,253,382	161,168,003	44,914,621	
Head of live stock.....	70,246	80,782	10,536	
Other goods in tons.....	759,320	820,300	60,980	

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

The business of shipping grain at Halifax, although from various causes necessarily slow of growth, is steadily increasing.

The transport of lumber, which is a local business, shows a large increase.

The live stock business shows a large increase. This increase is entirely in the local business and not in the carriage of cattle from the west for export.

The traffic in fresh fish to the Upper Provinces has largely increased.

The coal traffic from the mines in Nova Scotia to the Upper Provinces has increased, as will be seen by the following comparative statement for the year ended the 31st December :—

	Tons.
1879.....	570
1880.....	10,246
1881.....	30,629
1882.....	35,089
1883.....	54,891
1884.....	112,893
1885.....	165,791
1886.....	<u>175,512</u>

The rate at which this coal is carried is extremely low, and in addition to this the cars are hauled back to the mines empty, a distance of six hundred miles, so that this business increases the expense without an equivalent increase of earnings.

In passenger traffic there was an increase of 50,000 in the number carried.

Total number carried, 1886-87.....	940,144
do do 1885-86.....	889,864
	<u>50,280</u>

EXPENDITURE.

The working expenses for the year were \$2,823,115.58.

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

Per mile run by engines :—

	Cents.
1886-87.....	51.74
1885-86.....	<u>51.61</u>

Per mile run by trains :—

1886-87.....	62.67
1885-86.....	<u>61.61</u>

Per mile of railway :—

1886-87.....	\$3,265 73
1885-86.....	<u>2,891 10</u>

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

The work of replacing the 56-pound steel rails in the main track with heavier rails was continued, and more than 8,000 tons of steel rails, weighing 67 pounds to the yard, were laid. This is a costly improvement, but it is considered to be desirable, in consequence of the heavier locomotives and cars now used.

For the same purpose of increasing the stability of the permanent way the cross ties were placed two feet apart from centre to centre, instead of two and a half feet as originally laid.

This improvement also considerably increased the cost of maintenance.

The total number of new ties put into the track was 227,441.

Seventy-seven miles of track were re-ballasted.

Forty sidings were put in at various places, at a cost of \$32,500.

The fences received necessary repairs, and 143 miles of new fences were built.

This new fence was of a much better design than that which it replaced and was more costly.

A considerable portion of the new fence was erected at places which had not previously been fenced.

Extensive repairs were made to snow sheds and snow fences, and many were rebuilt.

A considerable sum was also expended in erecting sheds and fences where there had been no such protection before.

The buildings on all parts of the line received necessary repairs and several new buildings were erected. Five station houses which had been destroyed by fire were rebuilt on improved plans, and therefore at a cost greatly exceeding that of the original buildings.

Eighteen semaphore signals were put up at places where there were none before.

The work of strengthening the iron lattice girder bridges by means of lateral bracing was continued and completed.

Five pairs of iron bridge girders were substituted for wood, and one new over head bridge of iron was built.

New floors of an improved design, which greatly increases the safety of trains, were provided in a number of bridges.

In order to improve the drainage of adjacent lands a large number of culverts were built, where none had been before.

The work of improving the water supply was continued during the year.

The rolling stock received necessary repairs and is in good order, one passenger car and two hundred and eighty-four freight cars were rebuilt at the cost of working expenses.

These new cars were all larger and stronger, and therefore capable of carrying greater loads than the original cars they replaced.

The greater number of these cars will carry double the load that the original cars were designed to carry; for instance, the original car was designed to carry ten tons of freight, the new car which replaced it will carry twenty tons of freight.

These twenty-ton cars cost, of course, much more than ten-ton cars would have cost.

The whole of the above improvements, which cost in the aggregate about \$200,000, were made in addition to the maintenance and renewal of existing works, and the cost is charged to working expenses and against the earnings for the year.

STORES.

The value of stores purchased was.....	\$1,080,245 38
The value of stores used was.....	1,184,380 45
The value of old materials sold was.....	136,734 84

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

Ordinary stores, including fuel.....	\$255,959 29
Iron and steel rails.....	185,013 65
Second hand materials serviceable.....	45,557 36
Old material for sale.....	191,579 67
	<u>\$678,109 97</u>

The old material for sale consists of scrap metals which are sold from time to time when prices are favorable. The quantity on hand is somewhat less than last year, and it is expected that it will be still further reduced before long.

In the month of May, 1887, a heavy freshet occurred over a considerable extent of country along the St. John and Kennebecasis Rivers. The flood lasted about ten days and damaged the embankments of the railway for some distance near Rothesay to a considerable extent, but in consequence of the care exercised there was but little interruption to traffic.

The winter of 1886-87 was unusually severe over the whole country, and the Intercolonial, in common with many other railways, experienced, in consequence, a good deal of difficulty in moving trains. With the exception perhaps of the railways crossing the mountains to the Pacific coast, the Intercolonial is better provided with sheds and fences for protection from snow and with equipment for its removal from the track, than any railway on the continent.

Its employés also, who are charged with the duty of clearing snow from the track, have, from long experience, acquired great skill in this arduous and dangerous work.

The storms, however, were so heavy, and followed each other so rapidly that notwithstanding the utmost exertions of the employés, aided by large gangs of men, the passenger trains were considerably delayed on several occasions, and the freight traffic was seriously interfered with.

The greatest obstruction was experienced at points where serious difficulty of this kind had not been encountered before, and extensive works are now in progress to protect the worst of these places with sheds and fences.

The cost of clearing snow from the track was much greater than in any previous winter, the direct expenditure amounting to \$92,000. In the winter of 1885-86 it was \$40,000, and the average expenditure for this service for the six years, 1880-81 to 1885-86, both inclusive, was \$40,000; so that the expenditure for last year exceeded the average by \$52,000.

The \$92,000 above mentioned is, however, less than one-half of the actual cost to the railway of these snow blockades; in addition, there is the damage done to rolling stock and to the track, besides large extra expenditure in other branches of the service, and not counting the loss of traffic.

The cost even extends into the current year, as it was found impossible to get all the rolling stock repaired and ploughs rebuilt before the 30th June.

It gives me pleasure to state, that the employés 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.

DR.

CAPITAL ACCOUNT, Year ending 30th June, 1887.

CR.

1886.	1887.	To Cost of road and equipment.....	\$ cts.	\$ cts.	\$ cts.	1886.	1887.	\$ cts.	\$ cts.
June 30,....	June 30,....	Outlay on Halifax Extension.....	12,613 07	44,172,743 16	44,172,743 16	June 30,....	June 30,....	By Dominion of Canada..	44,172,743 16
		do Increased accommodation, St. John.....	18,547 86						
		do St. Charles Branch.....	31,160 73						
		do Dartmouth do	230,103 79						
		do Dalhousie do	5,334 92						
		do Rivière du Loup Town Branch.....	2,082 50						
		do Indian Town Branch	6,338 87						
		do Picton Town Branch.....	9,141 45						
		do Rolling stock.....	248,133 48						
		do Sleeping cars.....	67,616 37						
		do Applying air brakes to 100 locomotives	14,237 11						
		do Expenditure on completion of I. C. R. between Rivière du Loup and Truro (work, permanent way, building s, right of way, &c.).....	78,506 94						
		do W. and A. Ry. vs. Western Counties Ry. and the Queen.....	4,146 35						
			125,936 75	823,239 26	823,239 26	1887.	1887.	By Dominion of Canada..	823,239 26
				44,995,982 42	44,995,982 42	June 30,....	June 30,....		44,995,982 42

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

No. 3.—INTERCOLONIAL RAILWAY.
LOCOMOTIVE POWER—(Abstract No. 1).

Previous Year.		Year ending 30th June, 1887.
\$ cts.		\$ cts.
8,315 85	Mechanical Superintendent's salary, clerks office and travelling expenses.....	8,727 69
186,767 09	Wages, drivers, firemen and cleaners.....	212,296 96
299,181 82	Fuel.....	357,564 55
51,318 45	Oil, tallow, waste and small stores.....	41,464 49
193,200 97	Repairs to engines, tenders and engine tools.....	202,384 32
47,225 46	Water, including pump and tank repairs.....	29,340 09
33,594 75	Miscellaneous.....	35,848 31
819,604 39		887,626 41

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

No. 4.—INTERCOLONIAL RAILWAY.
CAR EXPENSES—(Abstract No. 2).

Previous Year.		Year ending 30th June, 1887.
\$ cts.		\$ cts.
65,628 55	Repairs to passenger cars.....	54,810 70
17,878 82	do postal, express and baggage cars.....	17,480 22
215,118 38	do Freight cars and vans.....	262,456 93
195,275 29	Wages of Conductors, train baggage masters and brakemen.....	225,676 96
33,192 13	Oil and waste for packing.....	39,263 10
47,283 60	Small stores and fuel.....	48,823 64
19,920 85	Miscellaneous.....	19,516 02
594,297 62		663,027 57

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

No. 5.—INTERCOLONIAL RAILWAY.

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

Previous Year.		Year ending 30th June, 1887.
\$ cts.		\$ cts.
5,219 15	Chief and Assistant Engineers, Salaries, Clerks, office and travelling expenses.....	6,714 61
278,333 72	Wages in repairing roadway, fences and semaphores, including new sidings laid in.....	279,456 96
25,917 59	Rails and fastenings, including new sidings laid in.....	166,531 72
105,223 19	Ties.....	55,480 89
78,208 32	Timber, lumber, etc., for repairs to bridges, cattle guards, crossings, snow-sheds, fences, etc.....	84,611 47
13,357 60	Repairs to wharves.....	6,824 51
39,200 59	Repairs to buildings and platforms, including extensions of and additions to same.....	69,730 55
20,440 20	Repairs to snow ploughs, flangers and tools.....	17,162 12
39,777 65	Clearing ice and snow.....	92,212 40
Cr. 575 43	Miscellaneous.....	3,327 56
605,102 58		782,052 79

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

No. 6.—INTERCOLONIAL RAILWAY.

STATION EXPENSES—(Abstract No. 4).

Previous Year.		Year ending 30th June, 1887.
\$ cts.		\$ cts.
249,521 95	Salaries and Wages of Station Masters, Agents, Clerks, Telegraph Operators, Station Baggage Masters, Yard Masters, Switchmen, Watchmen and Laborers.....	260,701 11
65,739 47	Fuel, oil, light, stationery, tickets and other incidental expenses.....	72,875 11
.....	Miscellaneous.....	.....
315,261 42		333,576 22

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

[1887]

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No. 7.—INTERCOLONIAL RAILWAY.
 GENERAL CHARGES—(Abstract No. 5.)

Previous Year.	—	Year ending 30th June, 1887.
\$ cts.		\$ cts.
65,534 06	Chief Superintendent, District Superintendents, Train Despatchers, General Freight Agent, General Passenger Agent, Clerks, office and travelling expenses.....	64,224 16
19,998 41	Accounting Department—Salaries of the Chief Accountant and Treasurer, Traffic Auditor, Paymaster, Cashier, Clerks, office and travelling expenses.....	20,884 38
9,879 54	Damages to men, animals and goods	18,930 57
17,676 11	Ferry service.	19,125 93
1,271 38	Telegraph expenses (not including pay to operators).....	1,243 75
30,221 76	Miscellaneous—Printing, advertising, &c.	24,167 07
17,729 92	Agency expenses	14,113 79
162,311 18		162,689 65

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

No. 8.—INTERCOLONIAL RAILWAY.

GENERAL STORES ACCOUNT, Year ending 30th June, 1887.

DR.

CR.

		1886	1887.		
		\$	\$	\$	\$
		cis.	cis.	cis.	cis.
1886	June 30.... To Balance		719,660 88	1,184,880 45	
1887.	June 30....			4,450 30	
				136,734 84	
1887.	June 30....				1,362,595 59
	Purchases during year.....	1,080,245 38		255,939 29	
	Charges from other Departments..	180,027 14		185,013 65	
	Labor.....	48,497 68		45,557 36	
	Staff pay-rolls.....	12,274 48	1,321,044 68	191,579 67	
					678,109 97
			2,040,705 56		2,040,705 56

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

Western Counties Railway, general account.....	15,893 35	
do traffic account.....	1,667 42	
Spring Hill and Parrsboro' Railway.....	17,150 77	
St. Martin's and Upham Railway.....	3,161 99	
Halifax and Cape Breton Railway.....	4,107 39	
Cumberland Railway and Coal Co.....	1,546 82	
Pullman Car Co.....	5 02	
National Despatch Line.....	1,236 34	
St. Thomas Car and Wheel Co.....	10 00	
Ontario Car Co.....	1,150 00	
Intercolonial Express Co.....	635 50	
Prince Edward Island Steam Navigation Co.....	2,577 08	
Allan Steamship Line.....	33 65	
Steamer "Admiral".....	1,947 75	
Steamer "Contest".....	3,190 40	
Acadia Coal Co.....	185 00	
Intercolonial Coal Co.....	4,234 01	
Steel Co. of Canada.....	101 20	
Halifax and Cotton Co. Siding.....	1,692 77	
Moncton Cotton Co Siding.....	11,614 24	
Halifax Rolling Mills.....	790 53	
Coldbrook Rolling Mills.....	105 50	
Nova Scotia Steel Co.....	1,967 41	
Schooner "Mary Jane".....	345 02	
Glengarry Station.....	71 30	
Bloomfield do.....	25 21	
Coal Branch do.....	65 84	
Weldford do.....	55 00	
Ste. Luce do.....	80 00	
Bic do.....	22 00	
St. Arsène do.....	6 11	
Individual accounts.....	18,441 13	
	1,019,886 11	1,019,886 11

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

No. 10.—INTERCOLONIAL RAILWAY.
COMPARATIVE STATEMENT of Averages, Year ending 30th June, 1886.

—	1887.	1886.
Mileage of railway.....	866	861
Engine mileage.....	5,466,488	4,823,353
Train do	4,512,599	4,039,877
Car do	52,001,928	47,211,083
Receipts per engine mile..... Cents	47·49	49·41
do mile of railway..... Dollars	2,997·70	2,767·94
Percentage of passenger earnings to gross earnings..... Per cent.	30·53	30·58
do freight do do.....	63·86	63·00
do other do do.....	5·61	6·42
Expenses per engine mile—		
Drivers, Firemen and Cleaners' wages..... Cents	3·88	3·87
Fuel.....	6·54	6·20
Oil, tallow, waste and small stores.....	·76	1·06
Repairs to engines.....	3·70	4·01
Water and tank repairs.....	·54	·98
Miscellaneous.....	·65	·70
Total.....	16·07	16·82
Mechanical Superintendent's salary, office and travelling expenses.....	·16	·17
Total.....	16·23	16·99
Locomotive power per engine mile.....	16·23	16·99
Car expenses do	12·22	12·32
Maintenance of way and works do	14·31	12·55
Station expenses do	6·10	6·54
General charges do	2·98	3·56
Car mileage..... Deduct	51·84	51·76
	·10	·15
Total per engine mile.....	51·74	51·61
Locomotive power per train mile.....	19·67	20·29
Car expenses do	14·80	14·71
Maintenance of way and works do	17·33	14·98
Station expenses do	7·39	7·80
General charges do	3·61	4·01
Car mileage..... Deduct	62·80	61·79
	·13	·18
Total per mile train.....	62·67	61·61
Working expenses per mile of railway.....	3,265 72	2,891 10

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

INTERCOLONIAL RAILWAY

CHIEF ENGINEER'S OFFICE,

MONCTON, N.B., 24th October, 1887.

SIR,—I have the honor to submit my report of the working of the engineering department for the year ending 30th June, 1887.

TRACK.

The mileage of the main line and branches has been increased from 866 to 880 miles.

	Miles.
Previously reported.....	866
Indian Town Branch.....	14
Total.....	880

During the year 78 miles of rails, weighing fifty-six pounds to the yard, have been taken up and replaced with steel rails weighing sixty-seven pounds to the yard.

TIES.

During the year 227,441 ties have been renewed in the main line, sidings and branches.

BALLASTING.

Ballasting was done on all divisions of the road. Seventy-seven miles were rebalasted.

SEMAPHORE SIGNALS.

Eighteen new semaphore signals were put up during the year.

SIDINGS.

Forty sidings have been put in at various points along the line, making additional accommodation to the extent of $6\frac{1}{2}$ miles. This is nearly three times the accommodation provided last year.

FENCING.

One hundred and forty-three miles of barbed wire and Everett lath wire fencing have been erected in place of old pole fences and at points where fencing was not required before. The first barbed wire used on the road some years ago was erected on posts placed 16 feet apart. It was found unsatisfactory, cattle and sheep being able to pass through the wires. During the past year about 20 miles of it have been overhauled and intermediate posts put in and in many places an additional wire put on.

\$71,932 has been expended on fencing the past year as against \$48,236 the year previous.

SNOW SHEDS AND SNOW FENCES.

43,560 lineal feet of snow sheds were rebuilt on Northern Division, No. 2, and 13,134 lineal feet of new shed were erected on Northern Division, No. 3. Extensive repairs were made to thirteen (13) other sheds, aggregating in length 14,355 lineal feet.

27,918 lineal feet of new snow fence were erected and repairs made to about 24,750 lineal feet more of the latter. About 9,900 lineal feet which had been erected on posts sunk in the ground were taken down and rebuilt with posts framed into sills lying on the surface of the ground. It has been found that where the soil is clayey

the posts heave out, and in the course of three or four years are apt to blow down. All new fences are erected on posts framed into sills lying on the surface of the ground.

WHARVES AND COAL TRESTLES.

At the DEEP WATER TERMINUS, HALIFAX—the wharf under freight shed and approach to shed was overhauled and repaired. Four additional aprons for coal drop were provided at the deep water shutes.

At YOUNG STREET, HALIFAX—the coal trestle was rebuilt at a cost of \$2,000.

At RICHMOND—a portion of wharf No. 2 was rebuilt, and necessary repairs made to other wharves and coal trestles.

At STEWIACKE—the pile wharf at terminus of Maitland siding was thoroughly overhauled and repaired. Twenty-five new piles were put in and the whole top of the wharf was raised.

At TRURO—the coal shed and trestle was thoroughly overhauled and repaired. New track stringers were provided throughout the whole length of the shed and trestle.

At PICTOU and PICTOU LANDING—necessary repairs were made to the wharves. At the latter place a large portion of the top was replanked.

At POINT DU CHENE—large repairs were made to the outside wharf. The outer end was close piled throughout its length and the top raised some three feet and recovered. Additional fenders and mooring posts were also provided.

At DORCHESTER—necessary repairs were made to the wharf.

At DORCHESTER, SHEDIAC and SUSSEX—necessary repairs were made to coal trestles.

At MONCTON—the railway coal shed and trestle was overhauled and repaired, and a new coal trestle for local purposes was erected. It is much larger than the old one and more conveniently located for the business.

At DALHOUSIE—large repairs was made to the wharf which was seriously damaged by the run of ice in the spring of 1886.

At RIVIÈRE DU LOUP—necessary repairs were made to the coal sheds and trestles.

At ST. CHARLES—A portion of the trestle approaching the coal shed was rebuilt.

At LÉVIS—necessary repairs were made to the wharf and crib work on both sides of the station.

TURNTABLES.

At MONCTON—the turntable in round house was repaired and provided with a new wrought iron end girder.

At ST. JOHN—the three iron tables on the deep water wharf were lengthened to admit of turning 33 instead of 30 feet cars for which they were designed.

At NEWCASTLE, CAMPBELLTON, ST. FLAVIE, RIVIÈRE DU LOUP and HADLOW—necessary repairs were made to turntables.

BUILDINGS AND PLATFORMS.

At HALIFAX—a double floor was laid in the south freight shed on the Deep Water wharf through its whole length. Necessary repairs were made to bins and machinery of grain elevator.

At NORTH STREET STATION—new water-closets were fitted up with all modern improvements.

Offices were fitted up in the head house for the sleeping and parlor car service.

A shed 170 feet long by 10 feet wide, and three platforms of the same length were also provided with this service for the purpose of washing the cars and airers and cleaning the bedding.

A building with the necessary arrangements for hot and cold water for the car cleaners was also provided.

Twenty-four skylights of three-eighth inch corrugated glass, forty-five feet long by nine feet wide, were provided for the roof of train shed, at a cost of \$6,840.

At RICHMOND—one half of the car shed floor was renewed, and the roof of this shed made water-tight. Large repairs were made on the roofs of sheds on Richmond wharf. The floors and ash pits in round house were overhauled and repaired.

At DARTMOUTH—a coal shed was erected.

At FAIRVIEW (Three Mile House)—a passenger platform 80 feet long by 6 feet wide was erected.

At ROCKINGHAM—the station was overhauled and painted, and a portion of the platform renewed.

At ROCKY LAKE—the flag station was rebuilt and a new tool house provided for the section foreman.

At SANDY COVE SIDING—a loading platform was provided, 140 long by 8 feet wide.

At BEDFORD—the station freight house and agent's dwelling were thoroughly overhauled and repaired. The station and freight house were painted inside and out.

At GRAND LAKE—a new flag station was erected.

At WINDSOR JUNCTION—the old freight shed was taken down and a new cattle pen built.

At WELLINGTON—the roof of station was shingled and a new floor laid in waiting-room, office and living apartments.

At ELMSDALE—the roof of station was shingled and the building overhauled, repaired and painted inside and out. A new loading platform 196 feet long was provided.

At SHUBENACADIE—the freight house was moved to a more convenient location, and thoroughly overhauled and repaired. One side of the station was re-shingled.

At MCKAY'S SIDING—between Stewiacke and Brookfield, a loading platform 130 feet by 10 was provided.

At ALTON—the station platform was renewed.

At BROOKFIELD—a portion of the freight shed roof was re-shingled, and necessary repairs made to the station.

At JOHNSON'S CROSSING—a loading platform 50 feet by 12 feet was provided.

At TRURO—a loading platform 175 feet by 5 feet, with approaches thereto, was provided.

The roof of the station was overhauled and a portion of it re-shingled. The old bark shed on Tannery property, purchased about three years ago, was moved south about 40 feet, raised up about 5 feet and fitted up for a car shed. The first and second floors in the tannery were cut out, necessary bracing put in and it is now used for the storage of passenger cars. Necessary repairs were made to the car shop and snow plough sheds.

At GLENGARRY—a new combined passenger and freight station was erected at cost of \$1,800, in place of the one-storey building destroyed by fire. Dwelling apartments were provided in this station for the stationmaster.

At LONDONDERRY—the roofs of station building and tank house were re-shingled; the walls of station were overhauled, repaired and painted two coats. A new trestle was put under the tank.

At THOMSON—the station building and freight house were raised and new sills put under the whole building. The roof was re-shingled and other necessary repairs were made. A tool house was provided for the section foreman.

At OXFORD and SALT SPRINGS—necessary repairs were made to the station building and platform.

At ATHOL—a tool house was provided for the section foreman.

At MACCAN—the passenger platform was renewed, and the loading platform repaired.

At NAPPAN—the loading platform was repaired.

At AULAC—necessary repairs were made to the station and freight house, and an additional loading platform for hay provided.

At SACKVILLE—the station was re-shingled, and shingles covered with a coat of sparham roofing.

At DORCHESTER—a new brick station and a new wooden freight house were erected, to replace those destroyed by fire.

A station was built at College Bridge, and a loading platform provided.

At MEMRAMCOOK—the station and freight house were overhauled and painted, and a new loading platform provided.

A new tank house was built at Calhoun's.

At MONCTON—an addition was made to the car repairer's shop of 260 feet by 20 feet, and the floor of this shop was renewed. The roof of the paint shop was re-shingled and covered with a coat of sparham roofing.

A portion of the floor in the machine shop was renewed.

Necessary repairs were made to twelve tenement houses on Bridge Street. No. 2 cottage, which was nearly destroyed by fire last winter, was rebuilt.

A sewer was built on Bridge Street for the accommodation of these houses, one-half of the cost was borne by the Department and the other half by the town. Since the sewer was built, the water has been supplied to these houses.

At SALISBURY—the freight house was re-shingled, and passenger platform renewed.

At PETITCODIAC—the station was overhauled and painted.

Necessary repairs were made to stations at Anagance, Sussex, Apohaqui, and a milk platform provided at the latter place.

At NAUWIGEWAWUK—the station was re-shingled and platform rebuilt.

At ST. JOHN—a portion of the freight house was fitted up for bonded goods. A shed, wash house, platform, &c., were provided here for the sleeping and parlor car service, the same as at Halifax. A large portion of the roof of the round house was re-shingled, an oil house was provided and a new platform was built.

At WELDFORD—a loading platform was provided at Trout Brook, about two miles south of the station.

At CHATHAM JUNCTION—an additional freight house 30 feet by 25 feet was provided, also a high platform.

A combined passenger station and freight house was built at Derby Junction.

At BARNABY RIVER—the passenger platform was renewed.

Small coal sheds were erected at Chatham Junction and Derby Junction.

At BEAVER BROOK—Bartibogue, Red Pine, Bathurst, Charlo and Eel River, necessary repairs were made to stations and platforms.

At BELLEDUNE—a new station and freight house were erected to replace the combined passenger station and freight house destroyed by fire.

An addition of 70 feet long by 12 feet wide was made to the platform at Belledune.

At DALHOUSIE—a new station and freight house, and a new passenger and loading platform were erected in place of those destroyed by fire.

At DALHOUSIE JUNCTION—a passenger platform 420 feet long by 12 feet wide was provided.

At CAMPBELLTON—a hardwood floor was put in hall of train despatcher's office and the necessary repairs to coal shed, freight shed and ice house was made.

At MILLSTREAM—a dwelling house was built for the section foreman.

At CEDAR HALL—necessary repairs were made to the station.

At LITTLE METIS—a new tank house was built to replace the old one destroyed by fire.

At **ST. FLAVIE**—a new foundation was put under the station and the platform repaired.

A freight platform 400 feet long was also provided.

At **ST. LUCE STATION**—a portion of the roof was reshingled.

Necessary repairs were made at St. Anaclet Station.

At **RIVIÈRE DU LOUP**—a freight house 30 feet by 125 feet was provided.

A freight house was provided at old Lake Road.

Coal houses were also provided at St. Eloi, St. André, Cacouna, St. Arsène and St. Simon.

Doors of engine house at Rivière du Loup were renewed.

A new roof was put on coal shed at St. Arsène to replace roof destroyed by fire.

Necessary repairs were made at St. Roch, St. Paschal, Rivière Ouelle and St. Charles, outside porches were provided at the latter station.

Double windows were provided for a portion of the station at Chaudière.

A station was erected at St. Joseph on the St. Charles Branch.

A baggage room was erected at Quebec.

BRIDGES AND CULVERTS.

Overhead bridge, Water Street, Halifax was replanked.

Piers of Rawdon River Bridge were overhauled and pointed.

A new standard top was put on Canal Bridge near Wellington and masonry overhauled and pointed.

Large repairs were made to one of the piers at Shubenacadie Bridge.

A box culvert 4 feet by 6 feet and 42 feet long was put in at Blackburn's Intervale, two miles west of Millford.

Box culverts at Millar's brick yard and at McKay's siding were rebuilt.

Five pairs of old rail girders, 16 feet span, were put in between Halifax and Truro.

A cedar box culvert was put in near Hopewell.

The centre pier of New Glasgow Bridge was repaired and pointed, a large quantity of riprap was put in round base of pier.

A system of lateral bracing was provided for the following bridges:—Little Forks, River Philip, Barnaby River, Second Crossing, Barnaby River, Third Crossing, Konchibonquacis and Bartibogue.

A new iron overhead bridge was built at Palmer's Pond near Dorchester, in place of old wooden bridge.

An overhead foot bridge 100 feet span was built to carry the traffic of Dorchester Street over the railway at St. John.

Wall Street overhead bridge at St. John was widened 10 feet by the addition of another bow string truss.

McGinley's wooden bridge near Quispamsis, four spans of 30 feet each, was rebuilt.

A standard top was put on McCully's Bridge near Torryburn and at Scurr's Bridge near Dorchester.

Five cedar culverts were put in at different points between Dorchester and St. John to improve the drainage of adjoining lands.

Standard tops were put on Milner's Bridge near Moncton, North Coal Branch, South Coal Branch, Buctouche, Upper Nelson Road, Bartibogue, Nash's Creek, Eel River, Gordon's, Otter Brook, Amqui River and Sayabec.

The floors of the following bridges were partially renewed: Richibucto, First Crossing of Barnaby River, Second Crossing of Barnaby River, North-West Miramichi, South-West Miramichi, Nepisiguit, Millstream, Nigadoo, North Branch of Charlo, South Branch of Charlo, Trois Pistoles, Isle Verte, Rivière du Loup and St. Thomas.

At **TROIS PISTOLES**—the crib protection along the base of embankment on west side was thoroughly overhauled and repaired.

At ST. THOMAS—three ice-breakers badly damaged in the spring of 1886, were rebuilt and faced with old rails. The cut waters of this bridge were also overhauled and repointed.

The hardwood facing and iron sheathing of the cut-water of St. Henri Bridge was thoroughly repaired.

A gang of painters and rivetters were engaged throughout the working season in scraping, painting and overhauling and making general repairs to iron bridges.

A cedar box culvert, 30 feet long, was put in near Newcastle, and five others, varying from 20 to 70 feet in length, were put in between Newcastle and Campbelltown, and on the Dalhousie Branch. Two stone culverts were rebuilt near St. Henri.

A cedar box culvert was put in near Old Lake Road, 48 feet long, 3 by 3, and another of the same dimensions was built at St. Paschal.

Two stone culverts were built on the St. Charles Branch.

Three stone culverts were rebuilt between St. Valier and St. Charles.

About one hundred pairs of cattle guards were wholly renewed throughout the line.

GENERAL.

About 300 tons of stone were put in round the piles at the Narrow's bridge at Richmond, and 200 tons on an embankment at Grand Lake, to protect the embankment.

Necessary repairs were made to track scales at Truro, Spring Hill, Moncton and Chaudière Junction.

New sign posts for sixty public crossings were provided throughout the line.

A stone ashpit, 140 feet long, was built at Moncton. It was fitted with cesspit and necessary connecting drains, to prevent the ashes lodging in main sewer.

SNOW PLOUGHS AND FLANGERS.

No. 23 snow plough was rebuilt. Nos. 2, 6, 7, 8, 9, 10, 15 and 22 were overhauled and put in first-class order.

About the 1st of May last, the embankments between Rothesay and Riverside were badly damaged by an unusual freshet in the St. John River.

On the divisions north of Moncton, more trouble was experienced on account of snow last winter than for many years.

Large extra gangs of men were employed almost continuously for three months in clearing the track and widening out the worst cuttings after the track was cleared.

An expenditure of \$92,212.40 was made for shovelling snow.

Contracts have recently been let to provide a large quantity of snow sheds and snow fences at points where the most trouble was experienced last winter.

BRANCH LINES.

Pictou Town Branch.

This branch is fourteen miles in length, nine miles of it is newly constructed road, and five miles were acquired from the Acadia and Nova Scotia Coal Companies, three from the former, and two from the latter.

A contract was let from the junction of the Nova Scotia Coal Company to Pictou Town. Station buildings have been erected at Stellarton, Westville, Sylvesters, Loch Broom and Pictou.

Engine houses and turntables have been erected at Stellarton and Pictou.

A 15,000 gallon water tank has also been erected at the latter place.

Additional sidings have been provided for the coal traffic at Stellarton, Westville and Pictou.

The Nova Scotia Coal Company's line was laid with old iron rails; these have been taken up and replaced with steel rails.

A number of wooden culverts have been replaced with masonry structures.

The old wooden viaduct at Horn's Brook has been replaced with a steel one, at a cost of \$18,000.

The sharp curves have been flattened and a new fence erected on both sides of the road.

The Acadia Coal Company's road has also been fenced, new ties put in and the track put in first-class order.

Two hundred and sixty thousand one hundred and thirty-eight dollars had been expended on account of this branch up to the end of the fiscal year ending 30th day of June last.

I am, Sir,

Your obedient servant,

P. S. ARCHIBALD,

Chief Engineer.

D. POTTINGER, Esq.,
Chief Superintendent,
Moncton, N.B.

INTERCOLONIAL RAILWAY.

MECHANICAL SUPERINTENDENT'S OFFICE,

MONCTON, 29th August, 1887.

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, 1887:—

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, one parlor, one hundred 6-ton hopper, and one hundred and ten large coal, and one milk car were purchased at cost of capital and added to the rolling stock of the road.

One hundred of the old 5-ton hoppers were condemned and replaced by the same number of larger capacity and more improved style. There were also one postal and smoking, ten 20-ton box, one hundred and sixty-seven 20-ton platform to take the place of the same number of the old 10-ton cars condemned, and seven gondolas were also rebuilt at the cost of working expenses during the year.

In addition to the ordinary repairs, thirty-nine box and seventy-five platform cars were taken into the shops at Moncton and underwent general repairs; their carrying capacity increased from ten to twenty tons.

Forty-five passenger and fourteen express, postal and baggage cars were also taken into the shop, remodeled, painted and fitted up in a more modern style.

The replacing of 285 small cars by others of a more improved style as well as double the capacity, as well as the improvements above named, has increased the cost of car repairs more than would have been if the condemned rolling stock was replaced by others of the same style and capacity.

WATER SERVICE.

During the year a reservoir was built, 4,000 feet of pipe laid down and a 50,000 gallon tank put up at Thomson. This service has been maintained during the year. The rolling stock generally is in good condition.

I am, Sir,

Your obedient servant,

H. A. WHITNEY,

Mechanical Superintendent.

D. POTTINGER, Esq.,
Chief Superintendent,
Moncton, N. B.

A.—INTERCOLONIAL RAILWAY.

STATEMENT showing the number of Locomotives and the various classes of Cars on the 1st July, 1886, and on the 30th July, 1887.

	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, 1886, serviceable.....	164	10	6	1	68	75	16	25	8	1,449	68	1,328	595	780	450	4,952	31	10	20	61	61
do do condemned.....	.....	.....	.....	.....	1	1	1	.....	2	8	4	114	.....	3	.....	134	.....	.....	.....	.....	.....
Total.....	164	10	6	1	69	76	17	25	83	1,457	72	1,442	535	783	450	5,086	31	10	20	61	61
Purchased on capital account.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	110	212	.....	.....	.....	.....	.....
Changed from gondolas to coal cars.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	7	.....	.....	.....	.....	.....	.....
Condemned, 1st July, 1886.....	164	10	6	2	69	76	17	26	83	1,457	72	1,442	695	776	567	5,298	31	10	20	61	61
Condemned during year.....	.....	1	.....	.....	1	1	1	.....	2	8	4	114	.....	3	.....	134	.....	.....	.....	.....	.....
Total condemned.....	.....	1	.....	.....	1	2	1	.....	2	15	4	177	100	7	1	311	.....	.....	.....	.....	.....
Less—Rebuilt.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	.....	167	100	7	.....	285	.....	.....	.....	.....	.....
ADD—Serviceable and repairing.....	164	9	6	2	68	74	17	26	81	1,452	68	1,432	695	776	566	5,272	.....	.....	.....	.....	.....
Total on record.....	164	10	6	2	69	76	17	26	83	1,457	72	1,442	695	776	567	5,298	31	10	20	61	61

J. SUTTON,
Mechanical Accountant.

B.—INTERCOLONIAL RAILWAY.

STATEMENT of Locomotive and Car Mileage for Year ending 30th June, 1887.

Months.	Locomotive Mileage.		Car Mileage.						
	Passenger.	Freight.	Passenger.	Express Postal and Baggage.	Freight.	Total.	Snow Plough Mileage.	Average Freight.	Average Passenger.
1886—July.....	90,903	281,520	386,290	164,675	3,905,502	4,486,467	.....	13 89	6 16
August.....	88,117	276,256	389,755	152,078	3,884,305	4,426,138	.....	14 06	6 14
Sep'tember.....	83,601	271,865	354,991	148,332	3,832,031	4,335,354	.....	14 09	6 01
October.....	79,138	273,855	318,453	145,021	4,142,072	4,605,546	.....	14 09	5 85
November.....	76,009	310,703	3 0,434	152,711	4,366,652	4,839,797	1,221	14 05	6 08
December.....	70,465	333,010	315,515	162,193	4,368,893	4,846,601	6,187	13 12	6 78
1887—January.....	70,063	292,755	292,776	144,398	3,111,736	3,548,910	30,596	10 63	6 24
February.....	66,435	243,860	278,625	136,982	2,613,762	3,029,369	29,809	10 72	6 15
March.....	74,271	301,864	323,028	151,573	3,522,039	4,006,640	21,211	11 70	6 38
April.....	78,080	384,930	401,855	157,886	4,595,365	5,155,106	6,921	11 93	7 16
May.....	69,462	294,487	307,864	148,138	3,822,141	4,278,143	1,141	12 97	6 56
June.....	78,375	302,575	351,713	160,564	3,961,580	4,473,857	.....	13 09	6 52
Total.....	974,919	3,567,680	4,031,299	1,824,551	46,136,078	52,001,928	97,086	12 93	6 34

J. SUTTON,
Mechanical Accountant.

C.—INTERCOLONIAL RAILWAY.

ABSTRACT of Locomotive Returns for the Year ending 30th June, 1887.

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.
1886—July	40,646	436,205	11,749	30,924	11,625	7,550	10.73	60.33	7.08	2.66	1.73
August	39,925	427,311	12,028	26,880	14,879	7,497	10.70	63.05	6.29	3.48	1.75
September	38,855	415,870	12,513	24,817	14,928	7,417	10.70	67.59	5.96	3.59	1.78
October	42,605	438,952	13,337	25,587	15,108	7,355	10.30	68.05	5.82	3.44	1.66
November	44,820	457,004	14,834	27,078	15,457	7,951	10.19	74.89	5.92	3.38	1.73
December	49,106	481,758	16,172	28,834	15,172	7,506	9.81	75.21	5.98	3.15	1.55
1837—January	51,132	461,116	15,663	29,237	12,803	7,212	9.01	76.03	6.34	2.77	1.56
February	48,674	417,196	13,956	26,137	13,487	6,753	8.57	74.93	6.26	3.23	1.61
March	55,287	487,684	16,274	30,140	15,840	8,151	8.82	74.74	6.18	3.25	1.67
April	59,244	561,056	17,209	30,851	16,808	8,316	9.47	68.70	5.49	2.98	1.48
May	43,724	435,275	11,943	26,732	15,203	7,711	9.95	61.17	6.14	3.49	1.77
June	32,841	447,061	12,288	29,910	16,420	8,256	10.43	61.55	6.69	3.67	.85
Total	546,859	5,466,488	167,956	337,127	177,730	91,675	9.99	68.72	6.17	3.25	1.68

J. SUTTON,
Mechanical Accountant.

D.—INTERCOLONIAL RAILWAY.

STATEMENT of the cost of Locomotive Power for each month, from 1st July, 1885, to 30th June, 1887.

Months.	Miles run by Engines.	Engine-men's wages	Fuel.	Oil, Tallow and Waste.	Repairs to Engines, Tenders and Tools.	Water.	Miscellaneous, including Engine-houses and Mechanical Staff.	Total.	Average per 100 Miles.						
									Wages.	Fuel.	Oil, Tallow and Waste.	Repairs.	Water.	Miscellaneous.	Total.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1886—July.....	436,205	17,176 97	32,249 42	3,621 35	19,601 61	1,674 04	3,172 86	77,496 25	3 94	7 39	0 83	4 49	0 38	0 73	17 76
August.....	437,311	15,804 98	31,255 85	3,277 40	17,537 55	1,379 80	3,478 59	72,734 17	3 70	7 31	0 76	4 12	0 32	0 81	17 02
September.....	415,870	15,691 73	32,913 33	3,091 96	18,350 89	4,417 17	3,324 06	77,849 14	3 77	7 92	0 74	4 42	1 06	0 80	18 71
October.....	438,952	16,533 70	36,217 09	3,377 95	21,635 55	2,254 09	3,978 21	83,986 60	3 76	8 26	0 77	4 92	0 51	0 91	19 13
November.....	457,004	18,014 18	41,963 96	3,269 32	17,680 96	3,414 30	3,352 40	87,695 12	3 94	9 18	0 71	3 87	0 75	0 74	19 19
December.....	481,758	18,145 32	29,084 87	2,847 55	12,062 32	3,690 32	3,680 24	69,520 62	3 76	6 03	0 59	2 50	0 77	0 76	14 41
1887—January.....	461,116	17,538 06	27,580 89	3,201 19	13,516 63	2,647 71	4,211 01	68,695 49	3 77	5 98	0 70	2 94	0 58	0 82	14 89
February.....	417,195	16,256 86	24,263 24	3,041 16	13,759 97	2,629 00	3,951 25	63,906 48	3 90	5 82	0 73	3 29	0 63	0 95	15 32
March.....	487,684	19,836 89	28,552 07	4,138 80	14,095 67	1,748 39	4,206 02	72,877 84	4 07	5 85	0 85	2 89	0 36	0 88	14 90
April.....	561,056	21,639 74	30,885 37	4,051 36	16,559 66	2,675 25	4,169 03	79,981 43	3 85	5 50	0 72	2 95	0 45	0 78	14 25
May.....	435,275	18,232 30	21,374 77	3,802 29	16,821 08	1,443 83	3,529 78	65,304 05	4 19	4 91	0 87	3 86	0 33	0 82	14 88
June.....	447,061	17,426 23	21,187 69	3,744 14	20,742 43	1,366 19	3,412 55	67,879 22	3 89	4 74	0 84	4 64	0 31	0 76	15 18
Total.....	5,446,488	212,296 96	357,564 55	41,464 49	202,394 32	29,340 09	44,576 00	887,625 41	3 88	6 54	0 76	3 70	0 54	0 81	16 23

J. SUTTON,
Mechanical Accountant.

E.—INTERCOLONIAL RAILWAY.

GENERAL STATEMENT of the Expenses of the Mechanical Department, for the Year ending 30th June, 1887.

	\$	cts
The miles run by trains	4,492,599	
do engines	5,466,488	
do cars	52,001,928	
do snow ploughs	97,086	
The cost of locomotive power	887,626	41
The cost of car repairs :		
Repairs to passenger cars	54,810	70
do postal, express and baggage cars	17,480	22
do freight cars and vans	262,456	93
Oil and waste for packing	39,263	10
Miscellaneous.....	340	19
Total cost of car expenses	374,351	14
The cost of locomotive power per 100 miles run by trains	19	75
do do do engines	16	23
do do do cars	1	71
The cost of repairs to cars per 100 miles run by train	7	45
do do engines	6	12
do do cars.....	0	64
The cost of oil and waste for packing per 100 miles run by trains	0	86
do do do engines	0	70
do do do cars	0	07
The cost of repairs to passenger cars per 100 miles run by them.....	1	35
do postal, express and baggage do	0	95
do freight cars and vans do	0	57

J. SUTTON,
Mechanical Accountant.

[1887]

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INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred on the Line

Date.	Time of Day.	Number of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1886.						
July 3...	7.15	.....	.....	.....	.....	.....
do 10...	14.30	Special.	Freight.....	A. Grant.....	Jas. Sproule.....	170
do 31...	16.05	Express.	Express.....	D. Rutherford.....	Wm. Wall.....	57
Aug. 5...	15.00	Special.	Freight.....	J. Swetnam.....	John Stewart, jun.....	103
do 8..	4.40	15	do	John Casey.....	J. J. Smith.....	26
do 10...	20.30	.....	.....	.....	.....	.....
do 10...	11.50	Special.	Freight	J. A. Bernier.....	J. Gorham	40
do 14...	16.45	48	do	J. Huppe	George Montgomery....	31
do 25...	8.35	.....	Shunting	M. Kenny.....	J. McLellan.....	93
Sept. 13...	7.30	14	Accommodation	W. H. Donkin	E. Blair.....	66
do 15...	10.54	42	do	L. N. Letarte.....	J. Miller.....	1
do 16...	5.05	37	Freight	J. T. McGinn.....	C. Atkinson.....	144
do 17...	19.00	Special.	do	A. Bernier.....	J. Joliette.....	131
do 22...	22.00	do	Shunting.....	P. Elliott.....	M. O'Brien	99
do 23...	10.05	42	Accommodation	D. Morin.....	O. Jollivett.....	38
do 29...	8.15	.....	Shunting.....	.....	R. James.....	100
Oct. 7...	2.45	Special.	Freight	Wm. Morgan	C. McCarthy.....	123
do 8...	19.30	12	do	R. A. Rannie.....	J. I. Smith	50
do 9...	9.10	Special.	Working.....	A. Begin.....	J. Devereaux.....	108
do 17...	2.00	do	Freight	M. Audet.....	{ L. Duncan	142
					{ A. Connell	110
do 21...	3.00	10	Express	J. Millican	R. Carr.....	63
do 26...	12.00	Special.	Freight	D. Brownell	D. Taylor	145
do 27...	2.20	do	do	do	F. Probert.....	148

RAILWAY.

of the Intercolonial Railway, during the Year ending 30th June, 1887.

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. Bain	Employé.	Piece of machinery fell on foot.	Crushed toe.....	
New Glasgow ...	John Aikens ...	do ...	While shunting	Leg injured.....	
Truro	John Fraser...	Neither...	Attempting to board train while moving.	Slightly injured..	
1 mile west of Belledune.	John Stewart, jun.	Employé.	Valve of blow-off cock blew off.	Scalded leg.....	
Painsec Junction	Edward Casey.	Neither ...	While stealing a ride was run over.	Arm and leg taken off.	
St. John.....	— Ingalls	do ...	Jumping off train while in motion.	Spine injured.....	
Sayabec	H. Derosiers....	Employé.	Fell off car.....	Injured leg.....	
Pointe Lévis.....	Alex. Moren ...	do ...	While coupling.....	Hand injured.....	
Richmond	Steph. Pollock.	do ...	Struck by shunting engine and run over.	Fatal.....	Accidental.
Windsor Junct'n	Thos. Johnston	do ...	While handling baggage	Hand injured.....	
Ste. Luce.....	Auguste Rioux	do ...	Tub of butter fell	Injured foot.....	
Moncton.....	C. Dickson.....	do ...	While coupling.....	Ribs crushed	
Ste. Flavie.....	R. Orchard.....	do ...	While shunting.....	Fingers crushed..	
Moncton.....	P. Elliott.....	do ...	While coupling.	Breast injured...	
Sacré Cœur.....	O. LeBel	do ...	do	Leg do ...	
St. John	James Bond.....	Neither ...	Struck by tender and knocked down.	Slightly do ...	
Sackville.....	B. Thompson...	Employé.	Brake slipped throwing him against end of car.	Injured back	
Darling's Tank .	F. Millican.....	do ...	Tank pipe rope broke letting him fall.	do hip	
Amqui	A. Desjardins .	do ...	While turning switch....	Sprained ankle...	
} Sayabec	O. Roussell....	do ...	Link fell on foot.....	Injured foot.....	
West of Moncton	E. R. White....	Passenger	Jumped or fell from train in motion.	Slightly injured..	
Kent Junction...	J. Trites	Employé .	While stepping on engine slipped, wheel passed over foot.	Injured foot.....	
Newcastle	C. Dickson.....	do ...	While coupling.....	Thumb crushed...	

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred

Date.	Time of Day.	Number of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1886.						
Oct. 29...	6.35	47	Freight	L. Proulx	J. Collett	142
Nov. 2...	.....	Special.	do	W. McClafferty.....	.....	.....
do 8...	7.00	do ...	do	Wm. Morgan.....	C. McCarthy	148
do 9...	16.40	38	do	J. T. McGinn	W. D. Martin	25
do 12...	6.00	.....	.....	.....	.....	.....
do 13...	17.30	.....	Shunting .....	.....	M. Norman	96
do 18...	16.00	15	Freight	J. McDowell.....	H. McAuley.....	35
do 27...	14.00	Special.	do	P. McGee.....	Wm. Murphy.....	40
do 27...	11.00	do ...	do	T. McDermott	E. B. Price	54
do 28...	18.20	.....	Shunting.....	.....	O. Brock.....	14
do 28...	3.50	34	Express	T. Corbett	R. Bulmer.....	164
Dec. 3...	16.00	.....	Shunting.....	.....	J. Cole... ..	18
do 5...	8.00	34	Express	M. Letarte.....	O. Jolivette.....	158
do 7...	10.00	.....	.....	.....	.....	.....
do 7...	11.00	Special.	Freight	E. S. Vye.....	M. Fuller.....	103
do 9...	3.30	do ...	do	N. Merrill.....	{ S. Wilson..... W. G. Bell.....	{ 165 51 }
do 17...	4.00	do ...	do	H. D. Archibald	W. Lovett.....	39
do 30...	12.30	do ...	do	R. W. Vye.....	F. Probert.....	148
do 20...	23.35	do ...	Plow train.....	J. E. Evans.....	C. McCarthy.....	155
do 20...	21.30	.....	Shunting .....	.....	A. Jolivet.....	116
do 25...	20.30	.....	do .....	.....	D. Mains	97
do 27...	8.20	Special.	Freight	J. Swetnam	S. Wilson	143
do 28...	10.45	do ...	Working train...	H. Barreau	do	143

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.
Chaudière	N. Boisvert.....	Employé..	While coupling	Finger crushed...	
Richmond	Jas. Sutton.....	do ...	Fell while pulling bell cord.	Leg injured	
Spring Hill Junc	Jas. Gibson ...	do ...	While shunting.....	Body crushed.....	
Newcastle.....	P. McAlister ...	do ...	While coupling.....	Side injured	
St. John.....	M. Sheppard....	do ...	Fell from ladder	Injured ribs	
Chaudière	A. Lemieux.....	do ...	While coupling.....	Leg injured	
Oakfield.....	Son of Jos. Day (boy).	Neither ...	Attempting to get on train in motion, was run over.	Fatal.....	Accidental.
Sayabec..	— Dubé.....	Employé..	While coupling.....	Leg broken	
Newcastle.....	A. Gould.....	do ...	do	Finger crushed...	
Chaudière	P. Couture.....	do ...	do	do ...	
Near Moncton....	A. Ferguson....	do ...	Walked or jumped off train in motion.	Slightly injured..	
Moncton.....	J. Fenton	do ...	While coupling.....	Side injured.	
Point Lévis.....	Geo. Bégin.....	do ...	do	Hand crushed...	
.....	J. Montgomery	do ...	While checking cars, cinder from engine entered eye.	Injured eye.....	
Newcastle	John Doyle....	do ...	While coupling.....	Thumb crushed...	
Bartibogue	T. Anderson ...	do ...	While jumping on engine fell.	Injured knee	
Belmont	John Kelly, W. Lovett and H. McDormand.	do ...	Collision with car that had blown out of siding.	Slightly injured..	
N'r Berry's Mills	Jos. Holland ...	do ...	Fell off van of train in motion.	Face cut	
N'r Campbelton.	H. Hachey.	Neither....	Struck by wing of plow.	Slightly injured..	
Chaudière	F. Moriset.	Employé..	While coupling.....	Hand crushed....	
Rivière du Loup	R. Emond.....	do ...	do	Arm broken.	
Canaan.....	D. Oulton	do ...	Fell off tender.....	Injured eye and hip.	
Near Gloucester Junction.	W. H. Bell	do ...	Oaught finger in sheave of tackle block.	Injured finger	

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred

Date.	Time of Day.	Number of Train	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1886.						
Dec. 29...	18.00	10	Express	Wm. Kelly	R. Carr.....	63
do 29...	.....	36	Freight	J. S. Evans	S. Ross.....	.....
do 30...	6.30	Special..	do	Jas. Daley.....	R. Smith	92
1887.						
Jan. 5...	7.45	34	Express	M. Letarte.....	O. Jolivet.....	158
do 7...	6.30	5	Freight	G. A. Chesley....	G. C. Palmer.....	52
do 10...	18.30	.....	Shunting .....	.....	James Lawlor	55
do 18...	11.00	46	Freight	John Barry.....	Geo. Montgomery.....	31
do 18...	11.00	46	do	do	do	31
do 21...	11.30	Special..	do	J. Paradis	H. Gorham.....	139
do 24...	17.20	do ...	do	C. B. Humphrey.....	R. H. Coggia.....	103
do 25...	12.30	.....	.....	.....	.....	.....
do 26...	15.00	42	Accommodation.	F. Dumond	{ P. McKenna. H. S. Whitney	30 60
do 30...	4.00	Special.	Freight	H. Barreau	J. Smith	144
Feb. 7...	24.10	11	do	A. W. Melick	S. Watson	50
do 7...	11.20	35	Accommodation.	Z. Lockhart	J. McKay	72
do 7...	14.50	Special.	Freight	Jas Sproull	John McDonald	143
do 12...	.....	.....	Shunting.....	.....	J. McLellan	92
do 14...	18.40	.....	do	H. Garrett .....	.....	93
do 18...	4.30	Special.	Freight	A. Grant.....	Jas. Sproull.....	120
do 28...	23.00	do ...	do	J. Paradis.....	F. Probert	75
do 28...	18.45	13	Accommodation	W. H. Donkin	R. McDonald.....	55
Mar. 3...	12'05	37	Freight.....	J. T. McGinn	A. White.....	47
do 2...	15.00	Special.	Working	H. Barreau	R. Wilson	54

RAILWAY.

on the Line of the Intercolonial Railway, &c.—*Continued.*

Place of Accident.	Name of Person Injured.	Whether Passenger or Employé.	Particulars of Accidents.	Extent of Injury.	Verdict of Coroner's Jury.
St. John.....	Jno. Henderson	Employé..	While coupling.....	Fingers crushed.	
Near Canaan	J. E. Evans....	do ...	Slipped at van door.	Injured leg.....	
Spring Hill Junction.	A. W. Murray .	do ...	While shunting.....	Sprained leg	
Point Lévis.....	Geo. Begin.....	Neither....	While attempting to couple tender to cars.	Hand crushed....	
St. John	Jno. Nickerson	Employé..	While coupling.....	Fingers crushed..	
Ohandière	Nap. Camire...	do ...	do	Thumb do ...	
Notre Dame du Portage.	Jas. Langlais...	do ...	Side rod of engine broke and Langlais jumped from engine.	Fatal	Accidental.
do ...	G. Montgomery	do ...	Side rod broke.....	Slightly injured.	
Cedar Hall	J. Paradis.	do ...	While opening a window	Cut wrist	
Dalhousie Junc.	I. Mabey	do ...	While coupling	Thumb crushed...	
Truro	Walter Miller..	do ...	Piece of casting fell on foot.	Foot do ...	
} Little Metis....	B. Belanger.....	do {	While repairing cars got caught between drawbars	Considerably injured.	
Sayabec	F. Morton	do ...	Fell between cars.....	Injured back	
Sussex.....	F. Estabrooks..	do ...	Caught foot in frog.....	do foot.....	
Moncton	Z. Lockhart....	do ...	Slipped while stepping on car.	Sprained leg	
Glengarry.....	D. Fraser	do ...	Fell off car	Injured foot	
Richmond	Jos. McLellan..	do ...	While stepping on engine slipped, and point of oil can entered neck.	Fatal.....	do
do	Lewis Caun....	do ...	While coupling.....	Hand crushed....	
Hopewell.....	W. E. McLean	do ...	do	do	
Near Metapedia .	A. Desjardins..	do ...	While working in snow..	Foot frozen.....	
Truro	Miss Ferguson.	Neither....	Horse ran away and collided with train or switch rail.	Considerably injured.	
Derby Junction .	B. Sheppard....	Employé .	Jumped off train in motion and slipped under cars.	Fatal	do
Rogerville.....	C. Herbert.....	do ...	While shunting.....	Hand injured	

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred

Date.	Time of Day.	Number of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1887.						
Mar. 17...	15.30	Special.	Freight	H. Barreau.....	J. McGowan	135
do 17...	17.30	38	do	P. E. Heine .....	.....	.....
do 28...	7.00	3	Accommodation.	W. Kelly	A. Davey	49
do 28...	16.00	.....	Shunting	C. Upham.....	J. Stockall	83
April 2...	12.00	Special.	Freight	C. Ayers	Jas. Cooke	72
do 2...	.....	38	do	A. Hunter.....	W. Buck	125
do 7...	16.00	.....	Shunting	C. Smith	Wm. Russell	165
do 12...	14.50	Special.	Passenger	A. B. Vance	J. Wall	62
do 13...	10.00	do ...	Working	S. C. Keith	F. Whitney	68
do 14...	8.05	2	Express .....	.....	W. Lovitt	82
do 17...	23.30	Special.	Freight	G. Margeson	{ J. G. McDonald	7 }
					{ D. S. Yould.....	8 }
do 18...	.....	do ...	English mail.....	J. B. Paulet	J. Gorham	2
do 22...	12.15	do ...	Freight	A. Therriault.....	H. A. Turner.....	75
do 23...	15.15	do ...	do	A. Begin	W. F. Smallwood	135
do 25...	21.50	do ...	do	J. McDonald.....	Geo. Currie	163
do 25...	22.30	do ...	do	W. L. Broad.....	C. McCarthy.....	119
do 25...	16.25	37	do	J. T. McGinn	W. Russell.....	25
do 29...	10.00	Special.	do	S. G. Nickerson	{ Jas. Howie	126 }
					{ J. Steadman	113 }
May 2...	15.00	.....	.....	.....	.....	.....
do 2...	19.30	.....	Shunting .....	.....	M. O'Brien	99
do 3...	21.30	37	Freight	D. Hunter	J. Stratton	144
do 17...	.....	9	Express .....	.....	.....	.....
do 20...	20.45	42	Accommodation.	L. N. Letarte	Jno. Oakleaf	140
do 26...	17.00	.....	.....	.....	.....	.....

RAILWAY.on the Line of the Intercolonial Railway, &c.—*Concluded.*

Place of Accident.	Name of Person Injured.	Whether Passenger or Employé.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Campbelton	F. Anderson ...	Employé..	While coupling	Badly crushed...	
Newcastle	H. Atkinson ...	do ...	While unloading freight.	Injured foot.....	
Shediac	H. Gordon	do ...	While coupling	Finger crushed...	
Dartmouth..	John Spain.....	do ...	Fell off car	Injured leg..	
Sackville.....	M. Connolly ...	do ...	While coupling	Fingers crushed..	
Bathurst	Jno. Harris.....	do ...	Fell from car	Injured side	
Newcastle	Chas. Smith ...	do ...	While coupling	Hand injured ...	
Near Hopewell...	Sister of Charity and Capt. Lemaistre.	Passengers	Cars derailed and ditched	Considerably injured,	
St. John.....	T. Manning.....	Employé..	While getting on train jammed leg.	Leg broken.....	
Halifax	E. M. Power ...	do ...	While coupling	Finger crushed...	
Between Oxford and Thompson	John Fisher	do ...	Train broken apart; afterward collided.	Head and hand injured.	
Campbelton	Jos. Dionne	do ...	While coupling	Seriously injured.	
Near Mill Stream	J. G. Thompson	do ...	Tube in boiler burst, throwing him off engine	Fatal	Accidental.
Little Metis.....	P. Dionne.....	do ...	Jumping from tender.....	Sprained foot.....	
Londonderry	C. McKinnon...	do ...	While coupling	Finger crushed...	
Dorchester	D. Johnston....	Neither ...	Fell under car while attempting to get on train in motion.	Leg cut off	
Near Belledune ..	Jno. Chalmers.	do ...	While kneeling or lying on track was struck by engine.	Fatal	do
Newcastle	T. Robichau ...	Employé..	While coupling	Slightly injured .	
New Glasgow ...	J. Kitchen	do ...	While unloading wire ...	Injured knee	
Moncton	A. H. Lutes	do ...	While coupling	Finger crushed...	
Dalhousie Junct.	Bliss Sears	do ...	do	do ...	
Truro	Kate McDonald	Passenger	Jumped off train while in motion.	Injured head and face.	
Campbelton	O. Gilker.....	Employé..	Fell off tender	Injured leg & arm.	
St. John.....	C. Godsoe	do ...	While shutting car door .	Injured thumb...	

INTERCOLONIAL
RETURN of Accidents and Casualties which have occurred

Date.	Time of Day.	Number of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.
1887.						
June 11...	18.45	Special.	Freight	W. M. Thompson	Geo. Morrison	89
do 13...	20.30	44	do	H. Aubin	C. Saindon	1
do 22...	7.15	Special.	Ballast	J. A. Hughes	W. E. Hunter	118
do 27...	12.30	17	Accommodation	C. J. Rhodes	H. Smith	15
do 27...	18.25	5	Freight	G. A. Chesley	C. McCarthy	48
do 29...	11.30	37	do	J. T. McGinn	W. Russell	107

RAILWAY.

on the Line of the Intercolonial Railway, &c.—*Concluded.*

Place of Accident.	Name of Person Injured.	Whether Passenger or Employé.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Charlo	D. Oulton	Employé..	While coupling	Injured leg	
St. Eloi	H. Aubin	do ...	While getting out of van.	Sprained ankle..	
Rothesay	Jno. C. Gunn ..	do ...	While coupling	Seriously injured.	
Richmond	Geo. Lomas	do ...	do	Finger crushed ..	
Pt. du Chêne ...	W. McManus ...	do ...	do	Hand crushed. ...	
Newcastle	A. Lockhart ...	do ...	While unloading freight.	Back injured	

APPENDIX No. 56.

EASTERN EXTENSION RAILWAY.

OFFICE OF THE CHIEF SUPERINTENDENT,
MONCTON, N.B., 29th October, 1887.

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, 1887.

I inclose the report of the Chief Engineer of the Intercolonial Railway on the permanent way and works, the report of the Mechanical Superintendent of the Intercolonial Railway 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 slight decrease in the gross earnings, as follows:—

1885-86.....	\$66,893 11
1886-87.....	64,107 10
	<u>\$ 2,786 01</u>

This decrease was in both passenger and freight traffic.

The gross expenditure was about the same as last year, \$94,254.04.

The expenditure for ties and fencing was very heavy, amounting to \$28,980.65.

Extensive repairs were made to the wharf at Port Hastings, at a cost of \$2,760.

For the reasons above stated the gross expenditure exceeded the gross earnings \$30,146.94.

The Haggas' system in use for supplying the locomotives with water is not adapted to the present requirements of the road, as it is too slow in its operation and causes detention of trains. It is important that elevated tanks or reservoirs should be substituted without delay.

The permanent way and works, and also the rolling stock received necessary repairs and 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 Government Railways,

Ottawa.

No. 1.—EASTERN EXTENSION RAILWAY.
CAPITAL ACCOUNT, Year ending 30th June, 1887.

DR. CR.

	\$	cts.	1887.		\$	cts.
1887.						
June 30.....				By Dominion of Canada.....	1,284,495	76
To cost of road and equipment.....						
					1,284,495	76
					1,284,495	76

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

No. 2.—EASTERN EXTENSION RAILWAY.

REVENUE ACCOUNT, Year ending 30th June, 1887.

DR.

CR.

Year ending 30th June, 1886.	Year ending 30th June, 1887.	Expenditure.	Year ending 30th June, 1887.	Earnings.	Year ending 30th June, 1887.
\$ cts.	\$ cts.		\$ cts.		\$ cts.
16,795 20	14,933 56	Locomotive power	36,952 48	Passenger traffic	35,649 72
10,187 05	9,336 87	do	22,237 55	Freight traffic	20,275 83
48,311 86	51,311 64	Maintenance of way works	7,703 08	Mails and sundries	8,181 55
8,538 13	7,484 87	Station expenses	66,893 11	Balance	64,107 10
10,923 82	11,187 10	General charges	27,862 95		30,146 94
94,756 06	94,254 04		94,756 06		94,254 04

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

No. 3.—EASTERN EXTENSION RAILWAY.

LOCOMOTIVE POWER—(Abstract No. 1.)

Year ending 30th June, 1886.		Year ending 30th June, 1887.	
\$	cts.	\$	cts.
700 00	Mechanical Superintendent's salary, Clerk's, office and travelling expenses...	3,373 47	
4,228 28	Wages, Drivers, Firemen and Cleaners.....	5,811 13	
4,333 73	Fuel	655 96	
916 60	Oil, tallow, waste and small stores.....	3,805 89	
6,285 73	Repairs to engines, tenders and engine tools.....	517 10	
46 79	Water, including pump and tank repairs.....	770 01	
284 07	Miscellaneous.....		
16,795 20		14,933 56	

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

No. 4.—EASTERN EXTENSION RAILWAY.

CAR EXPENSES—(Abstract No. 2).

Year ending 30th June, 1886.		Year ending 30th June, 1887.	
\$	cts.	\$	cts.
2,180 41	Repairs to passenger cars.....	1,794 78	
200 41	do postal, express and baggage cars	928 52	
1,089 13	do freight cars and vans	1,601 92	
5,489 88	Wages of conductors, train baggage masters and brakemen.....	4,367 80	
424 72	Oil and waste for packing.....	366 65	
419 62	Small stores and fuel.....	196 12	
382 88	Miscellaneous.....	81 08	
10,187 05		9,336 87	

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

No. 5.—EASTERN EXTENSION RAILWAY.

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

Year ending 30th June, 1886.	—	Year ending 30th June, 1887.
\$ cts.		\$ cts.
17,373 06	Wages repairing roadway, fences, semaphores	21,475 18
1,197 50	Rails and fastenings	1,093 00
19,785 86	Ties	13,518 68
7,831 08	Timber, lumber, &c., for repairs to bridges, fences, &c.	9,703 71
2 90	Repairs to wharves	2,745 23
537 42	do buildings and platforms	1,009 56
504 89	do snow ploughs, flangers and tools.....	702 30
971 15	Clearing ice and snow	1,023 40
108 00	Miscellaneous.....	40 58
48,311 86		51,311 64

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

No. 6.—EASTERN EXTENSION RAILWAY.

STATION EXPENSES—(Abstract No. 4).

Year ending 30th June, 1886.	—	Year ending 30th June, 1887.
\$ cts		\$ cts.
6,908 43	Salaries and wages of Station Masters, Agents, Clerks, Telegraph Operators, Baggage Masters, Yard Masters, Switchmen, Watchmen and Laborers....	6,266 32
1,049 59	Fuel, oil, light, stationery, tickets and other incidental expenses	1,184 63
580 11	Miscellaneous	33 42
8,538 13		7,484 37

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

No. 7.—EASTERN EXTENSION RAILWAY.

GENERAL CHARGES—(Abstract No. 5).

Year ending 30th June, 1886.		Year ending 30th June, 1887.
\$ cts.		\$ cts.
2,188 87	Superintendent, Train Despatchers, Clerks, office and travelling expenses....	1,204 83
1,197 63	Accounting Department, salary of the Accountant and Auditor, Clerks, office and travelling expenses.....	519 62
62 25	Advertising	6 01
52 08	Damages to men, animals and goods.....	1,386 05
6,763 43	Ferry	7,939 05
69 91	Telegraph expenses (not including pay to Operators).....	6 52
589 65	Miscellaneous.....	125 02
10,923 82		11,187 10

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

No. 8.—EASTERN EXTENSION RAILWAY.

DR. GENERAL BALANCE, Year ending 30th June, 1887.

CR.

	\$ cts.		\$ cts.
General stores	6,599 73	Dominion of Canada.....	6,270 22
Cash	1,633 94	Stations	2,247 31
Rents.....	24 50	Maine Central Railway.....	559 48
Fines and rewards.....	9 30	International S S. Company.....	847 25
Canada Atlantic Railway.....	5 25	Boston and Maine Railway.....	245 66
Cooke & Co.....	19 80	Bras d'Or Steamship Co.....	55 50
Cape Breton Railway.....	92 26		
Grand Trunk Railway.....	9 30		
Western Union Telegraph Co	265 67		
Departmental Accounts—			
Post Office.....	\$1,448 40		
Militia Department..	100 07		
Individual accounts.....	1,548 47		
	17 20		
	10,225 42		10,225 42

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1887.

 EASTERN EXTENSION RAILWAY.

MECHANICAL SUPERINTENDENT'S OFFICE,

MONCTON, N.B., 28th October, 1887.

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.

The work of repairing rolling stock is still done at Richmond and Moncton.

All the engines, passenger and baggage cars have been kept in good condition; twenty-nine hoppers and two platform cars were broken up and are being rebuilt.

Nothing has been done to improve the water service, although it is much required.

I am, Sir,

Your obedient servant,

H. A. WHITNEY,

Mechanical Superintendent.

D. POTTINGER, Esq.,
 Chief Superintendent,
 Intercolonial Railway,
 Moncton, N.B.

 EASTERN EXTENSION RAILWAY.

CHIEF ENGINEER'S OFFICE,

MONCTON, N.B., 24th October, 1887.

SIR,—I have the honor to submit the following report on the maintenance of the Eastern Extension Railway, for the year ending 30th June, 1887.

The mileage remains the same as last year.

TIES.

During the year, 55,703 ties were renewed, at a cost of \$13,518. The bulk of these were cedar and Prince's pine, obtained in New Brunswick.

FENCING.

Forty-one miles of barbed and lath wire fencing were erected, in place of decayed board and pole fencing, removed or burned.

The cost of this fencing was \$15,461.97, as against \$9,000 last year.

Large repairs were made to snow fences and the remaining old pole fence.

TURNTABLES.

A new top was put on the turntable at Mulgrave, and the table was overhauled and repaired.

WHARVES AND TRESTLES.

At Mulgrave, 60 feet of the wharf was replanked with 4-inch pine; fifty new guards and braces were put in.

At Port Hastings, on the Cape Breton side of the Gut, a new block 55 by 25, and 25 feet in height, was built on the end of the old wharf.

It was sheathed with hardwood, to resist the pressure of the ice.

The old wharf was also repaired and put in good order.

The new block costs \$2,400, and the repairs to the old wharf \$360.

BUILDINGS AND PLATFORMS.

A large portion of the roof of the engine house at Port Mulgrave was renewed. The interior of the station was re-arranged, a new partition put up and walls painted.

The flag station at Gerrior's was painted, and seats provided.

Necessary repairs were made to stations at Harbor au Bouche, Avondale, Tracadie, Heartherton, Antigonish, James' River and Barney's River.

Wells were provided for the station masters at Piedmont and Merigonish.

A passenger platform was put up at Cape Porcupine.

BRIDGES AND CULVERTS.

A trestle bridge, 12 feet span near New Glasgow was replaced with a solid embankment made up with material taken from cliff near Murphy's Mill road crossing.

At Pine tree two new trestle bents were put in.

The 160-foot Howe truss bridge at Sutherland's River was painted two coats of ironclad paint.

Thirty-two floor beams and 27 main and counter braces were renewed in Howe truss at French River.

Howe truss at Dewar's received coats of ironclad paint. Twenty-seven floor beams and 6 lateral braces were renewed.

The trestle bridge at Dewar's Mill was thoroughly overhauled. Seven new bents were put in, 15 stringers, and 6 corbels.

At Barney's River (Howe truss) 22 floor beams, 35 braces and 60 cross ties were renewed.

At James' River the up-stream side of abutment, which was partially washed out last year, was rebuilt and both abutments pointed with cement. Twelve floor beams and 8 braces of this bridge were renewed.

Twenty floor beams and 47 braces were renewed in small Howe truss bridge at Murphy's Mill and 5 braces in the large span at the same place.

Twenty-three bents were renewed in West River bridge, near Antigonish.

Large repairs were made at trestle pile bridges at Gillis's Cave, McKinnon's and Pomquet.

The Howe truss bridge at Pomquet was overhauled and repaired.

Six floor beams, 3 braces, one 30-foot stringer and 14 pairs of washer plates were put in.

At the tenth mile post a pair of wood stringers of a 12-foot beam culvert was replaced by a pair of iron rail girders.

A 2 by 3 cedar box culvert was put in the original watercourse at McLean's, near thirty-mile post.

Twenty-eight pairs of stringers were renewed on beam culverts and cattle-guards during the year.

About 20 feet were excavated off the face of the cliff near Murphy's road crossing, to enable persons using the road to have a better view of approaching trains.

Sixty new farm gates were put in and about 30 farm crossings renewed.

The total expenditure for the maintenance of this 80 miles of road for the year was \$51,311.64. Of this amount \$28,980.65 has been for the renewals of ties and fencing.

After this current year, the expenditure under these heads will be considerably reduced.

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, N.B.

EASTERN EXTENSION RAILWAY.

Return of Accidents and Casualties which have occurred during the year ending 30th June, 1887,—

Nil.

APPENDIX No. 5c.

WINDSOR BRANCH RAILWAY.

OFFICE OF THE CHIEF SUPERINTENDENT,

MONCTON, N.B., 28th October, 1887.

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, 1887:—

- No. 1.—Revenue account.
- 2.—Maintenance of way and works.
- 3.—General balance.
- 4.—Statement of earnings.

I also send you the report of the Chief Engineer on the condition of the permanent way and works.

This line, 32 miles in length, was operated during the year by the Windsor and Annapolis Railway Company, on the same terms as last year, the Company being allowed to retain two-thirds of the gross earnings, the balance, one-third being paid over to the Government, the latter maintaining the line.

There is an increase in the gross earnings accruing to the Government, when compared with last year, as follows:—

1886-87.....	\$25,327 58
1885-86.....	23,658 11
	\$ 1,669 47
The expenditure for maintenance of way and works was	\$26,042 33
The gross earnings for the year amounted to.....	25,327 58
	\$ 715 75

The increased expenditure for maintenance of way was caused by the substitution of steel rails for iron rails in a portion of the track to improve it, and in erecting a new and commodious station and freight house at Beaver Bank and a storehouse for hay at Newport Station.

The usual and necessary repairs were made to the permanent way and works, and they are all in good working order.

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

D. POTTINGER,

Chief Superintendent.

[1887]

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No. 1.—WINDSOR BRANCH RAILWAY.

REVENUE ACCOUNT, Year ending 30th June, 1887.

DR.

CR.

Previous Year.	Expenditure.	Year ending 30th June, 1887.	Previous Year.	Receipts and Earnings.	Amount, Year ending 30th June, 1887.
\$ cts.		£ cts.	\$ cts.		\$ cts.
19,229 49	Maintenance of way and works..... (Abstract No. 1.)	26,042 33	8,105 09	Passenger traffic.....	7,966 42
			14,401 18	Freight traffic.....	16,209 32
			1,151 84	Mails.....	1,151 84
4,428 62	Balance	26,042 33		Balance.....	25,327 58
23,658 11			23,658 11		714 75
					26,042 33

R. B. BOGGS,
Acct., W. B. Ry.

MONCTON, N.B., 30th June, 1887.

Examined,
THOMAS WILLIAMS,
Chief Accountant and Treasurer.

No. 2.—WINDSOR BRANCH RAILWAY.

MAINTENANCE of Way and Works.

Previous Years.	Particulars.	Amount.
\$ cts.		\$ cts
5,479 23	Repairs to track	7,758 53
1,721 78	Rails and fastenings	4,943 96
5,752 92	Ties	2,874 50
269 07	Bridges	899 79
38 01	Signals	65 33
38 25	Culverts and cattle guards	18 80
696 03	Buildings and platforms	2,931 55
20 70	Switch locks	24 15
3,439 45	Fencing	4,545 34
26 30	Hand cars and trollies	18 28
202 14	Tools and repairs	173 06
408 20	Snow ploughs and flangers	578 43
1,127 91	Accountant's office and expenses	1,122 61
9 50	Miscellaneous	88 00
19,229 49		26,042 33

R. B. BOGGS,
Acct., W. B. Ry.

MONCTON, N.B., 30th June, 1887.

Examined,

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

No. 3.—WINDSOR BRANCH RAILWAY.

MONTHLY STATEMENT of Receipts—One-third Earnings.

Month.	Passengers.	Freight.	Mails.	Totals.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1886—July.....	919 72	1,016 31	96 91	2,032 94
August.....	1,052 06	1,016 95	96 91	2,165 92
September.....	809 97	1,841 05	96 90	2,747 92
October.....	677 38	1,842 09	96 91	2,616 38
November.....	574 14	2,108 93	96 90	2,779 97
December.....	631 74	1,377 84	96 91	2,106 49
1887—January.....	421 52	939 21	94 45	1,455 18
February.....	355 03	924 36	94 45	1,373 84
March.....	431 08	1,424 52	94 46	1,950 06
April.....	539 87	1,420 61	95 68	2,056 16
May.....	608 18	1,197 61	95 68	1,901 47
June.....	945 73	1,099 84	95 68	2,141 25
	7,966 42	16,209 32	1,151 84	25,327 58

R. B. BOGGS,

Acct., W. B. Ry.

MONCTON, N.B., 30th June, 1887.

Examined,

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

No. 4.—WINDSOR BRANCH RAILWAY.

DR.

GENERAL BALANCE.

CR.

1887.		\$ cts.	1887.		\$ cts.
June 30	Windsor and Annapolis Railway..	2,595 94	June 30.	Intercolonial Railway	2,382 00
	Stores account	6,278 18		Dominion account	6,492 12
		8,874 12			8,874 12

R. B. BOGGS,

Acct., W. B. Ry.

MONCTON, N.B., 30th June, 1887.

Examined,

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

[1887]

WINDSOR BRANCH RAILWAY.

CHIEF ENGINEER'S OFFICE,

MONCTON, N. B., 24th October, 1887.

Sir,—I have the honor to submit the following report on the maintenance of the Windsor Branch for the year ending 30th June, 1887.

The length of the branch is thirty-two miles.

TRACK.

Three miles of old iron rails were taken up and replaced with steel rails weighing 56 pounds to the yard.

SIDINGS.

A siding was put in at Mount Uniacke and another at the ballast pit near Windsor.

TIES.

Eleven thousand two hundred and thirty-seven ordinary ties and thirteen sets of switch ties were renewed.

BALLASTING.

Seven thousand yards of ballast were put on the main line and siding.

SIGNALS.

All signals were put in good repair and painted

FENCING

Eight miles of barbed and lath wire fencing have been erected in place of old decayed pole fencing. The remainder of the old fence was repaired.

BUILDINGS AND PLATFORMS.

A new station building was erected at Beaver Bank.

A hay shed was erected at Newport.

A new loading platform was erected at Grove's Road.

The freight and passenger platform at Ellershouse was renewed.

Necessary repairs were made to the stations at Windsor Junction, Newport and Windsor.

BRIDGES, CULVERTS, &C.

The masonry of St. Croix, Big Bog and Jordan's Bridges were overhauled and painted.

Weigh scales at Ellershouse and Mount Uniacke were thoroughly overhauled and repaired, new timber being provided for each scale.

The cattle pen at Windsor and the planking of tracks in streets were renewed.

The track is in good order.

I am, Sir,

Your obedient servant,

P. S. ARCHIBALD,

Chief Engineer.

D. POTTINGER, Esq.,
Chief Superintendent,
Moncton.

APPENDIX No. 5*d*.

PRINCE EDWARD ISLAND RAILWAY.

SUPERINTENDENT'S OFFICE,

CHARLOTTETOWN 1st September, 1887.

SIR,—I have the honor to submit the following report on the working of the Prince Edward Island Railway for the fiscal year ending 30th June, 1887.

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, 1886, was.....	\$3,735,980 89
Add to which expenditure on new coal shed and extension of yard at Charlottetown.....	5,800 00
Making the total expenditure to 30th June, 1887...	<u>\$3,741,780 89</u>

The new coal shed is 60 feet long by 30 feet wide, with 24 feet posts. It is situated north of the old coal shed in Charlottetown yard. It is a very serviceable building. A track has been laid into it from which to discharge coal from the cars.

Thousands of loads of brush and 4,000 cubic yards of earth were used in filling up the space inside of the breastwork. Several sidings have been laid on the ground thus made, which are of great service, as additional track room was much needed.

REVENUE ACCOUNT.

The gross earnings for the year amounted to.....	\$155,303 37
Previous year.....	155,584 36
Decrease	<u>\$ 280 99</u>

The earnings per mile of railway compare with the previous year as follows:—

1885-86	\$740 87
1886-87	739 53

A decrease per mile of..... \$ 1 34

The length of road operated in each year was the same, namely, 210 miles.

[1867]

STATEMENT.

	Passengers Carried.	Earnings.
1885-86	120,374	\$62,079 81
1886-87	130,067	66,334 95
	<u>9,693</u>	<u>\$ 4,255 14</u>

	Tons of freight Carried.	Earnings.
1885-86	57,913	\$76,281 20
1886-87	53,587	71,152 52
	<u>4,326</u>	<u>\$ 5,128 68</u>

The engine mileage compared with last year was :—

1885-86	310,434
1886-87	316,763
Increase	<u>6,329</u>

The trains mileage compared with last year was :—

1885-86	249,848
1886-87	248,864
Decrease	<u>984</u>

The car mileage compared with last year was :—

1885-86	1,235,647
1886-87	1,249,892
Increase	<u>14,245</u>

EXPENDITURE.

The working expenses as compared with the previous year was as follows :—

1885-86	\$216,744 34
1886-87	204,237 45
Decrease	<u>\$ 12,506 89</u>

Included in the above, expended on new work, is the amount of \$806.37 for a station masters' dwelling at Hunter River.

TRACK.

One thousand three hundred and seventy-two iron rails have been renewed. Six thousand one hundred and seventy-four steel fish-plates have been put in track to replace broken iron ones. Eight hundred and fifty-four iron fish-plates and six steel rail frogs have been put in.

The necessary surface ditching, and considerable brush cutting has been done.

[1887]

SIDINGS.

New additional sidings have been laid at the undermentioned places :—

At Arthur's Mills, west of Portage, length.....	276 feet.
Larkin's do Conway, do	410 do
McNeil's do Ellerslie, do	335 do
Hughes' Crossing, on Cape Traverse Branch, length...	221 do
Coleman, McKinnon's siding was extended.....	100 do
Colville the siding was extended.....	50 do

At Charlottetown yard the siding room was increased by the addition of 1,000 feet.

At Midgell a spur siding, 200 feet long, with a capacity for these cars, was put in, increasing the siding accommodation on the aggregate by 2,412 feet.

SLEEPERS.

During the year 34,824 sleepers have been put in the track. Twenty-three sets of switch sleepers, and 36 head-blocks, with switch frames, have been renewed.

BALLASTING.

One thousand five hundred and twenty-six cubic yards of stone ballast, and 2,868 cubic yards of gravel ballast have been distributed where most needed to maintain the road in its present high state of efficiency

BRIDGES, CATTLE GUARDS, ETC.

Big Brook Bridge was repaired, and the abutments were pointed with cement. West from Portage, a small bridge of 12 feet span received new stringers and new floor timbers.

The abutments of Pawe's Bridge were rebuilt with stone and the old wooden structure was replaced by an iron girder bridge.

The abutments of Hantley River, Wellington, and Saint Nicholas Bridge were pointed with cement.

Blueshawk Bridge received a new end abutment of hemlock timber.

Mount Stewart Bridge received a new set of stringers. The mason work was pointed with cement, and 75 tons of hard stone were used at ends of bridge.

At Morell Bridge 25 tons of hemlock timber were used to strengthen east side.

At Marie, Midgell, Pine Brook and St. Peter's Bridges, the mason work was pointed with cement.

Baldwin's Brook Bridge received new stringers and long sleepers.

Scrimgeour's Bridge received a new top.

Four timber culverts were built.

Four cattle guards were built, and 11 were repaired. Twelve rubble stone drains were replaced by hemlock timber culverts.

BUILDINGS AND PLATFORMS.

At Tignish the engine house was re-shingled.

At De Blois and Harper's the station platform were rebuilt.

At Alberton, the station building was shingled.

At O'Leary repairs were made to the station and a new floor was laid in the dwelling.

At Port Hill the office received a new floor.

At Bloomfield a new water closet was provided.

At Summerside the freight shed on wharf received a thorough repair. The building was raised two feet, and the water side boarded up. The place was painted,

doors fixed, and everything put in good condition, A new platform 12 by 14 feet, was laid on the east side of this building. Four tons of hemlock timber were put at the end of the wharf to break the force of the waves against the freight shed. The ticket office was altered and is now made more convenient. The station platform was repaired. New sills were put under the baggage room. A section of the engine house was reshingled.

At Kensington a new scale was put in, and a new water closet provided.

At Blueshawk the platform was rebuilt.

At Freetown a new water closet was provided.

At County Line a new cattle pen was built.

At Cape Traverse a crib of hemlock was built on to the corner of the engine house to prevent the sea washing away the foundations.

At Hunter River a station masters dwelling was erected. The coal shed was reshingled, and other necessary repairs made.

At Charlottetown such of the buildings as required it were reshingled. The tar and gravel roof of the station was renewed with "Sparham" roofing. The building was thoroughly repaired, and received two coats of paint outside and the inside was painted, and whitewashed. A new ceiling was put in the ladies' waiting room, and the walls of both waiting rooms were painted. The walls and ceilings of all the offices connected with the station were whitewashed and renovated.

A large sky light was put in the roof of round house. The gravel roof of round house was overhauled and repaired and six iron smoke stacks were renewed. Five thousand five hundred and ninety-eight feet of flooring were laid in round house, and 4,800 feet in carpenter's shop, and new sleepers were laid for the flooring to rest upon. A new engine pit was built, one pit was rebuilt with brick, and Portland cement. A plank sewer 250 feet long, 2 feet 6 inches by 2 feet was put down to carry water from the turntable and engine pits to the shore, and the walls were sheathed up from four feet and painted.

The floor of the machine shop was partly renewed with three inch plank. Seven windows on the south side of the round house were covered with wire netting. The coal shed received eight new tie beams, and ten cross sills, and the building was otherwise strengthened.

Mount Stewart Engine House was repaired. The roof of the Coal Shed was reshingled, and the building otherwise repaired.

The cattle pen was repaired also. A new door and rollers were placed in the freight house.

Morell and St. Peters' Stations were re-shingled. Morell office received a new floor.

St. Peter's Station was whitewashed and painted, and the waiting room floor was repaired.

At Souris the engine house roof was partly re-shingled and other repairs were made to the building. A new three-inch plank platform was laid at the station. New rollers and rods were placed on all doors in the freight house on wharf. A well was sunk at the station. At 48 siding a platform was placed.

At Baldwin's a new flag station was erected.

At Georgetown about half of the coal shed was renewed. Repairs were made to the engine house which was damaged by fire on the night of 26th January last. A new pit was placed in the engine house.

Royalty Junction, Mount Stewart, Cardigan, Georgetown, Morell and Bear River Stations were whitewashed inside.

WHARVES.

Summerside wharf received needed repairs. Ten car loads of stone were used to repair a washout which took place in November.

At Charlottetown 30 tons of hemlock timber, 30 tons of stone ballast and 2 car loads of brush were used to repair west side of wharf. 2,000 feet of 3-inch plank were used in repairing road approach to wharf.

At St. Peter's Bay 400 yards of stone, 17 cars of brush and 40 cars of earth were used to repair the breastwork.

Souris wharf was repaired. Twelve fenders were renewed, and 3,000 feet of 3-inch plank were used to repair top covering and approach. Four cars of brush and 100 tons of stone were used to repair washout at the approach to wharf.

At Georgetown 75 tons of stone and 3 cars of brush were used to repair washout caused by high tides.

FENCING.

About $38\frac{1}{10}$ miles of new barbed wire fence have been erected.

One thousand nine hundred and fifty feet of board fence, 148 feet of pole fence, 500 feet of hurdle fence and 2,300 feet of snow fence were rebuilt.

One and one-half miles of board fence and $2\frac{1}{2}$ miles of snow fence (burnt and blown down) were repaired. One hundred and twenty-two gates and 216 gate posts have been renewed.

SEMAPAORE, SIGNALS, ETC.

All semaphores, switch frames, targets, telegraph signals and outside lamps have received attention when necessary, and are in good condition.

STORES.

The purchase of stores during the year amounted to \$59,403.38.

The value of stores on hand to 30th June, 1887, was :—

General stores	\$ 66,410 33
Coal.....	5,070 89
Rails and fastenings	34,741 79
Old material, serviceable.....	7,932 00
Total	\$114,155 01

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,

Your obedient servant,

J. UNSWORTH,

Acting-Superintendent.

COLLINGWOOD SCHREIBER, Esq.,
Chief Engineer and General Manager,
Canadian Government Railways,
Ottawa.

No. 1.—PRINCE EDWARD ISLAND RAILWAY.
CAPITAL ACCOUNT.

CR.

DR.

1886.	To cost of road and equipment to date.....	\$ cts.	1886.	By Dominion of Canada	\$ cts.
June 30....		3,735,980 89	June 30....		3,735,980 89
1887.					
June 30....	To expenditure, year ended 30th June, 1887— On new coal shed and extension of yard at Charlottetown	5,800 00	1887.	By Dominion of Canada	5,800 00
		3,741,780 89	June 30....		3,741,780 89

[1887]

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1887.

No. 2.—PRINCE EDWARD ISLAND RAILWAY.
REVENUE ACCOUNT for the Year ended 30th June, 1887.

Previous Year.	Expenditure.	Year ended 30th June, 1887.	Previous Year.	Receipts.	Year ended 30th June, 1887.
\$ cts.		\$ cts.	\$ cts.		\$ cts.
51,326 31	Locomotive power	56,534 30	62,079 81	Passenger traffic.....	66,334 95
54,991 07	Car expenses	33,324 96	76,281 20	Freight do.....	71,152 52
73,006 22	Maintenance of way and works	76,309 25	17,223 35	Mails and sundries.....	17,915 90
25,229 70	Station expenses	25,311 38		Total Receipts.....	155,303 37
12,188 04	General charges	12,147 56	155,584 36	..... Balance	46,834 08
	.....		61,159 98	Total Receipts.....	204,237 45
	..... Totals.....	204,237 45	216,744 34	Total Receipts.....	204,237 45

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1887.

No. 3.—PRINCE EDWARD ISLAND RAILWAY.

LOCOMOTIVE POWER (Abstract No. 1).

Previous Year.	Details.	Year ended 30th June, 1887.
\$ cts.		\$ cts.
1,248 83	Mechanical Superintendent's salary, clerks, office and travelling expenses....	1,240 41
14,165 59	Wages of drivers, firemen and cleaners	15,335 85
11,799 68	Fuel.....	11,625 67
2,857 12	Oil, tallow, waste and small stores.....	2,276 46
19,353 84	Repairs to engines, tenders and engine tools.....	24,286 24
300 96	Water, including pump and tank repairs	547 85
1,600 29	Miscellaneous.....	1,221 82
51,326 31		56,534 30

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1887.

No. 4.—PRINCE EDWARD ISLAND RAILWAY.

CAR EXPENSES (Abstract No. 2).

Previous Year.	Details.	Year ended 30th June, 1887.
\$ cts.		\$ cts.
9,855 46	Repairs to passenger cars.....	9,262 08
1,109 06	do postal and baggage cars.	1,219 24
27,944 09	do freight cars and vans	7,036 53
12,365 23	Wages of conductors, train baggage masters and brakemen.....	12,777 75
578 41	Oil and waste for packing.....	540 19
2,466 14	Small stores and fuel.....	2,353 95
675 68	Miscellaneous.....	735 22
54,994 07		33,924 96

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1887.

No. 5.—PRINCE EDWARD ISLAND RAILWAY.

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

Previous Year.	Details.	Year ended 30th June, 1887.
\$ cts.		\$ cts.
404 96	Engineers' salary, clerks, office and travelling expenses.....	419 96
40,074 37	Wages in repairing roadway, fences and semaphores.....	41,479 07
10,348 28	Rails, chains and spikes.....	3,448 65
8,789 78	Ties.....	6,773 18
4,823 03	Timber and lumber for repairs to bridges, cattle guards, fences, &c.....	8,572 59
1,153 17	Repairs to wharves.....	1,897 96
4,812 36	do buildings and platforms.....	6,525 39
1,714 55	do snow ploughs, flangers and tools.....	2,689 00
885 72	Clearing ice and snow.....	4,503 45
73,006 22	Totals.....	76,309 25

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1887.

No. 6.—PRINCE EDWARD ISLAND RAILWAY.

STATION EXPENSES—(Abstract No. 4).

Previous Year.	Details.	Year ended 30th June, 1887.
\$ cts.		\$ cts.
18,982 39	Salaries and wages of station masters, agents, clerks, telegraph operators, station baggagemen, yardmasters, switchmen, watchmen and laborers...	19,099 88
6,247 31	Fuel, oil, light, stationery, tickets and other incidental expenses.....	6,221 50
.....	Miscellaneous.....	.....
25,229 70	Totals.....	25,321 38

W. T. HUGGAN,

Accountant and Auditor

CHARLOTTETOWN, P.E.I., 30th June, 1887.

No. 7.—PRINCE EDWARD ISLAND RAILWAY.

GENERAL CHARGES—(Abstract No. 5).

Previous Year.	Details.	Year ended 30th June, 1887.
\$ cts.		\$ cts.
5,466 83	Superintendent's and Train Despatcher's salaries, Clerks, office and travelling expenses	5,273 94
5,236 78	Accountant and Auditor's, Paymaster's and Cashier's salaries, Clerks, office and travelling expenses.....	5,228 69
519 08	Advertising.....	514 17
164 07	Damages to men, animals and goods.....	362 54
491 80	Telegraph expenses (not including pay to Operators).....	540 09
309 48	Miscellaneous	228 13
12,188 04	..... Totals	12,147 56

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1887.

No. 8.—PRINCE EDWARD ISLAND RAILWAY.

STATEMENT of General Stores Account, Year ended 30th June, 1887.

1886.	DR.	\$ cts.	\$ cts.
June 30...	To Balance brought forward.....		103,333 77
1887.			
June 30...	To Purchase during the year.....	59,403 38	
	Charges from other Departments.....	9,665 74	
	Pay-rolls.....	2,578 17	
			71,647 29
1887.	CR.		174,981 06
June 30...	By Issues during the year.....		60,826 05
	Balance.		
	(Ordinary stores.....	\$66,410 33	
	Fuel	5,070 89	
	Rails and fastenings on hand.....	34,741 79	
	(Old material, serviceable.....	7,932 00	
			114,155 01

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1887.

No. 9.—PRINCE EDWARD ISLAND RAILWAY.

DR.

GENERAL BALANCE.

CR.

	\$ cts.		\$ cts.
General Stores.....	114,155 01	Dominion account.....	118,416 73
Cash.....	2,592 20	Accident Insurance.....	4,247 04
Stations.....	1,019 00		
Militia Department.....	192 13		
Anglo-American Telegraph Co.....	46 43		
Judge Weatherbee.....	30 00		
Sidney Grey.....	25 00		
Post Office Department.....	4,604 00		
Total.....	122,663 77	Total.....	122,663 77

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1887.

No. 10.—PRINCE EDWARD ISLAND RAILWAY.

COMPARATIVE STATEMENT of Averages for Year ended 30th June, 1887.

Details.	1887.	1886.
Mileage of railway open	210	210
Engine mileage	316,763	310,434
Train do	258,457	249,848
Car do	1,249,892	1,235,647
Receipts per engine mile..... Cents	49·02	50·11
do mile of railway..... \$	739·53	740·87
Percentage of passenger earnings to gross receipts	42·71	39·90
do freight do do	45·82	49·03
do other do do	11·47	11·07
Expenses per engine mile :—		
Drivers', Firemen's and Cleaners' wages	4·84	4·56
Fuel	3·67	3·80
Oil, tallow, waste and small stores	·72	·92
Repairs to engines	7·67	6·24
Water and tank repairs	·17	·10
Miscellaneous	·38	·51
	17·45	16·13
Mechanical Superintendent's salary, office and travelling expenses.....	·39	·40
Total..... Cents	17·84	16·53
Locomotive power per engine mile	17·84	16·53
Car expenses do	10·71	17·71
Maintenance of way and works do	24·09	23·52
Station expenses do	7·99	8·13
General charges do	3·84	3·92
Total per engine mile..... Cents	64·47	69·81
Locomotive power per train mile	21·87	20·54
Car expenses do	13·13	22·01
Maintenance of way and works do	29·52	29·22
Station expenses do	9·80	10·10
General charges do	4·70	4·88
Total per train mile.....	79·02	86·75
Working expenses per mile of railway..... \$	972·56	1,032·11

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1887.

PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL SUPERINTENDENT'S OFFICE,

CHARLOTTETOWN, P.E.I., 26th August, 1887.

SIR,—I beg to submit, for your information, the following statements, showing the operations of the Mechanical Department of this railway, for the fiscal year ending 30th June, 1887.

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 and snow ploughs.

E.—Comparative statement of the expenses of the Mechanical Department for the years 1885-6 and 1886-7.

By reference to Statement D. it will be seen that the stock of locomotives, cars and snow ploughs, 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 conductors' 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,

Mechanical Engineer and Storekeeper.

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.
1886—July	33,337	1,382 55	1,136 13	203 82	2,037 45	30 81
August.....	29,998	1,259 04	832 25	206 83	1,832 27	75 92
September....	29,768	1,249 05	903 80	202 58	1,937 35	6 05
October	30,050	1,224 74	932 62	207 20	2,092 54	4 34
November.....	29 103	1,272 49	997 66	212 71	1,974 11	40 51
December	18,975	1,049 28	768 66	147 73	2,384 88	64 29
1887—January	23,323	1,389 07	946 71	201 71	2,215 76	64 04
February ..	21,320	1,269 92	961 70	180 98	1,870 16	68 77
March.....	27,114	1,462 52	1,313 47	194 13	2,600 30	90 17
April.....	22,143	1,312 43	936 74	156 65	2,020 62	45 33
May	21,648	1,135 54	963 89	175 01	1,906 73	36 04
June.....	29,984	1,329 22	932 04	187 11	1,414 07	21 58
Totals.....	316,763	15,335 85	11,625 67	2,276 46	24,286 24	547 85

ISLAND RAILWAY.

DEPARTMENT.

Power for the Year ended 30th June, 1887.

		Average Cost per Mile run.						
Miscellaneous, including expenses of Office and Engine-house.	Total.	Enginemen.	Fuel.	Oil, Tallow &c.	Repairs.	Water.	Miscellaneous.	Total.
\$ cts.	\$ cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
210 46	5,001 22	4·15	3·41	0·61	6·11	0·09	0·63	15·00
224 35	4,430 66	4·19	2·78	0·69	6·11	0·25	0·75	14·77
122 20	4,421 03	4·20	3·03	0·68	6·51	0·02	0·41	14·85
190 24	4,651 68	4·07	3·10	0·69	6·96	0·02	0·63	15·47
271 39	4,768 87	4·37	3·43	0·73	6·78	0·14	0·93	16·38
190 57	4,605 41	5·53	4·05	0·78	12·57	0 34	1·00	24·27
204 07	5,021 36	5·96	4·06	0·86	9·50	0·27	0·87	21·52
196 10	4,547 63	5·96	4·51	0·85	8·77	0·32	0·92	21·33
163 97	5,824 56	5·39	4·84	0·72	9·59	0·33	0·60	21·47
277 92	4,749 69	5·93	4·23	0·70	9·13	0·21	1·25	21·45
205 81	4,423 02	5·24	4·45	0·80	8·81	0·17	0·96	20·43
205 15	4,089 17	4·43	3·11	0·63	4·72	0·07	0·67	13·63
2,462 23	56,534 30	4·84	3·67	0·72	7·67	0·17	0·78	17·85

J. UNSWORTH,
Mechanical Superintendent and Storekeeper.

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.
1886—July.....	3,768	12,181	15,735	789	.....	28,705	85	5,366	34,156
August.....	3,855	11,442	13,433	3,165	5	28,045	251	5,160	33,456
September.....	3,531	11,127	13,335	895	22	25,379	148	5,136	30,663
October.....	3,485	10,626	14,039	484	28	25,177	28	5,329	30,534
November.....	3,567	9,948	13,554	478	48	24,028	167	5,386	29,581
December.....	2,598	1,103	13,402	56	.....	14,561	108	4,362	19,031
1887—January.....	3,287	2,380	14,806	141	1,875	19,202	52	4,210	23,464
February.....	3,003	2,379	12,515	.....	2,636	17,530	90	3,700	21,320
March.....	3,932	2,619	15,571	.....	3,910	22,100	395	4,619	27,114
April.....	3,125	2,886	13,723	46	1,040	17,695	238	4,256	22,189
May.....	3,159	2,994	14,065	1,007	68	18,134	164	4,551	22,849
June.....	4,006	11,266	13,735	2,404	.....	27,405	118	5,275	32,798
Totals.....	41,316	80,951	167,913	9,465	9,632	267,961	1,844	57,350	327,155

ISLAND RAILWAY.

DEPARTMENT.

of Locomotives, for the Year ended 30th June, 1887.

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 Engines.	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.
138,907	.....	4.84	9.07	4.06	10,498	1,134	1,114	483	30.73	3.32	3.26	1.41
146,794	.....	5.23	8.68	4.38	10,578	1,138	1,040	505	31.61	3.40	3.10	1.50
121,602	.....	4.80	8.68	3.96	10,473	1,163	947	499	34.15	3.79	3.08	1.62
131,742	.....	5.23	8.76	4.31	10,491	1,121	917	458	34.35	3.67	3.00	1.50
118,563	252	4.94	8.29	4.00	10,817	1,129	960	486	36.56	3.81	3.24	1.64
83,472	32	5.73	7.32	4.39	8,065	760	669	325	42.37	3.93	3.51	1.70
72,699	9,205	4.19	7.14	3.09	9,502	996	761	404	40.49	4.24	3.24	1.72
65,766	8,088	4.41	7.09	3.08	9,808	1,021	828	304	46.00	4.78	3.88	1.42
85,041	8,262	4.67	6.89	3.13	12,087	1,054	800	423	44.57	3.88	2.95	1.56
81,450	1,392	4.89	7.10	3.67	9,064	786	665	366	40.84	3.54	2.99	1.65
118,747	54	6.57	7.23	5.19	10,351	977	844	407	45.30	4.27	3.69	1.78
142,195	.....	5.19	8.18	4.33	12,249	1,224	1,014	500	37.34	3.73	3.09	1.52
1,306,978	27,285	5.06	7.91	3.99	123,983	12,503	10,559	5,160	37.88	3.82	3.22	1.57

*Deduct piloting in making these averages.

J. UNSWORTH,
anical Supt. and Storekeeper.

PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

C.—MONTHLY STATEMENT of Car Mileage, Year ended 30th June, 1887.

Months.	First-class	Second-class and Baggage.	Postal and Smoking.	Box and Stock.	Platform.	Total.
1886—July	34,115	30,664	9,930	46,059	18,139	138,907
August.....	29,432	30,731	8,289	52,443	25,899	146,794
September.....	26,131	27,971	7,295	46,071	14,134	121,602
October	27,479	27,990	14,466	49,676	12,131	131,742
November.....	23,160	27,275	5,847	56,090	6,191	118,563
December.. ..	15,004	17,270	6,487	37,351	7,360	83,472
1887—January.....	16,209	17,350	9,152	22,615	7,373	72,699
February.....	14,428	14,854	9,495	15,884	11,105	65,766
March.....	16,632	15,547	10,259	22,282	20,321	85,041
April	15,571	16,068	11,842	24,776	13,193	81,450
May	16,966	16,391	13,100	49,033	23,257	118,747
June.....	26,788	27,729	10,900	41,627	35,151	142,195
Totals	261,915	269,840	117,062	463,907	194,254	1,306,978
LESS—Ballasting .....	.....	4,343	2,635	201	49,907	57,086
Balance	261,915	265,497	114,427	463,706	144,347	1,249,892

J. UNSWORTH,
Mechanical Supt., and Storekeeper.

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, 1886 and 1887.

Particulars.	Locomotive.	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, 1886, serviceable.....	21	17	15	3	175	123	3	1	337	8	7	15
do do condemned.....						2			2			
Total Stock, 30th June, 1886.....	21	17	15	3	175	125	3	1	339	8	7	15
Condemned on hand 1st July, 1886.....						2			2			
do during the year.....						5			5			
Less rebuilt.....						7			7			
						2			2			
Add serviceable and repairing.....	21	17	15	3	175	5			5			
						120	3	1	334	8	7	15
Total on record 30th June, 1887.....	21	17	15	3	175	125	3	1	339	8	7	15

J. UNSWORTH,

Mechanical Superintendent and Storekeeper.

PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

E.—COMPARATIVE STATEMENT of the Expenses of the Mechanical Department, for the Year ended 30th June, 1887.

	1887.	1886.
The miles run by trains were	258,457	249,848
do engines were	316,763	310,434
do cars were	1,249,892	1,235,647
do snow ploughs were	27,285	12,754
	\$ cts.	\$ cts.
The cost of locomotive power was	56,534 30	51,326 31
do repairs to cars was	17,517 85	38,908 61
do labor, oil and waste, for packing was	540 19	578 41
do repairs to passenger cars was	9,262 08	9,855 46
do do postal and smoking cars was	1,219 24	1,109 06
do do freight cars and vans was	7,036 53	27,914 09
The cost of locomotive power per 100 miles run by trains was	21 87	20 54
do do do engines was	17 84	16 53
do do do cars was	4 52	4 15
The cost of repairs to cars per 100 miles run by trains was	6 77	15 57
do do do engines was	5 53	12 53
do do do cars was	1 40	3 14
The cost of labor, oil and waste, for packing, per 100 miles run by trains was...	20	23
do do do do engines was	17	18
do do do do cars was	04	04
Repairs to passenger cars per 100 miles run by trains were	3 58	3 94
do postal and smoking cars were	47	44
do freight cars and vans were	2 72	11 18

J. UNSWORTH,

Mechanical Superintendent and Storekeeper.

PRINCE EDWARD ISLAND RAILWAY.

RETURN of Accidents and Casualties which have occurred on the Prince Edward Island Railway, during the Year ending 30th June, 1887.

Date.	Time Day or Night.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.	Place of Accident.	Name of Person Injured.	Whether Passenger or Employé.	Particulars of Accidents.	Extent of Injury.	Verdict of Coroner's Jury.
1886.												
Sept. 4.	8.15 a.m.	8	Express ...	Jno. McDonald	A. J. McLaine	13	Mount Stewart ..	Albert Prowse...	Employé...	Fell out of engine while train was being stopped, after leaving Mount Stewart Station.	Face injured by striking against rail of side track.	
Nov. 15.	.....	.....	.....	.....	.....	.....	Summerside	Murdock McLeod	do ...	While cleaning postal car used on Nos. 1 and 2 trains, fell from ladder to bottom of turntable pit.	Sprained his ankle.	
1887.												
15.	5.50 p.m.	5	Accommodation.	G. W. Hibbett	Charles Moore	4	Georgetown	Thomas Cherry	Neither....	While train was backing down to wharf at Georgetown, attempted to jump on train while in motion and fell between rail and snow drift on side of track.	Left leg crushed and maimed from middle of thigh to ankle by blade and wing of flanger; left hand badly cut; injured internally; died from injuries in six hours.	No inquest held.

[1887]

APPENDIX No. 5e.

CAPE BRETON RAILWAY.

OTTAWA, 16th November, 1887.

SIR,— I have the honor to report the progress made with the construction of the Cape Breton Railway up to this date.

The route from Point Tupper on the Strait of Canso *via* Grand Narrows to Sydney and North Sydney having been adopted by Order in Council dated the 29th October, 1886, immediate steps were taken for the active prosecution of the works.

Plans were at once prepared for a 40 feet by 80 feet block of the wharf at Point Tupper, and on the 30th October, 1886, tenders were invited through the public press to be sent in on or before the 3rd November of that year. In response thereto six tenders were received, that of Mr. O'Donohue being the lowest (\$6,000) was accepted and the necessary security deposit having been made, a contract was entered into with him on the 11th November, 1886, and he proceeded forthwith to get out timber and piles, but he was unable to get them to the site of the work until the following spring. The actual construction of the work was commenced on the 23rd of June, 1887, and proceeded with slowly but surely. It having been impossible under the circumstances to complete the work within the specified time, Mr. O'Donohue asked for and was granted an extension of time, and on the 22nd October, 1887, the resident Chief Engineer having reported the work to have been completed and that it was a very strong, well constructed piece of work, the final certificate was at once issued.

As soon as the route was adopted *via* the Grand Narrows, the location surveys were proceeded with and early in December, 1886, the plans, profiles, specifications and other information relating to the eastern section, between Grand Narrows and Sydney, about forty-five miles in length, were in a condition to exhibit to intending contractors, and on the 15th December, 1886, tenders were invited through the public press to be received up to the 12th January, 1887. In response thereto twenty-one tenders were received, Messrs. Sims & Slater being the lowest tenderers, their tender was accepted, and having made the necessary security deposit they entered into a contract for the work on the 28th January, 1887, and commenced work on the 12th February following. There has not been that life displayed in the work I should have liked to have seen exhibited, neither has the management and organization been such as it should have been, especially as regards the masonry, and the fencing has not received the attention it should have done; the consequence is the work has not advanced with such speed as will ensure its completion by the date called for in the contract. The value of work executed to date is reported at \$204,458.

The country through which the western section, between Point Tupper and the Grand Narrows passes is more varied and not so confined as that on the eastern section, making necessary a much larger amount of preliminary work before the location was finally decided on, but towards the end of May, 1887, the information required to exhibit to intending contractors on the western section, forty-six miles in length, was ready, and on the 31st of that month tenders were invited to be received on the 6th July following. In response thereto, eleven tenders were received, Messrs. Isbester & Reid's tender being the lowest, and they being experienced railway contractors, possessed of the necessary resources for carrying on such a work, and having made the required security deposit, entered into a contract on the 27th July, and on the 17th August following commenced work. Very little work has been done up to this date, as the plant intended for the work was, until then, engaged upon the Sault

Ste. Marie Branch of the Canadian Pacific Railway. It has recently been brought forward in considerable quantity, and indications are that the contractors will have a good working outfit, and that they intend at once to organize upon a large scale. Up to this date, however, the value of work done is only \$14,525, chiefly for clearing the line.

	Miles.
The length of the line from Point Tupper to the point at which the extensions, both into Sydney and North Sydney Spring, is	78
The extension to Sydney	12
do North Sydney.....	8
	—
Making an aggregate mileage of.....	98

As soon as the location was completed and the land lines run out Mr. John McKeen was appointed to value the expropriated land on the eastern division and to make agreements with the owners in all cases where it was possible to do so. He was very successful with his work until he approached the town of Sydney, where the proprietors placed what is considered extravagant prices on their properties. In all such cases Mr. McKeen valued the land taken as well as any damage to the property, and this amount was tendered to the proprietor, *who, in most cases, refused to accept.* These cases will be dealt with under the terms of the Government Railway Act.

A large number of deeds have already been procured, and steps are being taken to obtain them for the balance of the properties through which the line runs.

The terminus at Sydney was being located at Fresh Water Creek, but the citizens of Sydney protested that it was inconvenient and did not meet their views, and they offered to furnish the necessary land, free of charge, from the Fresh Water Creek to Barrack Point, a distance of about one and a-half miles, if the terminus was established at the latter point. The Government have complied with their wishes, and have given me orders to carry the road forward from Fresh Water Creek to Barrack Point as soon as the land required is vested in the Crown.

In like manner the Government have undertaken to build the extension into North Sydney so soon as the town vest the necessary land and land covered by water in the Crown, which the town have intimated their willingness to do.

West of the Grand Narrows Messrs. John McKeen and Duncan McDonald are engaged in securing agreements and valuing the lands and damages. Generally they are meeting with fair success in procuring agreements, but there are a number of cases on both ends of this division in which terms cannot be made with the owners. In these cases the Exchequer Court, it appears to me, will have to be resorted to. The agent of the Justice Department is preparing deeds, in all cases in which an amicable arrangement has been arrived at with the owners.

I have the honor to be, Sir,

Your obedient servant,

COLLINGWOOD SCHREIBER,

Chief Engineer and Genl. Manager of Government Railways.

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

APPENDIX No. 6.

CANADIAN GOVERNMENT RAILWAYS.

OFFICE OF THE CHIEF ENGINEER AND

GENERAL MANAGER OF GOVERNMENT RAILWAYS,

OTTAWA, 10th November, 1887.

SIR,—I have the honor to report the progress made up to date with the railways securing a mileage cash subsidy from the Dominion Government, showing those completed and those in course of construction, with the amounts of subsidy paid in each case and balance unearned.

No.	Name of Railway.	Subsidy Granted.	Com- pleted Road. — Amount Paid.	Works in Progress. — Amount Paid.	Balance of Subsidy Unearned.	Date of Contracts.
		\$	\$	\$	\$	
1	Albert Southern Ry. Co.	51,200	.....	1,000	50,200	23rd May, 1885.
2	Baie des Chaleurs Ry. Co.	620,000	.....	270,000	350,000	7th Nov., 1885.
3	Brockville, Westport and Sault Ste. Marie Ry.	128,000	.....	.....	128,000	16th July, 1886.
4	Buctouche and Moncton Ry.	102,400	.....	40,480	61,920	14th Sept., 1886.
5	Belleville and North Hastings Ry.	22,400	.....	Nil.	22,400	Contract out for signature.
6	Beauharnois Junction Ry.	96,000	.....	Nil.	96,000	do
7	Canada Atlantic Ry.	134,400	.....	92,864	41,536	{ 29th Dec., 1885 12th July, 1886
8	Caraquet Ry.	224,000	.....	170,000	54,000	20th Jan., 1885.
9	Central Ry.	128,000	.....	Nil.	128,000	7th July, 1886.
10	Drummond Co. Ry.	96,000	.....	Nil.	96,000	Contract out for signature.
11	Dominion Lime Co. Ry.	15,360	.....	Nil.	15,360	12th Oct., 1887.
12	Erie and Huron Ry.	96,000	96,000	.....	Nil.	27th Aug., 1885.
13	Elgin, Petittodiac and Havelock Ry.	38,400	38,400	.....	Nil.	25th May, 1885.
14	Great Northern Ry.	82,688	.....	25,088	57,600	{ 14th Feb., 1885 19th Aug., 1887
15	Great Eastern Ry.	19,200	19,200	.....	Nil.	12th Oct., 1886.
16	Guelph Junction Ry.	51,200	.....	Nil.	51,200	5th Nov., 1887.
17	Harvey Branch Ry.	9,600	.....	Nil.	9,600	3rd Oct., 1887.
18	Irondale, Bancroft and Ottawa Ry.	160,000	.....	15,000	145,000	19th Aug., 1886.
19	International Ry.	152,960	152,960	.....	.....	20th July, 1883.
20	Joggins Ry.	42,400	.....	Nil.	42,400	{ 30th Nov., 1886 13th Oct., 1887
21	Kingston and Pembroke Ry.	48,000	48,000	.....	Nil.	5th March, 1885.
22	L'Assomption Ry.	11,200	11,200	.....	Nil.	16th Sept., 1886.
23	Lake Temiscamingue Ry.	25,600	.....	17,400	8,200	25th Nov., 1885.
24	Leamington and St. Clair Ry.	51,200	.....	Nil.	51,200	3rd May, 1886.
25	Montreal and Sorel Ry.	71,472	.....	69,922	1,550	14th Oct., 1885.
26	Montreal and Champlain Junction Ry.	30,000	30,000	.....	Nil.	1st Oct., 1885.
27	Montreal and Lake Maskinongé Ry.	32,000	.....	Nil.	32,000	29th Sept., 1887. 24th Dec., 1884
28	Northern and Western Ry.	312,000	.....	230,000	82,000	26th Nov., 1885 14th Aug., 1886 12th May, 1887 12th Aug., 1887

STATEMENT of Cash Subsidy paid to Railways—*Concluded.*

No.	Name of Railway.	Subsidy Granted.	Com- pleted Road. — Amount Paid.	Works in Progress. — Amount Paid.	Balance of Subsidy Unearned.	Date of Contracts.
		\$	\$	\$	\$	
29	Northern and Pacific Junction Ry...	1,320,000	.....	1,284,400	35,600	12th April, 1884.
30	Napanee, Tamworth and Quebec Ry	39,600	89,600	.....	Nil.	31st Dec., 1883.
31	New Brunswick and Prince Edward Ry.	113,440	.....	97,440	16,000	18th May, 1886.
32	Nova Scotia Central Ry	108,800	.....	Nil.	108,800	17th Oct., 1887.
33	Ontario and Pacific Ry.	281,600	.....	Nil.	281,600	27th July, 1886.
34	Pontiac Pacific Junction Ry.	272,000	.....	150,670	121,330	2nd Dec, 1884.
35	Quebec Central Ry.	211,200	.....	60,342	150,858	2nd Aug., 1884.
36	Quebec and Lake St. John Ry	775,095	.....	647,284	127,811	{ 4th Sept., 1883 10th Feb., 1886
37	St Louis, Richibucto Ry.	22,400	22,400	.....	Nil.	5th May, 1885.
38	St. Lawrence, Lower Laurentian Ry.	217,600	.....	92,813	124,787	20th Feb., 1886.
39	Stewiacke Valley and Lansdowne Ry	80,000	.....	Nil.	80,000	17th Dec, 1886.
40	Toronto, Grey and Bruce Ry.	16,000	.....	Nil.	16,000	20th Jan., 1887.
41	Témiscouata Ry.	498,000	.....	110,194	387,806	21st June, 1886.
42	West Ontario Pacific Ry.	64,000	.....	60,000	4,000	2nd Nov., 1886.
	Total	6,921,415	507,760	3,434,897	2,978,758	

It thus appears that of the roads securing a mileage cash subsidy, 42 have entered into contracts for their construction under the subsidy Acts; of these, 9 companies have completed their roads and secured the full amounts of subsidy, amounting to \$507,760, leaving 33 companies who have their works in progress; of these, 18 companies have the works of construction well advanced, having earned \$3,434,897, leaving 15 other companies who have entered into contracts, but who have not their works of construction sufficiently advanced to have earned any portion of the subsidy.

I have the honor to be, Sir,

Your obedient servant,

COLLINGWOOD SCHREIBER,

Chief Engineer and Genl. Manager of Government Railways.

A. P. BRADLEY, Esq.,

Secretary Department of Railways and Canals,
Ottawa.

APPENDIX No. 7.

DEPARTMENT OF RAILWAYS AND CANALS,
SUPERINTENDING ENGINEER'S OFFICE,
MONTREAL, 23rd November, 1887.

SIR,—I have the honor to submit my report on the various works under my charge, for the fiscal year 1886-87, ended on 30th June last, as called for by your letter No. 72335.

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 amounts 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, 1886, not by ice, but for the want of traffic. The water was drawn off on 21st April, 1887, and let in again on the evening of 4th May, and navigation fully opened on the morning of the 5th. While the water was out of the canal all the works under water received the necessary repairs.

The water throughout the year was kept at a good height in all the levels, both for navigable and manufacturing purposes. No detention of any kind was caused to the trade during the year, nor was it necessary to impose a fine on any of the vessels trading through the canal, as no damage was done to the works, or regulations violated. This, in a great measure, is attributable to the close attention to duty by canal officers.

The traffic through this canal was very brisk during the year. Besides the trade from the Ottawa and Richelieu Rivers, a large portion of the trade from the St. Lawrence below and from the Maritime Provinces enters the canal, thereby increasing the business very much; in fact the new Basin No. 1 and the Wellington Basin are almost constantly occupied by sea-going vessels, as many as twelve of those ships being in these two basins at a time for the purpose of unloading their cargoes of coal, sugar, fish, oils and iron, and taking in return cargoes of lumber, phosphate, flour, pork and other goods.

The ships using these two basins can be loaded to a draught of 18 feet of water; in all the other basins, and all through the canal proper, the draught allowed is 12 feet.

All the mechanical structures and other works in connection with this canal have been kept in the best condition possible, except the old wooden swing bridge that stands immediately above old Lock No. 5, at Lachine, which is past repairing. It will have to be replaced during the coming year by a new bridge, of a different design and dimensions.

The tow-path bridge, spanning the mouth of what was known as the "Priest's Basin," on the south side of the canal, immediately below Lock No. 3, is in a dangerous condition, and should be renewed.

The River St. Pierre, which passes through the whole length of what is known as the Lachine Canal swamp lands, as well as the new cut which was made through said lands by the Department in 1878, and all the off-take drains, have been kept in thorough good order.

The plant for lighting this canal from the lower entrance to Lock No. 3 by electricity was completed in July, 1886. It is known as the Edison incandescent system. This work was done under contract by the Royal Electric Light Company, of Montreal, and taken in charge by the officers of this canal on the 1st of September, following. There are 160 50-candle power lamps, distributed 150 feet apart, on line of canal, from Locks No. 1 to No. 3, and around the basins between these two points.

This mode of lighting has given as good satisfaction as could be expected from the incandescent system, which I consider more suitable for inside lighting, but not to be compared, for outside purposes, with the arc light. This opinion is shared by the trade in general, who would prefer arc lights, as in the harbor of Montreal. I am of opinion that the arc light system should eventually be adopted, instead of the incandescent.

NEW WORKS.

Booms in Timber Basin.

During the winter months 4,000 lineal feet of booms were built for the protection of timber and lumber in the Timber Basin, in the new canal entrance at Lachine.

480 lineal feet of these booms, which are most exposed to the wind and storm, are made of four pieces of pine timber, 12 by 12 inches, kept 3 inches apart by tamarack blocks, at intervals of 6 to 8 feet apart, thoroughly bolted together, and secured at the ends by chains passing around angle irons, bent to the required shape, and securely bolted to the end of each boom.

The remaining portion of these booms, 3,520 lineal feet, are built of three timbers, and in the same manner as the portion above referred to.

They were placed in position at opening of navigation in May last, and have proved a great benefit to the lumber and timber trade.

Mill Street.

An appropriation of \$10,300 having been made towards the macadamizing of that portion of Mill Street between Bridge No. 1 and St. Etienne Street, the work was commenced in August, 1886, and completed in January, 1887.

The macadamizing of this street has brought a much needed relief, not only to the manufacturers on the line of said street, but also to the large traffic from Point St. Charles, as it is the principal inlet into the city for the coal and cattle trade.

Foot Passenger Bridges.

Foot passenger bridges were placed both on the Wellington Street Bridge and on St. Gabriel Bridge No. 3. One single bridge 5 feet wide at the former and two bridges 4 feet wide at the latter.

They do not in any way interfere with the passage of vessels—are of a great benefit to the public—and are highly appreciated by them.

BEAUHARNOIS CANAL.

The canal was closed on 1st December, 1886, and reopened to navigation on 3rd May, 1887. No accident occurred, and consequently there was no interruption to navigation during the fiscal year.

LOCKS AND LOCK GATES.

One pair of gates were built and placed in the lower end of Lock No. 12, also a pair of upper gates at Lock No. 7.

Two pairs of gates were brought to the shop and taken apart; one pair of gates was commenced for the upper end of Lock No. 10 and all the other gates were kept in good order.

The wing walls of Locks No. 7 and 11, which had been damaged, were repaired.

BRIDGES.

Two swing bridges were built and placed; one at Lock No. 10, and the other at Lock No. 11.

The swing bridge at Lock No. 7, and that at St. Timothy received considerable repairs.

Two new bridges were placed over the waste weirs at Locks Nos. 6 and 7, respectively.

Several farm bridges were built over the back ditches on the south side of the canals, and all the others maintained in good order.

BANKS, DYKES, DAMS, &c.

The dyke at Hungry Bay suffered considerably during the year. Two hundred toises of stone have been partly delivered on line of dyke and will be utilized in raising it where required, so as to minimize damages to adjoining properties and facilitate the travel over it.

The canal banks have been maintained in good order. The side walls were repaired. The towpath on north side was rounded and nearly six miles of it were macadamized, the whole being covered with a layer of good gravel.

The culvert wells, discharges and side ditches were cleaned last summer, and in the spring were cleared of snow and ice.

The weeds were mowed on both sides of the canal at the proper time.

Three mooring piers, one 50 by 12 feet, and two 20 by 12 feet, have been built at the lower entrance of the canal.

The long pier also at the lower entrance has received considerable repairs.

Two new guard posts were placed at Lock Nos. 6 and 8, and a tender post renewed at Lock No. 13. Seventy-five mooring posts were set on the north or towpath side of the canal where required.

BUILDINGS, FENCES, &c.

The roofs of lockmen's houses at Locks Nos. 12 and 13, and of lockmaster's house at Lock No. 6, were reshingled. Rooms were made in the upper part of lockmaster's houses at Lock Nos. 6, 7, 9, 10 and 12. The interior of all the dwelling-houses was painted, the repairs staff being employed nearly two months towards the above needed repairs.

The workshop was sheathed inside with tongued and grooved plank, and a bull wheel fitted in the saw mill for hauling timber.

Lock shanties or guard houses were built at Locks Nos. 6, 7, 8, 9, 11 and 12. These small houses are well finished and have been painted inside and outside.

The levels below Locks No. 11, 12, 13 and 14, will require deepening and it is intended to send in May next the new dredge now being built on the Lachine Canal to do this necessary work.

CHAMBLY CANAL.

This canal was closed by ice on the 1st December, 1886, and re-opened on the 5th May, 1887. No accident or interruption of any kind occurred, nor was it found necessary to impose fines or collect damages.

The work done during the fiscal year is described under two headings, viz., "Ordinary Repairs," and "Improvements Chargeable to Income."

REPAIRS.

Both the lower and upper entrance guide piers at Chambly and at St. John's, which had been damaged by ice during the high water of the spring of 1886, were extensively repaired.

The lower entrance pier at Chambly which had been repaired last fall, has resisted the spring flood of 1887, but in order to better secure it against the action of the ice, it is intended to sheet the west or up stream face with two-inch plank, placed perpendicular.

As regards the upper, or St. John's entrance pier, it has been so badly disturbed by this spring ice that it must be entirely rebuilt during the present summer, towards which work an appropriation of \$6,000 has been voted.

Important repairs were made to the canal workshops, as well as to the dwellings and outbuildings occupied by the canal employes. Several of these dwellings are in a bad state and will require extensive repairs.

The old workshop situated opposite the Canal Office and which was threatening ruin, was removed to the canal yard, between Locks Nos. 6 and 7, on the south-east side of the canal, and converted into a good storehouse for cement and other materials.

Four pairs of lock gates for locks Nos. 2, 8 and 9 were placed during the fiscal year. Another pair of gates for Lock No. 4 was built in June and placed in position on 10th of July, 1887.

It might be here stated that owing to the different sizes of the locks on this canal it is necessary to have on hand at least eight different sizes of spare gates in case of accident, the cost of which per pair varies from \$800 to \$1,500, but in order to effect a saving we utilize the old gates which, once repaired and in position, last about ten years.

The widening of the public road between the canal and Mullarky's farm, as provided for in the estimates, was done during the winter, but from the swampy and boggy nature of the ground, the work was very hard to perform. It was nevertheless done in such a way as to give full satisfaction to the travelling public, more especially to Mr. Mullarky, who for years past has been clamoring for that much needed improvement on the front of his farm.

The wooden railing, or garde corps, between Bridge No. 3 and St. John's, has been repaired as usual, where required, but it is intended in the future to replace the present wooden rail, which is very expensive to keep in proper repairs, by a $\frac{3}{4}$ -inch steel cable with metallic caps on head of each post. It will not cost any more than the wooden rail and will last much longer.

At close of navigation on 1st of December last, temporary protection rails or garde corps were placed at the approaches of the three public bridges over the canal to prevent accidents during the winter.

During winter months a railway swing bridge was built across the canal by the Atlantic and North-Western Railway, between Lock No. 1 and Jones' Bridge, at St. John's, according to plans which had previously been submitted to the Department for approval. The construction of this bridge has in no way interfered with the navigation of the canal.

Repairs to banks, locks, gates, culverts, bridges and ditches have been made when required, and in such manner as to ensure the efficient working of the canal during the year.

A timber stringer 2,500 feet in length by 1 foot square has been laid on the top of the south side wall, between Locks Nos. 6 and 7.

Seven thousand three hundred and eighty feet of ditches were cleaned.

Nine bridges on the public road and on the tow path were partially re-built or repaired.

The roofs of the lockmasters' houses of Locks Nos. 7, 8 and 9, as well as that of the bridgekeeper's house at Bridge No. 8, were covered with painted Canada plate. The lockmaster's house at Lock No. 6 was clapboarded inside.

Nine lamp posts were placed to receive new lamps. Forty-five mooring posts were set at different places where required.

The by-wash below Lock No. 6 was entirely rebuilt. The five lighthouses also underwent some slight repairs.

The canal bank at Isle Thérèse, which had been damaged by muskrats at three different places, was repaired in time to prevent any detention to navigation.

At the close of navigation on 1st of December last, an inventory was made by the Superintendent of all tools, materials, plant and properties belonging to the canal, copy of same having been forwarded to and being kept in record in this office. This innovation will lead, I believe, to an important yearly saving, and will facilitate the tracing of small objects which formerly were easily lost. I intend that this practice shall be followed in the other canals under my control.

WORKS CHARGEABLE TO INCOME.

The steam dredge was employed from 1st August, 1886, to 1st July, 1887, lowering bottom of canal at different points where required and making meeting places for vessels, direction posts being set on the upper bank at each end of said meeting places for the guidance of navigators.

The dredging fleet was thoroughly overhauled and repaired during the winter. Two new scows were built for the new dredge now in course of construction on the Lachine Canal, also a large new scow (80 by 19) with hoisting derricks at each end for the more rapid unloading of the dredged material, as well as a new scow for repairs to the banks.

The hull of the dredge and her four scows underwent extensive repairs and were thoroughly caulked and painted.

All these vessels with the exception of the two new scows for the new dredge, are being used in connection with the dredge and the repairs to the embankment between St. John's and Ile Ste. Thérèse.

During the present year the most serious matter has no doubt been the danger incurred to the canal bank between St. John's and Ile Ste. Thérèse, through the unprecedented high waters of the Richelieu River. The embankment on a distance of fully three miles was partly washed away, the dry stone wall facing on the river side, being almost entirely disturbed, so much so that the tow-path at certain places, did not measure across more than eight or ten feet.

Steps were at once taken to effect the necessary repairs and to protect effectively for the future that portion of the canal, a special additional grant of \$12,500 was asked for and voted.

Quarries were opened, stone purchased from several parties and a special force detailed to rebuild the damaged embankment. The work is progressing rapidly and in such a manner as to ensure the permanent safety of that section of the bank against the high water of the Richelieu.

Owing to the extraordinary high water this spring, the sum of \$2,500 which had been voted towards removing some rocky spots in the canal bottom at the Ile St. Thérèse mill and in front of the Charland farm at St. John's, could not be used. The two places above referred to are dangerous to vessels and the work will have to be done next year circumstances permitting.

The opportunity of constructing a new By-wash above Lock No. 2, and the altering of the bridge piers of Bridge No. 1 at the lower extremity of Ile St. Thérèse to receive stop logs so as to facilitate the rapid emptying of the portion of the canal comprised between these two points has formed the subject of a special report under date of 24th October last, and I would here again urge the granting of the amount intended to be placed in the estimates towards that object.

There has been during the lapsed fiscal year a remarkable increase in the number of vessels on this canal, and the important works commenced and those contemplated will put the Chambly Canal in a position to meet the wants of the trade until such time as the constantly growing commercial relations between Canada and the United States will warrant its enlargement.

I must here make a special mention of the able and judicious administration of the canal by the newly appointed Superintendent, Mr. Benoit, who has introduced several needed reforms in the staff, and has shown by his management that he is eminently qualified to fill the responsible position he holds.

ST. OURS LOCK AND DAM.

This lock was closed to navigation on 30th November, 1886, and re-opened on 2nd of May, 1887.

During July and August of 1886, while lock gates were being adjusted, some slight delays to traffic occurred, amounting in all to three hours and fifteen minutes.

There was no accident, nor was it necessary to impose any fine for violation of canal regulations.

The bottom of the lock was cleared of sand and gravel, and the leaks under the mitre sills of the gates stopped with three barge loads of gravel. The lock gates were also raised and adjusted.

The re-building of the upper gates commenced during the winter, and was completed in September, 1886.

In order to secure the piers above and below the lock against the action of the ice, twenty-four posts were placed on the four sides of the six new piers, and the other piers, sixteen in number, were chained on each side. The old piers received considerable repairs during the year.

The banks on each side of the lock, damaged by the high spring water, were repaired and gravelled.

Some slight repairs were made to the planking of the dam where required.

The ice was cut away from the piers and lock gates to prevent damages, and the gates were loaded to prevent their being lifted by high water in the spring.

A quantity of timber and lumber, shipped from Montreal for proposed repairs to the lock, was unloaded, hauled and placed under shelter.

The booms were removed in the fall, and replaced in the spring.

Twenty-four wheelbarrows were made, and the pile-driver repaired.

The Superintendent's house, out-buildings and fences were repaired.

This lock, which has had no repairs beyond ordinary maintenance since it was completed in 1849, is now showing some weak points, which will necessitate extensive repairs.

I intend placing an amount for this object in the next fiscal year's estimates.

During next summer the wings of the required coffer dams may be built, leaving a passage way sufficient for vessels, which passage will be closed after season of navigation in November, 1888.

RICHELIEU RIVER.

The survey on the Richelieu River, between St. John's and Rouse's Point, has been continued during the year. I append the report of Mr. L. G. Papineau, C. E., P. L. S., on the subject.

I have the honor to be, Sir,

Your obedient servant,

E. H. PARENT,

Superintending Engineer.

A. P. BRADLEY, Esq.,

Secretary Department Railways and Canals.

[1887]

LACHINE CANAL.

STATEMENT of Amounts collected for Wood Dues and Winterage of Vessels during the Fiscal Year ended 30th June, 1887.

Date.	Items.	Amount.
1886-87.....	Wood dues	\$ cts. 795 38
	Winterage.....	101 72
	Total	897 10

JOHN O'NEILL,
Collector.

CANAL OFFICE,
MONTREAL, July, 1887.

LACHINE CANAL.

STATEMENT of Basin, Firewood and Bank Dues collected during the Fiscal Year ended 30th June, 1887.

Date.	Items.	Amount.
1886-87.....	Basin dues	\$ cts. 1,293 47
	Firewood dues	59 07
	Bank dues.....	27 00
	Fines	5 00
	Total.....	1,384 54

J. B. DESCHAMPS,
Pro Collector.

CANAL OFFICE,
LACHINE, July, 1887.

BEAUHARNOIS CANAL.

STATEMENT of Fines and Damages collected during the Fiscal Year ended 30th June, 1887.

Date.	Name of Vessel.	Name of Owner.	Fines.	Damages.	Totals.
1886.			\$ cts	\$ cts.	\$ cts.
Oct. 4....	Barge "Marie Immaculate."	C. Champagne	10 00	.....	10 00
do 18....	Barge "Texas"	Geo. Tait.....	.....	40 00	40 00
Dec. 6....	Barge "Detroit"	M. T. Cox.....	.....	20 00	20 00
		Totals.....	10 00	60 00	70 00

J. F. BEIQUE,
Superintendent.

CANAL OFFICE,
MELOCHEVILLE, July, 1887.

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, 1887. (From Lockmaster's Returns.)

Months.	Lock No. 1, Lower Sill.		Lock No. 5, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1886.	ft. in.	ft. in.	ft. in.	ft. in.
July.....	20 7	19 4	13 2	12 3
August.....	19 6	18 1	12 3	11 6
September.....	18 3	17 10	11 6	11 2
October.....	18 3	17 10	11 8	11 0
November.....	18 9	17 8	11 11	11 0
December.....	33 6	18 0	12 5	11 0
1887.				
January.....	32 5	28 7	12 7	10 7
February.....	30 3	27 1	13 6	11 4
March.....	30 3	28 10	12 7	11 0
April.....	40 11	27 7	15 4	11 0
May.....	27 0	22 9	16 4	14 2
June.....	22 7	19 8	14 2	12 7

BEAUHARNOIS CANAL.

STATEMENT showing the Depth of River Water on the Mitre Sill of Lock No. 6, at lower entrance, and Lock No. 14, at upper entrance, during the Fiscal Year ended 30th June, 1887. (From Lockmaster's Returns.)

Months.	Lock No. 6, Lower Sill.		Lock No. 14, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
	ft. in.	ft. in.	ft. in.	ft. in.
1886.				
July.....	13 5	12 8	13 0	12 6
August.....	12 6	11 0	12 10	12 3
September.....	11 0	10 11	12 4	11 11
October.....	11 0	10 9	13 0	11 7
November.....	10 8	10 5	12 7	11 5
December.....	11 3	10 8	13 2	12 1
1887.				
January.....	21 6	12 8	12 10	11 11
February.....	22 0	18 6	13 5	12 0
March.....	22 0	17 3	12 10	12 2
April.....	17 0	16 2	14 6	12 3
May.....	16 10	14 6	13 7	12 10
June.....	14 5	13 7	13 0	12 8

CHAMBLY CANAL.

STATEMENT showing the Depth of River Water on the Mitre Sills of Lock No. 9, at lower entrance, and Lock No. 1, at upper entrance, during the Fiscal Year ended 30th June, 1887. (From Lockmaster's Returns.)

Months.	Lock No. 9, Lower Sill.		Lock No. 1, Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
	ft. in.	ft. in.	ft. in.	ft. in.
1886.				
July.....	10 9	9 9	8 6	8 0
August.....	9 9	8 11	8 1	7 4
September.....	9 0	8 2	8 10	7 1
October.....	8 8	8 1	8 9	7 0
November.....	12 0	8 2	10 0	7 0
December.....	16 7	11 8	9 2	8 9
1887.				
January.....	17 7	12 10	9 2	8 9
February.....	18 7	15 10	9 7	8 10
March.....	19 0	16 1	9 6	9 2
April.....	25 2	16 0	11 8	9 1
May.....	21 3	15 5	12 4	11 0
June.....	15 4	12 6	11 4	9 5

ST. OURS CANAL.

STATEMENT showing the Depth of River Water on the Mitre Sills of St. Ours Lock, during the Fiscal Year ended 30th June, 1887. (From Superintendent's Returns.)

Months.	Lower Sill.		Upper Sill.	
	Highest.	Lowest.	Highest.	Lowest.
1886.	ft. in.	ft. in.	ft. in.	ft. in.
July.....	11 4	9 11	9 9	8 10 $\frac{1}{2}$
August.....	10 4	8 6	8 10	8 3 $\frac{1}{2}$
September.....	9 4	8 3	8 5	7 10
October.....	9 5	7 11	8 7	7 11
November.....	10 6	8 2	10 6	8 0
December.....	13 11	11 5	10 7	9 6
1887.				
January.....	13 0	11 3	10 0	8 7
February.....	15 8	12 5	11 9	10 0
March.....	15 4 $\frac{1}{2}$	14 3	11 7	10 5
April.....	25 8	14 5	21 1 $\frac{1}{2}$	10 2
May.....	21 10	15 7	17 7	12 9
June.....	15 2 $\frac{1}{2}$	11 4	12 7	10 8

St. JOHN'S, Que., 26th November, 1887.

SIR,—I have the honor to transmit my annual report concerning the hydrographic survey of which I have had charge, under your control, during the fiscal year 1886-87.

The work consisted of the survey of the Richelieu River, already begun, and on which I had the honor to send you a report in 1886, as also in 1885.

At the beginning of the fiscal year, July, 1886, the outside work was commenced by making a survey of that part of the Richelieu River immediately below the rapids at St. John's. A triangulation, as well as the topography of this section, were made to serve for a plan that will be plotted when the necessary soundings and levels shall have been taken.

In September, 1886, this survey was interrupted in order to resume that of the upper part of the Richelieu, between Ash Island and the boundary of the United States

The channel was sounded and examined over its whole length, and with particular attention at a point a little below the boundary line, where a rocky shoal is found with small depth of water, lying in the prolongation of the range lights of Ash and Bloody Islands. We also surveyed the low lands bordering on the west shore, and several points on the east.

This survey of the low lands, not included in our former survey, was produced down to Hospital Island, over a distance of eight miles from the boundary line and on both sides of the river.

The outside operations were stopped on the 27th November, owing to the cold weather, and the winter months were employed in plotting the plans of these surveys and making reductions to a smaller scale of the work of the previous year, in order to prepare a general chart of the upper part of the river.

The outside work was again resumed in June, 1887, when the stage of the river allowed us to establish the limit of the cultivated lands between St. John's and Isle aux Noix.

This has been continued during the summer of 1887, completing the whole hydrographic survey of the Richelieu between St. John's and the boundary of the United States, and when the maps of these are finished we shall be enabled to present a comprehensive report of the results obtained, as well as a chart of this part of the river.

I have the honor to be, Sir,

Your most obedient servant,

L. G. PAPINEAU.

E. H. PARENT, Esq.,

Superintending Engineer of Canals of Quebec,
Montreal.

 APPENDIX No. 8.

 OTTAWA RIVER CANALS.

SUPERINTENDING ENGINEER'S OFFICE,
OTTAWA, 5th August, 1887.

SIR,—I have the honor to submit herewith my annual report for the fiscal year ending the 30th June last, upon the Ottawa River Canals, dealing with the works both of construction and maintenance.

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

D. STARK,
Superintending Engineer.

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

STE. ANNE'S CANAL.

CONSTRUCTION.

The only work here under the head of construction has been the deepening and straightening of the canal entrance above the locks, under contract to Messrs. E. E. Gilbert & Sons. This is now practically completed, all remaining to be done being the clearing away from the bottom of the excavation, loose pieces of rock by divers. It will be entirely finished in the course of the present month.

MAINTENANCE.

The navigation closed here on the 27th November, 1886, and reopened on the 4th May, 1887.

It has since been conducted uninterruptedly and without accident. The "raft navigation" having been only temporarily inconvenienced, by the construction of the large span across its channel of the Canadian Pacific Railway bridge, which necessitated the passing of the rafts through the lock, in cribs.

Ordinary repairs to lock gates, buildings, &c., have received the usual attention and some rather wholesale renewals made to the long "dam pier" above the old lock. The piers of the channel across the river to Isle Perrot have also received repairs where required, some necessary renewals of fender booms made, and a new lifting scow has been provided.

CARILLON CANAL.

CONSTRUCTION.

Nothing under the head of construction has been done upon this canal during the past year.

MAINTENANCE.

The canal was closed by ice on the 30th November, 1886, and reopened for traffic on 2nd May, 1887.

The locks and all relating to them here are in good order, the only outlay found necessary being for chain renewals, repairs to machinery and some painting.

On the towing path, which was originally formed of stiff clay and consequently became extremely soft in wet weather, it was found necessary to bestow a certain amount of grading and macadamizing, which is now completed.

All requisite repairs have also been made upon the Government roads, fences and bridges. A building originally erected as an office by the Ordnance has been converted into a suitable dwelling house for the canal collector here, an accommodation that was much needed. It is now on the eve of completion.

GRENVILLE CANAL.

CONSTRUCTION.

Nothing coming under the head of construction has been done here during the year.

MAINTENANCE.

The locks here are all in good order and little had to be done to them during the year.

Some pointing to the walls had to be done and the usual amount of attention and repair was bestowed upon the lock gates and machinery.

A few new valves have been inserted and some new chains provided.

New suspension rods had also to be placed upon two pairs of the lock gates.

As regards the canal, the repairs found necessary to buildings, tow paths, fences &c., have received attention, and two new watch houses have been erected, one at Lock No. 3 and the other at Lock No. 4.

The traffic has been carried on throughout these canals uninterruptedly and without detention of any kind.

The dates of the closing and opening of the Grenville Canal are the same as those of the Carillon, viz., the 30th November, 1886, and the 2nd May, 1887.

CULBUTE CANAL.

CONSTRUCTION.

Nothing in the shape of construction has been done.

MAINTENANCE

The only passages made through this canal during the year were by one or two of the vessels belonging to the Upper Ottawa Improvement Company, as it is called.

Some necessary renewals to the cribbing forming the lock walls had to be made in order to render the gates effective, the hold fasts of the suspension gearing having given way.

The canal was closed at the end of November, 1886, and re-opened on the 1st May, 1887.

D. STARK,

Superintending Engineer, O.R.C.

APPENDIX No. 9.

CORNWALL CANAL.

CORNWALL, 5th August, 1887.

SIR,—I have the honor to submit the following annual report on the works under my charge, for the fiscal year ended 30th June, 1887.

The Cornwall Canal was maintained in an efficient state, until the 8th December, 1886, when it was closed by ice. It was opened for navigation on the 4th of May, 1887, and maintained in good working order up to the 1st of July last.

The works executed during the past season come under the head of ordinary repairs and construction.

Rebuilding one pair of lower lock gates. General repairs to all lock gates, supply weirs and bridges. Building new scow 53 feet by 14 feet, making six new lock gate knees, and ten sheaves. Raising embankment and repairing slope walls. Clearing outside ditches and drains, and repairing lock houses, &c.

I have the honor to be, Sir,

Your obedient servant,

D. A. McDONELL,
Superintendent.

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

APPENDIX No. 10.

WILLIAMSBURGH CANAL.

SUPERINTENDENT'S OFFICE,
MORRISBURGH, 2nd August, 1887.

SIR,—I have the honor to submit my report on the working and condition of the Williamsburgh Canals, for the year ending the 30th June, 1887.

These canals include the Farran's Point, Rapide du Plat, Point Iroquois Junction and Gallops Canals, and were maintained in good order and without any interruption to navigation during the season thereof. They were closed on the 4th December, 1886, and re-opened for traffic on the 31st May, 1887.

FARRAN'S POINT CANAL.

The repairs on this canal consisted of repairs to lock gates and banks, placing some snubbing posts, new sheaves on chain holes, repairs to crabs and rebuilding portion of the ice breaker at the foot of the canal, which had been injured by the breaking of the ice jam in the spring of 1886.

The ice bridge formed during last February, from Croil's Island to the Canadian shore, and ice jam from that island to the American shore, created a jam of ice which extended some miles westward, the breaking of which this spring again did very serious injury to this ice breaker and pier. This jam was the worst that has occurred in the neighborhood from the high water in the river. I have not been enabled to rebuild this pier as yet, but as soon as the water falls, during the fall months, the requisite repairs will be made to it.

RAPIDE DU PLAT CANAL.

All the necessary repairs were done to the lock gates, and the banks kept in good order on this canal. The dock at the foot of the canal was rebuilt, and some repairs done to the pier at the head of canal; several new snubbing posts were also placed on banks.

Some difficulty has occurred near the head lock of this canal in keeping the channel clear of boulders and other obstructions thrown up by the dredges working on the improvements, though all exertions have been made that could be to prevent it.

POINT IROQUOIS JUNCTION AND GALLOPS CANALS.

The gates at Lock No. 25 received repairs; the upper gates at Lock No. 26 were taken out and rebuilt; and new blocks for the gates were placed on the coping at upper gates of Lock No. 27. The swing bridges over Locks Nos. 25 and 26 were repaired. The pier at the head of the Gallops Canal injured by ice in the spring of 1886 was rebuilt, and any repairs required to the other piers of these canals were made. The banks of these canals are in good repair, and the booms in Point Iroquois Canal have been properly maintained.

The buoy boat and scow were repaired and the buoys on the River St. Lawrence, between Johnstown and Dickinson's Landing, under my charge replaced in their proper positions this spring and so maintained.

From the water in the River St. Lawrence continuing high during the season, good depth of water has been kept in all the canals.

I annex a statement showing the depth of water, on the sills of the locks at the entrance and outlets of these canals, during the year, and also a statement of fines imposed.

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

A. G. MACDONELL,
Superintendent Williamsburgh Canals.

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

STATEMENT showing the extreme depth of water on the Mitre Sills of the several locks of the Williamsburgh Canals, during the year ending 30th June, 1887.

FARRAN'S POINT CANAL.

Months.	Lower Sill Lock 22.		Months.	Lower Sill Lock 22.	
	Highest.	Lowest.		Highest.	Lowest.
1886.	ft. in.	ft. in.	1887.	ft. in.	ft. in.
July.....	11 5	10 10	January.....	12 10	8 6
August.....	11 0	10 3	February.....	13 6	10 6
September.....	10 8	10 0	March.....	14 6	11 3
October.....	11 6	9 6	April.....	12 0	10 3
November.....	10 10	8 6	May.....	11 6	10 10
December.....	10 0	9 2	June.....	11 6	11 0

RAPIDE DU PLAT CANAL.

Months.	Lower Sill Lock 23, Foot of Canal.		Upper Sill Lock 24, Head of Canal.	
	Highest.	Lowest.	Highest.	Lowest.
1886.	ft. in.	ft. in.	ft. in.	ft. in.
July.....	11 8	11 1	11 9	10 6
August.....	11 3	10 3	11 0	10 3
September.....	10 6	10 0	10 8	10 0
October.....	12 0	9 3	12 0	9 6
November.....	11 6	9 0	11 2	8 9
December.....	10 6	9 1	10 6	8 9
1887.	ft. in.	ft. in.	ft. in.	ft. in.
January.....	10 9	8 10	9 6	8 0
February.....	20 01	9 9	13 0	8 6
March.....	18 7	12 10	13 5	10 6
April.....	12 8	10 4	11 6	10 0
May.....	11 7	11 1	11 9	11 0
June.....	11 8	1 0	11 8	1 0

* This high water was caused by ice jam at Farran's Point.

[1887]

POINT IROQUOIS AND GALLOPS CANALS.

Months.	Point Iroquois Canals. Lower Sill Lock 25, Foot of Canal.				Gallops Canal. Upper Sill Lock 27, Head of Canal.			
	Highest.		Lowest.		Highest.		Lowest.	
	ft.	in.	ft.	in.	ft.	in.	ft.	in.
1886.								
July.....	14	3	13	9	12	2	11	3
August.....	14	4	13	0	12	0	11	0
September.....	13	6	12	6	11	4	10	7
October.....	13	9	11	6	11	3	10	0
November.....	14	9	11	3	12	0	9	7
December.....	13	2	10	10	10	7	9	3
1887.								
January.....	12	4	10	8	10	2	8	10
February.....	14	9	10	9	11	0	8	10
March.....	14	9	12	10	10	9	10	3
April.....	14	6	12	11	12	0	10	6
May.....	14	7	14	3	12	2	11	8
June.....	14	9	14	0	12	0	11	0

WILLIAMSBURGH CANALS.

STATEMENT of Fines and Damages, collected during the year ending 30th June, 1887.

Date.	Name of Vessel.	Name of Owner.	Fine.	Damage.	Total.
			\$ cts.	\$ cts.	\$ cts.
1887.					
Sept. 8...	Scow "Agar".....	G. Hull & Co.....		18 00	18 00
Nov. 5...	Barge "J. Buckley".....	U. C. T. & Co.....	3 00		3 00
		Total.....			21 00

APPENDIX No. II.

WELLAND CANAL.

SUPERINTENDENT'S OFFICE,

ST. CATHARINES, 29th September, 1887.

SIR,—I have the honor of herewith submitting my report on the condition and working of the three canals under my charge, viz., the Old, the New and the Feeder, for the year ending 30th June, 1887.

The canals have been operated successfully throughout the year, without serious accident.

The new aqueduct at Welland, having been sufficiently advanced to completion by the opening of navigation, has been used since by all classes of vessels, affording every satisfaction.

Vessels drawing 14 feet have been passing through the new canal, without any difficulty, since the commencement of the season.

The harbor of 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 a few weeks since.

The eastern pier at Port Dalhousie requires re-building the coming winter, as it is completely rotted to the water's edge.

The canals were closed 4th December, 1886, and opened 4th May, 1887.

I have the honor to be, Sir,

Your obedient servant,

WILLIAM ELLIS,

Superintendent.

A. P. BRADLEY, Esq.,

Secretary Department Railways and Canals,

NEW WELLAND CANAL—DETAILS OF WORK OF REPAIRS AND MAINTENANCE.

DIVISION No. 1—FROM PORT DALHOUSIE HARBOR TO LOCK No. 13.

Port Dalhousie Harbor.

The end of east pier was injured by ice in the winter by a heavy gale from the north-west, which took the end completely out, besides otherwise injuring the dam. This was repaired and put in good order, but the entire pier requires rebuilding from end to end above water line, being quite rotten.

Gate Yard and Shop—(Port Dalhousie).

The capping on the piles at head of Lock No. 1 all repaired and put in good order. The spare lock gates have all had pieces fitted between the binders and then through bolted to prevent the binders from being split by ice when drawing the levels down

for any purpose during the winter. The old office used as a toll collector's office has been converted into a dwelling house for the overseer of Division No. 1. The lock-master's house repaired and new basement floor put in, new ceilings in basement, and windows, inside painted one coat, outside two coats.

The old repair scow of Dunnville was drawn out on the skids and thoroughly rebuilt, also the pontoon thoroughly overhauled and painted. Made twelve large signs and posts for ends of bridges. The swing bridge at Old Lock No. 1 was overhauled, new braces, posts, hand rail, and plank put on. The scow "Sir Charles" repaired and put in good working order for the season. The engine and all mill machinery has been put in good condition; after the winter's work of raising the lock gates, 1,200 oak wedges made, and two large pontoon floats drawn out, caulked, and otherwise repaired; 280 shaft boxes made. Floating pile driver drawn out on skids, and thoroughly repaired and caulked.

The towpath bridges have had considerable repairs done to them, as they are badly worn with the heavy teaming last winter.

Lock No. 1, Bridge No. 1, and Level.

The swing bridge had extensive repairs. New cross heads (extra heavy) put in wash weir with new matrix for hoisting.

Bottom of lock chamber in a very bad condition; was cleaned by hand dredging. Several new cables put on. The bridge for public travel over waste weir had considerable repairs, and was replanked and painted.

Lock No. 2, and Level.

Put on two walings and six opening cables; one repaired. Diver repaired lower sill and put on four new slips at two lower valves in head lock gates. The lock chamber in bad order and was cleaned out. Navigation was interrupted several times owing to rubbish in bottom of lock, which was removed by the diver.

Lifted two lock gates and put on the thrust plate; washers let in bottom girt, and through rods cut off.

Lock No. 3, Bridge No. 2, and Level.

Lock gate valve taken out, repaired and replaced. Lifted two lock gates and put on thrust plates; washers let in bottom girt, and through rods cut off.

Lock No. 4, and Level.

Repaired bridge on top of lock gate. Put on two short and two long cables. Lock gates taken out, repaired, and replaced.

Lock No. 5, and Level.

One valve leaf gave out, and was put back in place by diver. The track of the head lock gates taken out and the segments cleaned out, track laid back again and large quantity of stone and rubbish taken out. Several ditches along the base of canal banks were opened, about 380 feet.

Bridge No. 3 (Lake Street).

Approaches repaired and new plank put on. Two new timbers put in float, 12 by 12 inches by 29 feet.

Bridge No. 4 (Railway Bridge).

Put on two pieces waling, one piece 8 by 12 inches by 35 feet and one 8 by 12 inches by 22 feet. Two new timber floats, and floats repaired several times. New chains and clevises used.

Lock No. 6, and Level.

Put on two short and two opening cables. Old track taken out of foot gates and new wrought iron one laid for toe roller of foot gates.

Two lock gates lifted, new thrust plates put on, washers let in bottom girt and through rods cut off.

Bridge No. 5 (Geneva Street).

In fair order.

Lock No. 7, and Level.

Valve in head lock gate repaired by divers.

Bridge No. 6 (Niagara Street).

Put in 4 new float timbers 12 by 12 by 21 feet. New waling 8 by 12 by 30 feet, and 252 feet of 2 by 8½ plank used in planking bridge floor.

Five hundred and seventy-six 2-inch plank used to cover bridge over culvert.

Lock No. 8, and Level.

Repaired binder, and put on one long cable.

Lock No 9, and Level.

Lock gate bridge repaired, 180 feet ditching to carry of soakage water.

Bridge No. 7 (Queenston Road).

Floats repaired by new protection piers.

Three pieces of 12 by 12 by 36, 37 and 38 feet long put in floats, 1 piece oak 6 by 12 feet and 12 eyebolts.

The approaches to the bridge have been overhauled, and put in good order by having new plank put in where required, and old plank repaired, using 380 feet 2 by 8½-inch plank.

Lock No. 10, and Level.

Put on 2 long and 2 short cables. Bridge and binder of lock gate repaired, one new intermediate put on.

Four hundred and ninety feet ditching at base of canal banks was done to carry off soakage water.

Bridge No. 8 (Homer Road).

Put new timber for floats, 12 by 12 by 30 feet, one new waling 8 by 12 by 40 feet, and one 8 by 12 by 23 feet, new plank put on bridge.

Lock No. 11, and Level.

One binder repaired with plates, and screw bolts.

Put on one long and one short cable.

The level was drawn off and a large stump taken out of the waste weir valve, and one out of the bottom of the reach.

Two hundred and seventy-eight feet ditching dug to open up for soakage water.

Lock No. 12, and Level.

Put on one new long cable. Two binder ends repaired.

One new extension piece put on and three wood screws put in.

The right foot raised and oak sole piece put under and the long ends of through rods cut off to prevent cutting the lock bottom.

Two lock gates lifted and new thrust plates put on; washers let in bottom girt and through rods cut off.

DIVISION NO. 2.—FROM THE FOOT OF LOCK NO. 13 TO BRIDGE NO. 13 (MARLATT'S.)

Lock No. 13, Bridge No. 9, and Level.

Cleaned out bottom of lock chamber; adjusted four gates and put on six new cables and repaired four old ones; binders on head gates spliced.

Lock No. 14, and Level.

Cleaned out bottom of lock chamber, raised two gates and put thrust plates under heels. Put on four new cables and repaired four old ones.

Lock No. 15, and Level.

Cleaned out lock chamber; lifted four gates; put on four new extension steps; repaired head and foot sills, also floor of lock; replanked head of mitre sill and sheet piled along king sill and put screws in valves. Put on seven new cables and repaired four old ones.

Lock No. 16, and Level.

Lifted two lock gates and put on new thrust plates under heels; cleaned out lock chamber and St. David's Road Tunnel; put on five new cables and repaired four old ones.

Lock No. 17, and Level.

Lifted two lock gates and put on new thrust plates; cleaned out lock chamber, waling repaired and put on seven new cables and repaired four old ones.

Lock No. 18, and Level.

Lifted two lock gates and put on new thrust plates; cleaned out lock chamber; set screws in valves; put on five new cables and repaired four old ones.

Lock No. 19, and Level.

Cleaned out lock chamber; lifted two lock gates and put on thrust plates; also set screws in valves; waling repaired; put on six new cables and repaired four old ones.

Lock No. 20, and Level.

Cleaned out lock chamber; lifted one lock gate and put on thrust plates; six new cables put on and four old ones repaired.

Lock No. 21, and Level.

Cleaned out lock chamber and set screws in valves. Put on seven new cables and repaired four old ones.

Lock No. 22, and Level.

Put on five new cables and repaired four old ones, cleaned out lock chamber.

Lock No. 23, and Level.

Put on five new cables and four old ones repaired, cleaned out lock chamber and set screws in valves.

Lock No. 24, Bridge No. 10, and Level.

Put on two new cables. Lock chamber cleaned out and set screws put in valves, two lock gates lifted and thrust plates put on. Mitre sills repaired head and foot of lock.

Bridge No. 11 (Railway Bridge).

Railroad bridge floats repaired sundry times, also feeder work.

Lock No. 25, Bridge No. 12, and Level.

Put on six new cables and repaired four old ones; lock chamber cleaned out. Lifted one lock gate and put on thrust plates, set screws in valves. Put on six sets of hoisting gear on waste weir and put iron rack at head of weir and replanked weir bridge.

Guard Lock.

Put on new cables, adjusted lock gates, and removed gravel and stone from mitre sill with diver.

Bridge No. 13 (Marlatt's).

Floats repaired sundry times. Cut thisles and weeds on banks and Government lands from Lock No. 13 to Allanburgh, and banks repaired from Lock No. 24 to Allanburgh. Cut sweet clover, and thrashed out seed and put it in storehouse to sow canal banks.

DIVISION No. 3.—FROM BRIDGE No. 13 (MARLATT'S) TO AQUEDUCT AT WELLAND.

Bridge No. 14 (Allanburgh).

Planked bridge and approaches.

Bridge No. 15 (Port Robinson).

Repaired bridge approaches 400 feet long by lowering fenders and cutting down old and driving new piles and putting on new walings and caps.

Port Robinson Lock.

Repaired highway swing bridge.

Bridge No. 16 (Quaker Road).

Repaired waling, east side; repaired and planked bridge on the Hurricane Road; moved Government house back from dumping ground, South Bridge, No. 16, on the east side of canal.

Port Robinson Storehouse.

Drove piles and built new dock, 60 feet long, at Port Robinson storehouse, and built new storehouse.

Banks, Ditches, &c., &c.

Cleared out ditches and repaired banks, throughout the division; also cleaned out stone road ditch several times; deepened ditch on east side of canal, at Marr's farm; put in snubbing posts at Port Robinson; repaired and caulked the workman's repair boat, also tool scow No. 1.

DIVISION No. 4.—FROM AQUEDUCT, WELLAND, TO PORT COLBORNE HARBOR.

Welland Lock.

Dredged out the lock chamber, which was in bad condition.

Aqueduct.

This great work was sufficiently completed to admit of vessels passing through it from the opening of navigation.

Old Swing Bridge (Welland).

Strengthened bridge by heavy plates and bolts.

New Swing Bridge, No. 17 (Welland).

In fair order.

Bridge No. 19, Junction.

In fair order.

Air Line Ferry (Humberstone).

Removed Air Line Ferry Float Bridge into position for winter use, and replacing same back again into its summer berth and extended approaches.

Bridge No. 21 (Humberstone).

Repaired planking of bridge.

Floats (Rock Out).

Repaired floats several times.

Port Colborne Lock and Bridge.

Repaired swing bridge, damaged by the steam barge "D. D. Calvin."

Harbor (Port Colborne).

Sharpened and drove 145 oak piles, and built new tug dock, 350 feet long. Removed and repaired pier, seriously injured by storms. Quarried out stone and faced banks of harbor with same. Built W. C. for tug men's use.

Harbor Master's and Lock Tenders' Dwellings, etc.

Built new kitchen to lockman's house, and shingled another one. Repaired harbor master's house. Hauled stone off lock tenders' lot and levelled up the same. Built 602 feet fencing around lock tenders' premises, Port Colborne.

Back Ditches, Banks, Culverts, Etc.

Cleaned out and repaired apron of ditch running from back ditch to canal, south of Air Line Ferry, south side of canal; also cleaned out, stoned up and covered back ditch on King street, Port Colborne. Opened up ditch south of Welland town; also opened up ditch on concession between Port Colborne and Humberstone, running from back ditch to canal, and back ditch north and south of Humberstone, west side of canal. Put culvert under tow-path, east side of canal, concession 3; also culvert under tow-path, Ranny's Bend, and built stone wall in rear of lots on north side main street, and west side of canal, Humberstone. Set snubbing posts and repaired banks of canal throughout the Division. Hauled stone and brick for canal Toll Collector and Customs house, Port Colborne.

I append statements, marked 'A' and 'B,' 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, 1887; also a comparative statement of the average for the year, 1886 and 1887, which shows the water has been three inches lower at Port Dalhousie and 4 inches higher at Port Colborne. The average for June, 1887, new locks, Port Dalhousie 17 feet 10 inches, and Port Colborne 16 feet 6 inches.

"A."

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, 1887.

Months.	Lower Sill.		Months.	Lower Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1886.	ft. in.	ft. in.	1887.	ft. in.	ft. in.
July.....	15 5	14 9	January.....	13 7	13 0
August.....	14 10	14 4	February.....	14 4	13 6
September.....	14 6	14 0	March.....	14 6	14 1
October.....	14 4	13 7	April.....	15 0	14 3
November.....	13 7	12 11	May.....	15 4	15 0
December.....	13 6	13 3	June.....	15 4	15 0

Ft. In.

Average, June, 1886..... 15 5

do 1887..... 15 2

[1887]

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, 1887.

Months.	Upper Sill.		Months.	Upper Sill.	
	Highest.	Lowest.		Highest.	Lowest.
1886.	ft. in.	ft. in.	1887.	ft. in.	ft. in.
July.....	13 10	13 1	January.....	14 2	11 9
August.....	13 9	12 9	February.....	15 2	11 7
September.....	13 11	12 2	March.....	13 11	12 4
October.....	14 3	11 9	April.....	14 3	11 10
November.....	15 3	11 6	May.....	13 10	13 2
December.....	14 8	11 10	June.....	14 5	13 3

Ft. In.
Average, June, 1886..... 13 6
do 13 10

" B. "

Statement showing the Depth of Water on the Lower Mitre Sill of New Lock No. 1, Welland Canal, at Port Dalhousie, for the Fiscal Year ending 30th June, 1887.

Months.	Lower Sill.	
	Highest.	Lowest.
1887.	ft. in.	ft. in.
April.....	17 10	17 3
May.....	18 2	17 8
June.....	18 1	17 8

Average for June, 1887..... 17 ft. 10 in.

STATEMENT showing the Depth of Water on the Upper Mitre Sill of New Lock, Welland Canal, at Port Colborne, for the Fiscal Year ending 30th June, 1877.

Months.	Upper Sill.	
	Highest.	Lowest.
1887.	ft. in.	ft. in.
April.....	17 3	14 8
May.....	16 9	16 0
June.....	17 4	16 2

Average for June, 1887..... 16 ft. 6 in.

 OLD WELLAND CANAL.

DETAILS OF REPAIRS AND MAINTENANCE OF THE WORKS ON THE OLD WELLAND CANAL.

Lock No. 1, Bridge and Level.

Cut off piles on inside of floats, as directed, so as to allow the floats between Weaver's Point and Reed's Island to be taken out for use at dam at Lock No. 1, New Canal. Hauled out and piled timber for new bridges at Weaver's Point, and for short bridge on towpath above said point.

Bridge at Weaver's Point.

Removed old bridge, cut off piles from 2 feet to 5 feet below water level, capped with 10 by 12 inch pine, erected new bents thereon, built new superstructure thereon, 120 feet long, 14 feet wide, covered with 3-inch pine, with 6 by 8 inch string, through bolted to stringers of bridge.

Bridge above Weaver's Point.

Removed old bridge, framed and put in place new bents to act as retaining walls at both ends of bridge, the originals being rotted away; sheeted bents with 2-inch pine. Put new bridge on top of same, 24 by 12 feet, covered with 3-inch pine, with 6 by 8 cap string through bolted to stringers of bridge.

Bridge at Welland Vale Works.

Took old planking off toe approach. Put in six new stringers 6 by 12 inch and relaid toe approach with 3-inch oak plank, size 24 by 30 feet.

Cleaned long float bridge, painted new float bridgefoot of Lock No. 2 and put in two new snubbing posts, painted two lockhouses, dug out the foundations for the two bridges at Weaver's Point, also building and filling in the approaches to the same. Repaired banks and towing paths with stone facing from Weaver's Point to Lock No. 2, and cleaned out the two waste weirs and built up bridge walls at Binfield's crossing, carried away by spring freshets.

Lock No. 2, Bridge and Level.

Repaired railing at toe approach of bridge at axe factory; raised Lock No. 2 bridge on pivot and adjusted rods of same; raised sill of kitchen at Lock No. 2 dwelling, and put stone support under same; put cove under ceiling of kitchen, eased doors, set steps at outside door; drove 20 piles in tail race behind axe factory; put three rows of 5 by 8 inch oak waling on upper tier, one row on lower tier, all securely bolted to piles; drove a double course of sheet piling, upper tier, 2 feet long in spillway, 8 feet long on wings, cut piles off at proper height.

Bridge at Shipyard.

Took old crib work at ends of bridge down about 2 feet below water line, and rebuilt them. Built new truss bridge 52 by 12 feet, covering it with plank taken off old bridge. Built two new pontoons for floating bridge into and out of place. Oak frames covered with 2-inch pine, properly caulked and payed. Dug out foundation for towpath bridge and filled up same.

Lock No. 2, Waste Weirs.

Put new throat piece in valve at lower weir. Repaired iron on both weirs. Put in two new snubbing posts.

St. Paul Street Bridge.

Stripped toe approach. Raised end next road 2 inches. Relaid approach with 3 inch pine, covered with 2½ by 7 inch oak plank. Put a support for gas pipe on abutment of bridge. Stripped and relaid 190 feet in length of towpath under bridge with 3-inch pine. Jacked up toe approach of bridge. Took out post at lower front corner

Framed and put in place new post securing the same. Removed oak planking on heel of bridge. Removed portion of the dock at Norris' storehouse, 24 feet in length by the width of the same, to make room for temporary bridge, replacing same when temporary bridge was removed. Drove nineteen piles for temporary bridge across canal, tennoned and capped with two pieces of 5 by 10 inch oak through bolted. Built thereon a bridge 140 by 24 feet covered with 3-inch pine; put railing on both sides 5 feet high with guard rail in centre of post, and 8 by 8 inch timber on top of floor. Built sidewalk on upper side of bridge 3 feet wide, protected by railing 3 feet 6 inches high, and built stairs at end of bridge for the convenience of foot passengers. Removed bridge and drew out piles when new approach was complete. Built new frame work for lock of bridge on resting abutment, when bridge is open and fastened same securely in place. Made and fastened securely in place, a bumper block at heel end of bridge. Removed railing of approach where required to make room for derrick, replacing the same when repairs to approach were complete. Tore out old frame work of approach and drove piles where required. Cutting them off to receive floor, placing thereon a floor of 12-inch timber covered with 3 inch pine, on which the masons built new stone approach. Put two streaks of 6 by 10 inch oak waling below water line on piles, in front of approach, through bolted to piles with 1 foot 4-inch screw bolts, solidly between waling, and stone work of approach. Rebuilt sidewalk at both sides of approach after stone work was complete. Built and put in place five pannels of railing at towpath end of bridge. Framed and put in place a light truss bridge 6 feet by 35 feet, leading from sidewalk to sail loft, to replace the one torn down to make room for roadway leading to temporary bridge. Built a flight of stairs leading from sidewalk up to bridge at sail loft. Made and hung two gates in railing with hooks on same. Dug out foundations for new abutment, and built new stone abutment for the toe approach, and new wing walls, and filling up approaches; also macadamized the same, and put in a flag crossing.

St. Paul Street Bridge Tenders House.

Built new stone foundation for house at bridge on lower side of same, made new door frame and door fitted, hung and fastened; put joists in cellar, and laid rough 2-inch floor on same, moved house from old site upon new foundation, put new joists in house and laid 1 foot 4-inch floor; made new chimney stand and placed it under chimney with 3 shelves and door hung, laid new base in house, repaired inside sheeting window casing, stops, etc., where required, made and placed new door frame, and door for house. Built platform and walk in front of house, covered front of platform with lattice work, and put railing at end, and sides of platform where required for safety. Built stairs at side of house leading down to cellar, fitted up bank also shelving, painted new work three coats white lead and oil. Replaced sign at roadway on bridge also sign over sidewalk.

Bridge over Twelve Mile Creek, etc.

Made some repairs to bridge. Drove 17 piles at upper end of boathouse, sheeted face of piles with 3-inch oak, 5 feet above water mark, length of sheeting 70 feet. Cut piles off at top of sheeting. Repaired platform, and door of boathouse broken by ice during freshet in February last.

Bridge at Shickluna Saw Mill.

Built new bridge across tail race at saw mill, size 24 by 16 feet; 4 stringers 8 feet by 12 inches, 2 stringers 6 feet by 12 inches. Covered with 3-inch pine with 6 inch by 8-inch cap stringers through bolted to stringers of bridge. Rebuilt crib at each end of same from water line to top of bridge.

Lock No. 3, and Level.

Made and put in place new slash boards on waste weir to replace those carried away by freshet. Put 4 new rollers on weir for hoisting and lowering upper slash boards. Repaired floats, and put in two new snubbing posts; painted lock house.

Canal Office.

Took old ceiling off upper hall, and put on new matched sheeting, with cove at intersection of ceiling and put two coats raw oil on same size 13 by 44 feet; set partition in loft of barn and put up shelving for patterns, put inside shutter on windows and made sundry alterations and repairs, and put in step ladder. Sheeted stairway leading to basement of office, and hall of basement all around, 4 feet high, repaired doors, etc.

Lock No. 4, Bridge and Level.

Stripped Lock No. 4 dwelling, repaired roof boards, and covered main building and kitchen with metallic shingles giving same one coat fire proof paint. Put sashes in 5 windows. Repaired doors of dwelling, etc. Put in $1\frac{1}{2}$ -inch bolt through balance beam filling, and top girt of head lock gate heel-path side. Tightened bolts of bridge, and painted same. Repaired floats, and took floats of piles from where carried at time of freshet—drew to place and secured with chains; repaired railings of same, and put on new planking where required. Laid platforms at doors of kitchens.

Lock No. 5, Bridge and Level.

Raised bridge on pivot, and made some repairs to planking of same. Moved house for locktenders from Lock No. 6 down to Lock No 5.

Put balance beam casting on head lock gate, towpath side. Repaired, and renewed bolts in balance beam castings on all the lock gates. Built wire fence around lockhouse lot.

Lock No. 6, and Level.

Put new timbers under and re-set crab, and through eyebolts in head lock gates. Repaired and renewed bolts in balance beam castings on all the lock gates.

Gate Yard and Shop (St. Catharines.)

Finished one lock gate for foot Lock No. 7, painted same two coats, and launched it. Took one high left lock gate from yard to pond at back of Lock No. 14 and laid it away. Finished framing timber for one lock gate for foot Lock No. 3. Repaired capstans and timber buggies in yard. Made two step-ladders. Prepared stuff for putting up shelving for patterns in barn back of Canal office. Repaired eleven wheelbarrows. Prepared and put up sheeting for ceiling of hall at Canal office. Made twenty-seven waste weir gates without valves and nine waste weir gates with valves, made of two thicknesses of 2-inch oak, through bolted, size 3 feet 7 inches by 4 feet 7 inches.

Repaired and stiffened pile drivers and scow. Set up driver on scow. Put twenty shears between deck and floor beams of scow. Cut off, sharpened and shod twenty-three piles for driving Lock No. 2 spillway. Put handles in twenty-four ice chisels. Made various repairs to lock houses and sundry working plant. Filled ice house at yard. Did work on lock gates for foot of Lock No. 3. Repaired pile driver and set it up on scow for driving piles, at St. Paul Street Bridge. Took pile driver off and fitted scow out to go to Dunnville. Took blocking from under bridges at Locks Nos. 4, 5 and 7, leaving them in good swinging order. Framed some material for second lock gates, foot of Lock No. 3. Hauled out and stripped old lock gates taken out of Lock No. 7, and one old lock gate lying in pond at yard. Painted derrick in yard. Jointed and piled plank for sheeting lock gates. Got out jamb linings and mouldings for door and window in basement hall at Canal office. Made box drain 18 feet by 12 by 14 inches for towpath at Lock No. 4. Made outside porches and two storm doors for Lock No. 4 dwelling, and put same in place.

Lock No. 7, Bridge and Level.

Put one pair of new lock gates in foot of lock, taking old gates to yard. Put new push bars for shutting them on both gates in lieu of old balance beams. Re-set crab at both gates. Raised bridge on pivot, put one extra roller under heel of bridge. Changed positions of rollers under heel and toe of bridge. Repaired toe approach and put new planks on bridge. Put new circle plank on heel of bridge.

Picked up lock gates in pond at Lock No. 2, brought it up and put it in head of lock—tow-path side—after taking out old one. Put new timbers under and re set crab at this gate, putting on new style of shutting gear with wire cable instead of chains. Took old lock gate to gate yard.

Hydraulic Race.

Built truss fences at upper and lower ends of Riordon's lot, size 34 by 6 feet, sill 8 by 12 inches, resting on 10 by 12 inch oak sill, 7 feet long, with $\frac{1}{2}$ -inch truss rod on both sides. Door at each end of fence properly hung and fastened to permit men on race to pass through. Repaired bridge, Thorold road.

Lock No. 8, and Level.

Made and put in place new slash boards on waste weir. Re-set timber under crab. Renewed and repaired bolts in balance beam castings on all the gates in lock.

Lock No. 9, and Level.

Framed and put in place new balance beam on foot gate—tow-path side. Put new push bar for shutting in place. Put timbers for and re-set crab. Made and fixed new foot board for head lock gate, and put new cap on sheave block.

Lock No. 10, and Level.

Stripped roof off kitchen at dwelling, and covered same with metal shingles; also stripped roof of dining-room and covered it with pine shingles, giving both roofs two coats fire-proof paint.

Lock No. 11, and Level.

Made and fixed temporary gate front of opening in waste weir where gate had been carried away. Drew down level and filled opening with 3 inch oak. Made and laid box drain, 112 feet by 10 by 12 inches, for draining pond at the back of lock.

Lock No. 12, and Level.

In good order.

Lock No. 13, and Level.

In good order.

Lock No. 14, and Level.

Put in new holder irons and foot boards to foot gates.

Lock No. 15, Bridge and Level.

Took down and removed old swing bridge to gate yard Lock No. 21. Erected new Howe truss swing bridge across canal, size of roadway, 12 by 78 feet, with rack and single operating gear. Painted bridge three coats, and built new heel and toe approaches. Laid 200 feet of sidewalk, and built bridge across culvert west side of lock. Made and put up storm porch to locktender's dwelling.

Lock No. 16, and Level.

Drew off level, and removed stone obstruction from lock chamber.

Lock No. 17, and Level, and Government Quarry.

Repaired lock tenders' dwelling and fences; put up derrick in quarry.

Lock No. 18, and Level.

Repaired lock tenders' dwellings.

Lock No. 19, and Level.

In good order.

Lock No. 20, and Level.

Removed obstruction from waste weir. Took out and repaired one gate, and re-hung the same.

Lock No. 21, and Level.

Built and put in new chain pump in lock tenders' house, also storm porch, and painted lock house.

Gate Yard and Shop (Thorold).

Built wheel house over the water power. Built new tool boat complete for the summit level (new canal) repair gang's use, size 12 by 30 feet, by 2 feet 6 inches in depth, with cabin, and fitted up with stone benches and pumps; also tool boat No. 3, complete, for Division No. 4 repair gang's use, size 12x29 feet, by 2 feet 6 inches deep, with cabin, fitted with lines and pumps. Built two punts for tool boats, size 16 by 4 feet, by 1 foot 5 inches deep, and made one scull oar for the same. Put slash saw in shop. Built new derrick scow for the summit level repair service, size 20 feet beam, 50 feet run over all, 5 feet depth of hold, derrick 18 feet high, with two booms, 12 by 26 feet, fitted out with two crabs for boom hoist and lift, and all necessary blocks, lines, etc.; fitted up cabin with four bunks, cook stove and complete outfit for eight men. Put in floor to shop and wheel house. Rebuilt one pair of lock gates for Lock No. 24. Made a set of patterns for new swing bridge, Marlatt's Crossing. Made two 30-foot lock rakes. Rebuilt one lock gate for Lock No. 16. Put new upper floor in shop, battened outside and painted same. Made six 12-foot ice chisels. Put new stanchions under stone floor of Government scow, "Sir Charles," and put in new pump and covering boards. Partly recaulked scow "Sir John"; also repaired and caulked crane scow "Hercules."

Lock No. 22, Keefer's Bridge and Level.

Rebuilt raceway gates on towpath side; pointed up the lock and waste weir walls with cement; raised and put steel plates under pivot of bridge; painted lock house.

Lock No. 23, and Level.

Pointed lock and waste weir walls with cement.

Lock No. 24, Bridge and Level.

Raised and put steel plates under pivot of bridge and repaired floor of same; drove eight new piles at foot of lock and took off old waling and put new waling on approach. Put on new roller and repaired crabs and slash boards of waste weir; lifted gate at head of lock and diver replaced step in position, put gate back on step and lift all complete. Took out old foot gates and put in a pair of rebuilt ones; put on Walton's rig for operating same without balance beams. Replanked road bridge across race-way 20 by 32 feet; built new bridge across mill-race near lock, 12 by 23 feet. Rebuilt double gear for swing bridge; level drawn off for spring repairs; walls of lock and waste weir pointed up with cement. Stopped leak in waste weir.

Lock No. 25, and Level.

Removed obstruction from supply valve; built new foot bridge, 4 by 30 feet across head of lock; made a heavy timber frame and put in a new supply valve in waste weir. Filled up washout and put in thirteen yards of cement wall; built wood rack 40 by 4 feet under old iron rack of waste weir. Level drawn off for spring repairs; lock and waste weir walls pointed up with cement and stopped leak in waste weir.

Guard Lock.

Caulked the lock gates.

Hurst's Swing Bridge.

Repaired bridge and replanked same and put new timber head and platform to carry abutment.

Marlatt's Swing Bridge.

Repaired heel approach and replanked floor of old swing bridge and rebuilt part of toe approach and put on new swinging rope. Built temporary bridge 12 feet wide and 90 feet long while new one was under way. Took down the old swing bridge and erected a new Howe truss composite bridge 12 feet wide and 87 feet long; rebuilt the approaches to new swing bridge; ballasted them with 80 yards of stone and gravel.

In good order.

*Allanburgh, Swing Bridge.**Three-Mile Level.*

Cleaned out and deepened 260 yards of Beaver Dams Creek. Removed small house from supply weir to east side new canal at Allanburgh for a telephone station; put platform and chimney to same. Cleaned out and opened up all the ditches, etc. Faced 640 yards of banks with broken stone, and repaired break in Higgin's waste weir.

Allanburgh Lift and Guard Lock and Bridge.

In good order. Built new kitchen, fence and sidewalks, and sundry repairs to lock master's dwelling. Cleaned out ditches, filled up gullies and repaired canal banks, etc., both sides. Planked new bridge and approaches, Allanburgh.

FEEDER CANAL.

FEEDER JUNCTION TO DUNNVILLE AND PORT MAITLAND—23 MILES.

From Dunnville to Stromness and Port Maitland, distance six and one-third miles, there are two locks, four swing bridges, three waste weirs, with thirty-six stop gates. Bridge 600 feet by 18 feet, one apron below dam 640 feet long, eleven piers, 10 by 18 by 15 feet, and twenty-six flood gates. One tool house. 1,000 feet boom timber in Grand River, above dam, to prevent driftwood and rubbish from entering waste weirs. 1,735 feet of embankment, 8 head gates at entrance of mill ponds, twelve stationary bridges with an aggregate length of 1,800 feet, two lock tenders' houses, two bridge houses, five culverts, one overseer's house and office, work shop, store house, repair scow and three punts. Two 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 line.

From Stromness to Bolton Ditch, Marshville and Junction, sixteen and one-third miles. One lock, three swing bridges, two stationary bridges, one sluice way, three culverts and two rock ditches. The supply of water has been equal to the demand, and sufficient to furnish the milling and manufacturing interests along the Division to the close of the season. There has been but one accident during the year, caused by a small scow running into the crib at foot of Port Maitland Lock, on 14th November; she drove a hole in her bow, causing her to sink across the mitre sill. The owner and crew abandoned her, and the tug "Douglas" drew her back out of the lock. I had her sides, bow and stern torn off, and there is 10 feet of water covering her where she lies, about 100 feet below the foot of the lock.

Sunken logs and other obstructions have been removed out of Feeder channel and cut between Stromness and Point Maitland.

Waste Weirs.

The logs and rubbish carried down the Grand River by the spring freshets and driven into the valves and in front of weirs have been drawn out and dumped into the creek at the foot of same. The top gates have been repaired where broken by ice, chains and books repaired, screws cleaned and lifting rods straightened. All the top timbers have received a coat of paint. All the broken and worn plank on the bridges have been removed and new ones put in their places.

Dam, Apron and Stationary Bridges.

The apron below dam has been carefully repaired as well as the lower floor under the tool bridge. Six new flood gates have been put in and twelve repaired. The old top plank and two decayed sleepers have been removed from tool bridge and new ones put in their places; also the top covering repaired on the stationary bridges across the entrance to Smith's and Marlatt's mill ponds, and stop gates repaired. The old bridge across Mr. Chamber's mill race rotted and had to be removed. This bridge was 92 feet long by 16 feet wide, which was shortened up to 24 feet by 12 feet, the vacant ends being then filled with clay and gravel.

Guard Lock.

The foot gates have been repaired and balance beams painted, screws cleaned and foot boards renewed. The mitre sills have been cleaned out and rubbish removed from behind the gates. New chains put on, etc., etc.

Swing Bridges.

The swing bridges have been raised on their pivots, properly balanced and track levelled where disturbed by the frost. Old sleepers under toe and heel approaches removed and new ones put in to support the top covering. Old, worn out and broken plank taken up and new ones put down in their places. The slopes around the approaches have been filled in with clay and covered with gravel when washed away. Bridges have all been painted.

Embankments.

The embankment across the Grand River has been repaired with stone and clay, ruts filled in and leakages stopped.

Culverts.

The exposed ends of timbers in the culverts have been painted, and grates in well holes taken out and cleaned. Slats repaired and grates laid back in their places and properly secured. All driftwood and rubbish have been cleaned out of entrance to culverts and piled and burned.

Locks.

The mitre sills of Port Maitland Lock and Junction Lock and the chambers have been cleaned out, and all rubbish and sediment removed, and the sheeting in the back of gates repaired.

Lock and Bridge Houses.

All the lock houses and bridge shanties have been painted, and the locks and bridges supplied with tamarac pike poles, and timber lifters. Boom chains repairs.

Canal Banks.

Towpath repaired throughout and faced with stone protection.

GENERALLY.

All the gearing connected with the lock gates throughout, also the numerous waste weirs, and highway and railway bridges across the canals and the machinery connected with the same have been renewed where necessary and kept in good repair throughout the season, and the same has been done with the lock gates of waste weir valves.

All thistles and weeds have been cut as usual on all Government property, ditches and culverts everywhere cleaned out and deepened where required.

All bridges blocked up for winter use.

WILLIAM ELLIS,
Superintendent.

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

APPENDIX No. 12.

RIDEAU CANAL.

RIDEAU CANAL OFFICE,

OTTAWA, 28th September, 1887.

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, 1887.

The Navigation closed at Ottawa 29th November, and at Kingston Mills 30th November, 1886.

Opened at Ottawa 3rd May, and at Kingston Mills 2nd May, 1887.

The water in the descending reaches from the summit level to Ottawa was maintained to full height required on the sills of the different locks until the close of navigation.

In the descending reaches from the summit level towards Kingston, the level on the upper sill at Newboro' (first lock descending) fell below navigation height by the middle of September, and continued falling until the close of navigation, when it fell five inches below.

On the Kingston Mills reach the water fell below navigation height on the 30th July, and commenced falling until the close, when it registered 1 foot 4 inches below navigation height, showing the necessity of keeping this reach at the opening of navigation to 6 feet 9 inches on the upper sill which has hitherto been customary.

The spring freshets this year on the Rideau were higher than usual, and the ice when it broke up unusually solid. This was no doubt caused by the large snow fall and steady cold weather of last winter. Fortunately during the freshet, cold nights prevented the water raising as fast as it otherwise would have, as well as the absence of rain. The new bulkhead at Hogsback stood the strain brought upon it without damage, but would strongly recommend that the area of discharge should be further increased by excavating the rock in the channel south of the bulkhead, as well as putting a boom from the bulkhead to Angus Point, a distance of some 1,600 feet to hold in the solid ice in the bay which generally does all the damage to our works.

All the road bridges between the Hog's Back (saving the new iron ones at New Edinburgh) and the Ottawa were more or less damaged.

The freshets at the Kingston end were not as great as usual, owing to the snow fall in that section of the country being comparatively light compared with the Ottawa section, and no difficulty was experienced in passing it through our waste weirs.

Steps, however, should be taken to hold back the spring water by erecting dams at controlling points. Preliminary surveys with that view were made last fall of the Rock and Bush lake systems, and negotiations are now in progress with the proprietors of the sites of these dams.

The principal repairs to the works were as follows:—

Kingston Mills.

One pair of new lock gates and gravel on dam.

A dredge was employed two months deepening the channel between Birmingham's Point and the entrance into the cut leading to Brewers' Mills. The channel having been filled in with sunken logs and other debris, on which boats complained of insufficiency of water, causing them to break their wheels.

Brewer's Upper Mills.

Embankment at bulkhead strengthened, and general repairs to station.

Brass' Point Bridge.

A new bridge over 500 feet long was built across the channel at this point, connecting the Stormington and Pittsburg sides. A good deal of difficulty was encountered in sinking some of the cribs, on account of the nature of the bottom, some 30 feet of water and mud being found at one place. The bridge is now completed and opened to the public.

Jones' Falls.

One pair of new lock gates; new kitchen to lock house; swing beams renewed.

Davis Station.

Dam put in, both above and below the lock, which was then unwatered, and a portion of the lock wall and lower sill rebuilt.

Chaffey's.

Bulkhead renewed.

Newboro'.

Repairs to lock gates.

Poonamalie.

Long dam repairs.

Smith's Falls.

One pair of new lock gates, dam replanked, and stone dam built west of bulkhead to stop leakage from basin.

Old Slys.

New stone house and kitchen to lockmaster's house. Two new piers at entrance to lock.

Clowe's Quarry.

New bulkhead and repairs to gates.

Burritt's Rapids.

New bulkhead, one pair of swing beams, and addition to lockmaster's house.

Long Island.

New protection pier below bulkhead, new boom at head of island, and two openings made in the White Horse dam.

Hogs Back.

Rebuilt large bulkhead; new swing bridge at locks; and road between Hartwell and Hog's Back Locks graded and gravelled.

Ottawa.

One pair of new lock gates for No. 7, and repairs to lock gates Nos. 2 and 3; general repairs to sluices, chains, blocks, &c.

General repairs to wharf round basin.

Navigation was uninterrupted during the season.

I have the honor to be, Sir,

Your obedient servant,

FRED. A. WISE,

Superintending Engineer.

A. P. BRADLEY, Esq.,

Secretary Department Railways and Canals,

APPENDIX No. 13.

TAY CANAL.

RIDEAU CANAL OFFICE,
OTTAWA, 1st October, 1887.

REPORT OF PROGRESS FOR THE YEAR ENDING 30TH JUNE, 1887.

The masonry of both Locks No. 1 and 2 at Beveridge's Bay, was completed and lock gates built ready for the water to be let in.

The cribwork at the entrance was completed during the winter, and filled with stone.

A dredge was engaged during the fall and spring, deepening the entrance between the piers to the required depth.

The cut through Beveridge's swamps was completed, slopes trimmed and sides rip-rapped.

The banks between Locks Nos. 1 and 2 were also trimmed up and put into shape.

The regulating dam across the river was completed ready for raising the water.

At the Perth end a dredge was steadily employed deepening the river bed proper, and excavating the new channels across the bends of the river. A force of men was also employed trimming the banks, and rip-rapping when required.

The contractors contemplate finishing their contract, between the east side of Red Bridge Perth, and Beveridge's Bay, early this fall.

No work has yet been done towards making the basin at Perth, which it is proposed to place to the west of the Red Bridge.

I have the honor to be, Sir,

Your obedient servant,

FRED. A. WISE,

Superintending Engineer.

A. P. BRADLEY, Esq.,

Secretary Department Railways and Canals.

APPENDIX No. 14.

TRENT CANAL.

ENGINEER'S OFFICE,
PETERBOROUGH, 20th August, 1887.

SIR,—I have the honor to submit my annual report on the works under my charge for the fiscal year ended 30th June, 1887.

Navigation closed on 23rd November and opened on 27th March. The water on the several stretches has been maintained at the standard level, viz., five feet on the mitre sills of the locks. The total number of lockages during the season was 1,574. There was no interruption to navigation during the season. The following repairs have been executed :—

Fenelon Falls.

No extensive repairs were done here owing to the probability of the change in position of the slide in connection with the new works at this station.

Scugog River.

The snags in the river were removed. The beacon at the mouth of the river was repaired and a light was kept on it, which proved a great benefit to navigation. There is an increase of traffic on this stretch.

Bobcaygeon.

A number of old sunken piers, which were formerly used in connection with the old saw mill and which were an obstruction to navigation, were removed. The dam was gravelled and many of the braces, which were removed by the ice, were replaced. The repairing of this dam is an annual expense. The dam is very old and in a very dilapidated condition. A new dam is greatly needed, and there is every facility for building it on the flat rock below the dam, on which, at this season of the year, there is little or no water.

Buckhorn.

The works under this Department, at this station, are in fair condition. Some new sluiceways on the south side are needed, to increase the area for waste at seasons of high water. The new locks here are about completed and by next season navigation will be opened through.

Lovesick and Burleigh.

The locks and dams at these stations will be completed by the end of the year, and will be ready for navigation next season.

Young's Point.

The new dam recently constructed has answered the purpose for which it was built. The lock here is under the control of the Provincial Government, through which there is considerable traffic.

Lakefield.

The dam at this station is now finished, and has retained the water in the lake above at good navigable height, throughout the season.

Peterborough.

The sawdust is still being thrown into the river, and causes the same trouble to navigation as mentioned in my previous reports. A new breastwork was constructed at the upper entrance to the lock, on the west side, and has been a great improvement to navigation. Two new upper courses were put on all the gates. New guide booms were placed on the east side of the upper entrance, to protect vessels from the heavy draught of water passing through the slides. Several of the guard piers, which were injured by the ice, were repaired.

Hastings.

The dam, which was in a very leaky condition, was repaired. A coffer dam 650 feet long was placed across the river to shut off the water from the dam. The debris, to the depth of 8 or 10 feet along the whole length of the dam, was removed to the bed rock. It was found on clearing this away that there never was a cross sill, or any kind of a stop water chamber in front of the dam, but that the mud sills of the bents, which were of different sizes and lengths, were merely covered with loose stones and gravel (from which all the sand and small stones were washed out). The mud sills were cut off even, and a tier of timber 12 by 12 feet, from one to two sticks in height, was scribed to the bed rock and rock bolted. The whole of the dam on the upper side was double sheeted with 2-inch plank, from the cap to the cross sill. The face of the cross sill was puddled with clay, and on this a layer of gravel to the depth of 4 feet on the lower side, and on this the loose shale rock was thrown. The dam is now perfectly tight.

The ice removed part of the old sheeting on the lower side of the dam, and took out about 50 feet of the crib work on which the lower apron rested.

Chisholm's.

Two piers were built at the entrance of the canal in which stop log checks were placed and stop logs provided therefor. The locks are in good working order, and navigation would be uninterrupted for a distance of twenty-five miles were it not for the fixed bridges of the Central Ontario Railway and county over the canal.

I have the honor to be, Sir,

Your obedient servant,

RICHARD B. ROGERS,

Superintending Engineer.

A. P. BRADLEY, Esq.,

Secretary Department Railways and Canals,

APPENDIX No 15.

ST. PETER'S CANAL.

OTTAWA, 4th August, 1887.

SIR,—I have the honor to submit the following with reference to the St. Peter's Canal:—

Navigation through the canal closed on the 4th January, and opened on the 20th April of the present year.

The following is a statement of the traffic through the canal during the year ended 30th June, 1887:

Year.	Vessels.		Tonnage.		Tolls Collected.	
	North.	South.	North.	South.	North.	South.
1886.	No.	No.	Tons.	Tons.	\$ cts.	\$ cts.
July	163	122	9,106	9,372	93 65	172 00
August	122	110	8,308	5,097	110 00	79 00
September	90	80	8,207	4,985	105 00	88 00
October	130	109	12,406	13,957	38 11	98 14
November	40	54	1,974	2,209	42 32	56 45
December	26	18	1,472	1,712	32 45	24 22
1887.						
January	2	3	106	141	4 10	2 30
April	3	2	101	115	2 10	4 00
May	94	59	3,784	3,512	103 11	88 11
June	124	98	9,108	7,542	94 21	88 44
Totals	794	655	54,632	48,462	625 05	700 66

To this total of \$1,325.71 for tolls collected must be added the sum of \$750, paid as commutation by the steamers "Marion" and "Neptune," making a grand total of \$2,075.71.

I have to report that the works of the canal, with the exception of the retaining wall at the southern entrance, stood very well during the fiscal year, and are now in good working order.

A special appropriation having been made for repairs at the southern entrance, they will be proceeded with at once, to ensure completion before the setting in of winter.

I am, Sir,
Your obedient servant,

HENRY F. PERLEY,
Engineer in Charge.

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

APPENDIX No. 16.

UPPER ST. LAWRENCE AND TRENT VALLEY CANALS.

PETERBOROUGH, 21st November, 1887.

SIR,—I have the honor to submit the following report on the works in my charge for the fiscal year 1886-87, and generally to date.

The works referred to are the Murray Canal, and the Galops Rapid, improvements on the Upper St. Lawrence.

Murray Canal.

This work is situated at the head of the Bay of Quinté, and extends from the channel, across the isthmus of Murray to Presqu'île Bay, on Lake Ontario, a natural harbor and the future western terminus of river navigation.

This, the "Harbor of Refuge" of the north east shore of the lake, lies near the village of Brighton, about 75 miles west of Kingston, and within 120 miles of Port Dalhousie the entrance to the Welland Canal.

The works are embraced in a distance of $9\frac{1}{2}$ miles and consist in—

1. The cutting—or canal proper—through the isthmus, and the formation by dredging and piers, of convenient entrances at either end, a distance of fully six miles, located on a direct line from navigable water in the Bay of Quinté through 12 O'clock Point, Dead Creek Marsh, Wuse's Creek, and towards the Brighton wharf.

The canal is practically an artificial "strait," or channel without locks, and is crossed by one railway and three highway bridges.

2. The formation by dredging of a new entrance and channel to the harbor through the "middle ground" and the other shoals which obstruct the present entrance, and also of a channel near the Brighton shore, to connect the harbor with the upper entrance to the "Strait," a distance of about three miles.

The width of the canal across the isthmus is 80 feet on bottom, and that of the entrances thereto 200 feet, with a depth at ordinary low water (or zero of the Toronto harbor gauge) of 12 feet 6 inches, fully one foot below the level of the "Telegraph" and other shoals in the Bay of Quinté.

The new entrance to Presqu'île harbor is "bell-mouthed" in shape, and varies in width from over 1,000 feet outside the main light, to 200 feet in the channel-way off Salt Point light, with a maximum depth of 16 feet.

In connection with the harbor and new entrance, the attention of the Department is again called to the necessity for immediate action with a view to the preservation of the standing timber remaining on the Presqu'île peninsula.

The progress on the works during the past season has been generally satisfactory; six dredges having been continuously employed on the excavation, as a result the new entrance and channel way across the "Middle ground" and "Calf pasture" shoals are now practically completed.

In the canal, rock at a low elevation above bottom has appeared in the vicinity of the Brighton road bridge site, and is supposed to extend irregularly over a distance of about 2,000 feet, with this exception, and some bottoming near Gould's clearing, the bulk of the excavation on this portion of the work is finished.

The excavation remaining to be done, consists principally in the completion of the prism of canal to its full width and lines, including the bottoming as above, also

the cutting of side ditches, trimming banks, towpath, &c., and the formation of the channel way near Brighton, to connect the harbor with the upper entrance to the "Strait."

The rip rap protection to the banks has been commenced at the Bay of Quinte entrance.

The piers at both entrances are well advanced, and will be completed early next season.

The masonry and superstructure of the Smithfield road bridge was begun and finished during the past season.

The superstructure and approaches of the Trenton road bridge have also been completed, together with the superstructure of the Central Ontario Railway bridge and the permanent way connected with the latter structure has been replaced on the original alignment.

Only one bridge, therefore, now remains to be built, viz., that at the Brighton road.

The contract was entered into with Messrs. J. D. Silcox & Co., 24th August 1882, and subsequently, in 1886, a contract for the superstructure of the railway bridge, was awarded to the Dominion Bridge Company, and that for the three road bridges to Mr. R. Weddell, of Trenton.

Galop's Rapids Improvements.

This work is situated near the western end of the Williamsburgh Canals, about seven miles below Prescott, and is the first of the series of rapids which obstruct the navigation of the St. Lawrence.

The improvement was designed in connection with the enlargement of the St. Lawrence Canals, and consists in the formation, by submarine excavation, of a direct channel way through the rapid, traversing the five principal shoals of limestone in situ, within the distance of three-quarters of a mile, and measuring about 2,000 feet across on the centre line of channel.

These shoals are required to be reduced to such an extent, as will afford a depth of 17 feet at ordinary low water, with a channel throughout of not less than 200 feet in width at bottom.

The conduct of the work has been difficult, and sometimes very dangerous from being carried on in the main channel of the river, in rapid and, as at Lower Bar, turbulent water, at a considerable distance from shore, and liable, moreover, to frequent interruptions from navigation, whilst no interference therewith by the contractor in the prosecution of his work was permitted. Nevertheless, by the exercise of great skill and perseverance, the completion of the principal and most difficult portion of the contract has now been successfully accomplished, and it is therefore anticipated that under ordinary circumstances its full completion may be looked for next year.

Season of 1887.

The chain vessel, or dredge commenced operations at Upper Bar on 4th May, and will continue work thereon until the close of the season.

The "Torpedo," or drill scow commenced work on the 26th May, and was engaged until 18th July in drilling and blasting a small outlying shoal in the channel immediately below Lower Bar.

Having thus completed all the operations of drilling and blasting, as required under the present contract, the vessel was removed to the Galops Canal and laid up for the remainder of the season.

The present state of the work is as follows, viz. :—

1. Upper Bar—Drilling and blasting finished; dredging about three-quarters finished.

2. North Shoal—Drilling and blasting finished ; dredging not commenced.
3. Caledonia Shoal—Drilling and blasting finished ; dredging not commenced.
4. Island Shoal—Drilling and blasting finished ; dredging finished.
5. Lower Bar—Drilling and blasting finished ; dredging nearly completed.
- 5a. The outlying shoal—Drilling and blasting finished ; dredging not commenced.

The work was commenced in 1880 under a contract awarded to W. Davis & Sons, by whom it was transferred in 1882, to Messrs. E. E. Gilbert & Sons, the present contractors.

I have the honor to be, Sir,

Your obedient servant,

TOM. S. RUBIDGE,

Engineer in Charge.

P. BRABLEY, Esq.,

Secretary Department Railways and Canals.

APPENDIX No. 17.

LIST of Contracts entered into in connection with the Canadian Pacific Railway.

No. of Contract.	Names of Contractors.	No. of Contract.	Names of Contractors.
1	Sifton, Glass & Co.	53	Barrow Hematite Steel Co.
2	Richard Fuller.	54	Guest & Co.
3	F. J. Barnard.	55	West Cumberland Iron and Steel Co.
4	Oliver, Davidson & Co.	56	The Keliogg Bridge Co.
5	Joseph Whitehead.	57	The Truro Patent Frog Co.
5a	Joseph Whitehead.	58	W. Hazelhurst.
6	Guest & Co.	59	Whitehead, Ruttan & Ryan.
7	Ebbw Vale Steel, Iron and Coal Co.	60	D. O. Mills.
8	Murray Steel and Iron Co.	61	D. O. Mills.
9	West Cumberland Iron and Steel Co.	62	D. O. Mills.
10	West Cumberland Iron and Steel Co.	63	D. O. Mills.
11	Naylor, Benson & Co.	64	Ryan, Whitehead & Ruttan.
12	Hon. A. B. Foster.	65	James Crossen.
13	Sifton & Ward.	66	Bowie & McNaughton.
	Purcell & Ryan.	67	Moncton Car Co.
	Sifton & Ward.	68	Ontario Car Co.
14	Jos. Whitehead (completing contract No. 14).	69	North-West Transportation Co.
15	Joseph Whitehead.	70	North-West Transportation Co.
16	Canada Central Railway Co.	71	Toronto Bridge Co.
17	Anderson, Anderson & Co.	72	Ontario Car Co.
18	Red River Transportation Co.	73	Toronto Bridge Co.
19	Moses Chevette.	74	Wm. Gooderham, jun.
20	Merchants Lake and River Steamship Co.	75	Pillow, Hersey & Co.
21	Patrick Kenny.	76	Cooper, Fairman & Co.
22	Holcomb & Stewart.	77	Stubbs & Co.
23	Sifton & Ward.	78	Skead & Haycock.
24	Oliver, Davidson & Co.	79	The Truro Patent Frog Co.
25	Purcell & Ryan.	80	James Crossen.
26	James Isbester.	81	Dunlop & Rannie.
27	Merchants Lake and River Steamship Co.	82	Ontario Car Co.
28	Red River Transportation Co.	83	James Crossen.
29	Cooper, Fairman & Co.	84	Ontario Car Co.
30	Robb & Co.	85	Nobles & Follis.
31	Patent Bolt & Nut Co.	86	Fairbanks, Morse & Co.
32	Cooper, Fairman & Co.	87	James Crossen.
32a	LeMay & Blair.	88	Walter Oliver.
33	Kavanagh, Murphy & Upper.	89	J. Patterson.
34	North-West Transportation Co.	90	Ferris, Paul & Milwar.
35	Cooper, Fairman & Co.	91	Canadian Pacific Railway Co.
36	William Robinson.	92	Andrew Onderdonk.
37	Heney, Charlebois & Flood.	93	Andrew Onderdonk.
38	Edmond Ingalls.	94	Horton & Son.
39	John Irving.	95	Bayliss, Jones & Bayliss.
40	Gouin, Murphy & Upper.	96	Guest & Co.
41	Purcell & Co.	97	John McDonald.
42	Manning, Macdonald, McLaren & Co.	98	Colin Nicol Black.
43	Joseph Upper & Co.	99	Canadian Pacific Railway Co.
44	West Cumberland Iron and Steel Co.	100	A. Onderdonk, station building, Yale.
45	Barrow Hematite Steel Co.	101	A. Onderdonk, station building, Lytton.
46	Ebbw Vale Steel, Iron and Coal Co.	102	A. Onderdonk, station building, Ashcroft.
47	Patent Bolt and Nut Co.	103	John Philip Bacon, water tanks.
48	John Ryan.	104	A. Onderdonk, station buildings.
49	Richard Dickson.	105	Wilson & McCreedy, engine house.
50	Miller Brothers & Mitchell.	106	Head Wrightson & Co.
51	Dominion Bolt Co.	107	James Leamy & Donald McGillivray, rebuild ing wharf at Port Moody, B. C.
52	North-West Transportation Co.		

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-mediae.	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 $\frac{1}{2}$	1,064
Dickinson's Landing	Farran's Point	River St. Lawrence.....	5	1,070
Farran's Point	Upper end of Croyle's Island.....	Farran's Point Canal.....	$\frac{1}{2}$	1,071
Upper end of Croyle's Island.....	Williamsburg or Morrisburg.....	River St. Lawrence.....	10 $\frac{1}{2}$	1,081 $\frac{1}{2}$
Williamsburg.....	Rapide Plat	Rapide Plat Canal.....	4	1,085 $\frac{1}{2}$
Rapide Plat	Point Iroquois Village	River St. Lawrence.....	4 $\frac{1}{2}$	1,090
Point Iroquois Village.....	Upper end Presqu'Île.....	Point Iroquois Canal.....	3	1,093
Presqu'Île.....	Point Cardinal, Edwardsburg	Junction Canal.....	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 $\frac{1}{2}$	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 $\frac{3}{4}$
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 $\frac{1}{2}$ miles from the Straits of Belle-Ile to the Head of Lake Superior, 71 miles are artificial navigation, and 2,188 $\frac{1}{2}$ open navigation.

Straits of Belle-Ile to Liverpool, 1,942 geographical or 2,234 statute miles.

The total fall from Lake Superior to Tide-water is about 600 feet.

The steamboat voyage from Collingwood to Port Arthur is 532 miles.

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.				
1	Ottawa	0	8	82	0	3	4.00	
2	Hartwell's	4 $\frac{1}{4}$	2	22	0	.....	
3	Hogsback	5 $\frac{3}{4}$	2	13	6	1		
4	Black Rapids	9 $\frac{3}{4}$	1	10	0	1	0.13	
5	Long Island	14 $\frac{3}{4}$	3	27	0	3	0.13	
6	Burritt's	40 $\frac{3}{4}$	1	10	6	1	1.50	
7	Nicholson	43 $\frac{3}{4}$	2	15	2	1	0.50	
8	Clowes	44 $\frac{3}{4}$	1	10	0	1	0.05	
9	Merrickville	46 $\frac{3}{4}$	3	25	0	1	0.33	
10	Maitland	55	1	4	9	1	0.13	
11	Edmunds	58 $\frac{1}{4}$	1	10	10	1	0.06	
12	Old Slys	63 $\frac{3}{4}$	2	15	6	1	0.25	
13	Smith's Falls	61 $\frac{1}{2}$	4	33	9	2	0.13	
14	First Rapids or Poonamalie	64	1	7	9	1	1.25	
15	Narrows	83 $\frac{1}{4}$	1	4	0	1	0.06	
Total rise at low water			292		3			
			Fall.					
18	Isthmus	87 $\frac{3}{4}$	1	4	0	1.25		
17	Chaffey's	92	1	12	6	0.13		
18	Davis	94 $\frac{1}{2}$	1	9	0	1	0.06	
19	Jones' Falls	97 $\frac{1}{2}$	4	60	0	1	0.25	
20	Brewer's Upper Mills	108 $\frac{1}{4}$	2	19	0	1	1.75	
21	do Lower Mills	110	1	14	2	1	4.25	
22	Kingston Mills	120 $\frac{1}{2}$	4	46	8	1	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 1886 and of the opening in the Spring of 1887.

Canals.	Closing.	Opening.
Lachine Canal.....	30 November, 1886.	5 May, 1887.
Beauharnois Canal.....	1 December, 1886.	3 May, 1887.
Cornwall Canal.....	8 December, 1886.	4 May, 1887.
Williamsburg Canal.....	4 December, 1886.	30 May, 1887.
Welland Canal—		
New Canal.....	4 December, 1886.	4 May, 1887.
Old Canal.....		
St. Anne's Lock and Dam.....	27 November, 1886.	4 May, 1887.
Carillon Canal.....	30 November, 1886.	2 May, 1887.
Grenville Canal.....		
Culbute Lock and Dam.....	30 November, 1886.	1 May, 1888.
Chute à Blondeau.....		
Rideau { Kingston Mills.....	30 November, 1886.	2 May, 1887.
Ottawa.....	29 November, 1886.	3 May, 1887.
St. Ours Lock.....	30 November, 1886.	2 May, 1887.
Chambly Canal.....	1 December, 1886.	5 May, 1887.
Erie Canal (New York).....	1 December, 1886.	7 May, 1887.
St. Peter's Canal (Cape Breton).....	4 January, 1887.	20 April, 1887.
Trent Canal Works.....	23 November, 1886.	27 March, 1887.

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APPENDIX No. 21.

STATEMENT of Contracts entered into between 1st July, 1886, and 30th June, 1887.

Railways and Canals.	Deed, Letter or otherwise, under which Contract was made.	Name of Contractor.	Date of Contract.	General Description.
Canadian Pacific Railway.	Contract 8,519...	Jas. Leamy and D. McGillivray	Sept. 7, 1886	Remove and rebuild part of wharf at Port Moody, B.C.
Intercolonial Railway	do 8,523...	John F. Teed	do 8, 1886	Construct passenger station and freight shed at Dorchester, N.B.
do	do 8,466...	Chas. Cammell & Co. (Limited)	July 26, 1886	Supply 2,000 tons steel rails, 67 lbs. per yard, and fish plates for Intercolonial Railway, delivered at Intercolonial Ry. Wharf at Richmond, or at Halifax, N.S.
do	do 8,476...	Moss Bay Hamatite Iron and Steel Co. (Limited)	do 7, 1886	Supply 230 tons steel rails and fish plates for Contract No. 8,419.
do	do 8,477...	G. P. Jardine and Paul Lea	do 19, 1886	Erect a passenger station at Glengarry.
do	do 8,495...	Jas. Harris & Co.	do 30, 1886	Construct 30 box cars, delivered on track at St. John, N.B.
do	do 8,499...	Peter Nadeau	Aug. 9, 1886	Construct passenger station at Belladune.
do	do 8,501...	James Crossen	do 23, 1886	Construct drawing-room car, delivered at Chaudière Junction.
do	do 8,524...	Patk. A. Fahey	Sept. 4, 1886	Construct wall at Young St. Trestle, Halifax.
do	do 8,528...	Frs. Soucy	do 10, 1886	Construct freight shed at Notre Dame du Portage.
do	do 8,529...	Geo. Fleming & Sons	do 10, 1886	Construct iron foot bridge at Dorchester Street, St. John, N.B. Widen overhead bridge at Wall Street.
do	do 8,530...	A. Grant & Son	do 10, 1886	Construct cribwork protection near Restigouche River Bridge at Metapedia Station, Que.
do	do 8,531...	Rhodes, Curry & Co.	do 2, 1886	Construct coal trestle at Young Street, Halifax, N.S.
do	do 8,535...	do	do 17, 1886	Erect a station and freight shed, Beaver Bank, N.S.
do	do 8,547...	Albert Railway Co.	Oct. 19, 1886	Mortgage securing re-payment to Government of \$15,000 advanced to the Company by way of loan under Act 49 Vic, c. 10, for railway from Hopewell to Salisbury, a feeder of Intercolonial Railway.
do	do 8,571...	F. B. Atkinson	Sept. 17, 1886	Blasting and removing rock at Davies' ship yard, Lévis, Que.
do	do 8,572...	Rhodes, Curry & Co.	Oct. 11, 1886	Addition to repair shop, St. John, N.B.
do	do 8,573...	do	do 4, 1886	Station and freight shed at Denby, N.B.
do	do 8,580...	Chas. Cammell & Co. (Limited)	do 27, 1886	Supply 12,000 tons Bessemer steel flange rails, 67 lbs. per yard, delivered on railway wharf at Halifax, N.S., for Intercolonial Railway.

do	8,581...	do	do	do	27, 1886	Supply 300 tons Bessemer steel flange rails, 66 lbs. per yard, delivered on railway wharf at Halifax, N.S., for Windsor Branch.
do	8,584...	Arcade Lemieux.....	Nov.	do	1, 1886	Transhipping of freight at Chaudière Junction.
do	8,588...	J. Harris & Co.....	do	do	12, 1886	Construct 50 20-ton coal cars, 35 feet long, delivered at St. John, N.B.
do	8,618...	Rhymney Iron Co. (Limited)...	do	do	3, 1886	Supply sufficient fish plates for the 12,000 tons of steel rails; <i>z</i> , Contract No. 8,580.
do	8,619...	do	do	do	3, 1886	Supply 19 tons of fish plates for the 300 tons rails for Windsor Branch; <i>z</i> , Contract No. 8,581.
do	8,625...	Levite Thériault.....	Sept.	do	13, 1886	Build crib work to be added to Intercolonial Railway Wharf at Rivière du Loup, and works for laying railway track to outer end.
do	8,626...	E. T. Nesbitt.....	Nov.	do	6, 1886	Build freight shed at Rivière du Loup.
do	8,627...	do	do	do	5, 1886	Build snow shed, 800 feet long, at St. Fabien.
do	8,634...	Neil Sutherland.....	do	do	15, 1886	Grading the station grounds at Westville, N.S.
do	8,635...	D. W. Murray.....	Nov.	do	15, 1886	Grading the station grounds at Pictou, N.S., Pictou Town Branch.
do	8,636...	Jas. Monaghan & Sons.....	do	do	8, 1886	Construct a stone wall at side and end of coal trestle, Halifax, N.S.
do	8,637...	John F. Teed.....	do	do	20, 1886	Construct station buildings at Pictou, Pictou Town Branch.
do	8,651...	Jas. Harris & Co.....	Dec.	do	10, 1886	Construct 100 six-ton coal cars.
do	8,652...	do	do	do	10, 1886	Construct 7 twenty-ton coal cars.
do	8,661...	The Dominion Bridge Company	do	do	20, 1886	Construct a steel viaduct over Bearbrook for Pictou Town Branch.
do	8,663...	Jas. Harris & Co.....	do	do	23, 1886	Construct 67 platform cars, 100 Hopper coal cars, 10 box cars, delivered at St. John, N.B.
do	8,669...	Rhodes, Curry & Co.....	do	do	24, 1886	Construct brick cased passenger station at Stellarton, N.S., Pictou Town Branch.
do	8,670...	Robt. Maxwell.....	do	do	22, 1886	Construct fencing, crossings, &c., central section, Pictou Town Branch.
do	8,671...	M. J. Hogan.....	do	do	22, 1886	Construct clearing, grading, tracklaying, &c., Pictou Town Branch, central section.
do	8,700...	James Crossen.....	Feb.	do	18, 1887	Construct 1 sleeping car, delivered at Chaudière Junction (Railway Department to supply drawbars, wheels, &c.)
do	8,714...	Jas. Graham.....	do	do	25, 1887	Fencing between Pictou Landing and Truro, 5,800 rods; Truro and Windsor Junction, 4,900 rods; Truro and Londonderry, 3,800 rods.
do	8,715...	Andrew King.....	do	do	28, 1887	Fencing between Bedford and Windsor Junction, 1,350 rods.
do	8,716...	John McIntosh & Co.....	do	do	25, 1887	Fencing between Port Mulgrave and New Glasgow; Stillwater and Windsor; Londonderry and Salt Springs; Salt Springs and Amherst.
do	8,717...	Thos. Ouellette.....	do	do	3, 1887	Discharging coal from cars and stowing in sheds, Rivière du Loup.
do	8,719...	Humphry & Trites.....	do	do	26, 1887	Fencing between Moncton and Petitcodiac, 1,817 rods; Penobscuis and Hampton, 1,120 rods.

STATEMENT of Contracts entered into between 1st July, 1886, and 30th June, 1887—Continued.

Railways and Canals.	Deed, Letter or otherwise, under which Contract was made.	Name of Contractor.	Date of Contract.	General Description.
Intercolonial Railway.....	Contract 8,720...	F. B. Atkinson.....	March 4, 1887	Fencing between St. Simon and St. Henri, 2,660 rods.
do	do 8,721...	John O. Calhoun.....	Feb. 25, 1887	Fencing between Sackville and Moncton, 7,776 rods, including Shediac Branch.
do	do 8,722...	Edward Crossman.....	do 26, 1887	Fencing between Barnaby River and Campbellton, 3,030 rods.
do	do 8,724...	James Boyd.....	March 9, 1887	To do all the laundry work for postal, sleeping and official cars.
do	do 8,737...	Joseph Geddes.....	Feb. 24, 1887	Fencing between a point 4 miles north of Kent Junction and Coal Branch, 1,302 rods.
do	do 8,738...	Andrew Dunn.....	Feb. 24, 1887	Fencing between Kent Junction and Barnaby River, 1,540 rods; Moncton to Adamsville, 1,298 rods.
do	do 8,739...	Philibert Ouellette.....	Mar. 24, 1887	Construct station and freight room at St. Joseph, Lauzon, Que.
do	do 8,740...	Rhodes, Curry & Co.....	do 15, 1887	Construct coal trestle at Londonderry, N.S.
do	do 8,741...	W. R. Geldert.....	do 12 1887	Construct cribwork at Pictou Station, N.S., 146½ ft. x 10 x 9 ft. high.
do	do 8,742...	Starr Manufacturing Co. (Limited).....	do 25, 1887	Supply 40 20-ton coal cars.
do	do 8,743...	John N. McElmon.....	do 23, 1887	Construct a wooden bridge over canal at Dartmouth, near Dartmouth Branch Railway.
do	do 8,745...	Odillon Mignault.....	do 7, 1887	Fencing between Assametoushan and Sayabec, 3,194 rods
do	do 8,747...	Bellavance & Boulay.....	do 11, 1887	do Sayabec and St. Moise 1,120 do
do	do 8,748...	E. Godbout & Co.....	do 8, 1887	do St. Moise and Little Metis 792 do
do	do 8,790...	Carrier, Laine & Co.....	do 21, 1887	do Little Metis and St. Flavie 2,667 do
do	do 8,794...	Smith & McPhail.....	do 21, 1887	do St. Flavie and Rimouski 1,808 do
do	do 8,686...	Neil Buchanan.....	April 30, 1887	Construct iron trestle at Humphrey's Mills Stream, 2 miles east of Moncton.
do	do 8,687...	Robert Ellis (senior).....	do 30, 1887	Interchange of freight for Intercolonial Railway, at Pointe du Chêne, Shediac, and between it and Buctouche.
Prince Edward Island Railway.....	do	John Miller.....	Jan. 18, 1887	Supply 500 hemlock sleepers delivered at O'Leary Station.
do	do		do 17, 1887	Supply 5,000 hemlock and 1,000 black spruce sleepers, delivered at O'Leary Station.
do	do		do 18, 1887	Supply 1,000 hemlock sleepers, delivered at Arthur's Siding.

do	8,689...	J. A. Bearstio	do	17, 1887	Supply 2,500 hemlock sleepers, delivered at Conway Station.	
do	8,690...	Robert Ellis (junior)	do	17, 1887	Supply 10,000 hemlock and 10,000 spruce sleepers, delivered between Bloomfield and Wellington.	
do	8,691...	J. R. Larkins.....	do	18, 1887	Supply 13,200 hemlock sleepers delivered between Bloomfield and Wellington.	
do	8,692...	F. T. Arsenault.....	do	17, 1887	Supply 500 hemlock and 3,000 black spruce sleepers, delivered at Richmond and St. Nicholas.	
do	8,693...	M. A. McNeill	do	17, 1887	Supply 800 hemlock and 600 black spruce sleepers, delivered at Brae and Pont Hill.	
do	8,695...	Archibald & Co.....	May	10, 1887	Supply 6,200 tons of coal, delivered at Charlottetown, 3,150 tons; Summerside, 2,300 tons; Georgetown, 300 tons; Cape Traverse, 150 tons; Souris, 300 tons.	
do	8,575...	O'Donoghue & Kennedy	Nov.	11, 1886	Construct a crib block for wharf at Point Tupper, N.S., in Strait of Canso.	
do	8,694...	Sims & Slater	Jan.	28, 1887	Construct railway from Grand Narrows to Sydney, Cape Breton, N.S.	
do	8,498...	Murray & Cleveland	Sept.	28, 1886	Deepen section A.	
do	8,705...	Hamilton Bridge and Tool Co.....	March	12, 1887	Construct a wrought iron caisson gate delivered at Port Dalhousie.	
do	8,677...	Burns & Smith.....	Jan.	24, 1887	Construct 6 piers, 1 rest pier, 2 abutments and approaches, with superstructure (except swing); of a wooden bridge at Brass Point, between Storrington and Pittsburg.	
do	8,502...	Robt. Weddell	Sept.	17, 1886	Construct 3 road bridges on Murray Canal, for Trenton, Smithfield, and Brighton Roads.	
do	8,504...	Dominion Bridge Co. (limited).	Oct..	6, 1886	Construct 1 railway bridge over Murray Canal for Central Ontario Railway.	
do	8,542...	Chas. Wynne.....	July	16, 1886	Construct 3 pairs lock gates for Fenelon Falls Canal.	
SUBSIDIZED RAILWAYS.						
Brockville, Westport and Sault Ste. Marie Railway Co.....	do	8,235...	Brockville, Westport and Sault Ste. Marie Railway Co.....	do	16, 1886	Subsidy agreement, line from Brockville to Westport, 40 miles.
Central Railway Co.....	do	8,292...	Central Railway Co.....	do	7, 1886	Subsidy agreement, line from Salmon River, at head of Grand Lake, to Norton Station, Intercolonial Railway, between Sussex and St. John, N.B., 40 miles.
Ontario and Pacific Railway Co.....	do	8,440...	Ontario and Pacific Ry. Co.....	do	27, 1886	Subsidy agreement, for railway from Cornwall to Perth, via Newington, Orysler, Manotick and Franktown.
Canada Atlantic Railway Co	do	8,409...	Canada Atlantic Railway Co...	July	12, 1886	Subsidy agreement for railway, Clark's island to Valleyfield, Lacolle to 1½ mile west of Johnson's.
Irondale, Bancroft and Ottawa Railway Co.....	do	8,444...	Irondale, Bancroft and Ottawa Railway Co.....	Aug.	19, 1886	Subsidy agreement for railway from Midland Division, Grand Trunk Railway, at Snowden, to Bancroft, 50 miles.
Northern and Western Railway Co. of New Brunswick	do	8,408...	Northern and Western Railway Co. of New Brunswick	do	14, 1886	Subsidy agreement between termini from Fredericton and from Indiantown.

STATEMENT of Contracts entered into between 1st July, 1886, and 30th June, 1887—Continued.

Railways and Canals.	Deed, Letter or otherwise, under which Contract was made.	Name of Contractor.	Date of Contract.	General Description.
SUBSIDIZED RAILWAYS.				
L'Assomption Railway Co.	Contract 8,498...	L'Assomption Railway Co.	Sept. 16, 1886	Subsidy agreement for railway from L'Epiphanie to L'Assomption, 3½ miles.
Buctouche and Moncton Railway Co.	do 8,509...	Buctouche and Moncton Railway Co.	do	Subsidy agreement, line from Moncton to Buctouche, N.B.
West Ontario Pacific Railway	do 8,526...	West Ontario Pacific Railway	Nov. 2, 1886	Subsidy agreement, 27 miles, Woodstock to London (line changed subject to approval of Parliament).
Great Eastern Railway Co.	do 8,538...	Great Eastern Railway Co.	Oct. 12, 1886	Subsidy agreement, line from Yamaska to River St. Francis, 10 miles.
Joggins Railway Co.	do 8,578...	Joggins Railway Co.	Nov. 30, 1886	Subsidy agreement, 12 miles from McCann Station, Intercolonial Railway, to Joggins, on Cumberland Bay, N.S.
Canadian Pacific Railway	do 8,579...	Toronto, Grey and Bruce Railway Co.	Jan. 20, 1887	Subsidy agreement, 5 miles, Glenannan to Wingham, Ont.
Northern and Western Railway Co. of New Brunswick	do 8,648...	Northern and Western Railway Co. of New Brunswick	Aug. 12, 1887	Subsidy agreement, extension to deep water at Chatham, N.B., 2 miles.
Stewiacke Valley and Lansdowne Railway Co. (Limited)	do 8,649...	Stewiacke Valley and Lansdowne Railway Co. (Limited)	Dec. 17, 1886	Subsidy agreement, railway from Intercolonial Railway, through Stewiacke Valley towards Lansdowne, 25 miles.
Caraquet Railway Co.	do 8,674...	Caraquet Railway Co.	Feb. 19, 1887	Subsidy agreement, from end of present subsidized portion of their railway at Lower Caraquet to Shippegan, N.B., 10 miles.
Western Counties Railway Co.	do 8,701...	Western Counties Railway Co.	Jan. 31, 1887	Company agrees to release to Government its title to Windsor Branch, and to build railway from Annapolis to Digby and from Yarmouth to Annapolis.

APPENDIX No. 22.

GENERAL STATEMENT SHOWING

- 1st. Water Power and other Public Property leased on Canals, &c., during the Fiscal year ending 30th June, 1887.
- 2nd. Property purchased or damaged by the Department of Railways and Canals, for the Dominion Railways or Canals; and Property sold by the same Department, as not being required for said Railways or Canals, during the Fiscal year ending 30th June, 1887.
- 3rd. Agreements respecting subsidies granted by the Dominion Government to aid in the construction of Railways, entered into between certain Railway Companies and the Minister of Railways and Canals, during the Fiscal year ending 30th June, 1887.

GENERAL STATE

1st. Water Power and other Public Property leased on Canals

Date of Signature.	Terms of Lease.	Lessees.	Property Leased.	For what purpose used.
			<i>Ste. Anne Canal.</i>	
Oct. 19, '87	Pleasure of the Government.	D. Lebeau.....	Strips encroached upon on lots 112, 113, Ste. Anne de Bellevue.	His buildings....
			<i>Grenville Canal.</i>	
July 21, '87	do ...	Rev. A. J. Grier.....	A brick house on lot No. 8, 1st range, Grenville.	Dwelling.
			<i>Rideau Canal.</i>	
Aug. 21, '86	20 years only.	Brown & Weston.....	Part of Reserve at Stewarton, lot F, Con. C, and lot F, Con. D, Nepean, for wharves.	Distributi'g yard for lumber and store.
July 20, '87	21 years, renewable for ever.	J. P. & B. Tett, Executors.	Part of Reserve near Isthmus Lock, part 1 and 2 in 4th Con., North Crosby.	.....
Aug. 31, '87	Pleasure of the Government.	Cath. O'Neil.....	Part of Reserve lot L, Con. C, Nepean, near Dow's swamp.	Cultivation.....
			<i>Trent Canal.</i>	
July 25, '87	21 years only..	Francis Sandford....	Part of Water St., between river and Canal, Fenelon Falls village.	Carriage factory
			<i>Intercolonial Railway.</i>	
do 1, '86	1 year.....	Jos. Fortin	License to sell books, &c., on cars, Lévis to Campbellton.	.....
do 1, '87	do	do	do do .....	.....
do 1, '86	do	Canada Ry. News Co.	License to sell books, &c., on cars, Halifax, St. John, Campbellton, and Point du Chêne.	.....
do 1, '87	do	do	do do .....	.....
do 6, '87	3 years.	Sidney Gray.....	License to sell books on trains and stations, P. E. Island Ry.	.....
June 27, '87	20 years.....	C. & H. Primrose to Government.	Water supply from source on their lot at Pictou, N.S.	.....
			<i>Carillon Canal.</i>	
Sept. 20, '86	2 months.	Wm. Davis.....	5 Govt. scows, now at Carillon for his works at Ste. Anne.	.....
May 26, '87	1 do	Union Bridge Co.....	2 Govt. scows, now at Ste. Anne, for their work on C.P.R. bridge.	.....
			<i>Williamsburgh Canals.</i>	
Oct. 18, '86	21 years, renewable for ever.	Municipal Council, Village of Morrisburg.	Lot above lock No. 23, Morrisburgh, Rapide Plat Canal.	Supply water to village.
			<i>Welland Canal.</i>	
Sept. 16, '86	Pleasure of the Government.	H. A. Rose.....	Part of lot 26 in 5th Con., Crowland, N. of West Main St. Welland	His buildings....
Dec. 10, '86	do ...	R. F. Lattimore.....	The "Boomer Mill site," Dunnville.	Flour mill.....

MENT SHOWING

and Railways, during the Fiscal Year ended 30th June, 1887.

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.	
.....	15ft. 10 in.	Sept. 1, '87	1 00	\$ cts. 1 00	Sept. 1...	On delivery of lease.	
.....	.....	May 1, '87	5 00	5 00	May 1...	do ...	
.....	0.3 x 2.3 acres.	Aug. 1, '86	100 00	100 00	Aug. 1...	do ...	
.....	.....	May 1, '83	{ Land \$1 Store 2 }	3 00	May 1...	May 1, '87	Renews lease No, 2372.
.....	4.50 acre..	Aug. 1, '87	9 00	9 00	Aug. 1...	On delivery of lease.	
.....	0.66 acre..	Dec. 1, '86	50 00	50 00	Dec. 1...	Dec. 1, '86	
.....	.....	July 1, '86	400 00	33 34	Monthly...	July 1, '86	
.....	.....	do 1, '87	400 00	33 34	do ...	do 1, '87	
.....	.....	do 1, '86	1100 00	91 67	do ...	do 1, '86	
.....	.....	do 1, '87	1100 00	91 67	do ...	do 1, '87	
.....	.....	Jan. 1, '87	300 00	25 00	do ...	5th day of each month	
.....	.....	June 27, '87, for the 20 years.	3000 00	in all....	.....	Paid cash....	
.....	.....	Sept. 20, '86	100 00	for the 2 months..	.....	.....	Paid and returned.
.....	.....	May 26, '87	20 00	for the 1 month.....	.....	.....	Paid.
20 h.p...	0.57 acre..	Sept. 1, '86	70 00	35 00	Jan. 1 and July 1.	July 1, '87	
.....	0.01.....	March 10, '86	1 00	1 00	March 10...	On delivery of lease.	He paid \$4 for arrears of rent from 1866 to 1886.
60 h.p...	0.15.....	Jan. 1, '87	360 00	180 00	Jan. 1 and July 1.	Jan. 1, '87	He assigned to Jno. Moody & Son, Dec. 27, 1886; Minister consented Feb. 21, 1887.

GENERAL STATEMENT showing: 1st. Water Power and other

Date of Signature.	Term of Lease.	Lessees.	Property Leased.	For what purpose used.
<i>Welland Canal—Concluded.</i>				
Dec. 24, '86	Pleasure of the Government.	Rolston & Haskins...	The "Mittleberger Mill site," Dunnville.	Lighting village by electricity.
March 23, '87	do ...	Phelps Bros.	Surplus water, at town of Welland, in winter only.	Grist mill.
Sept. 8, '87	21 years, renewable for ever.	John Hill.	Lot 15, village Port Robinson, part 203, Thorold.	do
<i>Beauharnois Canals</i>				
Nov. 29, '86	Pleasure of the Government	Valleyfield Canning Co.	Wharf lot above Guard Lock, Valleyfield, on Rivière Basin.	Wharf and shed.
May 31, '87	21 years, renewable for ever.	Valleyfield Water Works Co.	Pt. lot 830, Town Salaberry de Valleyfield, on Grande Isle.	Water for town.
June 13, '87	Pleasure of the Government	Bell Telephone Co. of Canada.	Place poles and wires along canal, from Melocheville to Valleyfield.	.....
<i>Lachine Canal.</i>				
Sept. 2, '86	do ...	Pierre Poulin.	Lots 1 and 2, W. of Basin No. 4, St. Gabriel, Montreal.	Piling lumber ...
April 19, '87	do ...	H. Bulmer, jr., & Bro.	Lots 3, 4, 5, 6 and 7, E. of Basin No. 4, St. Gabriel, Montreal.	do ...
Aug. 30, '86	do ...	O. Dufresne, jr., & Bro.	Lots 8 and 9, W of Basin No. 3, St. Gabriel, Montreal.	do ...
do 31, '86	do ...	Bourgouin & Thibault.	Lots 12 W, 15 and 16, E of Basin No. 3, St. Gabriel, Montreal.	do ...
April 26, '87	do ...	Henderson Lumber Co. (Limited).	Lots 13, 14 and 18, E. of Basin No. 3, and lots 19 and 22, E. of Basin No. 2, St. Gabriel, Montreal.	do ...
Aug. 27, '86	do ...	D. Pariseau.	Lot 17, E. of Basin No. 3, St. Gabriel, Montreal.	do ...
Sept. 3, '86	do ...	Pat. McCrory.	Lots No. 20 and 21, W. of Basin No. 2, St. Gabriel, Montreal.	Coal yard
do 3, '87	do ...	Harbor Commissioners of Montreal.	Motive power for 40 arc light lamps (by electricity).	Lighting wharves, Montreal.
do 25, '86	do ...	Hurteau & Bro.	Lots 1, 2 and 3, S. E. of Wellington Basin, Montreal.	Piling lumber ...
do 18, '86	do ...	Dobell, Beckett & Co.	Lots 4, 5, 6 and 7, S. E. of Wellington Basin, Montreal.	Deal shipping. ...
do 18, '86	do ...	J. Burstall & Co.	Lots 8, 9 and 10, S. E. of Wellington Basin, Montreal.	Piling lumber ...
do 21, '86	10 months	Verret, Stewart & Co.	Space in Shed No. 1, St. Gabriel Basin, Montreal.	Storing salt.
do 5, '87	1 year	do ...	do do	do
Oct. 21, '86	3 years	Warren, Scharf Asphalt Paving Co.	Lot on St. Patrick St., St. Gabriel Basin, Montreal.	Manufacture of asphalt paving
do 30, '86	8 months.	Dobell, Beckett & Co	Space in Shed No. 1, St. Gabriel Basin, Montreal.	Storing lumber. .
Dec. 21, '86	6 do	do ...	Space in Shed No. 2, St. Gabriel Basin, Montreal.	do ...

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.	
			\$ cts.	\$ cts.			
25 h.p...	0.3 acres ..	do 1, '87	115 00	115 00	Jan. 1...	On delivery of lease.	
30 h.p...	.....	Jan. 1, '87	45 00	45 00	Jan. 1...	On delivery of lease.	Cancels lease 2519 to Dunlop & Seeley.
12 h.p...	0.25.....	July 1, '86	86 00	43 00	Jan. 1 and July 1.	Jan. 1, '87	He may have 10 h. p. more for \$50. Cancels 2518.
.....	100 feet....	Aug. 1, '85	23 00	23 00	Aug. 1...	Aug. 1, '85	Cancels lease 5260.
260 sq inches.	7,350 feet.	Jan. 1, '87	3.50 per h. p. r.	.....	Jan. 1 and July 1.	July 1, '87	
.....	.....	June 13, '87	1 00	1 00	June 1.....	On delivery of lease.	
.....	.....	May 1, '86	592 77	592 77	May 1.....	At auction, April 27, '86	
.....	.....	do 1, '86	1,102 93	1,102 93	do	do ...	
.....	.....	do 1, '86	420 75	420 75	do	do ...	
.....	.....	do 1, '86	684 44	684 44	do	do ...	
.....	.....	do 1, '86	1,277 06	1,277 06	do	do ...	
.....	.....	do 1, '86	253 68	253 68	do	do ...	
.....	.....	do 1, '86	428 08	428 08	do	do ...	
40 h.p...	.....	Sept. 1, '86	{ 500 00 } \$2 p. h. p. r.	.....	Sept. 1.....	Sept. 1, '87	
.....	2.37 acres.	May 1, '86	500 00	500 00	May 1.....	On delivery of lease.	
.....	2.15 do	do 1, '86	800 00	800 00	do	do ...	
.....	1.41 do	do 1, '86	800 00	800 00	do	do ...	
.....	100 x 40ft.	Aug. 1, '86	100 00	100 00	All in advance at once.	do ...	
.....	50 x 40 ft.	June 1, '87	100 00	100 00	Alltogether.	do ...	
.....	19,200 feet	Oct. 1, '86	100 00	100 00	Oct. 1.....	do ...	
.....	650 x 40ft.	Sept. 1, '86	400 00	\$50 per month	.....	do ...	Continued for 11 year, by letters.
.....	200 x 40ft.	Nov. 1, '86	100 00	.....	In adva'ce	do ...	

2nd. PROPERTY purchased or damaged by the Department of Railways and Canals, and property sold by the same Department, as not being required for, the Railways or Canals of the Dominion, during the Fiscal Year ended 30th June, 1887.

Date of Signature.	Vendors, &c.	Purchasers	Property Purchased, Sold, or Damaged.	For what Purpose used.	Area of Land.	Amount Paid.	Remarks.
Sept. 13, 1887	T. & W. Owens.	Her Majesty.	<i>Grenville Canal.</i> Release, floating goods, &c, in cellar, on lot 11, Stonefield, by freshet in January, 1886, drainage being stopped by Canal works....	Grenville Canal....	.....	\$ cts. 177 65	
do 22, 1886	Cath. Winters <i>et al.</i> ..	do	<i>Cornwall Canal.</i> S. pt. of E½ 4 in 1st Con., Osnabruck; land, \$17.50; damages, \$0.	Cornwall Canal....	0.79 acres ...	217 50	And release, Jan. 14, 1887.
Oct. 20, 1886	R. E. Moss <i>et al.</i>	do	S. pt. of E½ 4 in 1st Con., Osnabruck	do	.....0.79 do ...	217 50	
June 28, 1887	G. C. Smith <i>et ux., et al.</i>	do	E½ of lot 14, 1st Con., Cornwall, for enlargement.....	do	.... 2.20 do ...	4,000 00	And release, July 6, 1887.
do 28, 1887	Toronto Paper Manufacturing Co. (Lim.)	do	W½ of lot 13, 1st Con., Cornwall, for enlargement.....	do	.... 1.10 do ...	2,000 00	And release, July 5, 1887.
May 28, 1887	Acadia Coal Co.....	do	<i>Intercolonial Railway.</i> Deed of their railway, Westville to Stellarton, N.S.....	Intercolonial Ry...	3 miles long.	45,000 00	Transportation rates, agreement May 28, 1887. Per mile.
Sept. 13, 1885	Railway Safety Appliances Co.	do	Right to use "Cook's All-rail Safety Switch" on all lines of Intercolonial Railway	do	.....	3 00	
do 3, 1887	Order in Council.....	do	Transferring from Department of Marine to this Department, the East Public Wharf at Pictou, N.S.....	do	.....	.....
Aug. 23, 1886	A. H. Murphy and J. Roche, Executors.	do	Cadastral lot 25, St. Lawrence Ward, town of Lévis, for St. Charles Branch	do	.... 5,156 feet...	13,963 34	
Feb. 24, 1887	Hon. Geo. Couture...	do	Cadastral lot 405, Lauzon Ward, town of Lévis, for St. Charles Branch	do	.... 5,175 do ...	13,500 00	

do	26, 1887	L. & J. Nadeau	do	...	Cadastral lot 445, Lauzon Ward, town of Lévis, for St. Charles Branch.....	do	731½ do ...	1,400 00	
do	Mar. 22, 1887	Heirs J. Chabot	do	...	Cadastral lots 461, 461a, Lauzon Ward, town of Lévis, for St. Charles Branch.....	do	5,245 do ...	11,000 00	
do	Feb. 24, 1887	Julien Chabot	do	...	Cadastral lots 466, 468, 469, 470, Lauzon Ward, town of Lévis, for St. Charles Branch.....	do	{ 2,511 } feet 11,712 }	30,000 00	
do	do 21, 1887	C. Paquet	do	...	Cadastral lot 346, village of Lauzon, for St. Charles Branch	do	450 feet...	300 00	
do	Dec. 12, 1885	Wm. Chapman.....	do	...	A number of lots in St. Lawrence Ward, town of Lévis, for St. Charles Branch.....	do	.....	50,000 00	\$3,000 for other lots to be acquired by Mr. Chapman and conveyed to Govt.
<p><i>Ottawa River—Damages by Dams at Rocher Fenou and Grand Calumet Falls.</i></p>									
do	Sept. 18, 1886	R. R. Armstrong <i>et al</i>	do	...	Release, damages to lot 9, 1st Con., Litchfield	Culbute Works .....	.....	350 00	
do	Nov. 26, 1886	N. McGuinn	do	...	do do do	do	.....	300 00	
do	do 26, 1886	W. T. Durrell	do	...	do do do 21 (or 20-21) 3rd Con., Litchfield.....	do	.....	150 00	
do	June 30, 1886	J. W. and J. Bryson.....	do	...	do do do 2, in A, Mansfield.....	do	.....	125 00	
do	Dec. 18, 1886	Wm. Gillis' Sons and J. Colton	do	...	do do do 8, in B do	do	.....	45 00	
do	do 18, 1886	A. Fraser <i>et al</i>	do	...	do do do 9, 10, 1st Con., Waltham.....	do	.....	50 00	
do	July 16, 1886	J. Oughlin	do	...	do do do 47, 2nd Con., Waltham.....	do	.....	150 00	
do	Apr. 16, 1887	J. W. and J. Bryson.....	do	...	do do do 6, 7, B, Mansfield.....	do	.....	350 00	
do	June 13, 1887	J. Hanrahan <i>et al</i>	do	...	do do do 6, 5th Con., Calumet Island.....	do	.....	75 00	
do	Mar. 28, 1887	A. Ricard <i>et al</i>	do	...	do do do 13, 1st Con., Calumet Island	do	.....	100 00	
do	Feb. 12, 1887	John Moorhead	do	...	do do do 7, 1st Con., Litchfield	do	.....	550 00	
do	Aug. 1, 1887	Arch. Campbell <i>et al</i>	do	...	Release for damages to lot 1, in 2nd Range, lot 21, in 4th Range, Litchfield.....	Culbute .....	.....	100 00	
do	Mar. 31, 1887	Catharine McNally..	do	...	Release for damages to lot 6, in 5th Range, Calumet Island	do	.....	110 00	
do	Apr. 9, 1887	Corporation of Mansfield and Pontefract	do	...	Release for damages to roads in Village of Fort Coulonge, Mansfield.....	do	.....	950 00	
do	Mar. 9, 1887	R. Kennedy	do	...	Release for damages to lot 16, in 5th Range, Litchfield.....	do	.....	10 00	Additional.
<p style="text-align: center;"><i>Rideau Canal.</i></p>									
do	July 17, 1886	John Polk	do	...	Release, damages by Poonamalie dam to lot 13, in 2nd Con., Eastard	Rideau Canal.....	.....	150 00	
do	do 19, 1886	Thos. McDonald	do	...	Release, damages by Poonamalie dam to lot 16, in 2nd Con., Eastard	do	.....	70 00	Including 2 islands, cause-way, &c.

2nd. PROPERTY purchased, 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 Paid.	Remarks.
Aug. 21, 1886	John Lyons <i>et al.</i>	Her Majesty.	<i>Rideau Canal</i> —Concluded.			\$ cts.	
July 31, 1886	Pat. Blake <i>et al.</i>	do ...	Release, damages by Poonamalie dam to lot 14, in 2nd Con., Bastard	do .....	.....	160 00	
		do ...	Release, damages by works at Kingston Mills, to lots 8, 9, 10, 5th Con., Pittsburgh.....	do .....	.....	600 00	
do 22, 1887	W. W. Handley.....	do ...	<i>St. Peter's Canal.</i> Deed of privilege of drainage through his property, cross post road, 115 feet west of drawbridge	St. Peter's Canal. ....	.....	50 00	
Sept. 5, 1887	Jess. Amies, <i>et ux.</i>	do ...	<i>Oxford and New Glasgow Railway.</i> Deed of part of lot 64, Wallace, N.S., for the railway	Short Line.....	2.86 a cr ...	14 30	
do 5, 1887	Widow Mary Harrison	do ...	Deed of part of lot 65, Wallace, N.S., for the railway	do	0.987 do ...	6 00	
Aug. 31, 1886	J. E. Kearney	do ...	<i>Trent Valley Canal.</i> Release, damages by Lakefield dam to lot 36, in 12th Con., Smith	Trent .....	.....	50 00	
Dec. 24, 1886	W. J. Young <i>et al.</i>	do ...	Release, damages by Lakefield dam to lot 35, in 12th Con., Smith	do .....	.....	100 00	2 heirs not of age, to be paid each \$25 hereafter.
Oct. 13, 1885	Hon. J. G. Ross,	do ...	Release, damages by Lakefield dam to Lakefield Village, lots 1 to 13 (or part lot 18 in 7th and 8th Con., Douro).....	do .....	.....	150 00	

Date	Party	Description	Canal	Area	Principal and interest
July 14, 1885	Thos. Moorehouse, jun	Deed to Government of part of lot E. 1/2 of W. 1/2 and W. 1/2 of E. 1/2 5, 1st Con., Matilda.	Rapide Plat Canal	1.3 acres	450 00
do 15, 1885	Executors of T. Dardis	Deed to Government of part of lot W. 1/2 6, 1st Con., Matilda.	do	1.85 do	2,128 67
do 13, 1887	A. Farlinger et al, et uz.	Deed to Government of part of lot E. 1/2 5, and W. 1/2 4, in 1st Con., Matilda.	do	3.65 do	1,103 67
Mar. 27, 1883	do	Deed to Government of part of lots 1 and 2 in 6th Range, village of Mariatowa.	do	.....	459 00
Ap. 28, 1887	J. McLaughlin	Release, damages by running ranges on lot W. 1/2 11, in 1st Con., Edwardsburg.	Galops Canal.	.....	20 00
<i>Welland Canal.</i>					
July 30, 1886	J. M. Reid et al.	Release, damages by Dunnville dam to S. 1/2 8, in 3rd Con., and N. pt 8, in 4th Con., North Cayuga.	Welland Canal, damages by Dunnville dam.	.....	145 00
Sept. 24, 1886	John Boyer et al.	Release, damages by Dunnville dam to E. pt. 5, lot 6, in 3rd Con., and 6, in 2nd Con., Dunn.	do	.....	33 00
July 15, 1886	R. H. Bruce	Release, damages by Dunnville dam to pts. 11 in 3rd and 4th Con., North Cayuga.	do	.....	200 00
Aug. 18, 1886	M. W. Carnes.	Release, damages by Dunnville dam to N. 1/2 15, in 4th Con., South Cayuga.	do	.....	48 00
July 30, 1886	R. P. Reid.	Release, damages by Dunnville dam to lots 6 and 7, in 3rd Con., North Cayuga.	do	.....	540 00
do 14, 1886	S. Chadbourne	Release, by Dunnville dam to pt. 1 in 3rd Con., Canborough.	do	.....	125 00
July 27, 1886	A. Neville.	Release, damages by Dunnville dam to lots 15 and 16, 3rd Con., North Cayuga.	do	.....	423 00
Aug. 31, 1886	S. Moyer et al.	Release, damages by Dunnville dam to lot 7, 4th Con., South Cayuga.	do	.....	70 00
July 17, 1886	W. Bruce.	Release, damages by Dunnville dam to lots 11 and 12, 3rd Con., North Cayuga.	do	.....	140 00
Aug. 30, 1886	O. G. Snider et al.	Release, damages by Dunnville dam to lot 17, 3rd Con., North Cayuga.	do	.....	97 00
July 30, 1886	G. H. Law et al.	Release, damages by Dunnville dam to lot 1, 3rd Con., Canborough.	do	.....	100 00
Aug. 31, 1886	J. D. Rae.	Release, damages by Dunnville dam to lot 14, 3rd Con., North Cayuga.	do	.....	157 00
Oct. 2, 1886	W. Happell et al.	Release, damages by Dunnville dam to lot 12, 4th Con., South Cayuga.	do	.....	100 00
June 25, 1886	Malon Lymburner.	Release, damages by Dunnville dam to lot 1, 3rd Con., and lot 13, Dochstader tract, Canborough.	do	.....	450 00

2nd. PROPERTY purchased, damaged, or sold by the Department of Railways and Canals, &c.—Continued

Date of Signature.	Vendors, &c.	Purchasers.	Property Purchased, Damaged, or Sold.	For what purpose used.	Area of Land.	Amount Paid.	Remarks.
Sept. 21, 1886	W. McBay <i>et al.</i>	Her Majesty.	<i>Welland Canal—Continued.</i> Release, damages by Dunnville dam to lot 7, 2nd Con., Dunn	Welland Canal, damages by Dunnville dam .....	.....	\$ cts.	
Oct. 23, 1886	James Topp	do	Release, damages by Dunnville dam to lot 18, 3rd and 4th Cons., South Cayuga	do	.....	10 00	
Nov. 30, 1886	Exors. of U. Rittenhouse	do	Release, damages by Dunnville dam to lot 1, 3rd Con., Dunn	do	.....	50 00	
Dec. 13, 1886	E. Darling	do	Release, damages by Dunnville dam to lots 3 and 4, Indian Reserve, Canborough	do	.....	50 00	
Mar. 16, 1887	J. Johnson <i>et al.</i>	do	Release, damages by Dunnville dam to lots 4, and 5, Indian Reserve, Canborough	do	.....	170 00	Her children to get \$167.50 when vested with estate.
Nov. 27, 1886	C. T. Meadows	do	Release, damages by Dunnville dam to lot 25, 3rd Con., South Cayuga	do	.....	33 00	
do 20, 1886	J. & H. L. Laws	do	Release, damages by Dunnville dam to lots 26 and 27, 3rd Con., South Cayuga	do	.....	75 00	
Apr. 28, 1887	O. B. Fradenburgh <i>et al.</i>	do	Release, damages by Dunnville dam to lots 23 and 24, 3rd Con., and lots 23, 24 and 25, 4th Con., South Cayuga	do	.....	70 00	
Jan. 29, 1887	J. W. Fradenburgh <i>et al.</i>	do	Release, damages by Dunnville dam to lot 21, 3rd Con., and lots 21 and 22, 4th Con., South Cayuga	do	.....	50 00	
Apr. 27, 1887	Eliz. Thompson	do	Release, damages by Dunnville dam to lot 21, 3rd Con., and lots 21 and 22, 4th Con., South Cayuga	do	.....	1 00	Inchoate right of dower.
June 9, 1887	Geo. A. Windecker <i>et al.</i>	do	Release, damages by Dunnville dam to lots 7 and 8, Huff tract, North Cayuga	do	.....	287 00	
Oct. 23, 1886	Geo. F. Windecker	do	Release, damages by Dunnville dam to lot 18, 3rd Con., North Cayuga	do	.....	100 00	
May 19, 1887	D. T. Stephens	do	Release, damages by Dunnville dam to lots 33, 34, 35 and 36, North Cayuga	do	.....	250 00	
June 10, 1887	J. Smith	do	Release, damages by Dunnville dam to lot 8, Dochstader tract, Canborough	do	.....	123 75	

Date	Party	Description	Damages by enlargement of Welland Canal	Land taken for enlargement of Welland Canal	Interest, \$13.50.
May 4, 1886	Robt. Balfour.....	...Order of distribution of Court re lot 22, West St., Port Colborne, to pay damages to Jas. Johnston & Co.....	.....	.....	450 00
Sept. 21, 1886	J. M. Ellsworth <i>et ux</i>	...Deed of lot 28, 2nd Con, Humberstone (or lot 4, North of Main St., Petersburg).....	Land taken for enlargement of Welland Canal.....	0.19 acres.	850 00
do	John Jackson <i>et ux</i>...	...Deed of life interest on lot 28, 2nd Con, Humberstone (or lot 4, North of Main St., Petersburg) on br. front of "Chippewa Cut" and bridge.....	do .....	.....	240 00
May 18, 1887	Corp. of Chippewa.	...Surrender of lots 1, 2, 3 and 4, N. of James St., Port Dalhousie, (being part of lot 21, F. E. Andrews).....	Welland Canal.....	.....	1 00
Sept. 8, 1887	F. E. Andrews.....	...Special grant of part of lot 21, in 1st Concession Grantham, Port Dalhousie.....	do	0.22 acres.	1 00
do	Her Majesty	...Surrender of lots M, N, O, P, Q, R, S, T, U, and V, East side of East St., Port Colborne.....	Welland Canal enlargement.....	.....	1,750 00
Dec. 16 1886	Hunter, Murray & Cleveland.....	...Release, damages by removal of bridge to lot S. E. 4, W. of Carl St., Port Robinson.....	Welland Canal damages by removal of bridge.....	0.16 do	75 00
May 6, 1887	John Offspring.....	...Release, damages by removal of bridge to lot E 4, W. of Carl St., S. of Main St., 1, 2, 3, 4, 5, E of Carl St., Port Robinson.....	do .....	.....	175 00
Apr. 9 1887	Ann Booth <i>et vir</i>	Her Majesty. Release, damages by Dunnville dam to lots 31, 32 and 3, 1st Con., North Cayuga.....	Welland Canal, damages by Dunnville dam.....	.....	68 00
Jan. 27, 1886	A. P. Farrell.....	...Release, damages by Dunnville dam to lot 2, Dockstader tract, Canborough.....	do .....	.....	408 00
do 20, 1886	J. Baker.....	...Release, damages by Dunnville dam to lot 5, Indian Reserve, Canborough.....	do .....	.....	200 00
do 9, 1886	H. Amsden.....	...Release, damages by Dunnville dam to lots 15 and 16 4th Con., South Cayuga.....	do .....	.....	285 00
do 19, 1886	E. & M. Evans <i>et al.</i>	...Release, damages by Dunnville dam to lot 1, Dochstader tract, Canborough.....	do .....	.....	113 00
Feb 6, 1886	H. H. Farr <i>et al.</i>.....	...Release, damages by Dunnville dam to lots 27, 28 and 29, Haldimand tract, Dunn.....	do .....	.....	225 00
Mar. 5, 1886	W. J. Aikens.....	...Release, damages by Dunnville dam to lot H, No. 1, Indian St., and lot I, Victoria St., Town of Cayuga.....	do .....	.....	183 00
do 6, 1886	J. R. Martin <i>et al.</i>.....	...Release, damages by Dunnville dam to lots 8 and 9, 4th Con., South Cayuga.....	do .....	.....	480 00
July 10, 1886	Wm. Edie.....	...Release, damages by Dunnville dam to lot 12, Jones' tract, North Cayuga.....	do .....	.....	6 00
Feb. 21, 1887	B. & E. Baxter.....	...Release, damages by Dunnville dam to lot 6 (or 5), Huff tract, North Cayuga.....	do .....	.....	6 00
Apr 19, 1887	R. Sutor <i>et al.</i>.....	.....	do .....	.....	218 00

2nd. PROPERTY purchased, damaged, or sold by the Department of Railways and Canals, &c.—Continued.

Date of Signature.	Vendors, &c.	Purchaser.	Property Purchased, Damaged, or Sold.	For what purpose used.	Area of land.	Amount paid.	Remarks.	
Dec. 22, 1886	T. & W. Teesdale....	Her Majesty	<i>Welland Canal—Continued.</i>					
			Release, damages by Dunnville dam to lot 1, Huff tract, and lots 4 and 5, Jones' tract, North Cayuga ..	Welland Canal, damages by Dunnville dam		\$		
Apr. 9, 1887	R. Gibson	do	Release, damages by Dunnville dam to lots 4 and 5, Jones' tract, North Cayuga.....	do		100 00		
Feb. 15, 1887	Wm Walters <i>et al.</i> ...	do	Release, damages by Dunnville dam to lots 28 and 29, 2nd Con., North Cayuga	do		70 00		
Dec. 24, 1886	Corp. North Cayuga.	do	Release, damages by Dunnville dam to highways and bridges, North Cayuga ..	do		56 00		
Jan. 26, 1887	F. G. A. Henderson <i>et al.</i>	do	Release, damages by Dunnville dam to lot 10, 4th Con., South Cayuga	do		300 00		
Dec. 2, 1886	S. Fradenburgh	do	Release, damages by Dunnville dam to lots 21, 22 and 23, 3rd Con., and lots 22 and 23, 4th Con., South Cayuga	do		125 00		
do 1, 1886	D. A. Fradenburgh .	do	Release, damages by Dunnville dam to lots 22 and 23, 3rd Con., and lots 23 and 24, 4th Con., South Cayuga.....	do		64 00		
do 11, 1886	O. Fathers <i>et al.</i>	do	Release, damages by Dunnville dam to lot 11, 4th Con., South Cayuga.....	do		375 00		
Jan. 16, 1887	J. Walsh	do	Release, damages by removal of canal bridge to lot 2, W. of Hill St., Port Robinson....	do		100 00		
do 16, 1887	M. A. Wilson	do	Release, damages by removal of canal bridge to lot 21, Port Robinson	Removal of canal bridge.....		75 00		
do 2, 1887	B. Redfern.....	do	Release, damages by removal of canal bridge to lot 4, S. of Main St., and lot 1, W. of Hill St., Port Robinson.....	do		100 00		
Nov. 30, 1886	Hudson Bay Co.	do	Deed of S. W. 1/4 sec. 26, Tp. 12, Range 2 E....	do		100 00		
May 26, 1887	D. Sinclair.....	do	do lot 35, outer 2 miles, St. John, being part of S. W. 1/4 sec. B, and broken 1/2 sec. 5, Tp. 11, Range 3 E.....	Stonewall Branch.	4.12 acres....	1 00		
			do	do	6.13 do	0 62		

Date	Grantor	Deed Description	Area	Remarks	Acres
Feb. 8, 1887	Hudson Bay Co.	Deed of N.W. 1/4 sec. 26, Tp. 12, Range 2 E.	60 00		Re A. G. Ascher.
do 8, 1887	do	do S.E. 1/4 do do	19 00		do
do 6, 1886	Peter Flett.	do lot 81, Parish St Paul.	1 00		And interest
do 13, 1886	Jas. Flett.	do lot 191, Parish St. Andrews.	17 00		
do 2, 1886	Caroline Sargant.	do lot 218 do	15 30		
do 18, 1886	A. Baunerman.	do lots 258 & 259 do	7 50		
do 6, 1886	do	do lot 193 do	15 30		
do 2, 1886	John Flett.	do outer 2 miles ...	9 60		
Sept. 27, 1886	Hon. J. Schultz.	do N.E. 1/4 sec. 8, Tp. 13, Range 5 E, and lot 288, outer 2 miles, St. Andrews, and lot 75, outer 2 miles, St. Clement.	1 90		
do 21, 1886	Geo. Davis.	do Deed of lot 235, St. Andrews, outer 2 miles.	7 60		Area is only 0.77
Oct. 8, 1886	J. C. Corrigan.	do do lot 186 do	17 00		acre.
Nov. —, 1886	R. Bullock.	do do lot 100, St. Clement do	7 60		
Sept 6, 1886	Rev. S. Fritchard.	do do lot 80, St. Paul.	14 80		
Dec 17, 1886	J. Forrester, sen.	do do lot 64, St. Agathe ..	36 40		
Nov. 15, 1886	C. Frobishet.	do do lot 136, St. Norbert, outer 2 miles.	1 00		
do 15, 1886	C. Genthon.	do do lot 137 do	8 32		
do 15, 1886	G. Brissart.	do do lot 140 do	12 24		
do 24, 1886	L. H. Peto.	do do lots 58 and 60, St. Agathe, inner 2 miles ..	52 00		
April 2, 1881	H. Pritchard.	do Deed of lot 103, St. Paul ..	10 61		Northern extension
Jan. 4, 1882	S. O. Biggs.	do do lot 66, St. Boniface ..	4 10		do
do 10, 1837	Jas. Mathewson.	do do lot 36, St. Agathe ..	40 60		
April 6, 1887	D. S. Curry.	do do lot N. 1/2 S.E. 1/4 sec. 13, Tp. 7, Range 3 E.	10 00		
Nov. 29, 1886	R. Mulholland.	do Deed of lots 195 and 203, St. Norbert.	31 70		
Jan. 31, 1881	Rev. N. J. Ritchot.	do do lots 188 and 204 do	1 00		
Apr. 25, 1881	John C. Schultz.	do do lots 191 and 192 do	1 00		
do 25, 1881	do et al	do do lot 205, St. Norbert.	1 00		
do 25, 1881	do	do do lot 206 do	1 00		
Mar. 12, 1881	A. St. Germain.	do do lot 151 and 158, St. Norbert.	1 00		
May 10, 1887	Isabel Wolf et vir.	do do S.E. 1/2 and N. 1/2 of N.E. 1/4 1, Tp. 7, Range 3, E.	30 00		
Mar. 22, 1887	North-West Canada Investment Co (Limited)	do Deed of N.W. 1/4 sec. 30, Tp. 8, Range 4 E.	20 00		
May 18, 1887	J. Caldwell.	do do lot 77, Kildonan ..	2 60		N. Extension
do 23, 1887	R. Patterson.	do do N.W. 1/4 and N. 1/2 of S.W. 1/4 sec. 31, Tp. 8, Range 4 E.	30 00		Pembina Branch ...

2nd PROPERTY purchased, damaged or sold by the Department of Railways and Canals, &c.—Continued.

Date of Signature.	Vendors.	Purchasers.	Property Purchased, Damaged or Sold.	For what purpose used.	Area of Land.	Amount paid.	Remarks.
Mar. 25, 1887	Scottish, Ontario and Manitoba Land Co (Limited).....	Her Majesty.	<i>Canadian Pacific Railway—Continued.</i> Deed of N.E. ¼ sec. 1 and S. ¼ S.E. ¼ 12, S.E. ¼ 1, Tp. 6, R. 3 E., and N.E. ¼ sec. 25, Tp. 5, Range 3 E.	Pembina Branch ...	14.00 do ...	70 00	
do 25, 1887	do	do	Deed of N. ½ N.W. ¼ sec. 7, and N. ¼ legal sub-division 11 of sec. 7, Tp. 6, Range 4 E.; S.W. ¼ sec. 31 and N. ½ N.W. ¼ 30 and S. ½ S.W. ¼ 19, Tp. 5, Range 4 E.	do	11.00 do ...	55 00	
do 25, 1887	do	do	Deed of S.E. ¼ and S. ¼ N.E. ¼ sec. 24, Tp. 8, Range 3 E.; N. ¼ N.E. ¼ Tp. 8, Range 3 E.; N.E. ¼ 13, S. ½ S.E. ¼ 24, and S.E. ¼ S. ½ of N.E. ¼ 1, Tp. 7, Range 3 E.	do	20.00 do ...	100 00	
May 23, 1887	London Canadian Loan and Agency Co. (Limited).....	do	Deed of lot 72, Ste. Agathe, being part of W. ¼ sec. 29, Tp. 1, Range 3 E.	do	2.60 do ...	26 00	
do 26, 1887	Ann Taylor <i>et vir</i> ...	do	Deed of N.W. ¼ sec. 35, Tp. 3, Range 3 E.	do	2.91 do ...	14 55	
do 27, 1887	W. Bailey	do	do S.E. ¼ and S. ½ N.E. ¼ sec. 24, Tp. 5, Range 3 E.	do	6.00 do ...	30 00	
do 31, 1887	H. McEwen	do	Deed of S. ½ of N.W. ¼ and S.W. ¼ sec. 6, Tp. 5, Range 4 E.	do	16.03 do ...	80 15	
Mar. 16, 1887	J. Bullis.....	do	Deed of lots 78 and 80, Ste. Agathe, or part of W. ½ sec. 29, Tp. 1, Range 3 E.	do	5.20 do ...	52 00	Paid to Manitoba and N. W. Loan Co. (Limited).
Apr. 21, 1887	J. and E. and W. Bullis	do	do do do	do	.....	.....
May 26, 1887	Jas. Quinn.....	do	Deed of N.W. and S.W. ¼ sec. 22, Tp. 3, Range 3 E.	do	13.87 do ...	64 25	
do 26, 1887	E. Jane Quinn.....	do	Deed of S.E. ¼ sec. 27, Tp. 3, Range 3 E.	do	0.85 do ...	4 25	
Dec. 16, 1886	Jos. St. Germain.....	do	do lot 139, St. Norbert	do	1.60 do ...	12 88	
June 14, 1887	N. Bonneau	do	do N.E. ¼ sec. 36, Tp. 5, Range 3 E.	do	4.00 do ...	20 00	
May 31, 1887	W. Grant	do	do lot 46, Ste. Agathe	do	2.60 do ...	39 00	do

Journal, 1887, D. McArthur.

2nd PROPERTY purchased, damaged or sold by the Department of Railways and Canals, &c.—Continued.

Date of Signature.	Vendors.	Purchasers.	Property Purchased, Damaged or Sold.	For what purpose used.	Area of land.	Amount paid.	Remarks.	
Feb. 23, 1881	R. Terrot	Her Majesty.	<p style="text-align: center;"><i>Canadian Pacific Railway.</i></p> Deed of lot 6, block 31, Emerson	Pembina Branch...	0.09 do ...	\$ cts.	Already decided. John Allan con- firms it 7th Jan, 1887.	
Mar. 31, 1881	J. H. Kennedy	do ..		do lot 202, St. Norbert	do	0.87 do ...		2 68
June 9, 1887	S. H. Phippen	do ..		do lot 76, Ste. Agathe	do	2.60 do ...		1 00
Oct. 18, 1886	Margaret Allan	do ..		do lot 259, St. Andrews	N. Extension	0.75 do ...		26 00 6 80

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, 1887.

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
1886.				\$	\$
July 16	Brockville, Westport & Sault Ste. Marie Railway Co.	From Brockville to Westport.....	48-49 Vic., c. 59.	3,200	128,000
do 7	Central Railway Co.	From Salmon River, at head of Grand Lake, to Norton Station, Intercolonial Railway, between Sussex and St. John, N.B.	47 Vic, c. 8.	3,200	128,000
Aug. 14	Northern & Western Railway Co., of New Brunswick.	Between termini from Fredericton and from Indiantown.	49 Vic., c. 10	3,200	32,000
July 12	Canada Atlantic Railway Co.	From Clark's Island to Valleyfield, and from Lacolle to 1½ mile west of Johnston's.	48-49 Vic., c. 59, 49 Vic., c. 10.	1,600 } 3,200 }	96,000 } 38,400 }
do 27	Ontario and Pacific Railway Co.	From Cornwall <i>via</i> Newington, Crysler, Manotick and Franktown to Perth.	47 Vic., c. 8.	3,200	262,400
Aug. 19	Irondale, Bancroft & Ottawa Railway Co	From Midland Division to Grand Trunk Railway in Snowdon to Bancroft.	do ...	3,200	160,000
Sept. 16	L'Assomption Railway Co.	From L'Epiphanie to L'Assomption....	49 Vic., c. 10	3,200	11,200
do 14	Buctouche and Moncton Railway Co.	From Moncton to Buctouche, N.B.....	do ...	3,200	96,000
Nov. 2	West Ontario Pacific Railway Co.	From Woodstock to London, in place of from Ingersoll to London, as per Act.	do ...	3,200	86,400 in place of 266,000
Oct. 12	Great Eastern Railway.	From Yamaska to River St. Francis...	do ...	3,200	32,000
Nov. 30	Joggins Railway Co.	From Maccan Station, Intercolonial Railway, to the Joggins, on Cumberland Basin, N.S.	do ...	3,200	38,400
1887.					
Jan. 20	Toronto, Grey and Bruce Railway Co.	From Glenannan to Wingham, Ont...	do ...	3,200	16,000
Aug. 12	Northern and Western Railway Co. of New Brunswick.	2-mile extension to deep water, at Chatham, N.B.	do ...	3,200	32,000
1886.					
Dec. 17	Stewiacke Valley and Lansdowne Railway Co. (Limited)	From Intercolonial Railway, through Stewiacke Valley, towards Lansdowne, N.S.	do ...	3,200	80,000
Oct. 19	Albert Railway Co.	To place their Railway in proper repair from Salisbury to Hopewell.	do ...	3,200	15,000

* Second mortgage on railway and personal property subject to first mortgage of 1st Dec., 1877, to trustees, Government to pay now \$4,836 to laborers, balance as works progress. Company to refund the \$15,000, 1st Dec., 1897, with interest at 6 per cent., payable 1st Dec. and 1st June each year, the first on 1st Dec., 1886. In default of Company paying principal or interest Government may take possession on one month's notice. The Company to work the line and receive profits, &c.

aid in the construction of Railways, entered into by certain Railway Companies the Fiscal Year ended 30th June, 1887.

Number of Miles to be Subsidized.	Maximum Grade, Feet per Mile.	Radius of Curvature, not less than—	Width of clearing each side.	Width of Outings.	Embankments.	Steel Rail, lbs per lineal yard.	When to be Completed.	Remarks.
No.	Feet.	Feet.	Ft.	Ft.	Ft.	Lbs.		
40	66	955	50	20	16	56	Aug. 1, 1889	
40	66	933	50	20	16	56	July 1, 1888	
8	70	955	50	20	16	56 60 if iron	Jan. 1, 1887	
47 12 }	40	1,166, Clarke's Island to Valleyfield. 5,730, Lacolle to $1\frac{1}{2}$ miles west of Johnston's.	50	20	16	56	Oct. 1, 1886	
82	53	1,433	50	20	16	56	July 1, 1888	
50	60	1,000	50	20	16	56	{ Dec. 1, 1888 July 1, 1888	10 miles. Remainder.
34	47	955	50	20	16	56	Jan. 1, 1887	
30	60	955	50	20	16	56	July 1, 1887	
27	53	1,433	50	20	16	56	Nov. 1, 1887	Subject to approval of Parliament.
10	10	1,910	40	20	16	56	Oct. 1, 1887	
12	79	955	50	20	16	56	Nov. 1, 1887	
5	53	1,433, except at its junction with P. G. & B. Ry., a 573-foot radius.	50	20	16	56	Dec. 1, 1887	
2	90	714	50	20	16	56 or 60 if iron.	Sept. 1, 1888	
25	60 except first 5 miles. new survey to be made	955	50	20	16	56	Dec. 1, 1889	
							To be carried on with all reasonable speed.	

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.
1887.				\$	\$
Feb. 19	Caraquet Railway Co	From end of present subsidized portion of Company's Railway at Lower Caraquet to Shippegan, N.B.	49 Vic., c. 10	3,200	32,000
1886.					
Mar. 4	† Chignecto Marine Transport Railway Co. (Limited)	A ship railway across Isthmus of Chignecto to connect Baie Verte with Bay of Fundy.	45 Vic., c. 25, 49 Vic., c. 18.	\$150,000 a year for 25 years, changed to \$170,602 a year for 20 years.	

† Hydraulic lifts to raise vessels of net less than 1,000 tons register each, with full cargo. Docks at each end capable of holding securely six steamers at least, to be enlarged hereafter. Company to construct passing places for traffic. Work and maintain the railway, charging tolls approved by C. O. Company to receive \$85,301 each half year, if contract is duly fulfilled and complied with, or as may be required to make up the net earnings to 7 per cent. per annum on the authorized share and bond capital of the Company, viz. : \$5,500,000. If earnings exceed 7 per cent. Company to pay to Government one half of surplus profit beyond the 7 per cent. until subsidy is all repaid to Government, subject to approval of Parliament.

OTTAWA, 2nd November, 1887.

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.		
10	37½	1,433	50	20	16	50	Oct. 1, 1887	
16½	Near level.	Straight.	50	20	16	110	July 1, 1889	

H. A. FISSIAULT.

APPENDIX No. 22.

REPORT OF THE BOARD OF OFFICIAL ARBITRATORS.

OTTAWA, 3rd September, 1887.

SIR,—I beg to enclose you herewith the report of the cases referred and arbitrated and awarded upon by the Official Arbitrators, in connection with your Department, during the fiscal year ending 30th June, 1887.

CHAS. THIBAUT,
Sec'y. to Official Arbitrators.

A. P. BRADLEY, Esq.,
Sec'y. Department of Railways and Canals.

A statement of cases Arbitrated or Reported upon by the Official Arbitrators in connection with the Department of Railways and Canals.

STATEMENT of Claims Arbitrated or Reported upon by the Official Arbitrators in connection with the Department of Railways and Canals, during the Fiscal Year ended 30th June, 1887.

Claimants.	Nature of Claims.	When referred.	To whom referred.	Whether referred for Report or Award.	Amount Claimed.	Amount Awarded or Recommended.	Date of Award.	Remarks.
J. Bte. Plante.....	I.C.R., St. Charles Branch—Horse killed by.....	1886. July 5...	Full Board....	Award..	\$150 00	150 00	Nov. 6, 1886.	
W. D. Chisholm.....	I. C R , E. Extension—Barn burnt from sparks.....	do 15...	do	do ..	Not stated	750 00	do 8, 1886.	
Wm. Serviss.....	Cornwall Canal—Land taken for... do	do 15...	do	do ..	do ..	747 50	May 23, 1887.	
Edward Ryan.....	do do	do 15...	do	do ..	do ..	533 00	do 23, 1887.	
Timothy Shield.....	do do	do 15...	do	do ..	do ..	618 00	do 23, 1887.	
George Moss.....	do do	do 15...	do	do ..	do ..	55 00	do 23, 1887.	
Francis Clark.....	do do	do 15...	do	do ..	do ..	Nil.	Sept. 7, 1886.	
Isaac Mason.....	I. C R.—One horse killed by.....	do 21...	One Arbitrator	Report..	do ..			
Heirs of Eloi Rioux....	do Damage by water and cattle killed	do 21...	Full Board ...	Award..	do ..	100 00	do 30, 1886.	
W. H. Johnson.....	do Organ lost by negligence of officials	do 21...	One Arbitrator	Report .	do ..	115 00	Aug. 25, 1887.	
Duncan Ross and Rod- erick Fraser	do E. Extension—Wood burnt by sparks	August 15...	do ..	do ..	do ..	Nil.	June 18, 1887.	
Hugh McPhee.....	do One horse killed by	do 23...	do ..	do ..	do ..	100 00	do 18, 1887.	

CHAS. THIBAUTL,
Secretary of Official Arbitrators.

OTTAWA, 3rd September, 1887.

THE following Cases have been Awarded during the Fiscal Year ended 30th June, 1887.

Claimants.	Nature of Claims.	When referred.	To whom referred	Whether referred for Report or Award.	Amount Claimed.	Amount Awarded or Recommended.	Date of Award.	Remarks.
					\$ cts.	\$ cts.	1886.	
Widow Mag. Martel.....	I.C.R.—Damage to her land by water from.....	.....	Full Board.....	Award..	Not stated	15 00	Sept. 30...	
David Rioux.....	do Damage to his land by water from.....	.....	do	do	do	80 00	do 30...	
George Rioux.....	do do do .....	.....	do	do	do	30 00	do 30...	
Johnny Rioux.....	do do do .....	.....	do	do	do	20 00	do 30...	
Etienne Michaud.....	do Loss of six cows killed by.....	.....	do	do	do	120 00	do 30...	
Daniel Chouinard.....	do Damage to land (1 rood) by water from.....	.....	do	do	do	600 00	do 30...	
Henri Beaulieu.....	do do do .....	.....	do	do	do	150 00	do 30...	
Louis Chasseur.....	do do do .....	.....	do	do	do	50 00	do 30...	
Adolphe Ross.....	do do do .....	.....	do	do	do	100 00	do 30...	
Josué Bouillon.....	do do do .....	.....	do	do	do	200 00	do 30...	
Sylvain Lavoie.....	do do do .....	.....	do	do	do	87 50	do 30...	
Octave Lamontagne.....	do do do .....	.....	do	do	do	450 00	do 30...	
Napoleon Rioux.....	do do do .....	.....	do	do	do	100 00	do 30...	
Joseph Roy <i>alias</i> Desjardins.....	do do do .....	.....	do	do	do	15 00	do 30...	
Jules Larivée.....	do do do .....	.....	do	do	do	15 00	do 30...	
George Lavoie.....	do Barn and cattle destroyed by fire.....	.....	do	do	do	1,072 50	do 30...	
Mrs. J. Pouliot.....	do Damage to land by water from.....	.....	do	do	do	450 00	do 30...	
Jean Pierre, Saint Laurent.....	do do do .....	.....	do	do	do	500 00	do 30...	
Louis Bérubé.....	do do do .....	.....	do	do	do	500 00	do 30...	
Charles Dumas.....	do Land taken for.....	.....	do	do	do	200 00	do 30...	
Charles W. Carrier.....	do St. Charles Branch—Land taken for.....	.....	do	do	do	61,811 86	do 30...	This case is in appeal before Exchequer Court.
Antoine Carrier.....	do do do .....	.....	do	do	do	450 00	do 30...	
Messrs. Walker & Maling	Cotton Factory Siding at Halifax—Land taken for.....	.....	do	do	do	201 50	do 30...	
Maurice Downey.....	Dartmouth Branch, I.C.R.—Land taken for.....	.....	do	do	do	2,500 00	do 30...	

APPENDIX No. 23.

ALPHABETICAL LIST of Railways Subsidized by the Dominion Government.

A. D.		Designation of Act.	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. 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 ac.	300						1,920,000
1886	49	Vic, c. 10.....	3,200	16	51,200					15,000
1884	47	Vic, c. 8.....	3,200	20	64,000					51,200
1884	47	Vic, c. 8.....	3,200	20	300,000					64,000
1884	47	Vic, c. 8.....	3,200	20	320,000					300,000
1883	46	Vic, c. 25 ..	{ 6,400	{ 20	{ 320,000					{ 320,000
1885	48-9	Vic, c. 59	{ 3,200	{ 40	{ 128,000					{ 128,000
1885	48-9	Vic, c. 59	{ 1,500	{ 7	{ 10,500					{ 22,400
1887	50-51	Vic, c. 24.	{ 1,700	{ 30	{ 96,000					{ 96,000
1887	50-51	Vic, c. 24.	3,200	18	57,600					57,600
1886	49	Vic, c. 10.....	3,200	30	96,000					96,000
1874	37	Vic, c. 14.....	3,200	2	6,400					6,400
1883	46	Vic, c. 25.....	3,200	120	1,440,000					1,440,000
1884	47	Vic, c. 8.....	3,200	36	115,200					115,200
1887	50-51	Vic, c. 8.....	3,200	24	76,800					76,800
1887	50-51	Vic, c. 24.	3,200	7	32,000					32,000
1884	47	Vic, c. 8.....	3,200	40	128,000					128,000

[1887]

1885	18-49 Vic, c. 59.	Central Ontario Ry. Co., Coo Hill or Rathburn to Bancroft.....	3,200	20	64,000	64,000	
1885	43-49 Vic, c. 59.	Canada Atlantic Ry. Co. { Valleyfield to Lacolle..... Terminus, Ottawa, to Chaudière Falls	{ 1,600 } { 3,200 } { 3,200 }	{ 34 } { 10 } { 3 }	96,000	96,000	
1886	49 Vic, c. 10.....	do { Clarke's Island to Valleyfield..... Lacolle to International Boundary..	{ 3,200 } { 3,200 }	12	38,400	38,400	
1881	44 Vic, c. 1.....	Canadian Pacific Ry. Co., Callander to Port Arthur, and Selkirk to Kamloops.....	6,000	160	{ 960,000 } { 340,000 }	1,500,000	
1884	47 Vic, c. 8.....	For extension of C.P.R. { St Martin's Junction to Québec do do (additional)			200,000	38,400	
1886	43-49 Vic, c. 58	do { Connecting Jacques Cartier Union Junction with North Shore.	3,200	12	38,400	38,400	
1884	47 Vic, c. 8.....	Carillon and Grenville Ry. Co., St Eustache to Sault-au Recollet	3,200	13	41,600	41,600	
1887	50-51 Vic, c. 24.	Cornwallis Valley Ry. Co., Kentville to Kingsport	3,200	14	44,800	44,800	
1887	50-51 Vic, c. 24.	Quebec-Grand Railway and Coal Co., Near Spring Hill to near Oxford Village	3,200	12	38,400	38,400	
1886	49 Vic, c. 10.....	Cap Rouge and St. Lawrence Ry. Co., Lorette to Québec.....	3,200	16-85			
1882	45 Vic, c. 55...	Chignecto Marine Transport Ry. Co., Ship Railway—Gulf of St Lawrence to Bay of Fundy.....	3,200	30	96,000	96,000	
1886	49 Vic, c. 18...	Drummond County Ry. Co., Drummondville towards Nicolet...	3,200	7	22,400	22,400	
1887	50-51 Vic, c. 24.	Dominion Lime Co., from point on Quebec Central Ry. to Dudswell Lime Co.'s Quarries.....	3,200	71			
1884	47 Vic, c. 6.....	Esquimalt and Nanaimo Ry. Co., Esquimalt to Nanaimo, Vancouver's Island.....	3,200	30	96,000	96,000	Land on Vancouver Is-land (see 47 V, c. 6).
1884	47 Vic, c. 8.....	Eric and Huron Ry. Co., Wallaceburg to Sarnia.....	3,200	12	38,400	38,400	
1883	46 Vic, c. 25.....	Elgin, Pettocodiac and Havelock Ry. Co., Pettocodiac to Havelock Corner.....	3,200	22	70,400	70,400	
1886	49 Vic, c. 10.....	For a line, Eganville to a point on C.P.R.....	3,200				Loan of 80 p.c. on cost, repayable in 15 yrs.
1887	50-51 Vic, c. 26.	Fredericton and St. Mary's Bridge Ry. Co.....	3,200	22	70,400	70,400	
1886	49 Vic, c. 10.....	For a line, Fredericton to the Village of Prince William.....	3,200	17	54,400	54,400	
1886	49 Vic, c. 10.....	Gananogue, Perth and St. James' Bay Ry. Co.....	3,200	62	320,000	320,000	
1885	48-49 Vic, c. 59	Gatineau Valley Ry. Co., Hull towards Le Desert.....	5,193	10	32,000	32,000	
1881	47 Vic, c. 8.....	Great Northern Ry. Co., St. Jérôme to New Glasgow.....	3,200	18	57,600	57,600	
1886	49 Vic, c. 10.....	do do, New Glasgow or St. Lin to Montcalm.	3,200	10	32,000	32,000	
1886	49 Vic, c. 10.....	Great Eastern Ry. Co., Yamaska to River St. Francis.....	3,200	30	96,000	96,000	
1887	50-51 Vic, c. 24.	do do St. Francis to St. Grégoire.....	3,200	450			2,880,000
1886	49 Vic, c. 11.....	Great North-West Central Ry. Co., Brandon to Battleford.....	6,400 acres	16	51,200	51,200	
1887	50-51 Vic, c. 24.	Guelph Junction Ry. Co., from Junction with C.P.R. to Guelph	3,200	3	9,600	9,600	
1887	50-51 Vic, c. 24.	Harvey Branch Ry. Co., from Southern Terminus of Albert Ry. to Harvey Bank.....	3,200	34	108,800	108,800	
1886	49 Vic, c. 10.....	For a line, Hereford to International Railway.....	3,200	49	156,800	156,800	
1883	46 Vic, c. 25.....	International Ry. Co., Sherbrooke to International Boundary...	3,200				

ALPHABETICAL LIST of Railways Subsidized by the Dominion Government.—Continued.

		CONDITION OF GRANT UNDER THE SUBSIDY ACTS.					
A.D.	Designation of Act.	APPROPRIATION OF GRANT WITH DESCRIPTION OF LINE SUBSIDIZED.	Rate per Mile. Money and Land	Estimated Number of Miles.	If per mile.		Total Subsidy.
					Total for the whole work not to exceed—	Amount and duration of instalments.	
			\$		\$	Acres.	
1884	47 Vic., c. 8....	International Ry. Co., Montreal to Harbors of St. Andrews, St. John and Halifax.....	.....	351	.....	.....	.....
[1887]	1885 48-49 Vic., c. 58 }						
1881	47 Vic., c. 8.	Irondale, Bancroft and Ottawa Ry. Co., Victoria Branch of Mid-land Ry. to Bancroft.....	.....	50	.....	.....	.....
1884	47 Vic., c. 8.	Intercolonial Ry., Branch of, Derby Station to Indiantown.....	3,200	14	160,000	.....	160,000
1886	49 Vic., c. 10.....	Joggins Ry. Co., McCann Station to Joggins.....	.....	13	140,000	.....	140,000
1887	50-51 Vic., c. 24.	do from S. end to the Wharves.....	3,200	1 1/4	38,400	.....	38,400
1884	47 Vic., c. 8.	Jacques Cartier Union Ry. Co., to extend and complete the line.	.....	.....	4,000	.....	4,000
1886	49 Vic., c. 10.....	Kingston and Pembroke Ry. Co., Mississippi to Renfrew.....	3,200	15	20,000	.....	20,000
1887	50-51 Vic., c. 24.	L'Assomption Ry. Co, L'Assomption to L'Epiphanie.....	3,200	3 3/4	11,200	.....	48,000
1885	48-49 Vic., c. 59.	Lake Temiscamingue Colonization Ry. Co., Long Sault to Lake Temiscamingue.....	.....	27	118,400	.....	118,400
1887	50-51 Vic., c. 24	Lake Temiscamingue Ry. Co., to overcome rapids of the Ottawa River, at La Micharge, La Cave, Les Etables and La Montagne, and for construction of Wharves and Landings at such Rapids.	.....	.....	25,600	.....	.....
1887	50-51 Vic., c. 24.	Lake Temiscamingue Colonization Ry. Co., Long Sault to Lake Kippewa.....	.....	.....	12,400	.....	.....
1885	48-49 Vic., c. 59.	Leamington and St. Clair Ry. Co., Comber to Lake Erie.....	3,200	10 1/2	33,600	.....	33,600
1887	50-51 Vic., c. 24.	do do from N. end of section subsidized to Comber.....	3,200	14	44,800	.....	44,800
1885	48-49 Vic., c. 60.	Manitoba and North-Western Ry. Co., Portage la Prairie to 20 M. from Prince Albert.....	.....	.....	6,400	.....	.....
1886	49 Vic., c. 11.....	Manitoba and North-Western R. Co., Branch from Todburn to Shellmouth.....	6,400 acres	430	.....	.....	.....
1885	48-49 Vic., c. 60.	Manitoba South-Western Colonization Ry. Co., Winnipeg to White Water Lake.....	6,400 do	26	.....	.....	2,752,000
			6,400 do	150	.....	.....	166,400
							960,000

1887 50-51 Vic, c. 24.	Massawippi Ry. Co., from point on Atlantic North-Western Ry., near Magog, to Ayer's Flat Station on the Massawippi Ry.	3,200	10	32,000	32,000	51,200
1887 50-51 Vic, c. 23.	Medicine Hat Ry. and Coal Co., Medicine Hat to Coal Fields.	6,400 acres	8			
1887 50-51 Vic, c. 24.	Minde Branch Ry. Co., from near River Hebert Ry. Bridge to Minde.	3,200	5½	17,600	17,600	
1885 48-49 Vic, c. 59.	Montreal and Sorel Ry. Co., St. Lambert to Sorel.	1,600	45	72,000	72,000	
1887 50-51 Vic, c. 24.	Montreal and Champlain Junction Ry. Co., Brossseau to Dundee do Salmou River at Fort Covington to Massena Springs	5,161	70	361,270	361,270	64,000
1886 49 Vic, c. 10.	Montreal and Western Ry. Co., St. Jérôme towards Le Desert.	3,200	10	32,000	32,000	
1886 49 Vic, c. 10.	Montreal and Lake Maskinongé Ry. Co., for a line, St. Félix to Lake Maskinongé	3,200	40	128,000	128,000	
1884 47 Vic, c. 8.	Northern and Western Ry. Co., Fredericton to Miramichi River do end of line previously subsidized to Boisestown.	3,200	6	19,200	19,200	
1886 49 Vic, c. 10.	Northern and Western Ry. Co., additional between Fredericton and Indiantown, and extension to Deep water at Chatham.	3,200	10	32,000	32,000	
1885 48-49 Vic, c. 59.	Northern and Western Ry. Co., Indiantown to Junction with N. & W. Ry. at or near Boisestown.	3,200	44	140,800	140,800	
1882 45 Vic, c. 14.	Northern and Pacific Junction Ry. Co., Gravenhurst to Oatlander.	6,000	110	660,000	660,000	1,320,000
1883 46 Vic, c. 25.	Northern and Pacific Junction Ry. Co., Gravenhurst to Oatlander (additional)	6,000		680,000	680,000	
1883 47 Vic, c. 25.	Napanee and Quebec Ry. Co., Napanee to Tamworth	3,200	28	89,600	89,600	
1886 49 Vic, c. 10.	do do from N. end section	3,200	18	70,000	70,000	
1885 43-49 Vic, c. 59.	subsidized to Tweed. From Intercolonial Ry. near Newcastle to opposite Chatham, N.B. New Brunswick and Prince Edward Ry. Co., Sackville to Cape Tormentine	3,200	4	12,800	12,800	
1885 43-49 Vic, c. 59.	do do	3,200	6	19,200	19,200	
1885 48-49 Vic, c. 60 }	North-Western Coal } Dunmore Station, C.P.R., to Lethbridge and Nav. Co.	3,200	37	118,400	118,400	
1887 50-51 Vic, c. 22 }	do do additional	3,800	109			418,560
1887 50-51 Vic, c. 24.	Nova Scotia Central Ry. Co., Lunenburg to a point in district of New Germany, and branch to Bridgewater Ry. Wharf.	3,200	34	108,800	108,800	
1884 47 Vic, c. 8.	Ottawa and Pacific Ry. Co., Cornwall to Perth	3,200	82	262,400	262,400	
1887 50-51 Vic, c. 24.	do do from N. end of subsidized line to Perth	3,200	6	19,200	19,200	
1885 48-49 Vic, c. 59.	Ottawa, Waddington and New York Ry. Co., Ottawa to Waddington.	3,200	52	166,400	166,400	
1882 45 Vic, c. 14.	Oxford to Louisburg—Oxford to New Glasgow.	3,200	70	224,000	224,000	
1883 46 Vic, c. 26.	Canso to Louisburg.	3,200	80	256,000	256,000	480,000
1884 47 Vic, c. 8.	Oxford to Sydney or Louisburg (additional).					\$30,000 p. ann. for 15 years, with lease or transfer of Eastern Extension from New Glasgow to Canso.

[1887]

1887 50-51 Vic, c. 24.	Régency and Lake St. John Ry. Co., Lake St. John towards Chiconimi or Chiconimi towards Lake St. John.	3,200	30	96,000	96,000		
1887 50-51 Vic, c. 24.	St. John Valley and Rivière du Loup Ry. Co., Village of Prince William towards Town of Woodstock	3,200	22	70,400	70,400		
1888 46 Vic, c. 26	St. John Bridge and Railway Extension Co., to build bridge and connections.	3,200	7	22,400	22,400	\$500,000 loan.	
1888 49 Vic, c. 10	For a line, St. Andrews to Lachute.	3,200	18	57,600	57,600		
1888 49 Vic, c. 10	For a line, St. Eustache to S. e. Placide.	3,200	25	80,000	80,000		
1887 50-51 Vic, c. 24.	St. Catharines and Niagara Ry. Co., St. Catharines to Bridge over Niagara River	3,200	12	38,400	38,400		
1888 49 Vic, c. 10	Toronto, Grey and Bruce Ry. Co., Glenannan to Wingham.	3,200	5	16,000	16,000		
1882 45 Vic, c. 14.	Témiscouata Ry. Co., Rivière du Loup to Edmundston	\$3,200 for 75 m.	83	240,000	498,000		
1888 48-49 Vic, c. 58	do Branch from Edmundston towards St. Francis River.	\$2,800 for 75 m.		258,000			
1887 50-51 Vic, c. 24.	Thunder Bay Colonization Ry. Co., Murillo to East end of Whitefish Lake.	\$6,000 for 8 m.		96,000	96,000		
1888 49 Vic, c. 10	Thunder Bay Colonization Ry. Co., end of subsidized line to Crooked Lake.	3,200	28½	92,000	271,200		
1888 49 Vic, c. 10	For a line, Truro to Newport.	3,200	56	179,200	156,800		
1887 50-51 Vic, c. 24.	Tobique Valley Ry. Co., Perth Centre towards Plaister Rock	3,200	49	156,800	89,600		
1884 47 Vic, c. 28	Winnipeg and Hudson's Bay Ry. Co., Winnipeg to Hudson's Bay	6,400 acres in Man. 12,800 ac. in N. W. T.	225		6,880,000		
1886 49 Vic, c. 11	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	425		1,536,000		
1886 49 Vic, c. 10	West Ontario Pacific Railway Co., Ingersoll via London to Chatham, Ont.	3,200	240	256,000	256,000		
1887 50-51 Vic, c. 24.	Vaudreuil and Prescott Ry. Co., Vaudreuil towards Hawkebury	3,200	80	96,000	96,000		
1887 50-51 Vic, c. 24.	For a Company, Mount Forest to Walkerton.	3,200	30	96,000	76,800		
1887 50-51 Vic, c. 24.	do Woodstock towards Centreville.	3,200	24	76,800	64,000		
1887 50-51 Vic, c. 24.	do For a bridge over the St. Lawrence at Coteau Landing on the line of the Canada Atlantic Railway.	3,200	20	64,000	64,000		
1887 50-51 Vic, c. 25.	Western Counties Ry., Yarmouth to Annapolis				180,000	15 per cent. on value of the structure	500,000

Votes granted under Subsidy Acts, cancelled or amended by Subsequent Acts of Parliament.

Year.	Act.	GRANTS CANCELLED OR AMENDED.			Amount of revote.	Remarks.
		Granted to.	General description of Line Subsidized.	Amount.			Authority for change.
1883	46 Vic., c. 25.....	Gatineau Valley Ry.	For first 50 miles section of their railway from Hull Station.	160,000	Cancelled	\$
1883	46 Vic., c. 25.....	Great American and European Short Line Ry. Co.	For 80 miles from Canso to Louisburg or Sydney.	256,000	Amended.	
1883	46 Vic., c. 25.....	Northern and Western Ry. Co.	From I. O. R., near Miramichi to Morans near Demphy Village.	102,400	Cancelled	128,000
1883	46 Vic., c. 25.....	Montreal and Western Ry. Co.	For first 50 mile section out of St. Jérôme, P. Q.	160,000	Cancelled	160,000 S. 47 V., c. 8.
1884	47 Vic., c. 8.....	Gatineau Ry. Co.....	For a line from Kazabazua to Le Desert.	160,000	Cancelled	320,000
1884	47 Vic., c. 8.....	Napanee, Tamworth and Quebec Ry. Co.	Tamworth to Bogart or Bridge-water.	70,400	Cancelled	70,000
1884	47 Vic., c. 8.....	Montreal and Western Ry. Co.	From end of line subsidized towards Le Desert.	160,000	Cancelled	361,270
1884	47 Vic., c. 8.....	For a Railway	St. Andrews to Lachute	22,400	Amended.	22,400
1884	47 Vic., c. 8.....	For a Railway	From Grand Piles to Lake Edward.	217,600	Cancelled	217,600
1885	48-49 Vic., c. 59.	Napanee, Tamworth and Quebec.	Tamworth towards Bogart and Bridge-water.	70,000	Amended.	70,000

[1887]

1885 48-49 Vic, c. 59	For a Railway	For 8 miles of railway from Long Sault to Foot of Lake Tamisacamingue.	25,600	Amended. 50-51 Vic, c. 24, 1887.	12,400	For 4 short sections of 2 miles, in lieu of a portion of 2 miles out of the 8 miles subsidized.
1885 48-49 Vic. c. 59.	For a Railway	From Grand Piles to Lake Edward.	217,600	Amended. 50-51 Vic, c. 24, 1887.	217,600	Granting subsidy to St. Lawrence, Lower Lawrentian, and Saguenay Ry. Co.
1886 49 Vic, e. 10....	Caraquet Ry. Co.....	For 10 miles, Lower Caraquet to Shippegan.	33,900	Amended. 50-51 Vic, c. 24, 1887.	32,000	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.	118,400	For 27 miles in place of 37 miles subsidized.
1886 49 Vic, c. 10....	Lake Temisamingue 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 Pleaister Rock.	89,600	Amended. 50-51 Vic, c. 24, 1887.	89,600	To Tobique Ry. Co, for 14 miles of same line.



APPENDIX No. 24.

CANADIAN PACIFIC RAILWAY.

OFFICE OF THE ENGINEER-IN-CHIEF,

OTTAWA, 26th December, 1887.

SIR,—Since I last had the honour of reporting to you upon the Canadian Pacific Railway, the construction of the very important extension of the Company's system to Sault Ste. Marie has been practically completed; the track having reached the Sault, and the last span of the fine steel structure across the Ste. Marie River being in course of erection. This done, and it is expected it will be done next week, the track will be extended across the bridge, connecting the Canadian Pacific Railway, at this point also, with the American railway system, and bringing the wheat fields of the American North-west, and the business metropolis of Minneapolis, into close connection with the ports of Montreal, Quebec, St. John and Halifax. The benefits to accrue to the Dominion, and especially to the cities above mentioned, are, in my opinion, very great. The ramifications of the Canadian Pacific Railway are becoming very extensive; and as extensions and branches are thrown out into districts after district, the people rejoice and take fresh courage, and all the interests of the country feel the impulse, as new sections are opened, full railway accommodation supplied where it had only existed more or less partially, or rates lowered by competition.

The Company's lines now extend from ocean navigation on the east to ocean navigation on the west, while numerous limbs stretch to north and south, covering altogether a mileage of—

	Miles.
Transcontinental line	2,906
Extensions and branches.....	1,750
	<hr/>
Total.....	4,656

The system taps almost every city of importance in Canada. Among this number, I may mention St. John, Quebec, Montreal, Ottawa, Toronto, Hamilton, Winnipeg and Vancouver.

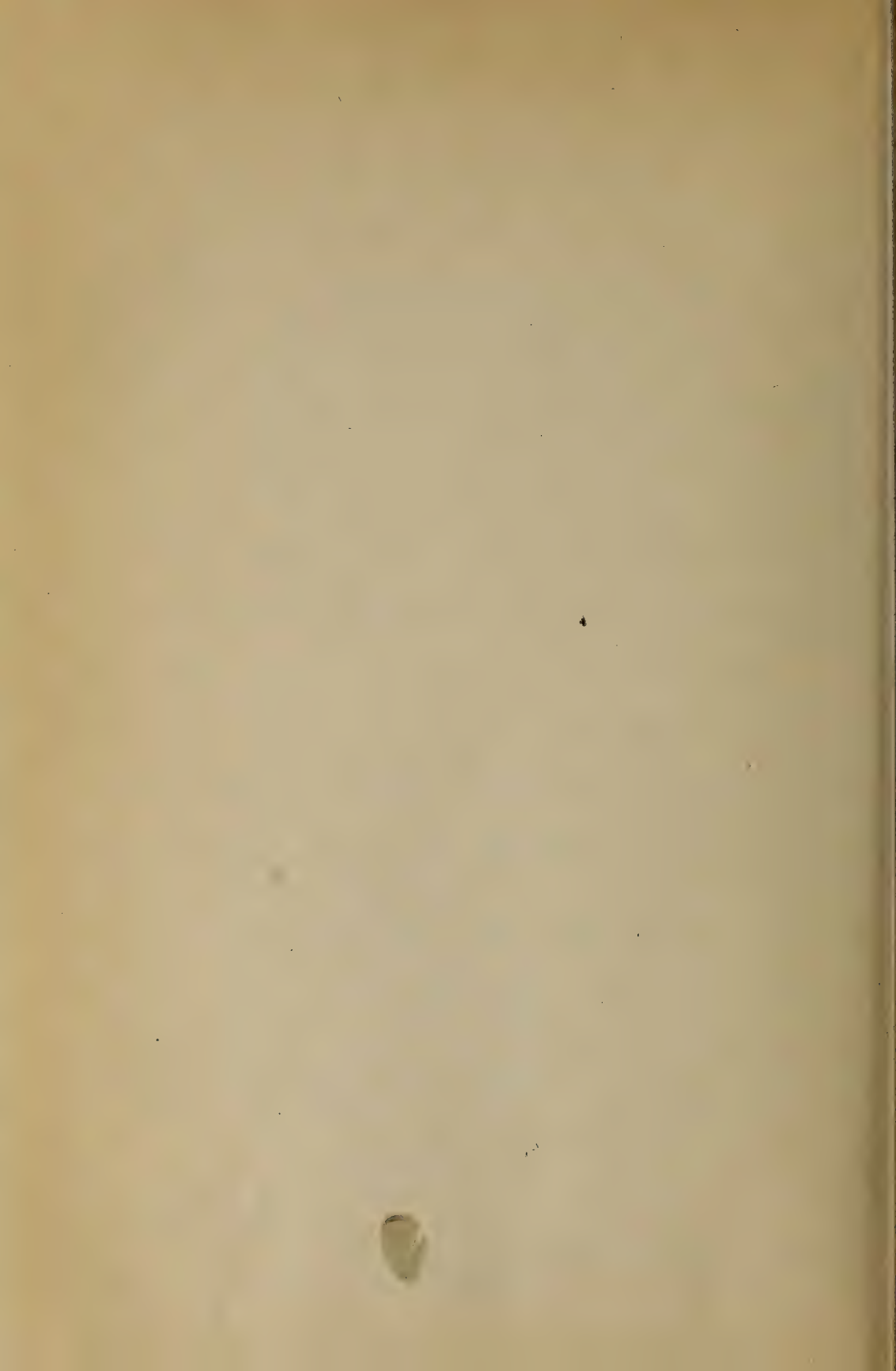
Much indeed has it contributed to the prosperity of the country already, and its future benefits to the Dominion extend far beyond the range of our present vision. In benefitting the country, it has necessarily improved the circumstances of other railways. As a through route between Europe and China and Japan and the east, its merits, though amply established, must become more and more apparent. Already notes of alarm have been sounded by the American press, at the manner in which the Canadian Pacific Railway is cutting into the business of the transcontinental roads of the United States. I attach hereto diagrams of the several transcontinental routes, making Liverpool, England, the starting point, touching at Yokohama, Japan, and terminating at Shanghai, China; giving the mileage between the places shown, and the estimated time required for the journeys, reckoning the speed by rail at thirty-two miles an hour, and by steamer at sixteen miles. From these the Honourable Minister will be able to judge at a glance of the merits of the rival routes; and I think the conclusion is unavoidable, that the Canadian Pacific Railway will occupy a very high place among the great highways of the world.

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

COLLINGWOOD SCHREIBER,
Engineer-in-Chief

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

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APPENDIX No. 25.

CERTIFIED COPY of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Administrator of the Government in Council, on the 2nd November, 1886.

On a memorandum, dated 23rd October, 1886, from the Minister of Railways and Canals, submitting an application from the Canadian Pacific Railway Company for the return to them, under the Act of last Session, 49 Vic., cap. 9, of the \$5,000,000 of the land grant bonds held under the construction contract as security for the operation of the road, on the grounds that the Canadian Pacific Railway has been constructed and duly placed in operation to its terminus in British Columbia, and that inasmuch as the operation of the railway has proved to be remunerative, the retention of those bonds is no longer necessary in the public interest.

The Minister states that the Canadian Pacific Railway has been constructed and equipped of a quality and character, equivalent upon the whole to the approximate standard agreed upon between the Government and the Company, that is to say, the Union Pacific Railway of the United States, as accepted by the Government of that country, the railway being in many respects of superior quality and character to the said approximate standard, and only in some degree inferior in respect of the gradients of a portion of the line in the Province of British Columbia of nine miles in length passing Mount Stephen.

That while the remainder of the railway is of superior quality and efficiency, the said portion is not inferior to similar portions of railway in the leading railways of the United States, that it offers no difficulty in operation, and that it is sufficient for the traffic as at present existing, but that it would be advisable to make provision that if at any time hereafter it should be found expedient to improve the gradients of the portion in question, it should be in the power of the Government to cause such improvement to be made without further expense to the public.

The Minister further states that the Company represent that it is in their interest also that the railway should be fitted in all respects for its traffic and business, and that they are prepared to set apart and place in the hands of the Government \$1,000,000 of land grant bonds as a provision for the improvement in question and as security for its completion when required by the Government, and that in the opinion of the Minister of Railways and Canals such provision and security would be sufficient to secure the attainment of the desired object.

That the revenue derived from the operation of the railway largely exceeds the running expenses, and that under such circumstances the retention of security that such operation will be continued is not necessary in the public interest.

The Minister, therefore, with the object of closing all matters now outstanding between the Government and the Canadian Pacific Railway Company under their contract of the 21st October, 1880, and its several modifications, and in consideration of the early completion of the railway admitting of the carriage of traffic thereover and of regular operation since the 28th of June, 1886, and also of the fact that the several loans made to them by the Government, under authority of Parliament, have been repaid by the Company, and provided that the Company accept the conditions hereinafter imposed, recommends as follows:—

1. That the Government accept the said railway as equivalent in its quality and character in the materials used in its construction and its equipment, to the approximate standard agreed upon between the Government and the Company, namely, the

Union Pacific Railway of the United States as the same was when accepted by the Government of that country.

2. That the Government convey to the Company the portions of the road which have been constructed by the Government, and to which, under their contract, the Company are entitled, the Company accepting the same subject to the adjustment and correction by the Government of the defects or deficiencies in construction (if any) according to the specifications and conditions of the contract therefor, except in so far as the same were modified by the Government prior to 21st October, 1880.

3. That in consideration of the completion of the construction and equipment of the railway under the construction contract, the Government pay over to the Company the balance of the subsidy remaining in its hands.

4. That the Government release and return to the Company the \$5,000,000 of land grant bonds held as security for the operation of the railway.

5. That in consideration of the premises the Company undertake that upon being so required by the Government they will make such alteration and improvement of the portion of their railway at and near Mount Stephen as shall be prescribed by the Government, not being in excess of the requirements of the Government Engineer as shown by the plans and specifications prepared by him in that respect, and that, as security for the performance of this condition, the Company do deposit with the Government \$1,000,000 of land grant bonds to be held so long as such condition shall remain unperformed and to be used in such performance if the Company makes default therein.

6. That a proper agreement be prepared and executed in the premises.

The Committee submit the above recommendation for Your Excellency's approval.

JOHN G. MCGEE,

Clerk, Privy Council.

To the Honourable
The Minister of Railways and Canals,
&c., &c., &c.

THIS AGREEMENT, made between Her Majesty the Queen, as representing the Dominion of Canada, hereinafter called the Government, herein represented and acting by the Honorable John Henry Pope, Minister of Railways and Canals of Canada, under the authority of an Order in Council duly made and passed by His Excellency the Governor in Council on the second day of November, 1886, and the Canadian Pacific Railway Company, a body corporate and politic, duly incorporated by Letters Patent of the Dominion of Canada, hereinafter called the Company, herein represented and acting by the Chief Executive Officers thereof, Witnesses :

Whereas under the construction contract, made and executed by and between the Government and Sir George Stephen, Bart., then George Stephen, Esquire, and others, on the 21st day of October, 1880, and assumed by the Company, the Canadian Pacific Railway has been constructed and equipped, of a quality and character, equivalent upon the whole to the approximate standard agreed upon between the Government and the Company, that is to say, the Union Pacific Railway of the United States, as accepted by the Government of that country, the said railway being in many respects of superior quality and character to the said approximate standard and only in some degree inferior in respect of the gradients of a portion of the line in the Province of British Columbia, nine miles in length passing Mount Stephen ;

And whereas it has been agreed between the parties hereto that if at any time hereafter it should be found expedient to improve the gradients of the said portion

of the said railway, the Company will make such improvements thereto as is herein-after provided for, and will give security for its undertaking so to do ;

And whereas the Company has applied under the provisions of the Act passed in the last Session of the Parliament of Canada respecting the Canadian Pacific Railway, for the return to it of the sum of five million dollars in land grant bonds now held by the Government as security for the operation of the said railway ;

And it has been established to the satisfaction of the Government that the revenue derived from the operation of the said railway largely exceeds the running expenses, and therefore the retention of security that such operation will be continued is not necessary in the public interest ;

And whereas it is expedient to close all matters between the Government and the Company arising out of the said contract of the twenty-first day of October, 1880, and its several modifications ;

Now, therefore, this agreement witnesses, that upon the conditions hereinafter stated, the parties hereto have covenanted and agreed to and with each other as follows, namely :—

1st. That the Government shall accept, and hereby does accept, the said railway as equivalent in its quality and character, in the materials used in its construction, and its equipments, to the approximate standard agreed upon between the Government and the Company, namely, the Union Pacific Railway of the United States, as the same was when accepted by the Government of that country ; and it is hereby declared and agreed that the said railway has been and is completed and equipped according to the terms of the said construction contract.

2nd. That according to the provisions of the said contract, the Government do hereby transfer and convey to the Company the portions of the road which have been constructed by the Government, and to which, under the said contract, the Company is entitled, as the same were or are held by the Government, and free and clear of all liens or charges thereon existing or due by the Government, at the time when the possession and right to run and work through such portions were respectively transferred to the Company by the Government ; and the Company hereby accepts thereof, but in respect of the Western Section of said railway, subject to the adjustment and correction by the Government of any 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 twenty-first October, 1880.

3rd. That in further consideration of the completion of the said railway and of the equipment thereof, according to the said contract, the Government shall forthwith pay to the Company the balance remaining due of the subsidy of twenty-five million dollars granted to the Company under the provisions of the said contract.

4th. That the Government will forthwith release and return to the Company the sum of five million dollars of the land grant bonds of the Company, now held by the Government, under the 17th section of the contract, as security for the due performance of the said contract in respect of the maintenance and continuous working of the railway by the Company for ten years after its completion thereof.

5th. That in consideration of the premises, the Company covenants and agrees to and with the Government that upon being so required by the Government it will make such alteration and improvement of the portion of its railway at and near Mount Steph-en, as shall be prescribed by the Government, not being in excess of the requirements of the Government Engineer, as shown by the plans and specifications prepared by the Company in that respect, copies whereof have been submitted by the Company and approved by the Governor in Council.

And as security for the performance of this condition, the Company has deposited with the Government \$1,000,000 of the said land grant bonds, to be held as such security until such condition shall be performed ; and to be used in such performance if the Company makes default therein.

In witness whereof the parties hereto represented as aforesaid have executed these presents, at the times and places respectively set opposite the signatures of their respective representatives.

Signed, sealed and delivered on }
behalf of Her Majesty, at }
Ottawa, the twentieth day of }
November, 1886. }

(Signed) J. H. HOPE,

Minister, Railways and Canals.

(Signed) A. P. BRADLEY,

Secretary.



Signed, sealed and delivered by the }
Canadian Pacific Railway Com- }
pany, at Montreal, the fifteenth }
day of November, 1886. }

(Signed)

W. C. VANHORNE,

Vice President.

(Signed)

C. DRINKWATER,

Secretary.



REPORT

OF THE

ROYAL COMMISSION ON RAILWAYS

WITH

APPENDICES.



OTTAWA:

PRINTED BY MacLEAN, ROGER & CO., WELLINGTON STREET.

1888.

REPORT
OF THE
ROYAL COMMISSION ON RAILWAYS.

To His Excellency the Most Honorable Sir Henry Charles Keith Petty-Fitzmaurice, Marquess of Lansdowne, &c., &c., &c., Governor General of Canada and Vice-Admiral of the same.

MAY IT PLEASE YOUR EXCELLENCY:—

The Commissioners appointed under Royal Commission, of date the fourteenth day of August, in the year of our Lord one thousand eight hundred and eighty-six, to consider the advisability of creating a Commission with power to determine matters in dispute between Railway Corporations, and generally to regulate the system of railway management in its relations to the commerce of the country; and further, as to the expediency of having a general Railway Law for the construction of railways, instead of special Charters, beg leave to report:—

That the Commission met for organization at Ottawa on the fourth day of September, eighteen hundred and eighty-six. The procedure of the Commission was then settled, as regards Canada, by deciding that meetings should be held in all the principal centres of commerce, of which notices should be given by advertisement in the public journals and by letters to the Boards of Trade and Managers of the railway companies. All parties to be invited to attend and give evidence—all evidence to be taken under oath—to be forthwith printed and communicated to the Boards of Trade of the Dominion and to the several railway companies.

It was also decided to apply, through the High Commissioner, for all reports and documents in relation to the Railway Legislation of Great Britain.

Circular letters were directed to be addressed, by the chairman, to the Secretaries of States of the several United States, requesting communication of all reports and documents relating to the course adopted in their respective States with regard to the subjects to be enquired into by the Commission.

The Commission desire to record their acknowledgments for the extremely prompt and courteous manner in which their applications to the authorities of the several States were uniformly responded to, and also to the High Commissioner for similar attention on his part.

ENQUIRY IN CANADA.

The Commission have held meetings for evidence in the following cities, in the order named:—Toronto, Halifax, St. John, Ottawa, Quebec, Montreal, Kingston, Hamilton and London.

By the courtesy of the Boards of Trade, the meetings were held in the Board of Trade rooms. They were open to the public, and all parties who appeared were examined; in many cases persons were summoned, whose testimony was considered valuable, and in no case were the meetings adjourned until the list of witnesses was exhausted.

The number examined was very large, and from their standing, intelligence and acquaintance with the commerce of the country, it is believed that the testimony will be found to contain a fair and full expression of the views of the community at large.

Divergence of opinion necessarily existed upon the subjects under consideration, but this is the more valuable as affording the Commission the opportunity of carefully weighing the adverse views expressed.

In taking evidence the Commission soon discovered that their investigations would be indefinitely prolonged—if they examined the railway officials on each point under immediate discussion. The managers of the railways were therefore informed that their testimony would be taken last, and would then apply to the whole subjects dealt with.

Without inviting any personal complaint, the Commission could not avoid receiving evidence of alleged grievances, illustrative of the system objected to. They did not consider themselves authorized to pronounce any opinion on such cases, but only invited the railway managers to offer in their closing examination such explanations as they might deem proper.

The course thus adopted has, it is believed, been promotive of much economy of time, and has given satisfaction. The evidence of the railway managers and officials will be found to contain a lucid and well considered statement of their views, obtained after a full review of all the previous testimony.

ENQUIRY IN UNITED STATES.

The Commission obtained in reply to their applications the fullest published information in regard to the condition of railway legislation in all the States where Railway Commissions exist.

Careful consideration of these documents and also of the books of writers of acknowledged ability on the subject, including Messrs. Hadley, Hudson and

Grierson (of England), and others, convinced the Commission that their labors and ultimate recommendations could not be confined to information obtained from purely Canadian sources. It became evident that the conditions of commerce in relation to railway transportation were in most cases identical with those of the United States, and that in considering the advisability of placing the railway system more directly under the control of the State, prudence required that the experience of other countries where such control existed should be thoroughly availed of.

The Commission, therefore, on the sixth of September last (1887), appointed Messrs. Burpee and Moberly as a committee to proceed to certain States and obtain from State officials, railway managers and other parties, the fullest information on all points included in the enquiry.

The Report of this Committee is attached as an appendix to this report, and will be found a great interest and value.

Subsequently, the Commission found it necessary to obtain further information in elucidation of the subject referred to, and on the twenty-first day of December last (1887) the same Commissioners were again requested to visit the United States. Reference is made to their supplementary report also in the appendix.

It will be observed that in addition to the cordial assistance granted by the State authorities in all cases, the Committee were able to obtain most valuable information from gentlemen of the highest standing in railway management, of whom may be named Mr. Commissioner Fink, Messrs. Blanchard, Midgely, C. F. Adams, and many others, for whose uniform courtesy and frankness the Commission desire publicly to express their deep sense of obligation.

The Committee also obtained many additional valuable reports, especially those containing the proceedings before the special Railway Committee of New York (1879), and the evidence taken before the Committee of the Senate (1885) respecting the interstate Commerce Bill and the proceedings before the House of Representatives.

ENQUIRY IN GREAT BRITAIN.

The Commission obtained, through the High Commissioner, many valuable reports and documents relating to the progress of railway legislation in Great Britain, and the operation of the Railway Commission, including the draft of a Bill introduced during last Session of the Imperial Parliament extending and perpetuating the Railway Commission.

Believing the discussions upon this Bill would prove of much value, the Commission directed their chairman, on visiting London in the early part of the year eighteen hundred and eighty-seven (1887), to watch the passage of the measure and report to them.

Unfortunately the pressure of other public business upon the British Parliament prevented the Government from proceeding with the Bill, and deprived the Commission of the opportunity of judging of the value of the important modifications proposed in respect to the British Railway Commission.

The Commission herewith submit to entire evidence taken before them, together with all reports, publications and other documents furnished to them, with the following report:—

RAILWAY PROGRESS.

The Minister of Railways, in his statistical report for 1886, shows the progress of railway construction in Canada, commencing with 1837, when sixteen miles were opened for traffic, increased in 1847 to fifty-nine miles, and in 1852 to two hundred and twelve miles. From this time, which marks the initiation of the Grand Trunk system, the progress of construction was more rapid, rising to two thousand and eighty-seven miles in 1860, and in

			Tons.
1875.....	4,826 miles, carrying one mile		5,670,836
1876.....	5,157 do do		6,331,757
1877.....	5,574 do do		6,859,796
1878.....	6,143 do do		7,883,472
1879.....	6,484 do do		8,348,810
1880.....	6,891 do do		9,938,858
1881.....	7,260 do do		12,065,323
1882.....	7,530 do do		13,575,787
1883.....	8,726 do do		13,266,255
1884.....	9,653 do do		13,712,269
1885.....	10,149 do do		14,659,271
1886.....	10,697 do do		15,670,460

These figures illustrate the extent and rapidity with which the commerce of the country has become identified with and dependent upon the railway system of transportation.

It will be interesting to observe the comparative cost at which the movement of goods is made in various countries. The following tables have been compiled from the most reliable authorities, and are believed to be substantially accurate:—

	Class.	Rate.	Class.	Rate.	Class.	Rate.	Class.	Rate.	Class.	Rate.	Class.	Rate.	Remarks.
		cts.		cts.		cts.	Special	cts.	Special	cts.	Special	cts.	
Germany...	A 1	3.60	B	2.4	A 2	1.93	I	1.74	II	1.35	III	1.08	Special is given on coal in
France up to 125 mls.	1	4.70	2	4.08	3	3.52	4	2.80	5	2.20	6	1.08	
Up to 450 mls.....	A	2.5	B	2.0	C	1.40	D	1.32	E	0.80	F	0.62	Rahr district 0.85.
	1	3.75	2	3.12	3	2.50	4	1.90	5	1.20	6	0.78	
Holland.....	A	1.66	B	1.09	C	1.02	D	1.02	E	0.78	F	0.62	Special on coal some cases 0.84.
Belgium, 50 mls.....	1st	4.3	2	3.4	A	2.57	B	2.11	C	1.72	D	1.28	
	1st	3.12	2	2.50	3	1.88	4	1.24					

There is added to each of these rates from 20 cents to 30 cents a ton for terminal charges, billing, weighing, &c.

Germany.—Class A 1 is for general merchandise in half-car loads. Class B for the same in full car loads. Class A 2 for grain and lumber in half-car loads. Special I is for grain of all kinds and similar goods. Special II for lumber, &c. Special III for coal, stone, &c., all in ten-ton lots. An exceptional tariff of 85 cents per ton per mile is made on coal from the Ruhr district.

France.—A, B, C, D, E and F refer respectively to the same goods by the full car load as 1, 2, 3, 4, 5 and 6, in less than car loads. Plated goods, quicksilver, laces, statues, bronzes, painting and such goods are charged the highest class, plus 50 per cent.

For France the rates are taken from the modified tariff of the Paris, Lyons and Mediterranean Railway, being the longest road and having the lowest rates.

Holland.—1st and 2nd class are used for quantities of less than five tons. A, B and C for quantities of not less than five tons, and D for quantities of not less than ten tons.

Belgium.—1st class applies to general merchandise in less quantities than five tons, 2nd and 3rd class to quantities of not less than five tons, and 4th class to quantities of not less than ten tons.

The above is extracted from Grierson Railway Rates, English and foreign, appendix, pages 12 to 62.

It is extremely difficult to get a detailed statement of rates charged on English railways. "The Great Western Railway Companies Act" allowed on coal, sand, iron, salt, etc., $\frac{3}{4}$ of a penny or $1\frac{1}{2}$ cents, and on sugar, grain, flour, etc., 2d. or 4 cents per ton per mile.

"London Engineering," August 20th, 1886, page 187, states the average rate on heavy freight in England is as near as may be, 1d. or 2 cents per ton per mile. I. S. Jean, in his Annual Statistical Report for 1884, to the British Trade Association, makes the same statement.

For the purpose of comparison, take for England the rate for such heavy articles; for the principal countries of Europe, figures given by Jean's Railway Problems published in 1887, page 277; for the United States, Poor's Manual for 1887; and for Canada, the evidence of the Grand Trunk and Canadian Pacific, the following results:—

AVERAGE charge per ton per mile on freight traffic in cents.

England.....	2·00
Germany	1·70
Belgium	1·57
France	2·14
Italy	2·40
Holland.....	1·50
Russia.....	2·32
United States.....	1·04
Canada	0·93

A table is also submitted showing the comparative cost of railways in different countries and the population to each mile of railway.

After examining various authorities which do not differ materially, the following figures are taken from Jean's Railway Problems, pp. 541, 542, for the year 1884:—

Country.	Cost per Mile.	Pop. per Mile.
Great Britain.....	\$206,500	1,930
Germany.....	103,000	2,065
France	134,000	2,110
Italy.....	94,700	5,000
Belgium	123,400	2,102
Holland	95,200	3,400
Russia.....	97,200	5,965
United States	61,000	417
Canada.....	61,000	491

A review of the foregoing tables will show that the cost of railway construction in Canada is at a minimum compared with other countries. It also appears that the charges for moving merchandise by Canadian railways are absolutely the lowest, and compared with the great nations of Europe, very greatly less.

Two natural causes exist whereby the very important advantage of low cost for transportation is ensured to Canada. No doubt the cost of our railways enables their managers to work at smaller charges for capital account; but the main reasons are to be found, 1st. In competition by water; and 2nd. In competition by American railways at all points accessible by our navigable waters.

The competition by water is created by the natural geographical position of Canada and its possession of means of internal communication and export by the great lakes, the River St. Lawrence, and in the Maritime Provinces, the Gulf of St. Lawrence and the ocean. There is in fact no business centre of any importance in the older Provinces which is not directly situated upon the channel of water communication with the outside world. Canadian railways have to consider this in the establishment of their tariffs, and avoid by too high rates all inducement to merchants and others to hold over their imports and exports till the season of open navigation.

The American system of railways, also connecting the great lakes with the ocean, is able during the season of navigation to take very low rates from points in Ontario to the Maritime Provinces, and having also possession of one important railway in Ontario, the Canada Southern, can practically compete with the Canadian lines during the entire year; the whole trade of Canada undoubtedly benefiting by the water and rail competition of rival routes. By possessing the control of the St. Lawrence, Canada offers the shortest and cheapest route to the seaboard from the Western States bordering upon the great lakes. Her railways are thus enabled to draw largely upon the commerce of these States, making them contributory to the maintenance of her internal system of transportation, and cheapening the cost of performing it.

Other recent causes are also now operating to develop and extend these advantages. The Canadian Pacific Railway in completing its line to the Pacific Ocean points to an early revolution in the future carrying trade of Eastern Asia and Australia. While the connection of the same railway at Sault St. Marie with the new lines leading from St. Paul and Minneapolis seem to ensure the diversion through Canada of a large part of the traffic of the North-Western States with New England and New York. A point of the greater importance, as it is proved that the wheat growing zone in America is, from some unknown climatic influence, steadily moving northward, promising shortly to be in a great measure confined to the North-Western States, Manitoba and our own North-West Territories.

In proof of the direct advantage of this through American trade to Canada, the evidence of Mr. Hickson, the able manager of the Grand Trunk Railway, may be cited, he says:—"The payments by the Grand Trunk Railway in Canada in working the through traffic have not been less than four millions of dollars annually for the last four years. The effect of such an expenditure in employment and in the consumption of supplies must have been very beneficial, while as a necessary consequence, the railway service of the entire Grand Trunk system must have been largely extended, to the manifest advantage of local districts."

The importance of maintaining and developing the foreign traffic passing through Canada can scarcely be exaggerated, and the natural advantages we pos-

sess, when, supported and increased through a wise system of railway construction and management, cannot fail to promote in the highest degree the prosperity of the country.

The Commission consider it unnecessary to examine the theoretical relation of railways, as common carriers, to the State. This subject has been exhaustively treated by many very able writers and in debate in Parliament and in Congress, to which reference can be had. Whatever judgment may be pronounced on this vexed question, the practical conclusion has been arrived at both in Great Britain and in the United States, that the public interest requires the great powers and privileges granted to railway corporations to be exercised under proper control by the State, and wise, efficient and economical service absolutely obtained. The great benefits derived through the adoption of the system of the transportation by railway must not be permitted to be sacrificed or even endangered through selfish, grasping, or inefficient administration, on the part of the railways.

The Commission in thus strongly stating the principle which they have decided must govern the conclusions of their present report, desire to be understood as distinctly disavowing any intention to reflection on the management of the Canadian railways. The evidence taken before them shows a number of cases of complaint, but the Commission have great pleasure in expressing the opinion that the explanations given on each case by the railway officials, if not absolutely conclusive in every case, are sufficient to exonerate them from the charge of wilful favoritism; the blame attaches to defect in the system and existing railway law rather than to its administrators. And it is to the removal of these defects that the attention of the Commission has been given.

HISTORY OF RAILWAY LEGISLATION.

Before entering upon the consideration of the remedial measures necessary, the Commission believe it will be useful and instructive to trace briefly the course of legislation in Great Britain and in the United States. The conditions of the latter country especially, are those of Canada, and the evils complained of in the evidence given before your Commission will be found to be absolutely identical with those which have led to remedial legislation in the countries named.

The history of railway legislation in Great Britain and the United States has been so fully and ably given by Professor Hadley, whose views have been also recited by the Senate Committee on Interstate Commerce in their report, that it is thought desirable to embody it in the appendix. The Commission have also availed themselves of the late Mr. Grierson's work on railways, important extracts from which will be found appended.

In brief, it may be stated that the principle of controlling railway corporations by commissioners appointed by the State has been in practice in England since 1873, and in the United States since 1863.

The powers and methods of control have been of the most varied character, but, in their results, it is admitted that the public and the railways have both benefited. Indeed, this opportunity may be taken for stating that in many cases the railways are more sinned against than sinning, and require protection from exactions and demands by the public, frequently as unreasonable as the alleged offences of the railways themselves.

The Commission regret to state that they lost the valuable aid of their colleague, Mr. Thomas E. Kenny, at an early stage of their enquiry, through his election to the Federal Parliament.

AMENDMENTS TO RAILWAY LAW.

The Commission now proceed to consider the amendments, which in their judgment are required to meet admitted evils in the present system of railway management, and to provide such control over railway corporations as, while not unduly interfering with their freedom of action, will secure to the country and its commerce all those benefits which a widely administered use of the modern system of transportation cannot fail to confer.

INTER-RAILWAY DISPUTES.

In the order in which the consideration of the subject has been submitted to them, the Commission have first to deal with what may be termed Inter-Railway disputes. Their very nature appears to preclude their satisfactory decision by ordinary legal process, as in a majority of cases, if not in all, they require proceedings in the character of arbitration. The Commission believe that their settlement calls for the creation of a tribunal especially qualified to deal with such questions, and it will be their duty, at the conclusion of this report, to express their opinion fully as to the character and scope of the railway tribunal which they regard as necessary.

Attention has been particularly given to the special case of the right of one railway company to expropriate the property of another company. It appears to the Commission that the circumstances attending each case must necessarily be special and peculiar; and in principle it may be admitted that if the interests of the several companies are alone concerned, no expropriation should be permitted. But in almost every case it will probably appear that the public interest and convenience are involved, and the right of expropriation should then rest upon precisely the same considerations of public utility as originally permitted the the railway company to obtain possession of the property of an individual.

The Commission suggest:—

“That special legislation in each particular case of expropriation is not desirable, but recommend that such questions should be decided by some properly constituted tribunal.”

In cases of dispute between railway companies as to traffic arrangements the adjustment of rates for passengers and freight, the crossing of tracks and compensation therefor, including the cost of maintenance, the alignment, arrangement, disposition and location of tracks; rights of way over or through lands, owned or occupied by railway companies; running powers; haulage; use of tracks; use of stations and station grounds; adjustment of tables; transshipment and interchange of freight; and other matters relating to "powers," "highways" and "bridges," and "traffic arrangements," in the Act of the Parliament of Canada known as "The Consolidated Railway Act, 1879, and its Amendments."

The Commission decided:—

"That legislation was required to empower an independent tribunal to deal with all such questions, whose decision should be final."

The Commission now respectfully offer their suggestions and recommendations upon the general subject of the relations of the railways to the public.

CLASSIFICATION OF FREIGHT.

The convenience to the public and also to the several railway companies of an uniform classification is so obvious that the Commission consider it unnecessary to offer any extended remarks upon it, so far as it applies solely to railways in Canada. But as regards the through traffic from and to the United States, or such traffic as is carried on in connection with United States railways, it does not appear desirable to insist upon the Canadian classification being made applicable to such transportation.

They therefore recommend:—

"That a uniform classification of freight be established and maintained by all railway companies, subject to the adoption, if desired by them, of the American classification for through traffic to and from the United States."

TARIFFS.

The Commission have carefully considered all the information before them on this important subject, and believe the interests of commerce will be best served by leaving the arrangement of tariff rates for passengers and goods in the control of the several railway companies respectively, subject only to approval and revision of the maxima rates by an authorized tribunal.

They therefore recommend:—

"That the railway companies may make and establish tariffs, subject to the approval and revision of the maxima rates by such tribunal as may be constituted,"

LONG AND SHORT HAUL.

Uniform Mileage Rates.

This question has probably given rise to more discussion than almost any other point connected with railway management. It forms the subject of much of

the evidence given before the Commission, and the greatest diversity of opinion exists upon it.

It has been the subject of repeated legislation in the United States, and in the celebrated "Granger" agitation in the West, uniformity of mileage rates was imposed upon the railways by State legislation. Experience, however, tended to prove that the effect of such laws was injurious, leading to their early repeal or modification.

The subject has also received the greatest attention in connection with the Inter-State Commerce Bill, and the principle of uniformity of mileage rates was finally sanctioned by the Act, reserving, however, to the Railway Commission power to suspend its operation on sufficient reason being shown. This power has since been exercised by the Commission in certain cases, and it is not now imperative on all railways to establish uniform mileage rates under like conditions and in the same direction for long and short distances.

The reasons given for the suspension of this section of the Inter-State Commerce Act have received the greatest attention by the Commission. They cannot lose sight of the fact, that where conveyance by water comes into competition with railways, it is not in the public interest to compel railways to transport freight at uniform mileage rates, as it involves the establishment either of such low rates as render the local traffic unremunerative, or such high rates as leave the through traffic between the competitive points wholly at the mercy of the carriers by water. The public interest will be best served by permitting rates between such competitive points to be determined by the respective carriers.

It is, moreover, manifest that the through traffic of Canada by railway, which the Commission regards as of the utmost importance, cannot possibly be carried on except at such rates, in combination sometimes with navigation, but more generally with American railways, as would be utterly inadequate if applied to ordinary local traffic.

While stating their opinion that the competition by water and rail from almost every important business centre in Canada forbids the adoption of uniform mileage rates, the Commission have not lost sight of the alleged unfair treatment of certain localities in Canada itself by railways. They believe, however, that such cases can be considered and relief obtained under the powers which they hereafter recommend should be granted.

They therefore recommend:—

"That it is inexpedient to adopt a rule of equal mileage rates, irrespective of distance and cost of service."

Unit of Transportation.

By the adoption of an uniform unit for transportation it is not proposed to disturb or interfere with the right of the railways to establish a classification of freight nor to require them to depart from their practice of making their rates per 100 lbs. But the Commission, in view of the general character of the business of Canada, and to avoid complaints by small shippers that large shippers are treated on more favorable terms, desire to establish such an unit of transportation as may govern all transactions that do not absolutely belong to the export trade of the country. It has been given in evidence that the railway companies, in order promptly to furnish cargo for ocean steamships, induce wholesale dealers, by special low rates, to furnish large quantities of grain or flour, and it has been alleged as a grievance that such rates are not granted to shippers of small quantities.

The Commission are of opinion that the grain and flour trade of Canada cannot be advantageously carried on unless the railway and the merchant can arrange together, as to the cost by rail and ocean vessel, of delivery in the foreign port.

The same necessity does not exist in regard to the ordinary trade in other articles, and while prepared to admit the necessity, in certain cases, of making the rate of transport depend upon the quantity carried, the Commission consider that this privilege should be confined to not less than car loads, and be subject to the regulations proposed to be established in regard to discriminations.

They therefore recommend :

“ That one car load of not less than ten tons shall be the unit of railway transportation, in respect of any special rates granted ; all quantities under a car load being treated alike, but the railway company to be at liberty to make special rates for larger shipments.”

DISCRIMINATION.

Individuals.

Undoubtedly one of the most frequent causes of complaint against all railways, not only in Canada but also in Great Britain and the United States, is that of discrimination of an unjust or partial character between individuals under like conditions. It interferes most improperly with legitimate trade, and should certainly be prohibited by law. It cannot be the desire of the principal railway officers or managers to permit such favoritism, but it is generally the act of local agents—especially such as are paid by commissions, and influenced either by personal favoritism or desire of gain. The practice should be peremptorily ended and such penalties imposed as will secure the attention of the railway managers to the strict observance of the law by their servants and employees.

The Commission recommend :—

“ That discrimination of unjust or partial character between individuals under like conditions be effectively prohibited, and any infraction of such law punished by severe penalties.”

Localities.

Much complaint has also been made of discriminations in favor of one locality over another. These cases differ widely from the preceding, and are found generally to arise from the presence of competition, either by water or by rail. They seem to be inseparable from any railway system and each case requires special investigation. Where like conditions exist, such discriminations should be prohibited and under the pressure of being exposed to penalty the railway managers must exercise the power of determining the respective rates of transport.

The Commission believe that these cases will generally be amicably arranged if the following recommendation be adopted, and the difficulty will be met which has been referred to under the head of Long and Short Haul—Uniform Mileage Rates:—

“ That discrimination of an unjust or partial character between different localities under like conditions be effectively prohibited, and any infraction of such law punished by penalties, after due cognizance having been taken of the effect of water and rail competition.”

SPECIAL RATES.

The objection to secret special rates, rebates, drawbacks, and all concessions to shippers of a discriminative character are fully set forth, not only in the testimony given in Canada, but also in the great body of evidence furnished from the United States. The practice is not only unfair to traders engaged in the same business, but has been shown to be opposed to the best interests of the railways themselves, and should certainly be prohibited under penalties for infraction of the law.

The Commission do not, however, desire to object to such special rates or concessions where made to all parties alike, and their existence made public. It is in the interests of commerce, as shown in treating of discriminations, that railway managers should be permitted to grant special relaxation of their tariff rates in certain cases ; but such concessions should be alike available to all.

It is believed the case will be met by the adoption of the following recommendations:—

“ That all secret special rates, rebates, drawbacks or concessions to shippers be declared illegal and made subject to penalties, and that every special rate be made public on demand of any enquirer.”

EXTORTION OR UNJUST CHARGES.

The evidence given before the Commission and the information derived from the United States and Great Britain disclose the existence of many complaints by individuals of overcharge under the railway tariff, or of exactions imposed unfairly in various forms. Such abuses have their remedy under the common law of all countries, but the process is slow and expensive and presses hardly upon the complainant, who frequently will rather submit to what he considers unjust treatment than enter into litigation with a powerful corporation. In many cases, moreover, the amount at issue is small, though equally vexatious in its supposed extortion.

It appears to the Commission desirable, in the interests both of the public and of the railway companies themselves, to provide an easy and prompt mode of settlement of all such complaints, reserving, however, to the party aggrieved, the option of proceeding through the ordinary law courts, if he prefers.

In the United States generally, the Railway Commissions have power to hear such cases, and in some instances to decide them, while in others the ultimate decision is left to the ordinary tribunals.

The Commission are of opinion, that where the complainants elect to go before the special tribunal to be created in Canada, the proceedings should be final, subject only to the regulations proposed hereafter in this respect.

In dealing with such cases in other countries, the amount to be recovered in Great Britain is limited to the overcharge, while in the United States it varies; in most cases, being followed by a penalty to be recovered by the complainant of three times the amount of the damage actually sustained.

The Commission, in proposing to apply this remedial system to Canada, consider that the damage claimed should be distinctly limited to the actual overcharge, and that if indirect damage is alleged or claimed, the complainant should proceed by an ordinary action at law. It appears, also, that in many instances, it may be shown that the overcharge has not been willful or intentionally unjust; therefore, it is thought that the amount of penalty should be in the discretion of the tribunal, but not to exceed three times the amount awarded as overcharge.

As regards the costs attendant upon the investigation of complaints, the tribunal should be empowered to exercise its discretion in awarding them.

The experience of the United States has shown that the existence of such a tribunal leads to the amicable settlement of complaints, and it is believed that a similar result would follow in Canada, removing a fruitful source of irritation against railways.

It is therefore recommended :—

“ That complaints of extortionate rates, or unjust discrimination, may be referred to an authorized tribunal for settlement, whose decision shall be final. That the damages be limited to the amount proved as overcharged, with any further amount not exceeding three times the sum awarded, as a penalty to be recovered by the complainant, with costs in the discretion of the tribunal. No indirect damage to be considered or awarded. That the right be reserved to the complainant of proceeding at common law. That the right be reserved to complainant of proceeding at common law, if he so elect.”

EXPRESS BUSINESS.

The express business is primarily a commission business, the expressman undertaking to serve whomsoever may employ him on doing various errands at some other place than where such employer lives, taking care and charge of such commission personally or by deputy. The transportation of merchandise is an incidental matter and dependent upon the commissions given the expressman to execute. The express companies neither own the lines nor railways upon which they do business, nor have they (as a rule) any exclusive privileges; anyone possessing the necessary security being able to do an express business for themselves. They must employ special teams, drivers, agents, &c., at their offices, and messengers, transfer men, &c, *en route*, and it would be extremely difficult to bring express charges under any ordinary classification or tariff.

It is therefore suggested :—

“ That railway companies be not compelled to undertake express business, but must afford equal facilities to all express companies alike in the transaction of the same.”

FREE PASSES.

The practice of granting free passes is shown, by the evidence obtained from the United States, to be in many respects equivalent to “discrimination,” and therefore objectionable. Its abolition is clearly in the interests of the railway companies, and it certainly cannot be claimed that the public, under any circumstances, are entitled to free transportation.

Under the Interstate Commerce Law free passes have been abolished, and it is understood the change has given much satisfaction and been beneficial to the railways. It is true that the law in question reserves the right of railway companies to exchange “passes,” which is clearly unobjectionable as simply as an exchange of service. In Canada, where the Government as representing the public are the owners of one important railway, it seems proper that they should at all times be entitled to pass over and examine their railway, but the Commission consider that the privilege of obtaining “passes” from other railways should be strictly confined to the actual officials of the Dominion railway.

They therefore recommend:—

“That the grant of free passes by railway companies be abolished, saving the reservations contained in the United States Interstate Commerce Act, and excepting members of the Federal or Provincial Government on Federal or Provincial railways respectively.”

UNIFORM RAILWAY REPORTS.

It is evidently desirable, in the public interest, that the several railway companies should render their reports to the Government in the same form and for the same periods.

It is recommended:—

“That the railway companies be enjoined to furnish their several reports to the Government as required by law, in a uniform shape and for the same periods.”

PENALTIES ON RAILWAYS.

It appears important to provide by law for the due observance, by the several railway companies, of all duties and obligations imposed upon them under existing and future Statutes. This is done both in Great Britain and the United States, and it is believed to have been beneficial in its operation.

It is suggested:—

“That the illegal infraction of any statutory obligation should be left to the proposed tribunal, who, after hearing the case, may impose for any proved violation or neglect to comply with the regulations established by law, such penalty as may be deemed proper, being not less than one hundred dollars nor more than five thousand dollars.”

COST OF TRIBUNAL.

The Commission have considered the practice pursued in Great Britain and in the United States in regard to defraying the expense attendant upon the proposed railway tribunal. In most cases it is met by an assessment upon the railways, based upon various methods. A fair consideration of the whole subject leads to the conclusion that the regulation and control of railways by the State is entirely based upon grounds of public interest, and for the immediate and direct benefit of commerce, involving changes which may in some cases be thought to press somewhat hardly upon the railway companies. It is therefore considered more equitable that the charges connected with the proposed tribunal should as in the case of other courts be borne by the community at large.

It is therefore recommended:—

“That the expenses connected with the formation and operation of the proposed Railway tribunal be borne by the public exchequer, excepting so far as may be caused through investigation of complaints, in which case costs may be included in the award, at the discretion of the tribunal.”

GENERAL REMARKS.

In recommending the foregoing amendments to the existing railway laws, the Commission desire to be understood as in no respect proposing to alter or diminish the existing statutory obligations for prevention of accident and general oversight. They would, however, suggest that special provision should be made into the investigation of serious accidents, as is now provided under the English law. Such enquiries might, probably, in the case of Canada, be fittingly entrusted to the proposed railway tribunal.

FORMATION OF TRIBUNAL.

In considering the important question of the character and composition of a tribunal to give effect to the various recommendations made in their report, the Commission have felt themselves limited to the selection of one of two courses:—

First.—The creation of a Commission, independent of Government control, with practically irresponsible authority.

Second.—The maintenance of the Railway Committee of the Privy Council with such extension of its powers and requisite departmental machinery, to secure the proper execution of the law.

In considering the subject the Commission have the advantage of knowing the scope and operation of independent Railway Commissions in Great Britain and the United States. But in the former case they are met by the difficulty that the present law requires important amendments which have not yet been considered, and which are known to excite much opposition and criticism. In the several States of the American Union very great diversity exists in the powers and character of these tribunals, for each of which methods peculiar advantages are claimed. It may be unhesitatingly stated that the Commission are unable to accept any of these commissions as the model upon which the Canadian tribunal should be framed. Apart, moreover, from the intrinsic defects that are found in them all, it is evident that they are unsuited to the condition under which the commerce of Canada is carried on, through their scope being restricted within too limited an area, and unfitted to deal with the foreign through traffic upon which the prosperity of Canada is so largely dependent.

The Interstate Commerce Act and the Commission established to give it effect are much more analogous to the circumstances of Canada, and the Commission would have felt their labors greatly lightened if the operation of this law could be regarded as final and settled. It deals with questions precisely similar to our own, and its working has already proved of the greatest value in the present enquiry. But the Interstate Railway Commission has, in its initiatory judgments, found it necessary to partially suspend the operation of the most important section (4th section) of the Act, and has already indicated other important particulars in which

it desires amendments to the law. It has, however, confessedly been already productive of great good to the public and also to the railways themselves, whose apprehensions of injury from it have been in a great measure dispelled.

With respect to the machinery through which the Interstate Commerce Act is expected to work, your Commission have grave doubts whether it will be found applicable to the vast extent of territory over which it has jurisdiction. They are inclined to believe, that in requiring the presence of even one Commissioner at all enquêtes, it will be found impossible to meet the demands upon the Commission, and the necessity of making all original applications to the central authority at Washington will, they fear, lead to serious delay, and in the case of such individual complaints as it is proposed to refer to the Canadian tribunal, amount practically to a denial of justice.

Whether these opinions be justified by experience is, however, immaterial, as the Commission cannot recommend the adoption of any system which is now on its trial, and which it is conceded requires substantial amendment, none of the existing Commissions having sufficiently extensive powers to deal effectively with the various matters which would come under their jurisdiction. It is undoubtedly the wiser policy to benefit by the experience of others rather than by our own.

The Commission desire to provide by immediate legislation for admitted evils, with the least possible disturbance to existing methods, only accepting such conclusions as have been tested and proved to be beneficial. They wish to avoid the hasty creation of any system of which experience in the United States, England and Canada may soon require serious modification. They think it better to test the working of the proposed law by temporary provision for its execution, and after full experience of the results of the Interstate Railway Commission and of our own legislation to consider whether such system should be made permanent.

Other considerations also weigh with your Commission in their conclusions. The political constitution of Canada recognizes direct ministerial responsibility to Parliament, much more than in the United States, and, therefore, as a Railway Tribunal is necessarily tentative, it seems to them undesirable to remove its operation, in its inception, beyond the direct criticism and control of Parliament.

At the same time the Commission admit that serious objection may be taken to the selection of the Railway Committee of Privy Council as the General Railway Tribunal. The members cannot leave their duties at Ottawa, and must, therefore, delegate to subordinates much very important work, though the Interstate Commission is open to the same objection.

They hold their office by a political tenure and are liable to sudden change, whereby the value of their experience is lost. They can scarcely be regarded by

the public as so absolutely removed from personal or political bias as independent members of a permanent tribunal. They cannot possibly give their exclusive attention to their railway duties, and in taking upon themselves the duties which would necessarily devolve upon them they would be in fact performing judicial functions. These and other reasons occur against the selection of the Railway Committee of the Privy Council as the Railway Tribunal; but it is believed they are outweighed by the considerations of general and ultimate advantage, through proceeding with extreme caution in dealing with subjects affecting the entire commerce and progress of the country; while a material practical advantage is secured by the fact that any required changes in the law or in its application are secured through identifying the Government with its execution.

After the fullest discussion and most deliberate consideration the Commission desire to report as their final recommendation:—

“That the powers of the Railway Committee of the Privy Council be enlarged so far as to enable them to administer the proposed law, providing—

“1st. That the Committee shall itself hear and determine all disputes arising between railway companies, with power to appoint proper officers to take evidence locally.

“2nd. That the Committee shall itself decide all questions of classification of freight, tariff and uniform railway returns.

“3rd. That the Committee shall have power to appoint officers in each Province, to hear and determine all complaints against railway companies, subject to power of reference by such officer of any point to the Committee, and also subject to the right of appeal to the Committee itself.”

GENERAL RAILWAY LAW.

The Commission consider the decision of this question to be rendered more difficult from the existence of co-ordinate powers in the constitutions of the several Provinces reserving the right of chartering local railways. But as regards the Dominion at large, they are of opinion that a general railway law would be more beneficial than special charters, provided such general law contained provisions for securing the public from undertakings either uncalled for by the community, or projected without adequate security for their *bonâ fide* prosecution.

Such provisions should comprise:—

“1st. The submission of plans and profiles of location of proposed lines, and estimates of cost to be filed for a certain time with the Railway Tribunal.

“2nd. Adequate proof of ability to complete the undertaking, either by subscription of share capital, or by deposit with the Government, subject to release as the works progress.

“3rd. No bonds to be issued until a certain specified proportion of the cost has been actually expended upon the work.

" 4th. The operation of such general law to be excluded from any part of the Dominion, wherein Parliament has forbidden the construction of railways, during such period as the prohibition may exist."

All respectfully submitted.

(Signed) A. T. GALT, *Chairman,*
COLLINGWOOD SCHREIBER,
GEORGE MOBERLY,
E. R. BURPEE.

MONTREAL, 14th January, 1888.

THE ROYAL COMMISSION ON RAILWAYS.

Appendices to Report.

1ST. REPORT OF COMMITTEE VISITING UNITED STATES.]

2ND. SUPPLEMENTARY REPORT OF SAME.

3RD. EXTRACTS, HADLEY, &c.

 APPENDIX No. 1.

 THE REPORT OF THE SUB-COMMITTEE OF THE COMMISSION APPOINTED
 TO ENQUIRE INTO THE RAILWAY LAWS AND RAILWAY COMMISSIONS
 IN THE UNITED STATES.

To the Chairman and Members of the Royal Commission on Railways for Canada :

Your Committee beg to report that, in accordance with the instructions of the Commission, they proceeded to the United States, in order to obtain as full and perfect a knowledge of the working, not only of the Interstate Commerce Law, but of the separate State Railway Laws and Commissions, as it would be possible to get in the limited time at their command.

In furtherance of the object, your Committee visited the following States and cities:—

States.	Cities.
1. Minnesota.....	St. Paul, Minneapolis.
2. Wisconsin.....	Madison, Milwaukee.
3. Illinois.....	Chicago.
4. Michigan.....	Detroit, Lansing.
5. New York.....	Albany, New York.
6. Massachusetts.....	Boston.
7. Connecticut.....	New Haven.

During our visit to Minneapolis the Interstate Commerce Commissioners were holding a session of their Board, investigating several causes of complaint, and we had an opportunity of observing the manner in which business was conducted by them, which seemed to give satisfaction to all parties interested.

We also met at same time the State Commissioners of Iowa, Missouri, Wisconsin, Illinois, Nebraska and Minnesota, who had gathered there to meet the Interstate Commission, and also to discuss with a number of delegates—representing the mercantile interests of those States—matters of joint interest to be presented to that Commission. From all these gentlemen we were able to gather information regarding the laws governing the railways in their respective States,—and wherever it was possible your Committee endeavored by interviews with the leading business men, railroad managers and public officials, as well as State Commissioners, to get the best and most diversified information as to the working of the separate State and the Interstate laws and Commissions.

The result of our enquiries in the separate States as to their local laws and Commissioners have for convenience been placed under the head of each State.

WISCONSIN.

The law in this State provides for one Commissioner appointed by the Governor, whose power is only advisory. All unjust discrimination or unjust charges are prohibited. A maximum tariff is made, and any person sustaining damage from a violation of these provisions of the law may recover from the railroad three times the amount of such damage. It is the duty of the Commissioner to investigate all

grievances brought under his notice, and if well founded to report the facts to the Attorney General who shall prosecute at the expense of the State. The Commissioner has also to examine into the condition and management of all the railways in the State and report thereon to the Legislature, giving also the financial condition and a list of the stockholders of each road. Railroads are chartered under a general incorporative Act and not by special legislation. From enquiries at Madison, the State Capital, and Milwaukee, it appears there is perfect harmony between the railways and the State Commissioners, and that the Interstate law was not working injuriously to anyone.

MINNESOTA.

This State has had a varied experience in railway legislation, having tried nearly all kinds. In the general anxiety to open the wild lands of the State for settlement, in 1868, laws were passed granting charters to any persons filing articles of association with Secretary of State, giving them power to raise their capital and build railways when or where they chose. The State also gave State bonds to the extent of ten millions of dollars and large grants of lands towards building certain lines of road. In 1872, the opposite course was pursued and legislation was passed restricting the operation of the railways and regulating their charges and appointing one Commissioner.

The railroads chartered previous to the passage of these laws, questioned the right of the Legislature to interfere with their rates, but on appeal it was finally decided by the Supreme Court of the United States, that the State had the right to regulate the rates on all railroads within its borders. When the general collapse took place following the failure of Jay Cooke and with him of the Northern Pacific Railroad, in order to induce capital to return to the State and open up its resources by the construction of more railroads, this law was repealed and the duties of the Railroad Commissioner were confined to examining into the physical condition of the railways as bearing upon safety of the travelling public.

In 1885 the present law was passed which provides for three Commissioners to be appointed by the Governor and paid by the State. The law prohibits unjust discrimination of any kind and unjust or extortionate charges, and gives the Commissioners power to adjust rates, locate stations and sidetracks, and also to compel railways to build sidings to warehouses, where in their judgment such are required. It is their duty to investigate all complaints or grievances against the railways or their management for violation of the law, and when their findings are not obeyed, to report to the Attorney General of the State, whose duty it is to enforce obedience to the laws. They are also to examine into the condition and management of all railroads in the State and report to the Legislature. One of the three Commissioners must visit every town in the State, where there is a railroad station, at least once every three months, giving the public twenty days' notice of the time of such visit. The railroads, in lieu of exemption from all local or other taxes on their property or lands, pay into the State Treasury three per cent. of their gross earnings.

We had long interviews with the Governor and Secretary of State, ex-Governor Austin, now Chairman of Railroad Commission, and many leading business men, from whom we learned that the railroads almost universally complied with the requirements of the Commissioners under the law.

At St. Paul, Mr. Clough, lately Solicitor for the Northern Pacific but now assistant to Manager of St. Paul, Minneapolis and Manitoba Railroad, informed us that he regarded the clauses in the Interstate law relating to long and short hauls if literally interpreted as injurious to trade, if not absolutely impracticable, and that the clause prohibiting pooling if continued must lead to the consolidation of railroads into large systems. He thought for the State an advisory and investigating Commission useful, but would not give them power in making tariff rates. In most cases the rates on the St. Paul, Minneapolis and Manitoba are lower than those named by the Commission.

Mr. Shephard, the head of a large firm of contractors, instanced that as the effect of long and short haul in the Interstate law in advancing rates on the railways between competing points, he had already paid, during the present season, \$30,000 more in freights than he would have done under the tariff of last year.

I. I. Hill, Esq., the most successful and probably the ablest railroad manager in the North-West, said the value or otherwise of a Commission depends entirely upon the law governing the railways and the power given to the Commissioners. As a rule, he found the Commissioners were sensible men, and when they had to look at both sides of the railway problem, the railroads had no difficulty with them. He had no trouble on his road in keeping pace with public opinion, and as a matter of business he reduced rates when practicable, oftentimes even lower than required by the State laws. He believes railroads should be built and operated on commercial principles, and pay a good interest on their actual cost.

In doing so there should be some restriction to the present system in Minnesota, of giving charters indiscriminately (often to build roads where none are needed), and also there should be a strong supervision over the location and construction of new roads, compelling them to build on the lowest grades and easiest curves practicable between terminal points, in order (even at greater first cost) to minimize operating expenses.

IOWA.

Peter A. Dey, Esq., Chairman of the Iowa State Commission, informed us that the Granger Law (so-called) was passed in that State in 1874. This law made classification and rates for both passengers and freight. There being no Commission, the penalties could only be enforced, by the individual aggrieved, through the Courts.

In 1878 a law was passed forbidding railroads charging unreasonable rates or discriminating in favor of individuals or places (under a penalty of three times the actual damage sustained), and creating a board of three Commissioners, to be appointed by the Governor and paid by the State. The money required was collected from the railroads according to the assessed value of their property within the State. They were required to examine into the condition, equipment and management of each railroad in the State, with reference to public safety and convenience, and to advise the said railroads of any improvements which they judged to be proper or of any violation of the laws. In 1884 the law was amended, giving the Commission power to decide what were reasonable rates, and in case any railroad refused or neglected to carry out their recommendations, to report to the Attorney General of the State, whose duty it became to enforce them through the Courts.

In 1886 the Commissioners fixed a maximum scale of rates for the railways, and they expect to have an Act passed at the next session of their Legislature applying the principles of the Interstate Commerce Act to the railways within the State. Some of the roads are already adjusting their tariff within the State to accord with its provisions.

He also stated that as the railways have grown stronger, and from an increased volume of business are able to carry traffic cheaper, they have reduced their rates voluntarily, until at the present time they are actually much lower than those fixed by the Granger Law of 1874.

MISSOURI.

In 1875 a law was passed creating a board of three Commissioners (to be appointed by the Governor) who were to have a general supervision over the railroads in the State, and with power to make classification and maximum rates for freight traffic. A special session of the Legislature was convened in May last for the purpose of legislating in regard to railway management and as far as possible of assimilating the railway Acts of the State with the Interstate Act of Congress. An Act was passed prohibiting discrimination, either in rates or accommodation, or of

pooling freight or earnings of different competing roads for a greater charge for a shorter than for a long haul on the same road and in the same direction. A railroad violating any of these provisions of the Act is liable to the party aggrieved for three times the amount of damages sustained and also to the State in a penalty not to exceed \$5,000.

The Commission have to classify freight and adjust rates with the railroads, and if any railroad company refuse or neglect to adopt and publish such tariff rates the Commissioners are to make and publish one for them.

It is also their duty, either at their own instance or on the request of the party aggrieved, to see that all the provisions of the law are enforced.

ILLINOIS.

The constitution of the State of Illinois adopted in 1870 declared railroads to be public highways and free to all for the transportation of their persons or property under such regulations as may be prescribed by law. The Legislature was required to pass laws establishing reasonable maximum rates and prevent discrimination, and to enforce such laws by adequate penalties, even if necessary to the forfeiture of the property and franchise of the railways. In 1871 a board of three Commissioners was created, who were to be appointed by the Governor and paid by the State (with the right to free transportation over the railroads). In order to overcome a decision of the courts which declared that the law relating to discrimination was unconstitutional because it did not make the distinction between discrimination and unjust discrimination and because it did not allow the railroads to explain the reasons for discrimination, the law was amended in 1873, defining and prohibiting extortion and unjust discrimination and fixing penalties in addition to awarding triple damages to the party injured. The Commissioners are to examine into the condition and management of the railroads within the State, also to make for each a schedule of reasonable maximum rates, regulate the interchange of traffic between them and prosecute all violations of the law which come to their knowledge.

For much of this information regarding the laws of Illinois, and also many valuable statistics relating to the traffic over, and working of the railway system of the West, we are indebted to I. W. Midgely, Esq., Chairman of the Southwestern Traffic Association, representing over 40,000 miles of railroad centering in Chicago. He also informed us that the railroads in Illinois usually adopted the tariffs as arranged by the Commissioners or amended by them on conference.

MICHIGAN.

In 1873 the Legislature passed an Act which provided for a Commissioner of Railways to be appointed by the Governor, whose duties were to examine into the condition and management of the railroads within the State and all matters relating to the public safety, with power to regulate the crossing of the track of one railroad over that of another, and the interchange of traffic, as well as to arbitrate in cases of dispute. No special charter can be obtained from the Legislature in this State; but any number of individuals can file articles of association, and a map of location of the proposed railroad with the Secretary of State; which location being approved by a board consisting of the Attorney General, Secretary of State, and Railroad Commissioners, entitles them to a charter under the general Act for incorporation. The laws as now in force prohibit unjust discrimination in rates.

In our interviews with the Governor of the State and Railroad Commissioners at Lansing, the managers and other officials and also the solicitor of the Chicago and Grand Trunk with others at Detroit, we learned that the operations of the State Commission were regarded as beneficial, and also that the Interstate law as it was being interpreted by the Commission was, if anything, working advantageously.

Before leaving Detroit we had an interview with Hon. Jas. F. Joy, for many years prominently connected with the railroads of America. He expressed the

opinion that the Interstate law had been a benefit to the railroads, inasmuch as it had prevented unjust discrimination and helped to maintain fair rates on through business. The great trouble with all railways, and especially trunk lines, was in cutting rates and carrying freight too low. For this he would recommend legislation fixing a minimum rate for all railroads, with a heavy penalty in cases of violation. This, he thought, would tend to prevent ruinous competition and the building of unnecessary roads.

NEW YORK.

This State having within its borders the Atlantic terminus of most of the trunk lines to the west, and across the continent, must be seriously affected by the management of these railroads, yet it had no Commission until 1882. It has been legislating on railway subjects since 1850, and the most memorable Commission of enquiry into the abuses of railway management in America was the Hepburn Committee of the Legislature of New York for 1879. The result of this investigation was the legislation of 1882, which amongst other things created a Board of three Commissioners.

These Commissioners are appointed by the Governor, with salary of \$3,000 per annum each, which with the salaries of a secretary, accountant, engineers, inspectors, clerks and other expenses, is paid by the State out of a fund collected from the railroads *pro rata* according to their gross earnings. Their powers are those of an investigating and advisory board. They are to keep themselves fully informed in all matters affecting the condition, operation, management and transportation facilities of the railroads, and are also directed to report any violations of the laws to the Attorney General, whose duty it is to take such action as may be necessary for the protection of the public interests.

Their duty is also to recommend that repairs to the superstructure be made when necessary, that additions to the rolling stock and additional station and terminal accommodation shall be afforded where needed, and also such changes in the freight and passenger rates as they deem reasonable and expedient in order to promote the public convenience.

They have no power to enforce these recommendations, but in case of the refusal by any railroad to comply, they report the facts to the Attorney General, who takes action in cases of violation of the law; or to the Legislature, when special legislation is needed.

Charters are granted under the general law for incorporating companies.

Not less than 25 individuals are required to file articles of association with the Secretary of State, after having got the approval of the State Engineer to their map and plan of location, when they are entitled to a charter to build; but if at any time a railway company wishes to increase its capital stock or make a mortgage for a further issue of bonds, they must get authority from the Railroad Commissioners. The Commissioners on receiving applications for such authority send their accountant to examine into the financial condition of the company, to ascertain if the value of stock and bonds previously authorized has been properly expended, and whether the increase asked for is necessary, and on his report they decide whether to authorize such increase of capital or otherwise.

From information gathered in New York City and Albany, we learned that the railroads generally comply with the recommendations of the Commissioners, and almost all complaints were remedied without the necessity of formal action.

MASSACHUSETTS.

The Railroad Commission of this State was frequently referred to during our enquiries as one of the oldest and most useful in America. We understand from the Commission that the law relating to extortion and unjust discrimination was framed largely from the experience of investigation and legislation in relation to English railways. At the time they were passed they prohibited both unjust discriminations

and charging more for a shorter than for a long haul over the same road and in the same direction for the same class of goods.

The Act creating a Board of Commissioners was passed in 1869. It consists of three members appointed by the Governor and paid by the State from funds which are assessed on the railroads in proportion to their gross earnings. Their duties are to make a thorough examination into the physical condition and structures of the railways, to decide upon the location of the road and the stations, to regulate the crossing of railroads and the interchange of traffic between connecting roads, and to examine into the causes of accidents, ordering necessary precautions to prevent the same. They also investigate complaints when made to them of discrimination or unjust charges for transportation of either passengers or freight, and report the result to the railway company complained against, and in case of refusal or neglect to comply with their recommendations they report the same to the Legislature.

The Select Committee of the Senate of the United States on Interstate Commerce in their report in January, 1886, say:—

“In the way of practical results the Massachusetts Commission is shown by its record, and by the testimony, to have exercised by its reports and decisions an acknowledged influence upon the railroads in bringing about needed reforms and to have been successful in the redress of grievances and correction of abuses. It has held the railroads to obedience of the laws and has not only secured the passage of needful legislation but has prevented unwise measures. Through its recommendation voluntary reductions in rates have been made and discriminations of different kinds have been done away with. It has secured uniformity in the accounts and reports of the railroads. It has fixed the responsibility of accidents and has done great service in requiring the adoption of improved appliances for safety.”

They also refer to Hon. Charles Francis Adams, for many years Chairman of the Massachusetts Commission, as an acknowledged authority on railroad matters. He said in 1874:—

“The Commission is simply a medium, a species of lens by means of which the otherwise scattered and powerless rays of public opinion could be concentrated to a focus and brought to bear upon any corporation.”

It would therefore seem from what has been said that four of the States, Minnesota, Illinois, Missouri and Iowa, have laws regulating among other matters tariff rates, and giving the Commissioners very extensive power in enforcing the laws within the respective States.

Four States, Michigan, Wisconsin, New York and Massachusetts, while they have laws providing against unjust discrimination and extortion, and while the Commissioners in each have full and extensive power in the oversight of the condition of the roads on all matters relating to the security of life and property, yet in regard to questions relating to rates their duties are only of an investigating and advisory nature.

We may also add from personal observation and enquiry, that the States of Connecticut, New Hampshire and Maine, have Railroad Commissioners whose duties are confined to the examination and oversight of the physical condition of the railroads as affecting the safety to life and property in transportation; they have to report yearly to the Legislatures of their respective States on these matters, as well as on the financial condition of each railway within the State.

The testimony we were able to obtain from personal interviews with the Governor and Secretaries of State (in the States visited) as expressing the views of the people by whom they were elected, also from leading men engaged in trade and manufacturing—from the reports and opinions of the different State Commissioners, and also from the managers or other officials of such railroads and traffic associations as we were able to see, lead us to the conclusion that in the United States, the form of Commission most popular with all classes and most successful in correcting abuses and instituting reforms, is one for investigating and advising such as that adopted by the State of Massachusetts, and copied in many of its leading features by New York. This system was brought to its present state of efficiency in Massachusetts mainly

through the labor of Charles F. Adams, Esq., for many years the Chairman of the Commission, and now President of the Union Pacific Railroad, Boston.

Mr. Adams not being at home when we first visited Boston, we deemed it necessary to make a second visit to that city to see him, and at the same time to visit New Haven to see Prof. Hadley, of Yale College, who has made the railway problem of both America and Europe a special study.

Prof. Hadley thought as the railways of Europe (outside of Great Britain) were so largely owned or under control of the Governments, and the circumstances governing them were so different from those governing the railways of America, that no laws regulating them would be of use in America.

In Prussia nineteen-twentieths of all the railroads are practically owned by the Government, and there the tariff on all good except coal and such articles (which are carried by special contract) are based upon equal mileage rates with a terminal fee added.

In Belgium all the railroads, excepting one, are owned by the Government, and here where the freight charges are the lowest of any country in the world the same principle of equal mileage rates is applied.

In France the territory is divided by the Government between a certain number of companies who have the exclusive right to build and operate railroads within their respective districts. The result is that roads are not always built as fast as needed to meet the requirements of the increasing demands of trade, and in 1884 the Government had to guarantee some of the companies even as high as 13 per cent. on the actual cost in order to secure the construction of certain branch lines which they considered demanded in the interest of the country.

The tariff rates on all the railroads in France are made by the companies and Government jointly, and no railroad can charge either more or less without first getting the consent of the Government. This has a beneficial effect in keeping rates uniform, and if applied here might prevent the building of many competing lines (where there is no business to warrant them), and also in maintaining fair remunerative rates would protect the value of railway securities.

The system of pooling was almost universal both with private and Government roads, and often with also water routes with good results.

In regard to the Interstate law Prof. Hadley stated that in the present shape it was not meeting all the requirements expected, yet by reason of the decision of the Commissioners its effect upon the railroads has not been injurious.

There are two classes dissatisfied: 1st, those who were able to take care of themselves, and formerly had special favors; and 2nd, those who think it has not borne so heavily upon the railways as was expected and as they thought it should.

As a matter of fact he said the railway problem is now so complicated and the commercial prosperity of the whole country so dependent upon its proper solution, that it requires the most careful study and mature judgment.

Neither the courts nor the Legislature are competent or have the time to decide correctly regarding the proper management of railway traffic. They may often give decisions or pass measures seriously and perhaps injuriously affecting the trade of a whole continent. Too much stress cannot be laid upon the necessity of having intelligent and carefully prepared laws.

Mr. Hadley thinks a competent advisory Board of Commissioners with power to investigate and consider with the railway managers all the peculiarities of their traffic would be able to come to conclusions beneficial to trade and useful to the railroads in meeting public opinion and shaping legislation.

Mr. Adams says the present Interstate Commerce Act was passed under pressure of popular clamor, was not properly digested and is defective in many respects. It could not be expected that Congress, a body composed of men elected on account of their local ability to represent the particular districts in which they reside, are able to deal intelligently with so comprehensive a subject as the railways, often running through districts thousands of miles removed from their own and affecting for good or evil the business interests of a whole continent. The present Board of Interstate

Commissioners are an able body of men, and he had no doubt that in time they would improve the present Act until they got a good law through Congress. They have already by their decisions on the long and short haul clause suspended its operation, literally (as interpreted) in many cases actually demanded in the interests of commerce, which shows that as an absolute law it is impracticable. He thinks an advisory Commission of good men to investigate causes of complaint and assist in shaping legislation best in the interest of both the railways and commerce. He has no doubt that the fear, that under the Interstate law, a cut in through rates would be disastrous to their local traffic, has prevented the cutting of rates by the trunk lines.

The attempt of Congress to prevent pooling must tend towards consolidation, or of the larger roads swallowing up the smaller. He thinks that parties making very large shipments are fully entitled to lower rates than those making smaller shipments. The railways could certainly do the business cheaper and with less risk, and he did not see that the public were injured. He instanced some coal mines who, shipping thousands of tons of coal daily by having special rates, really gave cheaper coal to the consumer.

The Standard Oil Company may have grown rich from concessions made by railroads, but they have refined oil on so extensive a scale and they could do it so cheaply that no small concern could compete, and as a matter of fact refined oil never was so cheap as since they have been established, so he did not see wherein the public suffered. He did not think equal mileage rates fair, as no railway could carry traffic as cheaply through a sparsely settled country as through a more densely populated one. He doubted the policy of the Legislature attempting to fix even maximum rates, but he would like to see some way to prevent cutting rates or reducing them below what was fairly remunerative. In regard to charters for railroads it was not possible now to prevent their being granted where asked for, but the public would learn by experience that where they encourage unnecessary roads to be built they must ultimately pay for them.

From Mr. Lincoln, of Boston, agent for one of the European lines of steamers and so prominently engaged in foreign commerce as to be delegated to represent the merchants of Boston before the Select Committee of the United States Senate on Commerce, and also the Interstate Commissioners, we learned that through the interpretation of the law by the Interstate Commissioners its operations had not the injurious effect on the trade of Boston expected, and so far as it had tended to prevent cutting rates it had been a boon to the merchants. As a business man he deprecated railroad wars, which always cause a great deal of uncertainty in business.

In the absence of the President of the Fitchburg Railroad and Hoosac Tunnel Line to the west, we gathered from their solicitor, that owing largely to the interpretation of the law by the Interstate Commissioners in the interest of commerce it had worked better than they had expected.

Mr. G. R. Blanchard, President of the Central Traffic Association of Chicago, one of the very best authorities on matters connected with railway traffic in America, and who represents an association comprising over 50,000 miles of railway, in all matters affecting their interests before Congress and the Interstate Board of Commissioners, stated that the law as it had been interpreted had not worked injuriously to the railways. To some extent it had helped to maintain rates, as no road cared to take the initiative in cutting rates, fearing the effect of the operation of the long and short haul upon their local traffic.

The clause to prevent pooling if persisted in he said would lead to the amalgamation of the principal roads into large systems. The cost per ton of handling goods at way stations was often five and six times greater than at terminals (owing, of course, to the relatively small quantity), consequently adding to the cost of hauling local freight short distances.

He did not object to a fair Commission to stand between the railroads and the Legislatures, even though they had extensive power subject always to appeal to the courts. It was, in his opinion, much easier to arrive at intelligent conclusions with

five men whose time was given to the study of the subject than with two or three hundred changing at every election and representing most frequently entirely different interests. He would very much like to see some treaty, understanding, or arrangement, bringing the American and Canadian railway systems more in harmony.

Mr. Midgely, of Chicago, to whom we have referred before, made statements of a similar nature. He believed an investigating and advisory Commission useful, but considered giving them the power to make classification and fix rates likely to make trouble, even if it were not unconstitutional.

We came in contact with and interviewed a great number of prominent business men and railway officials, besides those mentioned in our report, and found the opinion generally unanimous in favor of legislative supervision of some kind over the operations and management of the railways; and that a Board of Commissioners was best adapted to make effectual such supervision.

We also found a similar unanimity expressed that "the Interstate Commerce Law had come to stay," and that even some railways that at first were opposed to its passage, are now beginning to look upon it as not injurious to them but on the contrary in some respects beneficial, and susceptible of being amended so as to be much more so. It was also made apparent that the railway problem is so intricate and extensive, and its proper solution has so much to do with the commercial prosperity of the country, that too much care and study cannot be given in the preparation of any legislation dealing with it.

We cannot close this report without referring to the most cordial and kind manner in which we were met and assisted in our labors by all those gentlemen with whom we came in contact during our visit to the United States.

But we beg especially to refer to the kindness and valuable assistance rendered us by Mr. Hickson, General Manager of the Grand Trunk Railway, and his able assistants on the Chicago and Grand Trunk Railway, at Detroit and Chicago.

All which is respectfully submitted.

(Signed)

E. R. BURPEE,
GEORGE MOBERLY.

APPENDIX No. 2.

SUPPLEMENTARY REPORT OF THE SUBCOMMITTEE VISITING THE UNITED STATES.

To the Chairman and Members of the Royal Commission on Railways:

Since submitting the report and information resulting from our visit of enquiry to the United States last September, we have been prosecuting our enquiries further in the same direction; particularly on the following points:—

First.—Working of the Interstate law, regulating commerce.

Second.—Allowing railways to be built under a General Railway Act without requiring separate charters from the Legislature.

Third.—Practicability of railway companies conducting the express business on their roads.

Fourth.—The powers under which one railway may expropriate the property of another railway.

On the first point, E. B. Phillips, a gentleman of long experience in matters connected with railway management, President of the Fitchburg Railroad and Hoosac Tunnel Route, says:—

“So far the operation of the Interstate Commerce Law has been injurious to the through business from the west, and to the export trade of Boston, but not to so great an extent as was feared. This was due to the ruling of the Commissioners interpreting the law, and declaring that it was not illegal for the trunk lines to allow an export rebate on the western products from the port of Boston.”

Albert Fink, of New York, Commissioner for the Trunk Line Association, who is generally acknowledged as the best authority in America on questions of railway transportation, informed us: “That the Interstate Commerce Law is defective, and if literally enforced would have proven disastrous to the railways and the commerce of the country. Happily the appointment of excellent and practical men on the Commission, by suspending the operation of some sections of the Act, has prevented interruption to the carrying trade of the country and the consequent ruin which would have followed its literal enforcement. This Commission have not judicial powers.”

In his opinion no Commission or set of men should have the right to regulate or make rates for railways in which they have no interest. It seemed little short of confiscation of the property of the men who have invested their money in the securities which have built the roads. In his experience, three-fourths of all the complaints made against the railways were imaginary, and when investigated and all the circumstances connected therewith considered, the complaints vanished.

Advisory Commissions are a means of making these explanations public and thus prevent the repetition of the complaints.

When a Railway Commission have great powers, as is sometimes the case, there is danger that in order to court popular favor with some classes, or from undue influence, they may use their power to oppress some roads.

In the matter of railroad charters, his experience has satisfied him that the right to build railroads should be free to all, and it being so, there is less danger of charters being taken out for useless and speculative schemes, or with the intention of selling to existing roads. He would make it obligatory by statute that at least one-half the capital of the proposed road should be *bond fide* subscribed for, before a charter is granted, and that the whole subscription should be paid, and actually expended in the construction of the road, before any bonds on it are allowed to issue.

He said ; " Your Government cannot be too careful on this point. It is very important to existing roads, and even more so to investors of capital ; and if rigidly enforced would create more confidence in our securities." His opinion is that a greater power both over the character of a road and its financial standing can be exercised on a charter granted by a fixed statute, than will be done in a special charter granted by the Legislature.

He could not see the justice in a railroad being compelled to allow another and perhaps competing road, to appropriate their tracks, buildings and property, even if they are willing to pay for them.

He believed that almost invariably, any railway rather than have a parallel road built a short distance along their right of way would agree to allow the use of their track for a reasonable compensation, and in his opinion it had better be left to themselves and the courts.

In our interview with Mr. Crocker, Chairman of the Massachusetts Commission, in regard to railway charters, he and his Board were quite pronounced in the opinion that the right to build railroads under statutory limitations should be free to all. Their experience in Massachusetts, since this mode has been in operation, is that the Legislature has been relieved of a vast amount of work, and fewer speculative and unnecessary roads have been started.

In the matter of the expropriation of the real estate or other property of one railroad company by another, he said there was no power under the laws of Massachusetts, but, when necessary, the railway company wishing to exercise the right of appropriating a portion of another road's property, applied to the Legislature to grant them that right. He did not think the Legislature of Massachusetts would delegate this power.

On this question, at the instance of Mr. Boardman, Manager of the Railroad Gazette in New York, a visit was made to J. D. Lawson, in New Jersey, who has made railway law a specialty.

From him we learned that under the constitution of the State of California and the Territories of Idaho, Utah and Montana the law of eminent domain provides that all real estate or property of private individuals may be taken for public use ; and in the same way property which has been expropriated for one public use may be expropriated again for another public use if more necessary.

There is no other State in the Union where the constitution makes such provision. The question has, however, been tested in the courts, and decisions have almost always been that the power to expropriate real estate " already expropriated and owned by one railroad," for the use of another railroad, can only be exercised by the Legislature.

Following are some leading decisions made by courts in different States :—

Illinois Court, 1876, Full Bench.

" One street railroad company cannot, under the power granted by the Eminent Domain Act, take a fragment of a competing road in successful operation, thereby destroying the usefulness and value of the whole road, but it may, by paying just compensation and by proper authority, condemn the entire road."

Indiana Supreme Court, December 17th, 1875.

Judge Gresham ruled :—

" That the lands appropriated by the complainant, and owned and occupied by it under its charter, remained liable by virtue of the general Act for the incorporation of railroad companies, as all other lands in the State, to be taken for public use for a fair compensation.

" Lands appropriated for a public use are not withdrawn from liability to further appropriation, where the public good requires it. The language of the Act is general and authorizes the taking of any land.

"Lands appropriated to one public use, may be taken and appropriated to another and distinct public use. Property condemned and appropriated to the use of one corporation for the benefit of the public, cannot be again seized by the State and given to another corporation for the same purpose. This, in effect, would be to take from one corporation its franchise and bestow it on another. Such an act would not be warranted by the Law of Eminent Domain. Property once dedicated to a public use and given to a corporation, remains its property against all the world, and can only be taken from those on whom it is first bestowed when the public interest requires that it shall be appropriated to another and different use."

New Jersey (1872).

The Supreme Court decided:—

"That all railroads in the State had the power to cross the tracks of another railroad without any special law, but had no power without special law to take any of the land of a railroad to build parallel or alongside."

New York Court of Appeals, in 1873.

Re Boston and Albany, decided:—

"That, though the railroad law allowed a railroad corporation power to take any real estate for railway purposes, yet after the land has once been appropriated for public use, it cannot be taken again without special legislation."

The same principle was established by the Supreme Court, Mass., in 1872, case of *E. R. R. vs. B. & M.* III Mass. Reports, page 125.

Also in Connecticut, case of *N. Y. R. vs. Boston*, 36 Conn. Reports, page 196.

Michigan, 1877, *re Grand Rapids and Indiana Railway*, 35 Mich. Reports, page 265, Supreme Court decision:—

"Courts have uniformly held no difference between individual and corporate rights, and one railroad can take the property of another corporation by making proper compensation."

Illinois--February, 1881.

Justice Dickey, in case of *Lake Shore R. R. vs. Chicago*, decided:—

"That under ordinary Eminent Domain Act one railroad has not power to take property of another; but recognize the fact that the legislative power of the State can make it valid."

Virginia Court of Appeal—1881.

Report 40, page 743:—

"The taking and condemnation, by a railroad company, of part of the road bed or another company, is an interference with the rights and franchise of such other company. One railroad company has no right, without express statutory authority, to acquire for its own uses land already acquired by another railroad company."

Peter A. Dey, chairman of the Iowa Board of Railroad Commissioners, writes on this subject: "I beg to state that, in Iowa, when one railroad company desires to cross the track of another company, the ruling of our Commission, as to the safety and kind of crossing at the proposed point, is first obtained. Then, if an agreement cannot be arrived at between the companies interested, the junior company applies to the court for a jury to condemn the right of way necessary, and to fix the damages following to the senior company."

"The question as to the right of one company to use the terminal facilities of another company, in a case where the only available ground is occupied, is not covered by the law of this State. We have a law under which a company is required to haul the cars of connecting lines over its lines, and under this law, and the gen-

eral law as to the rights of shippers as against common carriers, the Iowa Commissioners have decided that a company at a terminal point must switch the cars of another company over any of its side tracks or tracks voluntarily extended beyond its station house, at the request of a shipper, adequate compensation to follow. This decision has been contested by the companies affected, and is now in the courts for final adjudication."

EXPRESS BUSINESS.

James Eggleston, Manager of the American Express Company for New England, gives the following information, which seems to show that it is not expedient that the railroads should undertake express business:—

"The express business is primarily a commission business, the express man undertaking to serve whomsoever may employ him in doing various errands at some other place than where such employer lives, taking care and charge of such commission personally or by deputy. The transportation of merchandise is an incidental matter, and dependent upon the commission given the express man to execute. The expresses neither own the lines of railroad upon which they do business, nor have they (as a rule) any exclusive privileges, any one possessing the necessary security being able to do an express business for themselves, and you will find, by enquiry of any of the leading railroad or express company's officials, that the proportion of the expense for actual transportation upon the railroad is one-third of the total expense to the expresses for transacting their business, the two-thirds balance being spent in giving the commissions entrusted to it proper care, such as is the employment of teams, drivers, agents, &c., at their offices, and of messengers, transfer men, &c., *en route*, and that fact alone proves that express charges should continue to be controlled by competition.

"I would add that the expresses, both large and small, are (as a rule) private enterprises, and are not doing business by any Act of Congress or of the State Legislature."

All of which is respectfully submitted.

(Signed) E. R. BURPEE,
GEO. MOHRLEY,
Commissioners.

APPENDIX No. 3.

EXTRACTS.

ENGLISH RAILROAD LEGISLATION. (*See Hadley, page 163.*)

The history of the general questions of railroad policy and legislation may be pretty sharply divided into two periods. Railroad construction formed the subject of discussions and action in the first period, railroad combination in the second. The dividing line between the two periods falls in the years 1845 and 1848.

It was at first supposed that a railway would be used like a canal, individuals furnishing their own cars and motive power. The clauses in the charter were drawn up with the idea; it was soon seen to be false. Competition between different carriers on the same railroad was impossible. Could competition between different railroads be secured instead?

It is to the credit of English statesmen that they did not deceive themselves in this respect. They learned more in a few years from the workings on a few miles of railroad than the general public has learned from all the railroads in the world in half a century. They recognized that competition could not be relied upon or aimed at with hope or success. As early as 1836 Mr. Morrison, of Inverness, delivered a remarkable speech in which he made the points: that railroads must naturally be monopoly; competing roads will combine; that parallel roads are a waste of capital; and that fixed maximum rates are useless.

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In the years 1839 to 1845 several attempts were made to secure railroad legislation, Mr. Gladstone taking an active part in these matters. Beyond a declaration of the right to revise tariffs, and even to purchase the railroads for State management in the remote future, nothing was actually accomplished. One or two experiments in the way of Railroad Commissions made during those years had worse than no result. Free railroad competition was meantime being and found wanting. It was not tried on purpose or because Parliament believed in the principle. It was because so many speculators wanted to build railroads and Parliament had not the moral courage to refuse them charters.

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Railroad combinations of importance may be said to have begun in 1844. In 1845 the Board of Trade made a report to Parliament on the subject of amalgamation, taking the ground that it was right for continuous but not for competing lines. In 1846 a special committee of Parliament considered the subject, but no distinct action was taken on their report.

Another committee on the same subject was appointed in 1853. Cardwell and Gladstone were its leading members. They made a strong effort to do something, but found it easier to explain the troubles than to find remedies. They hoped to encourage "running powers," by which one company should have the right to run its trains over the lines of other companies. Serious obstacles met them in the attempt. Nevertheless, if anything at all was to be done, it must be done in this way. A railroad which had a London connection must not be allowed to freeze out one which had no such connection; otherwise the London road would compel the country to unite with them on their own terms.

This was the point the committee seized clearly; and the Bill which they brought in and which became law under the title of the "Railways and Canals Traffic Act, 1854," was conceived with this view—to protect the local roads in their through business. It provided, first, that every company should afford proper facilities for forwarding traffic, and second, that no preference should be given.

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From 1853 to 1872 Parliament suggested a great many things and accomplished nothing. Least of all did they check the tendency of the roads to consolidate. Much was expected of the Royal Commission from 1865 to 1867; but nothing came of it.

Another committee was appointed in 1872, and this time, for a wonder, something was actually accomplished. They brought forward no new views, and in one sense no new laws. They simply provided means for carrying out the old laws and the old views. The outcome of their work was an Act for carrying into effect the provisions of the Act of 1854.

They recommended the appointment of a special Railway Commission provisionally established for five years, to take cognizance of a variety of cases under the Act of 1854, whose decisions were to have judicial force. They were further to decide many cases where the interests of different railways conflicted. The Bill was passed in 1873. With the Act of 1873 the general railway legislation may be said to have closed.

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The idea of a Railway Commission was by no means new. As long ago as 1840 it was felt that some such authority was necessary. In that year powers were given to the Board of Trade not unlike those now exercised by the Massachusetts Railroad Commission. Those powers were further defined in 1842. The Board of Trade was as well adapted to the work as any body then existing. It failed when the Massachusetts Commission succeeded, not because of the differences of the law, but because the English public sentiment with regard to railroads was not sufficiently active to give such a body the necessary moral support to make up for lack of legal authority.

In 1844 another Commission was appointed with more specific powers. Their special duty was to make preliminary reports to Parliament on applications for railroad charters. After a luckless existence of about a year, this Board was abolished. In 1846 Parliament tried the experiment of a Commission of another kind. It offered first rate salaries and secured well known men; then it avoided all causes of offence by not giving them any powers. This lasted five years.

We have seen what were the events which led to the passage of the Regulation of Railways Act in 1873. The Commission appointed under that Act was to consist of three members, one of them a railroad man and one a lawyer. They receive the salary of £3,000 each. They were to decide all questions arising under the Act of 1854 and subsequent Acts connected with it. They were further empowered to arbitrate between railroads in a variety of cases; to compel companies to make through rates, which should conform to the intention of the Act of 1854; to secure publicity of rates, to decide what constitutes a proper terminal charge, and some other less important matters. On questions of fact their decision was to be final; on questions of law it was subject to appeal. The Railway Commissioners themselves were to determine what were questions of law and what were questions of fact. Subsequent Acts have made but slight changes in these powers.

In 1878, the original term of the Commission expired. People supposed that it would be made permanent. Instead of that the renewals have been for shorter periods, leaving the Commissioners a precarious tenure and showing dissatisfaction somewhere. A Parliament investigation on railroad rates in 1881-82, showed the ground of dissatisfaction only too clearly. The substance is that the power of the Commission satisfied nobody. It has power enough to annoy the railroad, and not power enough to help the public efficiently.

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The Commission could not act, partly from want of jurisdiction, partly from want of executive power; its jurisdiction did not cover by any means the whole ground. The provisions about terminals, arbitration, working agreements, &c., &c., amounted to very little. Its real power was under the Act of 1854. It could under this Act require companies to furnish "proper facilities" and it could prevent it giving "preferences." But it could not compel a company to comply with special acts or special provisions of its charters.

Nor could it enforce its decrees. "On the face of the Act of 1873 the decisions of the Commission as to what were questions of fact or questions of law, appeared to be final. But by a writ of mandamus from a Court of Appeal, the decision on this point could be at once taken out of the hands of the Commissioners by compelling them 'to state a case' which could then be made the subject of action in the higher court."

So this important power was made of no effect.

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It is not easy to see what can be done in the face of these difficulties, so different from anything we see in most American States. Our Commissioners with fewer powers, have infinitely more power. The reason is, in America, to defy such an authority involves untold dangers; public sentiment being irritable and unrestrained, whereas in England it involves no danger at all, public sentiment being long suffering and conservative.

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In England as everywhere else two distinct sets of grievances, involving totally different treatment. Some charges are complained of as exorbitant in themselves involving extortion. Others are complained of as unequal, involving discrimination. When railroads were first started, they feared the first evil and hardly thought of the second. They tried to prevent extortion by a very definite system of maximum rates. It is hardly necessary to say these provisions were of little effect. First, the railroad could carry much cheaper than was at first expected, so that most of the maxima were too high to be of any practicable effect. Second, the whole system of provision concerning equal mileage rates, terminal, classification, &c., is quite inapplicable to the new conditions of railway service which have grown up since the original charters.

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The subject of exorbitant rates is really a subordinate one. It is the question of differential rates that mostly agitates the public mind, and it comes in almost exactly the same forms which it takes in America. One set of low rates arises from competition of different routes, another from special contracts to develop business.

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By the Act of 1845 the companies were allowed to vary their charges at will within the maxima, but must charge all persons the same rate for the same service.

From the very outset the court enforced the point that there should be no personal preference. That under exactly similar circumstances all shippers should be treated alike. The railroads could make as many special rates as they pleased, but they must be given to everybody under the same conditions.

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The present state of things may be summed up as follows:—

1. The roads may make what special rates they please, but if they make a rate for one man, they must extend the same privilege to all others in like circumstances. If they have been secretly paying rebates to one shipper, they may be compelled to refund any other shipper similarly placed, the same rebates on all his shipments, since the special contract with the one shipper began.

2. It is held by the Commissioners that two shippers are similarly placed and must be similarly treated when the cost to the railroad of handling the goods for one is the same as for the other, and conversely, unless some special reason can be shown the railroad has no right to put a less favorably situated shipper on an equality with a more favorably situated one.

3. But the last Parliament Committee has refused to endorse these principles and has said that "a preference is not unjust so long as it is the natural result of fair competition."

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This brings us to 1886, when the time for which the Commission was created had expired, and a Bill was before Parliament. "The principal objects of which are

to reconstitute and perpetuate the Railway and Canal Commission, established by the regulation of Railway Acts of 1873, to enlarge its jurisdiction and powers, and to regulate the rates to be charged for traffic on railways and canals." This Bill has now been before Parliament two years, and is not yet disposed of. We quote what Mr. Grierson says as introductory in a work published a few months ago:—

"For many reasons the failure to pass the Railway and Canal Traffic Bill ought not to be regretted even by those who are dissatisfied with railway companies, but who sincerely desire to benefit the trade of the country. In the discussion of that Bill, and in the debates on the subject of railway rates in recent Sessions of Parliament, the existence of many misconceptions was disclosed. As to principles, there was little agreement; there was, if possible, still less as to details. Charges which have often been explained or refuted were repeated as if they were new, and as if they had never been answered. One of the greatest defects of the discussion was its fragmentary, one-sided character; it was carried on with far too little regard to the interests of many classes, districts and ports, which would have been seriously injured by some of the changes hastily proposed. Many of those who professed to represent traders, ignored the interests of large sections of them; and what would benefit the consumers was, to a remarkable degree, lost sight of. The delay may be useful, and it may be hoped that any future legislation will be shaped according to the interest of all traders, and not of a part of them only, and of the general public, to whom extended, and not restricted trade, cheapness, and a wide area of supply are desirable."

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"One point is at the outset very clear—the inconsistent nature of many of the charges made against railway companies. Within the last twenty years such complaints have been the subject of three elaborate enquiries before Royal Commissions of Parliamentary Committees. Before all of them were submitted proposals completely at variance with each other. With equal emphasis railways are now asked to satisfy contradictory demands; and to a large extent the multifarious charges made against them answer or cancel each other. Many traders demand the very opposite of what is a necessity to others, and of what consumers, naturally anxious to enlarge the field of supply, earnestly desire. Some of the former complain, for example, in language which seems borrowed from mediæval times, that their 'geographical' or 'natural advantages' are diminished. Other traders blame railway companies for not sufficiently effacing natural disadvantages and not offering inducements for the development of trade in new districts. Exporters want favorable terms; importers do the same; and no other class protests against concessions either in favor of exports or imports. It is a remarkable fact that many of the proposals which were most in fashion a few years ago, have now been abandoned, and that in Parliament and the press we now hear chiefly of schemes totally different from those which were formerly supported. Equal mileage rates were once strongly advocated."

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"Ingenuous schemes were devised for equalizing, within certain zones or areas, rates, irrespective of distance and other circumstances. There is a fashion in so-called railway reform. Such schemes are now little heard of; they have given place to proposals essentially different, which may in their turn make way for others.

"In all the recent discussion of rates much was heard of those who were discontented, but very little of those who, being satisfied, were silent. Most errors in Political Economy, it has been said, come from not taking into account what is not seen. Especially true is this of the question of railway rates, not the least important problem of Political Economy. Of the trades and interests which are dissatisfied with existing arrangements, people hear and see so much. Unfortunately they appear to take little heed of other interests, equally important, which are contented, or comparatively so, which do not send deputations to the Board of Trade, and which

changes, such as have been from time to time proposed, would injure or even go far to ruin."

AMERICAN LEGISLATURE.

Last April the United States Congress, as the result of the labors of a Committee of the House of Representatives appointed in 1879-78, and a Special Committee of the Senate appointed in 1885 under pressure of a wave of popular excitement, passed an Act to regulate Interstate Commerce, and appointed an able Commission. Their very first act was to suspend the operation of some of the vital sections of the Act, and after nine months they are recommending important changes.

In some of the Western States there has been hasty laws passed under excitement which retarded the cause which the promoters had in view. In 1873 Illinois passed stringent laws regulating the management of the railways, and appointed a commission to fix rates. Similar laws were passed immediately by Iowa and Minnesota. In 1874 Wisconsin passed a similar Bill, the "Potter Law." They were all inoperative on account of their power, and appeals were made to the Court by railways for protection. While the courts established the fact that the States had the right to pass such laws, a more potent factor was at work, and in all the States the laws were repealed or were not enforced.

Hadley says, page 135:—"But a more powerful force than the authority of the courts was working against the Granger system of regulations. The laws of trade could not be violated with impunity. The effects there must have been sharply felt in Wisconsin—the law reducing railroad rates to the basis which competitive points enjoyed left nothing to pay fixed charges. In the second year of its operation the Wisconsin roads paid a dividend; only four paid interests on their bonds; railroad construction has come to a standstill. Even the facilities on existing roads could not be kept up. Foreign capital refused to invest in Wisconsin, the development of the State was sharply checked; the men who most favored the law found themselves heavy losers. These points were plain to every one. They formed the theme of the Governor's Message at the beginning of 1876. The very men who passed the law in 1874 repealed it in 1876. In other States the laws either were repealed, as in Iowa, or were sparingly and cautiously enforced. By the time the Supreme Court published the Granger discussions the fight had been settled, not by constitutional limitations but by industrial ones."

