
DOMINION OF CANADA.

ANNUAL REPORT

OF THE

MINISTER

OF

RAILWAYS AND CANALS

FOR THE PAST

Fiscal Year from 1st July, 1884, to 30th June,
1885

ON THE WORKS UNDER HIS CONTROL.

SUBMITTED IN ACCORDANCE WITH THE PROVISIONS OF THE ACT THIRTY-FIRST
VICTORIA, CHAPTER TWELVE, SECTION NINETEEN, AS AMENDED BY THE
ACT FORTY-SECOND VICTORIA, CHAPTER SEVEN.

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1886.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

REPORT OF THE

COMMISSIONERS OF THE

UNIVERSITY OF CHICAGO

FOR THE YEAR 1887

CHICAGO: THE UNIVERSITY OF CHICAGO PRESS

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ERRATA.

- P. 77. 12th line for "\$237,428.13" read "\$236,428.13"
139. 7th line from bottom for "Ontario" read "certain".
141. Last line for "Engineer in chief" read "Engineer in charge".
142. Last line, for "for Wrightson & Co.", read "Head, Wrightson & Co."
169. Number 12. Gravenhurst to Callander, for "45 Vic., cap. 8," read "45 Vic., c. 23"
- " " 19. Intercolonial Ry. Total subsidy, for "38000" read 38400.
170. " 36. Ottawa, Waddington & New York. Total subsidy not to exceed
 for "\$166,000" read "\$166,400".
- " " 41. For "46 Vic., c. 8," read "46 Vic., c. 25".
- " " " For "48 Vic., c. 58," read "48 Vic. c. 59".

REPORT

1884—85.

*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 of June, 1885.

This report is submitted in accordance with the provisions of the Act 31 Vic. Cap. 12 (1867), as amended by the Act 42 Vic., Cap. 7, Sections 4 and 5 (1879).

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 1) 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 the undermentioned Railways of the Dominion, either directly controlled by the Federal Government, or towards the construction of which subsidies have been authorized.

NOTE.—It should be observed that while the usual reports furnished by the Superintending Officers deal with the fiscal year only, the General Report of the Minister contains information on points of interest relating to the Canadian Pacific Railway and other subsidized lines up to the end of December, 1885.

CANADIAN PACIFIC RAILWAY.

TRUNK LINE.

Acquired—

| | Miles. | Miles. |
|--|--------|--------|
| Quebec to Callander, direct | | 490 |
| | | — |
| Montreal, (at the head of Atlantic ocean navigation) to Callander..... | | 344 |

Subsidized—

| | | |
|--|-------|-------|
| Callander to Port Arthur..... | 651 | |
| 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 | |
| | — | 2,549 |
| | | — |
| Total, Montreal to Port Moody. | | 2,893 |
| | | — |
| Branch lines acquired and built (see list, app. 4, p. 10)..... | | 432 |
| | | == |

By the Act 44 Vic., ch. 1 (1881), a contract made with the Canadian Pacific Railway Company, under date the 21st of October, 1880, for the building of a line of railway between Callander, Lake Nipissing, and Port Moody, British Columbia, was approved and ratified.

By this contract the company undertook to construct the portions between Callander and Port Arthur, and between Red River and Savona's Ferry (Kamloops), British Columbia, the Government undertaking the building of the portions between Port Arthur and Red River, and between Savona's Ferry and Port Moody.

Under the terms of the contract, the whole line was to be completed and equipped by the 1st of May, 1891.

The total distance between the terminal points named, by the route finally adopted (*via* Winnipeg and the Kicking Horse Pass), is 2,549 miles, of which the portions built by the company are as follows:—

| | Miles. | Miles. |
|---|--------|--------|
| Callander to Port Arthur..... | 651 | |
| Red River to Savona's Ferry | 1,257 | |
| | ————— | 1,908 |
| The portions built by the Government are as follows:— | | |
| Port Arthur to Red River | 428 | |
| Savona's Ferry to Port Moody..... | 213 | |
| | ————— | 641 |
| | | ————— |
| | | 2,549 |
| | | ===== |

The whole line upon completion, together with the Pembina Branch from Winnipeg to Emerson, sixty-four and a-half miles, is to be the property of the company, to be operated and maintained by them, thenceforward. Up to the present date, although possession of portions of the road has been given to them, the final transfer has not been made.

In conformity with the terms of the contract, and an arrangement made with the company in May, 1883, for the completion of certain unfinished work, the whole of the road between Port Arthur and Red River (opposite Winnipeg), together with the Pembina Branch, has been handed over to the company.

PROGRESS OF WORKS UNDER THE GOVERNMENT.

The only work remaining to be executed by the Government on the 1st of July, 1884, was in the Province of British Columbia. At the date of the last annual report, 31st December 1884, the track had been laid for a distance of 210 out of the 213 miles of Government work between Port Moody and Savona's Ferry, and certain ballasting and other work remained to be done. This has since been completed.

PROGRESS OF WORKS UNDER THE COMPANY.

Callander to Port Arthur.—651 miles.—By a revision of the location, this section has been shortened by six miles. During the past year, large bodies of men were employed, with the result that at the beginning of April, 1885, the line was used for the conveyance of troops for the suppression of the rebellion in the North-West. The gaps that then existed in the road have since been completed, and continuous rail communication between Callander and Port Arthur was effected in May. The work of finishing the road, comprising ballasting, the provision of water service and station accommodation was carried on, and the Company's time table coming into effect on the 2nd of November last showed the line open for regular passenger traffic.

Port Arthur to Red River, opposite Winnipeg—428 miles.—This section was transferred to the company prior to full completion, and the work of ballasting and filling in valleys crossed by temporary bridges has been since executed by the company under a special agreement.

An elevator, the capacity of which is 1,000,000 bushels has been built by the company at Fort William. They have also an elevator at Port Arthur of 300,000 bushels capacity.

Red River to Savona's Ferry—1,257 miles.—The knowledge of the climatic conditions of the mountain section gained by last winter's experience showed the necessity of a relocation of part of the road, and such relocation has been effected without increase of the gradients, but with an addition of three miles to the length of the road. The line was open in October for traffic up to Donald Station, at the foot of the east slope of the Selkirks, a distance of 1,022 miles, and on the 7th of November, 1885, the last spike was driven, thus making rail connection from Port Moody to Montreal, a distance of 2,893 miles, or to Quebec, a distance of 3,039 miles. Of this distance, nine miles in British Columbia will ultimately be replaced by a road with easier grades, the construction of which has been postponed owing to the heavy tunnelling involved.

The subsidy granted to the company by the Act of 1881 was as follows: Money, \$25,000,000; land, 25,000,000 acres.

Under an Act passed in 1884, 47 Vic., chap. 1, in order to secure the completion of the entire road, by the month of May, 1886, a loan of \$22,500,000, bearing interest at 5 per cent., and payable in May, 1891, has been made to them, security being taken therefor by a mortgage on their entire property. Of this sum, \$7,500,000 was paid over to the company, to extinguish their then floating debt, and the remainder has been in course of payment as the work proceeds.

In the Session of 1885 an Act, 48-49 Vic., ch. 57, was passed, by which other arrangements were authorized in substitution for those contemplated by the Act, 47 Vic., ch 1.

They included the issue and delivery to the Government of first mortgage bonds to the extent of \$35,000,000, bearing interest at 5 per cent., and secured by a mortgage on the entire property of the company (except the Algoma Branch), saving the rights of holders of existing mortgages on the extensions of the line from Callander to Brockville and Montreal. The Algoma Branch, however, still remained charged with the lien created by the Loan Act, 47 Vic., ch. 1, special provision being made for a postponement of such lien in the event of an extension of the branch. Upon such issue and delivery of bonds, the shares in the capital stock, to the extent of \$35,000,000, in the hands of the Government, were to be cancelled and destroyed:

The amounts for which the company are liable to the Government are,—

| | |
|--|---------------------|
| (a.) Loan under Act, 47 Vic., ch. 1..... | \$22,500,000 |
| (b.) Balance of amount due under the agreement of the 10th of November, 1883..... | 7,380,912 |
| Total..... | <u>\$29,880,912</u> |

This amount, with interest at 4 per cent., is to be repaid by the 1st of May, 1891.

Of this total of \$29,880,912 the sum of \$20,000,000 and interest was to be secured by the said first mortgage bonds to the extent of \$20,000,000, the remaining \$9,880,912 to be secured by a lien on the whole of the unsold lands of the company.

Of the remainder of these first mortgage bonds—equal, that is, to \$15,000,000—\$8,000,000 worth, were to be retained as security for a temporary loan, authorized by the Act, of \$5,000,000, and the balance were to be delivered to the company from time to time, to be applied, under government supervision, to the improvement and development of the road and the maintenance of its credit.

Under authority of Order in Council, a deed of mortgage, dated the 25th of July 1885, was executed, embodying the conditions of the Act.

The temporary loan of \$5,000,000 was made to the company on the 28th of July, 1885. The amount was, however, returned by them;—\$3,000,000, on the 2nd of September, and \$2,000,000 on the 2nd November last.

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 1883-4. | 7,254,208 27 |
| “ “ “ “ 1884-5. | 6,862,201 00 |
| | <u>21,649,485 87</u> |
| Amount paid from end of fiscal year 1884-5 to 31st December, 1885..... | 2,895,427 00 |
| | <u>24,544,912 87</u> |
| Balance on 31st December, 1885..... | <u>\$ 455,087 13</u> |

Loan Account.

| | |
|--|-----------------|
| Amount of loan..... | \$22,500,000 00 |
| Amount paid to end of fiscal year | |
| 1883-4, the 30th June 1884..... | \$10,953,462 00 |
| Amount paid from the end of the | |
| fiscal year 1884 to end of fiscal year | |
| 30th June 1885..... | 9,701,438 00 |
| Amount paid from the end of the | |
| fiscal year 1884-5 to 31st Dec. 1885. | 995,800 00 |
| | 21,650,700 00 |
| | 21,650,700 00 |
| Balance on 31st Dec. 1885..... | \$ 849,300 00 |
| | \$ 849,300 00 |

BRANCH LINES.

In addition to the subsidy for their main line, the company have, under their contract, the right to receive a grant, in so far as it is vested in the Government, of the land required for road bed, stations, &c., in the construction of branch lines.

A list of such branches will be found in Appendix 4, page 10. Their total length is the same as last year, 432½ miles.

NORTH SHORE RAILWAY.

Under the provisions of the Act passed last session 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. 63), (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..... | 525,000 |
|--|---------|

| | |
|--------------|-----------|
| Balance..... | \$975,000 |
|--------------|-----------|

The interest on this balance, is to be held available for covering any deficiency which may arise in the interest on the existing mortgage bonds of the road.

Under special agreements to this end dated the 19th of September last, 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.

Reports on the Canadian Pacific Railway, from the Government Chief Engineer, dated the 10th of October and 31st of December, 1885, will be found in Appendices No. 4, page 10, and No. 20, page 166.

GOVERNMENT RAILWAYS IN OPERATION.

The several lines operated and maintained by the Government during the past fiscal year ended the 30th June, 1885, were :—

| | Miles. |
|---|--------|
| The Intercolonial and its extensions..... | 861 |
| Eastern Extension Railway..... | 80 |
| Windsor Branch (maintained only)..... | 32 |
| Prince Edward Island | 212 |

| | |
|--------------------|-------|
| Total mileage..... | 1,185 |
|--------------------|-------|

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

For details respecting these roads, see Appendix No. 5, p. 14 to 97.

The length of roads operated was increased by the completion of the St. Charles Loop Line, 14 miles, and the Cape Traverse Branch, 13 miles long.

The General Revenue Accounts for 1884-85 show the following as the financial position of these roads for the past fiscal year:—

| — | Expenditure. | Earnings. | Profit. | Loss. |
|--|--------------|--------------|----------|------------|
| | \$ cts. | \$ cts. | cts. | \$ cts. |
| Intercolonial..... | 2,441,477 91 | 2,368,153 65 | ..... | 73,324 26 |
| Eastern Extension..... | 78,273 65 | 73,050 01 | ..... | 5,223 64 |
| Prince Edward Island..... | 211,207 01 | 158,588 06 | ..... | 52,618 95 |
| Windsor Branch (earnings, one-third of entire receipts)..... | 18,751 96 | 24,451 35 | 5,699 39 | |
| | | | 5,699 39 | 131,166 85 |
| | | | | 5,699 39 |
| Total loss on working..... | | | | 125,467 40 |

INTERCOLONIAL RAILWAY.

LENGTH OF LINE.

Ocean Mail Line.

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

Extensions.

| | |
|--------------------------------------|-----|
| Moncton to St. John..... | 89 |
| Painsec to Shediac..... | 11 |
| Truro to Pictou..... | 52 |
| Dalhousie Junction to Dalhousie..... | 7 |
| St. Charles Loop Line..... | 14 |
| | 173 |
| | 861 |

Wharf Branches.

| | |
|---|-------------|
| 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 |
| | <hr/> |
| | 6.5 |
| | <hr/> <hr/> |

Capital Account.—The total cost of the road and equipment chargeable to capital account at the close of the fiscal year, 1883-84, according to last year's report, was..... \$42,582,231 71

From which is to be deducted, (being the amount of cheques, issued to pay for land and works, cancelled owing to the neglect or refusal of the persons in whose favour they were drawn to accept them.)..... 4,915 22

\$42,577,316 49

The expenditure charged to capital account for the year ended 30th June, 1885, is as follows:—

| | |
|--|--------------|
| Halifax extension..... | \$ 16,580 01 |
| Increased accommodation, St. John..... | 116,732 68 |
| Settlement of claims connected with the original construction of the Intercolonial Railway | 56,117 34 |
| For rolling stock..... | 287,213 97 |
| St. Charles Branch | 257,125 71 |
| Dartmouth Branch..... | 164,456 75 |
| Dalhousie Branch..... | 52,723 78 |
| Rivière du Loup Town Branch..... | 46,256 01 |
| Indian-Town Branch..... | 48,497 48 |
| Paspebiac Branch..... | 4,167 21 |
| Miscellaneous works..... | 407 36 |
| | <hr/> |
| | 1,050,278 30 |
| | <hr/> <hr/> |

Making the total cost up to 30th June, 1885..... \$43,627,594 79

Revenue Account.—

| | |
|--|----------------|
| The gross earnings for the year were..... | \$2,368,153 65 |
| The working expenses were..... | 2,441,477 91 |
| | <hr/> |
| Excess of expenditure over earnings..... | \$73,324 26 |
| | <hr/> <hr/> |
| The gross earnings, compared with those of the previous year, show an increase of..... | \$14,506 39 |
| | <hr/> <hr/> |

This increase was due to the through freight traffic.

| | |
|--|--------------|
| The value of the stores in hand, including steel rails and fuel, at the end of the year, 1884-1885, was..... | \$723,784 27 |
| | <hr/> <hr/> |

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

| | Miles. |
|---------------|-----------|
| 1884-85..... | 4,836,927 |
| 1883-84..... | 4,407,655 |
| | <hr/> |
| Increase..... | 429,272 |

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

| | |
|---------------|------------|
| 1884-85..... | 47,591,193 |
| 1883-84..... | 41,741,080 |
| | <hr/> |
| Increase..... | 5,850,113 |

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

| | |
|---------------|-----------|
| 1884-85..... | 3,992,506 |
| 1883-84..... | 3,653,961 |
| | <hr/> |
| Increase..... | 338,545 |

The working expenses per mile run by engines were :—

| | Cents. |
|---------------|--------|
| 1883-84..... | 53.19 |
| 1884-85..... | 50.47 |
| | <hr/> |
| Decrease..... | 2.72 |

The working expenses per mile run by trains were :—

| | |
|---------------|-------|
| 1883-84..... | 64.17 |
| 1884-85..... | 61.15 |
| | <hr/> |
| Decrease..... | 3.02 |

The gross tonnage carried was :—

| | Tons. |
|---------------|-----------|
| 1883-84 | 1,001,163 |
| 1884-85 | 970,069 |
| | <hr/> |
| Decrease..... | 31,094 |

The total number of passengers carried was :—

| | |
|---------------|---------|
| 1883-84 | 920,870 |
| 1884-85 | 914,785 |
| | <hr/> |
| Decrease..... | 6,085 |

The road is thoroughly efficient.

Much of the expenditure has been made for improvements, which might properly have been charged to capital account in place of to working expenses, as has been done in the present case : the clearance of snow also proved a very heavy item of expenditure, the cost being \$76,000.

The substitution of steel rails of 67 pounds in place of 56 pounds to the yard is continued.

The erection and the repair of station buildings, wharves, bridges at various points have been carried out, and a large number of coal cars have been provided to meet the increasing requirements of the westward coal trade.

In the year 1883-84 there was an increase of 30,202 tons in the quantity of freight carried. During the past year, while the increase in through freight has been 58,000 tons, the gross tonnage carried is less than in the previous year. The local passenger traffic shows an increase of 8,000, but the through passenger traffic a decrease of 14,000

The quantity of goods landed at Halifax from ocean steamers for transport over the railway showed a considerable increase.

In the accompanying report of the Chief Engineer and General Manager of Government railways, (App. 5, p. 15) will be found a table showing the earnings and the amount of freight and number of the passengers carried since the opening of the road, namely, from the 1st of July, 1876.

From this it will be seen that the earnings, and the amount of freight traffic have more than doubled in the nine years of operation, while the passenger travel has increased by about one third.

The St. Charles Branch was opened for traffic on the 21st of July, 1884, with convenient station accommodation at Lévis, near the ferry communicating with

Quebec. The Quebec Central Railway now joins this branch at Harlaka, five miles from Lévis.

By the construction of the Dalhousie Branch, Dalhousie has become the point from which the steamer navigating the Baie des Chaleurs connects with the Intercolonial Railway.

The tender service, at Rimouski, for mail and passenger summer transport to and from ocean steamers, has been carried on successfully.

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 company pay all charges in connection with the working, two-thirds of the gross receipts being allowed them for such purpose, the Government taking the remaining one-third and assuming all cost of maintenance.

The earnings and expenditure for the year ended the 30th June, 1885, were as follows:—

| | |
|---|-------------|
| Gross earnings accruing to the Government.. .. . | \$24,451 35 |
| Expenditure for maintenance of way and works..... | 18,751 96 |
| | \$ 5,699 39 |

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

| | |
|----------------|-------------|
| 1884-1885..... | \$24,451 35 |
| 1883-1884..... | 23,018 93 |
| | \$ 1,432 42 |

Expenditure in comparison with that of the previous year:—

| | |
|----------------|-------------|
| 1883-1884..... | \$22,140 86 |
| 1884-1885..... | 18,751 96 |
| | \$ 3,388 90 |

The road has been maintained in good working 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 stationed at New Glasgow, directed by the chief officers of the Intercolonial.

The cost of the road and equipment amounted on the 30th June, 1884, to \$1,284,311.97.

No addition was made to capital account during the year.

| | |
|--|-------------|
| The expenditure of the year amounted to..... | \$78,273 65 |
| The gross earnings..... | 73,050 01 |
| | 5,223 64 |
| Loss..... | 5,223 64 |

The road was well maintained and various improvements and repairs were effected.

Of the six branches of the Intercolonial recently placed under construction the following was the position at the end of the fiscal year :—

ST. CHARLES LOOP LINE.

This was completed and opened for traffic.

DALHOUSIE BRANCH.

This was completed and opened for traffic.

PASPEBIAC BRANCH.

The work on this branch has been confined to survey and location.

DARTMOUTH BRANCH.

By this branch, four miles in length, connection will be afforded between the Intercolonial Railway at Richmond and Dartmouth, on the north side of Halifax Harbour. The work was nearly completed.

RIVIÈRE DU LOUP TOWN BRANCH.

On this branch, about four miles long, connecting the Intercolonial Railway with the Rivière du Loup wharf, the track has been laid and ballasted.

INDIAN-TOWN BRANCH.

This branch of the Intercolonial extends from Derby Station, on that road, up the South-West Miramichi River to Indian-Town, a distance of thirteen miles. The work was placed under contract in September, 1884. The work is in progress.

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.

| | |
|---|--------|
| Cape Traverse Branch, County Line Station to Cape Traverse | 13 |
| Royalty Junction to Charlottetown..... | 5 |
| Mount Stewart to Souris..... | 39 |
| | — 57 |
| | — 211½ |

Capital Account.—The total cost of the road and equipment chargeable to capital account at the close of fiscal year 1883-4 was.....\$3,654,356 00

Less refunds on account of previous expenditure..... 1,487 53

The expenditure charged to this account for the year ended the 30th of June, 1885, being the amount expended on the Cape Traverse Branch, was..... 78,444 09

Total expenditure on capital account to the 30th of June, 1885..... 3,731,312 56

Revenue Account.—The working expenses and receipts for the year ended 30th of June, 1885, were:—

Gross expenses.....\$ 211,207 01

Gross earnings..... 158,588 06

Excess of expenditure over earnings.....\$ 52,618 95

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

1884-1885.....\$ 158,588 06

1883-1884..... 144,504 12

Increase.....\$ 14,083 94

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

1883-84..... \$236,428 13

1884-85..... 211,207 01

Decrease..... \$25,221 12

The engine mileage was :—

| | Miles. |
|---------------|---------|
| 1883-84..... | 291,760 |
| 1884-85..... | 311,443 |
| | <hr/> |
| Increase..... | 19,683 |

The train mileage was :—

| | |
|---------------|---------|
| 1883-84..... | 238,130 |
| 1884-85..... | 249,878 |
| | <hr/> |
| Increase..... | 11,748 |

The car mileage was :—

| | |
|---------------|-----------|
| 1883-84..... | 1,208,423 |
| 1884-85..... | 1,233,476 |
| | <hr/> |
| Increase..... | 25,053 |

The above increases are due to the service on the Cape Traverse Branch.

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

CAPE TRAVERSE BRANCH.

This line was opened for traffic on the 22nd of 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, forty miles in length, connection is made with the Intercolonial Railway at Sackville. In winter time the ice-boats land at Cape Traverse.

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).

- No. 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, and 48-49 Vic., ch. 59.)

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 a 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.

5. By the special Act 45th Vic., ch. 55 (1882), a subsidy was authorized in favor of "The Chignecto Marine Transport Railway Company," provided that they construct and thereafter maintain and operate a ship railway, to be approved by the Government, across the Isthmus of Chignecto from the Gulf of St. Lawrence to the Bay of Fundy, per year for twenty-five years..... \$150,000

By the Act 46 Vic. cap. 25, (1883):—

No. 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

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.)

8. To the Gatineau Valley Railway Company, for the first 50 mile section of their railway, from Hull Station, in the Province of Quebec, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 160,000

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

9. To the Great American and European Short Line Railway Company, for 80 miles of their railway from Canso to Louisburg or Sydney, in the Province of Nova Scotia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole. 256,000

(NOTE.—This was amended by the Act 47 Vic., 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. Further subsidized by 47 Vic., ch. 8, as part of line from Oxford Station to Sydney or Louisburg.)

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 miles 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.—*Further subsidized by 47 Vic., ch. 8.*)
- 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 48-49 Vic., ch. 59.*)
- 15.** For a railway from the Intercolonial Railway at Petitcodiac to Havelock Corner, in the Province of New Brunswick, 12 miles, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 38,400
- 16.** For a railway from Gravenhurst to Callander, 110 miles, a subsidy not exceeding \$6,000 per mile, nor exceeding in the whole..... 660,000
In addition to the subsidy granted by the Act forty-fifth Victoria, chapter fourteen.

“The nine subsidies first mentioned to be granted to the companies hereinbefore named respectively; and the two subsidies last mentioned to be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to complete the said railways, respectively; and all the eleven lines above mentioned, and also all 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."

17. By the special Act 46 Vic., ch. 26, an advance was authorized in favor 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),

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 15 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
- 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 Dunganon, 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

- 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)..... 123,000

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

- 30.** To the Erie and Huron Railway Company, for a line of railway from Wallaceburg to Sarnia, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 96,000

- 31.** To the Ontario and Pacific Railway Company, for a line of railway from Cornwall to Perth, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole 262,400

- 32.** To the Kingston and Pembroke Railway Company, for a line of railway from Mississipi to Renfrew, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 48,000

- 33.** To the Great Northern Railway Company, for that portion of their railway between St. Jerome and New Glasgow, in the county of Terrebonne, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 32,000

34. For a line of railway and bridge between the Jacques Cartier Union Railway Junction with the Canadian Pacific Railway and St. Martin's Junction, connecting the Jacques Cartier Union Railway with the North Shore Railway proper, a subsidy not exceeding in the whole... 200,000

(NOTE.—See Act 48-49 Vic., ch. 58, sec. 2.)

35. For a line of railway from Richibucto to St. Louis, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 22,400

36. For a line of railway from Hopewell to Alma, in the Province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 51,200

37. For a line of railway from St. Andrews to Lachute, in the county of Argenteuil, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 22,400

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

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 Shippigan Harbour, in the Province of New Brunswick, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 76,800

(NOTE.—In addition to subsidy granted by 46 Vic., ch. 25.)

42. For a branch of the Intercolonial Railway, from Metapediac eastward, towards Paspédiac, twenty miles, in the Province of Quebec, a sum not exceeding in the whole 300,000

- 43.** For a branch of the Intercolonial Railway, from Derby Station to Indian-town, fourteen miles, a sum not exceeding in the whole..... 140,000

“ The subsidies hereinbefore mentioned as to be granted to companies named for that purpose, shall be granted to such companies, respectively : the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to construct and complete the said railways, respectively. All the lines for the construction of which subsidies are 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 Act 48-49 Vic., ch. 59, (1885.)

- 44.** To the Ottawa, Waddington and New York Railway and Bridge Company, for a line of railway from Ottawa to Waddington, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... \$166,400
- 45.** To the New Brunswick and Prince Edward Island Railway Company, for a line of railway from Sackville to the Straits of Northumberland, at or near Cape Tormentine, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole.... 118,400

- 46.** 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
- 47.** To the Brockville, Westport and Sault St. 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..... 123,000
- 48.** 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.]

- 49.** 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
- 50.** 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
- 51.** 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
- 52.** 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
- 53.** 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

- 54.** 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
- 55.** 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..... 41,800
- 56.** 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 Victoria, chap. 8, a subsidy of..... 70,000
- 57.** 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
- 58.** 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
- 59.** 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
- 60.** For a line of railway from Indiantown *via* the Miramichi Valley, to its junction with the Northern and Western Railway at or near Boiestown, a subsidy not exceeding \$3,200 per mile, nor exceeding in the whole..... 140,800

“The subsidies hereinbefore mentioned as to be granted to companies named for that purpose, shall be granted to such companies, respectively: The other subsidies shall be granted to such companies as shall be approved by the Governor

in Council as having established to his satisfaction their ability to construct and complete the said railways, respectively. All the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council; and shall also be constructed according to descriptions 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 43-49 Vic., ch. 58, the following subsidies were authorized:—

- 61.** "For a railway from a point on the Intercolonial Railway at Rivière du Loup or Rivière Ouelle, in the Province of Quebec, to Edmunston, 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

- 62** "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, *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 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*.) (See No. 20). 80,000

- 63.** "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 Cartier Union Junction with the North Shore Railway proper (which subsidies shall be applicable to the said first mentioned purpose) a sum not exceeding in the whole the sum of one million five hundred thousand dollars, payable out of the Consolidated Revenue Fund of Canada" (*additional*)..... \$340,000

The said Act further provided as follows in relation to this matter:—

"If it should be expedient so to do in order to facilitate such access, the Governor in Council may acquire the North Shore Railway, and may apply the said sum of one million five hundred thousand dollars, or any part thereof, in aid of such acquisition; and upon such acquisition may transfer and convey or lease the said railway to the Canadian Pacific Railway Company, subject to such obligations as the Government shall have assumed in acquiring it."

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, 1885.

Gravenhurst to Callander. (Northern and Pacific Junction Railway Company.) (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 from the Canadian Pacific Railway at the River La Vase, east of Lake Nipissing, south, to the village of Gravenhurst, a distance of 111 $\frac{1}{4}$ 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. The works have made steady progress, and up to the 31st of December, 1885, the track had been laid and the road inspected for a total distance of 90 miles. The total amount of the subsidy paid over up to that date was \$1,032,910.

Quebec and Lake St. John Railway Company. (Nos. 2, 14 and 48.) By the Subsidy Act of 1882 a subsidy of \$384,000 was granted for a line from St. Raymond to Lake St. John. By the Act of 1883, the Quebec and Lake St. John Railway Company, engaged in the work of constructing this line, were permitted to receive a further subsidy of \$80,000. And 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 to St. Raymond, conditionally upon the construction of their line to a point 50 miles north of St. Raymond. An agreement was duly entered into on the 4th of September, 1883, in respect of the two subsidies first named, under which this line is to be completed by the 25th of May, 1887, the portion up to Lake Edward to be completed by the 31st of December, 1885.

Up to the 31st of December, 1885, the road had been completed and inspected for a total distance of 50 miles north of St. Raymond, (and beyond Lake Edward). The subsidy has been paid for 40 miles of this distance, amounting to \$135,240.

Montreal and European Short Line Railway Company (formerly the "Great American and European Short Line Railway Company.")—See No. 4.—In 1882 a subsidy was voted by Parliament to the extent of \$224,000, for the construction of a line about seventy miles long, between Oxford, about thirty miles east of Amherst, and New Glasgow, N.S.

Under date the 28th July, 1882, a contract was entered into with the above named 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. To meet the claims for work done and unpaid for by the company, and for acquiring rights therein, the sum of \$125,000 was voted by Parliament last Session to be a first charge on the subsidy, and under an Order in Council of the 14th August, 1885, a

special commissioner was appointed, through whom the majority of these claims have been settled.

The Caraquet Railway Company. (See Nos. 7 and 41.)—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 between Bathurst, on the Intercolonial Railway, and Shippegan Harbour, amounting to \$192,000, have been granted to them. An agreement has been duly executed under date the 20th of January, 1885, for the construction of the line, the portion from Caraquet to Bathurst to be completed by the 25th May, 1887, and the whole road by the 1st of July, 1888, the total amount of the subsidy paid is \$105,200, up to the 31st of December, 1885.

International Railway Company. (See No. 10.)—In 1883 Parliament granted a subsidy of \$156,800 to this company for forty-nine miles of their railway, between Sherbrooke and the International boundary line, the object being to enable them to complete their road and lay steel rails. They entered into contract on the 20th of July, 1883, and under successive Orders in Council, the last of which was dated the 21st of December, 1883, they have been paid a total sum of 144,000 upon a distance of forty-five miles.

Short Line. (See Nos. 20 and 62.)—As was explained in the report presented last year, surveys were made in 1884, under the authority of an Order in Council of the 21st of June of that year, with a view to ascertaining, in accordance with the understanding had with Parliament, the shortest and best practicable route affording direct railway connection between Montreal and the Canadian Atlantic ports. A list of the several surveys made was given in that report.

Last session the matter having been fully discussed in the House, the conclusion arrived at was expressed 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 harbors of St. Andrews, St. John and Halifax, *via* Sherbrooke, Moosehead Lake, Mettawamkeag, 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 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.”

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 signed by their president on the 14th of December, 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.

Northern and Western Railway Company. (See Nos. 11, 29, 42 and 60.)—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, and running down the Valley of the Nashwack, thence to Fredericton, as to which the Government engineer had reported that a portion only, up to Boiestown, sixty miles, would be a feeder to the Intercolonial. In 1884, no work having meantime been commenced, Parliament voted money for the construction, by the Government, of the portion of this distance, extending from Derby Station, on the Intercolonial Railway, to Indiantown, and authorized the grant to this company of a subsidy of \$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, 40 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 under Orders in Council, the last of which was dated the 16th of October, 1885.

At the last Session of Parliament, a subsidy in favour of this Company was authorized to the extent of \$19,200 for a continuance of their line northwards from the Miramichi River 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, 6 miles in length, is to be completed by the 1st of November, 1886.

Parliament also, at its last Session, authorized the grant of a subsidy to the extent of \$140,800 in aid of the construction of a line of railway from Indiantown,

vid the Miramichi Valley to its junction with the Northern and Western Railway at or near Boiestown.

The Northern and Western Railway Co. 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 is to be completed by the 1st of August, 1888.

The portion connecting Indiantown with the Intercolonial Railway is being executed by the Government as a branch of its main road. The execution of the entire scheme as above described will afford direct communication between Fredericton and the Intercolonial Railway at Derby, the distance being about 109 miles.

Napanee, Tamworth and Quebec Railway Company. (See Nos. 13, 27 and 56.) In 1883, Parliament authorized a subsidy of \$89,600 to this Company, covering their road from Napanee to Tamworth.

As was stated in the Report of last year, a contract was entered into with the Company for this work, and upon its completion, inspection, and approval, 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. Last Session, 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." No contract has yet been entered into.

Rivière du Loup and Rivière Ouelle to Edmunston. (See Nos. 2 and 61.) Towards the construction of a line from Rivière du Loup and 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 a line from Rivière du Loup or Rivière Ouelle, making a total in aid of this work of \$498,000.

Under express provisions of this Act a charter was granted by an Order in Council of the 3rd of October last to certain persons constituting "The Temiscouata Railway Company" their object being to build the said road, and such charter for a line from Rivière du Loup to Edmunston, being published in the *Canada Gazette* of the 10th of that month has force and effect as if an Act of Parliament. No contract has yet been entered into with the company for the work in question.

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.

Up to the present date the location of the first 33 miles has been approved of. The amount of the subsidy so far paid is \$60,342.

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.

This line will start from Aylmer or Hull, Que., running to Pembroke, and crossing the River Ottawa west of Lapasse.

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 subsidized line, 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 by the 1st of July, 1887.

Under authority of Orders in Council payments have been made to the extent of \$49,090, covering 21 miles. On the 24th of December, 1885, the company applied for the inspection of a further section of 10 miles.

Kingston and Pembroke Railway Company. (See No. 32). The subsidy granted to this company in 1884 was for the fifteen miles of their road between Mississippi and Renfrew, the amount not exceeding \$48,000.

The company completed the whole road between Kingston and Renfrew before the close of the year 1884, and upon their application the line has been duly inspected, with a view to its being opened for traffic, as required by the Consolidated Railway Act. A contract was duly made with the company on the 5th of March, 1885, under the authority of an Order in Council of the 28th of February, and the subsidized road having been inspected the subsidy has been paid, under an Order in Council of the 20th of March, 1885.

St. John Bridge and Railway Extension Company. (See No. 17). By an Act passed in 1883, 46 Vic., cap. 26, authority was given for the advance to the above named company of a sum not exceeding \$500,000, to aid them in the construction of their proposed bridge over the St. John River, security being taken for the said advance in the shape of a mortgage on the company's property.

The plans and specifications of the bridge having been approved of by an Order in Council, a mortgage was executed on the 10th of December, 1883, and the company, up to the 31st of December, 1885, have received the sum of \$425,500, representing 80 per cent. of the expenditure in connection with the work, payments being made under the authority of Orders in Council, and after inspection of the work done. The bridge itself was completed and formally opened on the 30th of September, 1885.

Esquimalt and Nanaimo Railway Company.—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., cap. 14," and by an Act of the Dominion Parliament, 47 Vic., cap. 6, such approval has been 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 \$750,000, 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 is to be completed by the 10th of June, 1887.

The company, duly constituted under the provisions of the Act, have furnished plans, &c., of the location of the seventy miles of their line, starting from Nanaimo, and the same have been approved by Orders in Council the last dated the 3rd of February, 1885, no portion of the subsidy has been paid up to the 31st of December, 1885.

Great Northern Railway Company. (See No. 33). By the Act 47 Vic., cap. 8, a subsidy to the extent of \$3,200 a mile, was authorized in favour of this company for the portion of their line between St. Jerome and New Glasgow, Que. A contract was entered into with the company for the work on the 14th of February, 1885, the line to be completed by the 1st of July, 1885. The line being completed and inspected, payment was made to the company of their subsidy for

the distance 784 miles, or a total of \$25,038, under an Order in Council of the 2nd of March, 1885.

St. Louis and Richibucto Railway Company.—(See No. 35). By the Act 47 Vic., cap. 8, a subsidy was authorized for a line between Richibucto and St. Louis, namely, \$3,200 a mile or \$22,400. Under authority of an Order in Council of the 20th March, 1885, a contract was made with the company, and upon the completion and inspection of the work an Order in Council was passed on the 17th of December, 1885, under which the full amount of the subsidy has been paid.

Elgin, Petitediac and Havelock Railway Company.—(See No. 15). By the Act 46, Vic., cap. 25, a subsidy of \$38,400 was authorized for the construction of a railway from the Intercolonial Railway at Petitediac to Havelock Corner. The above named company having made application, a contract was entered into with them on the 25th of May, 1885, under the authority of an Order in Council of the 16th of that month. The road having been completed and inspected an Order in Council was passed on the 16th of November, under which the whole amount of the subsidy has been paid.

Erie and Huron Railway Company.—(See No. 30). By the Act 47 Vic., cap. 8, authority was given for the grant of a subsidy not exceeding \$96,000 to this company for a line from Wallaceburgh 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. No portion of the subsidy has been paid up to the present time.

Montreal and Sorel Railway Company.—See No. 46). By the Act 48-49 Vic., cap. 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 on 25th of November, the company has received \$47,325 of its subsidy.

Montreal and Champlain Junction Railway Company.—(See No. 50.) By the Act 48-49 Vic., cap. 59, a subsidy was authorized to be granted to this company for a line from Brosseau's to Dundee, not exceeding \$30,000. An Order in Council was passed on the 25th of September, under which, on the 1st of October, a contract was made with the company for the completion of the road by the 1st of October, 1886. Of the subsidy there has been paid up to date the sum of \$15,000 under an Order in Council of the 12th of November.

La Société de Colonisation du Lac Temiscamingue.—(See No. 54). By the Act 48-49 Vic., cap. 59, a subsidy was authorized in aid of the construction of a line of railway from Long Sault to the foot of Lake Temiscamingue. The limit of the amount being \$25,000. Under the authority of an Order in Council of the 17th

November, 1885, a contract was entered into with the company above named for the construction of the line, which is to be completed by the 1st of January, 1887. No portion of the subsidy has been paid.

SURVEYS.

The following surveys for lines of railway have been made during the summer and autumn. Details will be found in an Appendix (No. 22, p. 171), furnished by the Chief Engineer of Government Railways :—

Short Line Railway.

A location survey of the unconstructed portions lying between the River St. Lawrence and Mattawamkeag has been made; also a preliminary survey between Harvey and Salisbury.

Cape Breton Railway.

A survey from the Strait of Canso to Louisburg has been made, and the further distance to Sydney is also under survey.

Restigouche and Victoria Railway.

A survey has been made for a line to connect the Intercolonial Railway, near Campbellton, with the New Brunswick Railway at Grand Falls, River St. John.

NOTE.—An alphabetical list of subsidized lines will be found on page 169.

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, 1885, 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..... | 151,699 80 | ..... | 1,078 72 | ..... | 6,870 95 | 159,649 47 |
| St Lawrence..... | 63,206 36 | 6,383 23 | 1,103 50 | 9,149 11 | 18,416 00 | 98,258 20 |
| Chambly..... | 18,241 97 | 6 50 | 1 00 | ..... | 130 00 | 18,379 47 |
| Ottawa..... | 51,915 15 | ..... | ..... | 47 00 | 36 00 | 51,998 15 |
| Rideau..... | 3,515 95 | 104 28 | ..... | 182 00 | 1,003 70 | 4,805 93 |
| Burlington Bay..... | 1,938 25 | ..... | ..... | ..... | ..... | 1,938 25 |
| Newcastle District..... | 220 35 | ..... | ..... | ..... | ..... | 220 35 |
| St. Peter's..... | 2,786 06 | ..... | ..... | ..... | ..... | 2,786 06 |
| | 293,523 89 | 6,494 01 | 2,183 22 | 9,378 11 | 26,456 65 | 338,035 88 |

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 canal, 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. 13, p. 143).

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 one lock 515 feet long, 80 feet wide, with 16 feet of water on [the sills, and a lift of about 18 feet.

ST. LAWRENCE CANALS.

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 |
| Cornwall, guard..... | 8 | 3 |
| “ lower entrance..... | 9 | 0 |
| Beauharnois..... | 10 | 10 |
| “ lower entrance..... | 9 | 3 |

In the year 1871 it was decided to enlarge the canals on the St. Lawrence route so as to afford a navigable depth of 12 feet throughout. Subsequently, however, it was decided that the depth should ultimately be increased so as to accommodate vessels of 14 feet draught; and accordingly in the scheme of enlargement which has so far been carried out, while, at present, a channel-way in the canals is provided for vessels drawing 12 feet only, all permanent structures, locks, bridges, &c., are 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 pursuance of this scheme, the Lachine and the Welland Canals have been enlarged, and certain works on the Cornwall and the Rapide Plat Canals are being carried out on the scale above mentioned. Reference to these works will be made under their proper headings.

LACHINE CANAL.

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

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 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 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, 1884, and opened on the 4th May, 1885.

The new lock and entrance to the canal at Lachine were opened on the 1st of June, 1885.

No accident or interruption to navigation has occurred during the year, and the works have been maintained in a state of thorough efficiency.

The report of the Superintending Engineer gives details of the repairs executed, and shows generally the condition of the canal. (App. 6, p. 98.)

NEW WORKS.

The two new basins at St. Gabriel, commenced in July, 1883, are completed.

A macadamized road has been constructed along the south-east side of the canal, from Lachine to the Cote St. Paul road.

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, 15½ 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 by ice on the 1st of December, 1884, and was reopened for traffic on the 3rd of May, 1885.

No accident or interruption to navigation occurred during the year.

CORNWALL CANAL.

| | |
|--|----------------------|
| Length of canal..... | 11½ statute miles. |
| Number of locks ... | 7 |
| Dimensions of locks... .. | 200 feet by 55 feet. |
| Total rise or lockage..... | 48 feet. |
| Depth of water on sills..... | 9 “ |
| 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 32½ miles.

The Cornwall Canal extends past the Long Sault Rapids.

This canal was closed on 8th December, 1884, and re-opened on the 8th of May, 1885.

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.

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, Rapid Plat and Galops Canals are collectively known as the Williamsburgh Canals.

These canals were closed on the 17th December, 1884, and re-opened on the 4th of May, 1885.

A statement showing the highest and lowest depth of water at the locks on these canals will be found in appendix 6, p. 114.

Navigation was carried on throughout the season without interruption. (App 6, p. 113.)

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. This latter canal enables vessels ascending the river to avoid the Farran's Point Rapid. Descending vessels run the rapids with ease and safety.

RAPIDE PLAT CANAL.

| | |
|---|----------------------|
| Length of canal..... | 4 miles. |
| Number of locks..... | 2 |
| Dimensions of locks..... | 200 feet by 45 feet. |
| Total rise, or lockage..... | 11½ feet. |
| Depth of water on sills..... | 9 “ |
| Breadth of canal at bottom..... | 50 “ |
| Breadth of canal at surface of water..... | 90 “ |

From the head of Farran's Point Canal to the foot of Rapide Plat Canal there is a navigable stretch of 10½ 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, 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.

GALOPS CANAL.

| | |
|---|----------------------|
| Length of canal..... | 7½ miles. |
| Number of locks..... | 3 |
| Dimensions of locks..... | 200 feet by 45 feet. |
| Total rise, or lockage..... | 15¾ feet. |
| Depth of water on sills..... | 9 “ |
| Breadth of canal at bottom..... | 50 “ |
| Breadth of canal at surface of water..... | 90 “ |

From the head of Rapide Plat Canal to Iroquois, at the foot of the Galops Canal, the St. Lawrence is navigable for 4½ miles. This canal enables vessels to overcome the rapids at Pointe aux Iroquois, Pointe Cardinal and the Galops.

From a statement furnished by the Superintendent of these canals and attached to his report (p. 114) it appears that the minimum depth of water reached during the past fiscal year was on the Rapid Plat Canal in April, 1885, when, at the foot of the canal, there was a depth of 6 feet 6 inches. The lowest point at which the water stood on this canal during the season of navigation was in November, 1884 when the height of water at the guard lock was 8 feet 5 inches.

NEW WORKS.

The work of the enlargement and general improvement of the upper entrance of this canal is in progress. 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.

GALOPS RAPIDS IMPROVEMENT.

The Galops Rapids, 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 1830, 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.

The work is now nearing completion. (See Appendix 11, page 138.)

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 12 feet of water, excepting at the point where the canal is carried by an aqueduct over the Chippewa River. Here the necessity of continuing to use the old work, pending the building of the enlarged aqueduct, renders care imperative, and the draught of vessels using their own motive power should not, at this point, exceed 11½ feet; the draught of vessels in tow, however, may be 12 feet. At periods of low water in Lake Erie, and especially during a continuance of strong easterly winds, the draught of all vessels, to enable them to pass freely through the present aqueduct, should not exceed 11½ feet.

| | OLD LINE. | ENLARGED OR NEW LINE. |
|---------------------------------------|--------------------|-----------------------|
| Length of canal..... | 27½ miles. | 26¾ miles. |
| Pairs of guard gates (formerly 3).... | | 2 |
| Number of locks { lift..... | 26 | } lift 25 |
| | 1 |  | } guard 1 |
| Dimensions { | 1 lock 270 x 45 | } 270 feet x 45 feet. |
| | 1 " 200 x 45 | |
| | 1 (tidal) 230 x 45 | |
| | 24 150 x 26½ | |
| Total rise or lockage..... | 32¾ feet. | 326¾ feet. |
| Depth of water on sills..... | 10¼ " | 12 " |

WELLAND RIVER BRANCHES.

| | |
|--|------------------|
| Length of Canal—Port Robinson Cut to River Welland..... | 2,622 feet. |
| “ From the Canal at Welland to the river <i>viâ</i> lock at aqueduct.. | 300 “ |
| “ Chippewa Cut to River Niagara | 1,020 “ |
| Number of locks—One at aqueduct and one at Port Robinson..... | 2 |
| Dimensions of locks..... | 150 by 26½ feet. |
| Total lockage from the Canal at Welland down to River Welland..... | 10 feet. |
| Depth of water on sills..... | 9 “ 10 inches. |

GRAND RIVER FEEDER.

| | |
|------------------------------|---|
| Length of canal..... | 21 miles. |
| Number of locks..... | 2 |
| Dimensions of locks..... | { 1 of 150 by 26½ feet. 1 of 200 by 45 “ |
| Total rise, or lockage..... | 7 to 8 feet. |
| Depth of water on sills..... | 9 feet. |

PORT MAITLAND BRANCH.

| | |
|------------------------------|-----------------|
| Length of canal..... | 1½ miles. |
| Number of locks..... | 1 |
| Dimensions of locks..... | 185 by 45 feet. |
| Total rise, or lockage..... | 7½ feet. |
| Depth of water on sills..... | 11 “ |

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

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

From Allanburg 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, 1884, and re-opened on the 5th of May, 1885.

NEW CANAL.

No interruption to navigation occurred, the schooner "Westside" however, ran into the superstructure of the swing bridge at Humberstone, displacing it temporarily.

A measuring guage has been placed at the foot of Lock No. 1, the entrance from Lake Ontario, by which a check is placed on vessels to prevent overloading. A similar guage exists at Port Colborne.

The minimum depth of water at the entrance to the canal from Lake Erie, Port Colborne, during the past season of navigation was in November, 1884, the depth of water on the sill of the old lock being 11 feet 8 inches, the depth on the sill of the new lock being 14 feet.

At Port Dalhousie, Lake Ontario, the minimum depth during the season was in November, 1884, being 12 feet 10 inches on the sill of the old lock, the depth on the sill of the new lock being 15 feet 4 inches. (See p. 130.)

Full details of the various repairs, renewals, &c., executed during the year, will be found in the report of the Superintendent. (App. 6, p. 115.)

OLD CANAL.

The necessary repairs and renewals of the year have been made, and the works have been maintained in good condition. (App. 6, p. 123.)

NEW WORKS.

The works of constructing an aqueduct by which the waters of the canal are to be carried over the River Chippewa, have so far progressed during the past year, that the whole of the subaqueous arches through which the river is to be passed are now completed, together with a portion of the masonry forming the channel way to receive the waters of the canal. The work executed comprises the more difficult part of the undertaking.

The work at the rock cutting between Humberstone and Port Colborne has practically been completed.

BURLINGTON BAY CANAL.

| | | |
|------------------------------------|-------|-----------|
| Length of canal ..... | ..... | ½ mile. |
| Average breadth between piers..... | ..... | 138 feet. |
| Least " " ..... | ..... | 108 " |

This canal is cut through the sand bar which separates Burlington Bay from Lake Ontario, and is navigable, without locks, for vessels drawing 10 feet of water. It gives access to the Port of Hamilton, and to the town of Dundas, *via* the Desardins Canal, a private work.

The canal was closed on the 18th of December, 1884, and re-opened on the 1st of May, 1885. (See App. 6, p. 130.)

By an Order in Council dated the 30th of June, 1885, this work being practically only a cut giving entrance to the harbour of Hamilton, was transferred to the Department of Public Works.

MONTREAL, OTTAWA AND KINGSTON.

This route extends from the harbour of Montreal to the Port of Kingston, passing through the Lachine Canal, the navigation sections of the lower River Ottawa and the Ottawa Canals, to the city of Ottawa, thence by the River Rideau and the Rideau Canal to Kingston, on Lake Ontario—a total distance of 245½ miles.

After leaving the Lachine Canal, the works constructed to overcome 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..... | 8½ | |
| From Lachine to St. Anne's Lock..... | 15 | 23½ |
| St. Anne's Lock and Piers..... | ⅓ | 23⅝ |
| From St. Anne's Lock to Carillon Canal..... | 27 | 50⅝ |
| The Carillon Canal | ¾ | 51⅝ |
| From Carillon Canal to Grenville Canal..... | 6½ | 57⅝ |
| The Grenville Canal..... | ¾ | 63⅝ |
| From the Grenville Canal to entrance Rideau Navigation. | 56 | 119⅝ |
| Rideau Navigation, ending at Kingston..... | 126½ | 245⅝ |

ST. ANNE'S LOCK.

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

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

This lock was closed to navigation on the 24th of November, 1884, and re-opened on the 5th of April, 1885.

Traffic throughout the season was uninterrupted.

Both the old and the new locks are available.

The work of straightening and deepening the channel above the new lock is making good progress. The length of the improved channel will be 4,700 feet, the breadth at bottom 100 feet, and the depth, at lowest water, 10 feet. (App. 6, pp. 108, 110.)

THE CARILLON CANAL.

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

This canal overcomes the Carillon Rapids.

From St. 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 24th of November, 1884, and re-opened on the 7th May, 1885.

No interruption to traffic has taken place.

The important works necessitated by the accident to the Carillon dam, which occurred in 1883, have, practically, been completed, a small section only on the south side of the river requiring to be dealt with.

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 x 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 26th of November, 1884, and re-opened on the 7th of May, 1885.

NEW WORKS.

The work remaining to be done at Greece's Point in connection with the enlargement, was completed in September, 1884.

(See App. 6, p. 109.)

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 DuChêne, 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.

Navigation closed on the 27th of November, 1884, and re-opened on the 18th of April, 1885.

NEW WORKS.

To render the river navigable below the lock, as far as Bryson, it has been necessary to remove part of three shoals and to build two submerged dams.

All the work has been completed, opening up 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. (App. 6, p. 111.)

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 navigable waters..... | 126½ miles. |
| Number of locks going from Ottawa to Kingston. | { 33 ascending. 14 descending. |
| Total lockage..... | 446½ { 282½ 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..... | 4½ feet. |
| Breadth of canal reaches at bottom..... | { 60 " in earth. 54 feet in rock. |
| Breadth at surface of water..... | 80 " in earth. |

For table of distances of stations between Ottawa and Kingston, see Appendix 14, p. 144.

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

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

They may be divided into three systems, viz:—

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

Lake Openacon receives the waters of Buck Lake and Rock Lake.

All these waters on the descending level, supplemented by those of Lake Loughboro', flow into Cranberry Lake, which, discharging through Round Tail outlet, forms the River 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 18th November, 1884, and recommenced on the 11th May, 1885.

At Ottawa, navigation stopped the 24th of November, 1884, and recommenced on the 8th May, 1885.

Through navigation, however, was delayed until the 23rd of June, 1885, in consequence of serious damage caused to the works at Long Island and Hog Back through the spring freshets, which were unusually heavy. The temporary repairs effected proved satisfactory.

The level of the water in the several reaches was maintained up to the close of navigation, 1884, at the full height required, except in the reach between Kingston and Lower Brewers where it fell, in August, 1886, below navigatic height, continuing to fall to the close of navigation when it was 7 inches below.

At the last Session of Parliament the sum of \$20,000 was voted "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 have been authorized by an Order in Council of the 16th of November last, by which the Gananoque Water-power Company will undertake the execution of works affecting that river, receiving from the Government the sum of \$3,000 towards the cost to be incurred. The contract has not yet been executed.

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. (App. 6, p. 133.)

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, are in progress.

RICHELIEU AND LAKE CHAMPLAIN.

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

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

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

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

ST. OURS LOCK AND DAM.

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

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

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

The lock was closed on the 30th November, 1834, and opened on the 4th May, 1885.

No accident or interruption to navigation occurred during the year.

Six new piers have been built and certain dredging work has been performed. (App. 6, p. 103).

CHAMBLY CANAL.

| | |
|----------------------|-----------|
| Length of canal..... | 12 miles. |
| Number of locks..... | 9 |

Dimensions of locks :—

| | |
|--------------------------------------|-----------------------------------|
| Guard Lock, No. 1, at St. Johns..... | 122 feet by $22\frac{1}{2}$ feet. |
| Lift “ “ 2..... | 124 “ 23 “ |
| “ “ “ 3, 4, 5, 6..... | 118 “ $22\frac{1}{2}$ to 24 feet. |
| “ “ “ 7, 8, 9 combined .. | 125 “ $22\frac{1}{2}$ to 23 “ |
| 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 30th November, 1884, and was reopened on the 4th of May, 1885.

No accident or interruption to navigation occurred during the year. (See App. 6, p. 101).

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 feet. |
| Extreme rise and fall of tide in St. Peter's Bay | 4 feet. |

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 2nd of January, 1885, and re-opened on the 1st May, 1885.

The canal was maintained in good working order. The traffic returns show the passage of 715 vessels bound north and 619 vessels bound south. (App. 6, p. 137.)

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 Lakes Huron and 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.

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 distance of navigable and unnavigable reaches :

| | Navigable. Miles. | Unnavigable. Miles. |
|--|----------------------|------------------------|
| From Trenton, Bay of Quinté, to Nine Mile Rapids... | | 9 |
| “ Nine Mile Rapids to Percy Landing..... | 19½ | |
| “ Percy Landing to Heeley’s Fall Dam..... | | 14¼ |
| “ Heeley’s Falls Dam to Peterboro’..... | 51¾ | |
| “ Peterboro’ to Lakefield..... | | 9½ |
| “ Lakefield to Burleigh..... | 12 | |
| “ Burleigh Rapids..... | | 1 |
| “ Burleigh Rapids to Buckhorn Rapids..... | 7 | |
| “ Buckhorn Rapids..... | | 1 |
| “ Buckhorn Dam to Lindsay..... | 36¼ | |
| | <hr/> | <hr/> |
| | 126½ | 34¾ |
| “ Lindsay to Port Perry at the head of Lake Scugog | 28¼ | |
| | <hr/> | <hr/> |
| | 155¼ | 34¾ miles. |
| Total distance, Bay of Quinté to Port Perry... .. | | 190 miles. |
| Passing to Fenelon Falls the distance from Buckhorn Dam to Fenelon is | | 31½ “ |

The following is a list of the works:—

| | Distance from Trenton in miles. |
|--|------------------------------------|
| <i>Chisholm’s Rapids.</i> | |
| The works here consists of a canal and lock, a dam and slide | 15½ |
| <i>Percy Landing</i> | |
| A retaining boom for saw logs.... .. | 28½ |
| <i>Campbellford.</i> | |
| Guide booms | 34¾ |
| <i>Middle Falls.</i> | |
| The work consists of 4 dams and 2 slides..... | 37¾ |
| <i>Crow Bay.</i> | |
| A retaining boom | 28 |
| <i>Heeley’s Falls.</i> | |
| A dam and slide..... | 42¾ |
| <i>Crook’s Rapids, Hastings.</i> | |
| The works consist of 1 lock, 1 dam and slide for timber | 34½ |
| <i>Whitlas’ Rapids.</i> | |
| The works, situated below Peterboro’, consist of a lock, dam and canal..... | 92⅞ |

Little Lake.

The works consists of 3 piers and 1 boom..... 94

Burleigh.

Timber slides..... 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..... 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..... 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 Seagog..... 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.

Navigation ceased on the 12th November, 1884 and re-opened on the 25th of March, 1885. (App 6, p. 134).

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 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 headwater of the system, opening up a total of about 150 miles of direct and lateral navigation.

At Lakefield, 9 $\frac{1}{2}$ miles from Peterborough, the existing dam, a private one, at the head of the nine miles Rapids of the River Otonabee which maintains navigation on Lake Katchewanoe up to Young's Point, has been purchased from the owners, and the dam having been seriously damaged and rendered dangerous during the prevalence of the spring freshets in 1883, a new work was placed under contract and has been now completed.

At Young's Point, 5 miles from Lakefield, the dam between Lake Katchiwannoe and Clear Lake, assumed by the Government, being in too dilapidated a state to admit of restoration, a new dam has been constructed, the new levels of the two lakes named, consequent upon its completion, have been maintained without difficulty.

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

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

At Fenelon Falls, 32 miles from Buckhorn Rapids, a canal about one-third of a mile in length, connecting Sturgeon Lake with Cameron Lake, is being constructed. This canal has two lift-locks. The whole was completed in October, 1885.

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

| | |
|----------------------|-----------|
| Length..... | 134 feet. |
| Breadth..... | 33 " |
| Depth on sills | 5 " |

(App. 6, p. 140).

MURRAY CANAL.

This canal will extend 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 $4\frac{1}{4}$ miles long, and improvements to the entrance channels at either end.

The canal will have a depth of 11 feet below the lowest known water level of the lake, and a width at the bottom of 80 feet. There are no locks.

Its western terminus is the harbour of Presqu'île, from which point to the entrance of the Welland Canal, the distance is about 120 miles. (App. 6, p. 138).

The works have been steadily prosecuted and excavation has been carried on over the entire extent of the canal proper.

I have the honour to be,

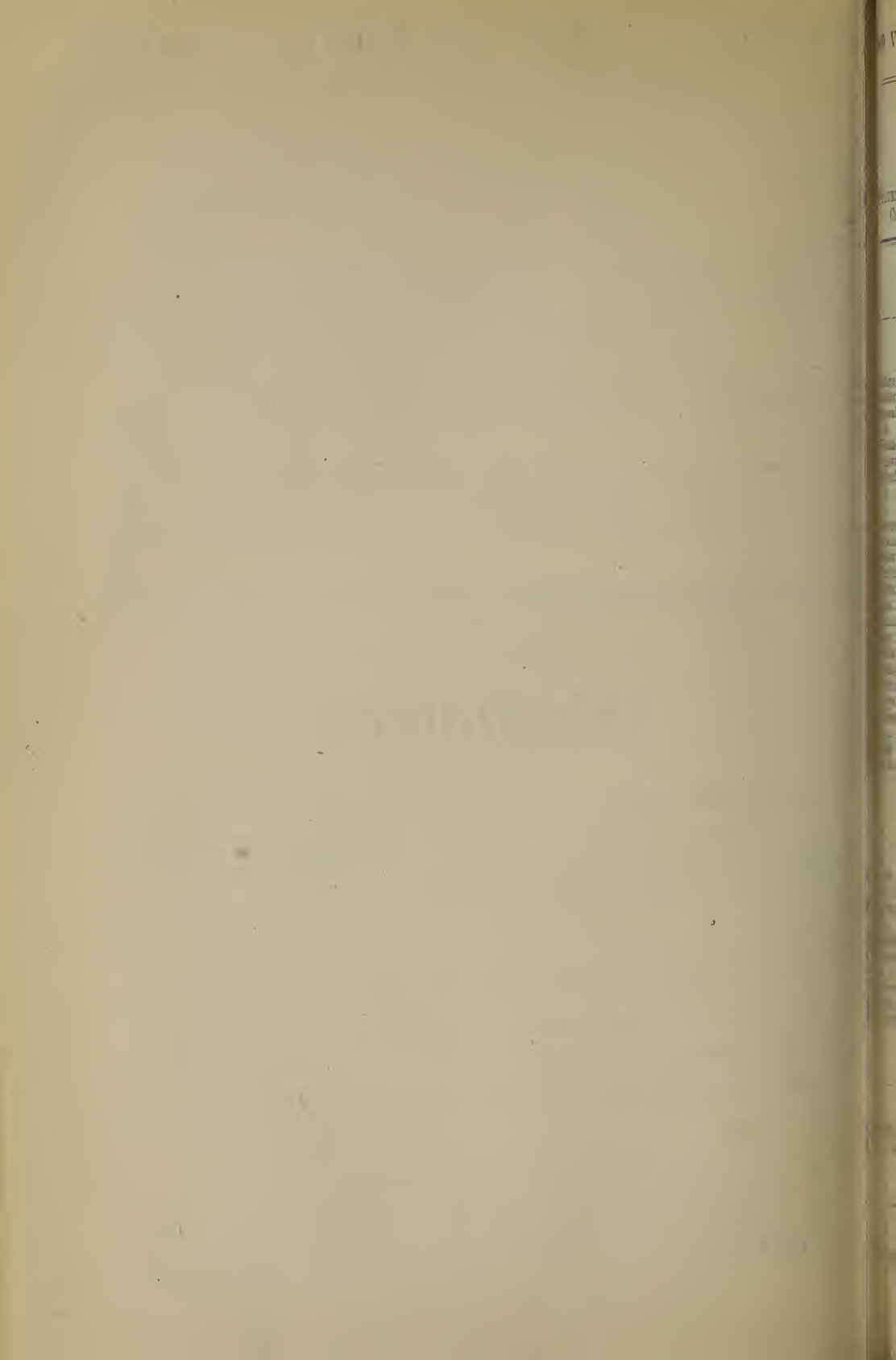
Your Excellency's most obedient servant,

J. H. POPE,

Minister of Railways and Canals.

31st December, 1885.

APPENDICES.



APPENDIX No. I.

STATEMENT showing the amount expended by the Department of Railways and Canals, Dominion of Canada, during the Fiscal Year ending 30th June, 1885.

| Name of Work. | Construction. | | Repairs. | | Staff and Maintenance. | |
|---|-----------------|------|----------|------|------------------------|------|
| | \$ | cts. | \$ | cts. | \$ | cts. |
| CANALS. | | | | | | |
| Machine..... | 111,215 | 23 | 20,199 | 78 | 49,004 | 85 |
| Beaubarnois..... | 7,999 | 79 | 14,637 | 70 | 18,960 | 40 |
| Cornwall..... | 62,034 | 90 | 12,368 | 51 | 15,988 | 96 |
| do drain..... | 16,293 | 96 | | | | |
| Williamsburg..... | 103,237 | 12 | 8,198 | 03 | 7,696 | 67 |
| St. Lawrence..... | 115,110 | 17 | | | | |
| Velland..... | 463,503 | 38 | 89,238 | 96 | 112,670 | 00 |
| do back ditches..... | 6,150 | 21 | | | | |
| do Port Maitland..... | | | 2,295 | 70 | | |
| Burlington Bay..... | | | 206 | 48 | | |
| St. Anne's..... | 93,679 | 57 | 4,042 | 04 | 2,618 | 60 |
| Marillon..... | 68,820 | 52 | | | | |
| Trenville..... | 88,367 | 20 | 10,429 | 26 | 19,702 | 30 |
| Albute..... | 19,071 | 76 | 572 | 75 | 730 | 00 |
| Leideau..... | 2,093 | 76 | 18,189 | 55 | 26,971 | 32 |
| Levent..... | 121,392 | 84 | 4,653 | 50 | 3,303 | 87 |
| Leurray..... | 148,902 | 66 | | | | |
| St. Ours..... | 4,700 | 64 | 3,652 | 63 | 2,271 | 57 |
| Lehamby..... | 21,049 | 23 | 13,046 | 95 | 18,378 | 55 |
| St. Peter's..... | 16,820 | 15 | 183 | 11 | 1,929 | 11 |
| Leveys..... | 5,650 | 85 | | | | |
| Lebitrations..... | 6,727 | 12 | | | | |
| Leay..... | 92,473 | 97 | | | | |
| Leedge vessels..... | | | 1,210 | 61 | | |
| LeZotique Road..... | 4,347 | 50 | | | | |
| Total on Canals..... | 1,579,644 | 53 | 203,125 | 56 | 280,226 | 20 |
| RAILWAYS. | | | | | | |
| Leific..... | 3,258,920 | 53 | | | | |
| do subsidy..... | 6,862,201 | 00 | | | | |
| Leveys..... | 10,873 | 51 | | | | |
| do Short Line..... | 49,587 | 45 | | | | |
| Leistics..... | 124 | 87 | | | | |
| Leocolonial..... | 1,195,363 | 08 | | | 2,441,477 | 91 |
| do Windsor Branch..... | | | | | 18,751 | 96 |
| Le stern Extension..... | 2,055 | 92 | | | 78,273 | 65 |
| Le nce Edward Island..... | 78,444 | 09 | | | 211,207 | 01 |
| Le bilities general..... | 403,245 | 00 | | | | |
| Total on Railways..... | 11,860,820 | 45 | | | 2,749,710 | 53 |
| Total on Railways and Canals..... | 13,440,464 | 98 | 203,125 | 56 | 3,029,936 | 73 |
| Leific Railway Loan Account..... | 9,701,433 | 00 | | | | |
| Le John Bridge and Railway Extension..... | 135,200 | 00 | | | | |
| Total..... | 9,836,638 | 00 | | | | |
| Total Amount Expended..... | \$26,510,165.27 | | | | | |

APPENDIX

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

| By whom Expenditure Incurred. | Year ending 30th June. | Lachine Canal. | Beauharnois Canal. |
|-------------------------------|-------------------------------|---------------------|-----------------------|
| | | \$ cts. | \$ cts. |
| Imperial Government..... | } Up to June 30, 1867 { | 40,000 00 | ..... |
| Provincial Government..... | | 2,547,532 85 | 1,611,424 11 |
| Dominion Government..... | 1868 | 1,852 70 | 7,008 00 |
| do | 1869 | 2,000 00 | 55 00 |
| do | 1870 | ..... | 587 50 |
| do | 1871 | 12,231 40 | 187 00 |
| do | 1872 | 36,708 15 | 27 50 |
| do | 1873 | 42,982 49 | 5,280 90 |
| do | 1874 | 158,618 35 | 26 00 |
| do | 1875 | 197,420 52 | 36 00 |
| do | 1876 | 327,769 39 | ..... |
| do | 1877 | 1,439,375 73 | ..... |
| do | 1878 | 1,484,619 63 | ..... |
| do | 1879 | 958,053 30 | ..... |
| do | 1880 | 369,566 74 | ..... |
| do | 1881 | 292,165 51 | ..... |
| do | 1882 | 252,821 33 | ..... |
| do | 1883 | 396,496 96 | ..... |
| do | 1884 | 189,034 41 | ..... |
| do | 1885 | 111,215 23 | ..... |
| Total | | 8,860,464 69 | 1,624,632 01 |

No. 2.

enlargement of Canals of the Dominion of Canada, up to 30th June, 1885.
(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 | 116,871 31 | 1,320,655 54 | | | 7,416,019 83 |
| 2,786 00 | | | | | 12,097 84 |
| 10,692 04 | | | | | 43,486 36 |
| 17,780 05 | | | | | 24,173 72 |
| 7 50 | | | | | 47,869 10 |
| 10,000 21 | | 1,077 00 | | | 59,702 76 |
| 1,011 75 | | | | 35,326 44 | 130,158 47 |
| | | | | 26,541 30 | 746,420 61 |
| 1,780 00 | | | | 22,611 36 | 1,046,714 91 |
| | | | 28,500 00 | 21,715 47 | 1,570,178 19 |
| 49,211 37 | | | 28,064 67 | 19,312 64 | 2,199,962 61 |
| 145,015 45 | | | 1,623 76 | 3,946 70 | 2,138,392 99 |
| 143,092 05 | | 4,580 00 | | 4,685 77 | 1,552,697 41 |
| 109,454 95 | | | 623 52 | 8,591 04 | 1,252,924 75 |
| 53,948 14 | | | 6,927 96 | | 1,242,942 37 |
| 41,587 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 |
| 2,629,301 77 | 116,821 31 | 1,432,023 10 | 344,503 81 | 142,700 72 | 21,756,063 71 |

APPENDIX

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

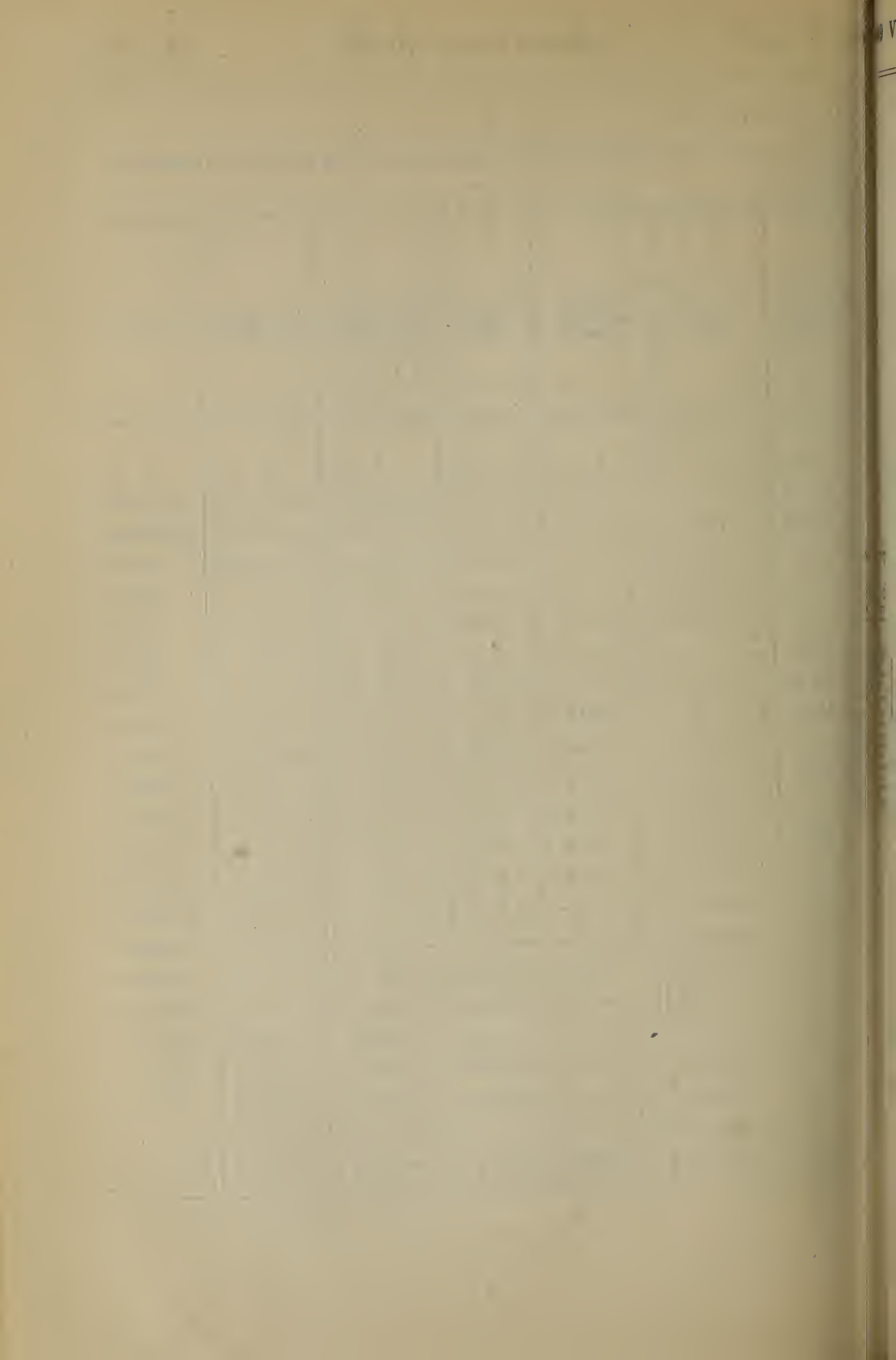
| By whom Expenditure Incurred. | Year ending 30th June. | Ste. Anne's Lock. | Carillon and Grenville Canals. | Culbute Lock. | Rideau Canal. |
|-------------------------------|---------------------------|----------------------|--------------------------------------|------------------|------------------|
| | | \$ 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 | 316,203 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 83 |
| 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 | 453,081 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 |
| Total ..... | ..... | 947,839 43 | 3,859,134 90 | 354,049 80 | 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 | | | | | 72,875 15 |
| | 70,719 80 | | | | | 126,953 20 |
| | 46,193 57 | | | | | 92,902 80 |
| 2,872 85 | | | | | | 98,020 10 |
| 1,906 40 | | | | | | 281,586 26 |
| 759 00 | | 4,877 83 | | | | 375,258 44 |
| | | 4,018 90 | | | | 1,237,818 96 |
| 2,415 00 | 20 97 | 443 00 | | | | 1,716,904 37 |
| | 11,125 00 | 110 75 | | | | 2,389,544 21 |
| 80 00 | 63,330 18 | 22 30 | | | | 4,131,396 60 |
| | 26,511 51 | | | | | 3,843,338 62 |
| | 107,337 75 | | | | | 3,064,093 61 |
| | 80,120 54 | | | | | 2,122,893 74 |
| | 69,434 76 | 520 00 | | | | 2,076,411 65 |
| | 484 00 | | | | | 1,586,038 46 |
| | | | 84,071 68 | 40,767 16 | 4,831 80 | 1,697,046 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 | 92,473 97 | 1,506,720 23 |
| 51,745 01 | 605,038 74 | 9,992 78 | 351,161 77 | 282,793 91 | 148,183 89 | 48,201,300 27 |



APPENDIX NO. 3.

STATEMENT showing Subsidies voted to the undermentioned Railways, and payments thereon, up to 30th June, 1885.

| Subsidies Voted. | | Railways. | No. of Miles Completed | Payments. | | Total. |
|---------------------|----------------|--|----------------------------------|------------|------------|--------|
| Authority. | Subsidy Voted. | | | 1883-84. | 1884-85. | |
| 46 Vic., cap. 25... | \$ 156,800 | ...International Railway, Quebec..... | 45 | \$ 144,000 | \$ 144,000 | |
| 45 do 14..... | 384,000 | ...Quebec and Lake St. John Railway, Quebec..... | | 37,027 | 69,027 | |
| 46 do 25..... | 80,000 | ...Napanee, Tamworth and Quebec Railway, Ontario..... | 25 | 57,600 | 89,600 | |
| 48-9 do 59..... | 96,000 | ...Pontiac and Pacific Junction Railway, Quebec..... | | 49,090 | 49,090 | |
| 46 do 25..... | 39,600 | ...Caraguet Railway, N.B..... | 10 | 32,000 | 32,000 | |
| 48-9 do 59..... | 70,000 | ...Great Northern Railway, Quebec..... | 7 ⁵⁴ / ₁₀₀ | 25,088 | 25,088 | |
| 47 do 8..... | 272,000 | ...Kingston and Pembroke Railway, Ontario..... | 15 | 48,000 | 48,000 | |
| 46 do 25..... | 115,200 | ...Northern and Pacific Junction Railway, Ontario..... | | 154,440 | 154,440 | |
| 47 do 8..... | 76,800 | | | | | |
| 47 do 8..... | 32,000 | | | | | |
| 47 do 8..... | 48,000 | | | | | |
| 45 do 14..... | 660,000 | | | | | |
| 46 do 25..... | 660,000 | | | | | |
| | | | | 208,000 | 611,245 | |

J. BAINE,
Accountant.

APPENDIX No. 4.

CANADIAN PACIFIC RAILWAY.

OFFICE OF THE ENGINEER-IN-CHIEF,

OTTAWA, 10th October, 1885.

SIR,—On the 1st of October, 1884, I had the honor to report to you upon the progress made up to that date with the work of construction of the Canadian Pacific Railway. Another year having passed, it now devolves upon me to report progress made subsequently to that date.

I shall, in the first place, give a table of distances similar in form to that of last year, as a revision of location has made slight changes in those figures.

TABLE OF DISTANCES.

TRUNK LINE.

Montreal to Port Moody.

| | Miles. | Miles: |
|--|--------|--------|
| Montreal to Callander..... | 344 | |
| Callander to Port Arthur..... | 651 | |
| Port Arthur to Red River (opposite Winnipeg).... | 428 | |
| Red River to Savona's Ferry..... | 1,257 | |
| Savona's Ferry to Port Moody..... | 213 | |
| | — | 2,893 |

Branch Lines, Acquired and Built.

| | | |
|--|------|--------|
| St. Lin (St. Therese Junction to St. Lin)..... | 15 | |
| St. Jerome (St. Lin Junction to St. Jerome)..... | 11 | |
| St. Eustache..... | 8 | |
| Aylmer (Hull to Aylmer)..... | 7½ | |
| Brockville..... | 45½ | |
| Perth..... | 12 | |
| Algoma..... | 94¾ | |
| Pembina (Emerson to Winnipeg)..... | 64½ | |
| Colville Landing..... | 2 | |
| Selkirk..... | 22 | |
| Stonewall (Air Line Junction to Stonewall)..... | 18½ | |
| Pembina Mountain..... | 102½ | |
| Gretna..... | 14 | |
| Emerson and West Lynn..... | 15 | |
| | — | 432¼ |
| Total acquired and built..... | | 3,325½ |

Rolling Stock.

The rolling stock applicable to the main line is the same as reported last year, viz. :—

- 245 engines.
- 78 first-class cars.
- 33 second-class cars.
- 48 baggage and mail cars.
- 25 dining, sleeping and palace cars.
- 10 immigrant sleeping cars.
- 4,386 platform freight cars.
- 1,867 box and cattle cars.
- 126 conductors' vans, pay cars, &c.
- 8 derrick and coal cars.
- 19 snow ploughs.

POSITION AND PROGRESS OF THE WORK.

TRUNK LINE.

Montreal to Callander, 344 miles.

This section has continued up to the present time in successful operation.

Callander to Port Arthur, 651 miles.

A revision of the location has so improved the general alignment as to shorten the length of this section by 6 miles, giving 651 instead of 657 miles, as reported last year. The sub-section between Callander and Biscotasing, 189 miles in length, is completed and in operation, and from thence to Port Arthur, 462 miles, the track is laid, and the work of making up to grade the few remaining low embankments and the ballasting is progressing rapidly. The wooden bridges, when fully braced and completed, will be strong structures.

Many of the truss bridges over the rivers are strong, well designed steel structures, resting on solid masonry piers and abutments.

The Pic River bridge is a fine steel structure, with timber approaches, which latter Mr. Van Horne, the Vice-President of the Company, informs me he proposes to replace with iron trestles next season..

As the trestle bridges wear out they will as a rule be replaced by earthen embankments. In most cases no earth was to be had in the immediate neighborhood with which to form the embankments, and it would, in my opinion, have been a great waste of money to have formed solid embankments in advance of the track.

The road-bed is in many places formed of good ballast, of which there is abundance throughout this section, it will therefore, when finally completed, be very solid.

A very efficient water service is nearing completion, the tanks having a capacity of 50,000 gallons. Suitable stations to accommodate the traffic are being erected, as well as engine houses at each of the five divisional posts, which will range from 120 to 130 miles apart. Strong gangs of men are employed in hurrying forward the completion of the several buildings, and about twenty trains are engaged in making up low embankments and in ballasting, with a view of having this section ready for traffic within a few weeks, so as to afford unbroken rail connection from Halifax, on the Atlantic seaboard, to Manitoba and the North-West. Thus, early in November, passengers landing at Halifax will be able to board the train and proceed through British territory direct to the great North-West, by the Canadian Pacific Railway, passing by the north of Lake Superior, while the railway will be available during the current month to merchants desiring to forward freight.

Port Arthur to Red River (opposite Winnipeg), 428 miles.

This section is completed and in fine running order. The large elevator at Fort William, the foundation of which I mentioned in my last report as having been laid,

is now finished, and a considerable quantity of grain has passed through it. Its capacity is 1,000,000 bushels. Suitable engine houses and other buildings have been erected at the two divisional points, and station houses and dining-rooms have been built, suitable for the traffic.

Red River to Savona's Ferry, 1,257 miles.

The action of the snow during last winter was carefully watched by the Government Inspecting Engineer, as well as by the Company's staff; and from the information obtained it was apparent that it would be necessary to locate the line so as to escape, so far as possible, the snow slides descending from the northern range of mountains. This somewhat retarded the work of construction, as it was considered advisable to abandon the location already made upon the side of the mountain preparatory to construction, and to devise some means of crossing the valley and reaching the lower levels before approaching the snow slides which it was desired to avoid, without increasing the severity of the grade. Mr. James Ross, an able engineer and Manager of the Company's works of construction, set vigorously to work to solve the problem; and, by a clever piece of engineering, succeeded in gaining the necessary distance by taking advantage of the general contour of the country to form, as if were, a double loop; thus touching the bottom lands clear of the most formidable snow slides, and without increasing the severity of the grades; and although this resulted in an increase of 3 miles to the length of the section, the general alignment, outside the loop, was much improved. The sub-section from the Red River (opposite Winnipeg) to Donald Station at the foot of the east slope of the Selkirks, 1022, miles in length, is under traffic. The latter point is 2,446 miles from Montreal. Nine miles of temporary road is being used in the meantime, pending the completion of the permanent way to take its place. From Donald Station to within 10 miles of the second crossing of the Columbia, a distance of 73 miles, the track is laid. From this latter point, for a distance of 36 miles, the grading and bridging are so far advanced as to ensure the laying of the track by the end of the current month. Thence to Savona's Ferry, a distance of 124 miles, the track is laid. Savona's Ferry is 2,680 miles from Montreal. Although the track is laid throughout with the exception of the 36 miles, just referred to, there remains considerable amount of work to be done before the road is completed. The permanent line alongside the 9 miles of temporary track near Mount Stephen has not yet been commenced, and between Donald and Savona's Ferry a good deal of finishing up will still be required. A tunnel in the Ille-cille-wait Pass is not quite finished, a number of truss bridges have yet to be built over rivers now crossed by temporary trestles. The station buildings, water service, &c., have yet to be provided; cuttings and embankments to be trimmed up and completed, besides a considerable amount of ballasting still to be done. It will, however, not take very long to get the road into fit condition for traffic, but I do not think it is the Company's intention to operate it through the mountains this season; in fact, I should not consider it wise to attempt to do so until the road is thoroughly completed, which will scarcely be before spring. On the first 900 miles west of Red River the engine houses and other necessary buildings have been erected, and water service provided, and preparations are being made to supply these requisites on the next sub-section westwards. The portion of this section under traffic, 1022 miles, is in good running condition.

Savona's Ferry to Port Moody, 213 miles.

This section may almost be said to be completed, being so far advanced that it may very shortly be accepted by Government. It is in fine running condition. It was built by Messrs. D. O. Mills and A. Onderdonk, under contract with the Government. Under the terms of the agreement with the Canadian Pacific Railway Company, this section will be transferred to them upon being taken over from the

contractors by the Government. The station houses and water services are all built, and an engine house at North Bend is in progress and will shortly be completed. The Port Moody wharf has not been touched since the date of my last Report, 1st October, 1884.

GENERAL.

The condition of the Railway may be summarized thus:—

Trunk Line.

| | Miles. |
|--------------------------------|--------|
| Track laid..... | 2,857 |
| Grading nearly completed..... | 36 |
| | <hr/> |
| Total length of main line..... | 2,893 |

It thus appears that the only break in the track is 36 miles in length, and I am safe in stating that by about the close of the present month, October, 1885, the road from Montreal to Port Moody will be ironed from end to end.

The contract with the Canadian Pacific Railway Company called for the completion of the road by the 30th June, 1891. It is now early in October, 1885, and about the end of the month there will be unbroken rail connection over the entire line. The road is therefore to all intents and purposes completed five years and eight months in advance of the contract limit. The accomplishment of this astonishing feat is without doubt largely due to the ability and determination of the Vice-President, Mr. VanHorne aided by his staff, in giving effect to the policy of activity adopted by the Company. The work of carrying this great undertaking to completion has been fraught with many difficulties, both financial and otherwise; but perseverance on the part of the Company, with judicious aid from the Government in time of difficulty, has overcome all barriers, and as I have stated, the anxiously looked for object of having railway connection from ocean to ocean through British Territory is now practically accomplished.

Branch Lines.

The position of the branch lines has not changed since my Report of October last. Their length is as then stated, 432½ miles.

In conclusion I may state that the rolling stock is first class in every respect. The passenger car stock is especially admirable, the dining and sleeping cars being most elaborately fitted up, both as regards comfort and beauty; while I may safely say that the other classes of passenger stock are not excelled on the American continent.

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

(Signed) COLLINGWOOD SCHREIBER,
Engineer-in-Chief.

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

APPENDIX No. 5.

CANADIAN GOVERNMENT RAILWAYS.

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

OTTAWA, 11th November, 1885.

| | Miles. |
|-----------------------------------|--------------|
| Intercolonial Railway | 861 |
| Eastern Extension Railway..... | 80 |
| Windsor Branch Railway..... | 32 |
| Prince Edward Island Railway..... | 212 |
| | <u>1,185</u> |

SIR,—I have the honor to submit to you herewith the reports and accounts in connection with the operation of the railways under my charge, for the year ended the 30th June, 1885. These railways have now an aggregate length of 1,185 miles in operation, an increase of 27 over the mileage of the preceding year, accounted for thus :—

| | Miles. |
|---|-----------|
| Intercolonial Railway, St. Charles Loop Line..... | 14 |
| Prince Edward Island Railway, Cape Traverse Branch..... | 13 |
| | <u>27</u> |

The results of the year's business of these railways are shown in the following statement :—

| Name of Railway. | Mileage. | — | Amount. | | Profits. | | Loss. | |
|---------------------------|----------|---------------|-----------|-------|----------|----------|-------|------------|
| | | | \$ | cts. | \$ | cts. | \$ | cts. |
| Intercolonial..... | 861 | Earnings..... | 2,368,153 | 65 | ..... | ..... | ..... | ..... |
| | | Expenses..... | 2,441,477 | 91 | | | | |
| Eastern Extension..... | 80 | Earnings..... | 73,050 | 01 | ..... | ..... | ..... | 73,324 26 |
| | | Expenses..... | 78,273 | 65 | | | | |
| Windsor Branch..... | 32 | Earnings..... | 24,451 | 35 | ..... | ..... | ..... | 5,223 64 |
| | | Expenses..... | 18,751 | 96 | | | | |
| Prince Edward Island..... | 212 | Earnings..... | 158,588 | 06 | ..... | 5,699 39 | ..... | ..... |
| | | Expenses..... | 211,207 | 01 | | | | |
| Total..... | ..... | ..... | ..... | ..... | ..... | 5,699 39 | ..... | 131,166 85 |
| | | | | | | | | |

INTERCOLONIAL RAILWAY.

Although the loss on the year's operation of the Government railways exceeds that of the preceding year by \$41,402.82, this result may be regarded as not unsatisfactory, in view of the heavy expenditure for additions and improvements, which, in the case of most railways, are charged to capital, but which swell the working expenses of the Intercolonial Railway. These include additional new sidings, freight and station houses, semaphores, snow and ordinary fencing, the raising of several bridges and their approaches, increased water service, &c. The cost of clearing away snow was also unusually heavy, exceeding that of the preceding year by \$19,000, or over 33 per cent., while the completion of the new general offices at Moncton also added to the cost of operation.

The gross earnings show a slight increase over those of the preceding year, having been:—

| | |
|--------------|----------------|
| 1884-85..... | \$2,368,153 65 |
| 1883-84..... | 2,353,647 26 |

Amount of increase..... \$ 14,506 39

This may be attributed to the increase in the tonnage of through freight carried.

The tonnage of coal despatched from the mines of Nova Scotia to the Western Provinces and the western section of New Brunswick continues steadily to increase, and the managers of the mines are pressing for an additional supply of cars; and although I scarcely think that any inconvenience has so far been experienced for want of means of conveyance, there is no doubt that, if the output of the mines continues to increase, additional coal car stock must be provided at an early date.

The following table shows the earnings and the amount of freight and number of passengers carried in each year since the road was opened throughout for traffic, on the 1st July, 1876:—

| Year. | Miles in Operation. | Earnings. | Tons of Freight carried. | No. 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 | 970,069 | 914,785 |

It will thus be seen that the earnings from all sources, and the volume of freight traffic, have more than doubled in 9 years, while the passenger travel has increased by about one-third.

The following table shows the amount of rolling stock purchased on capital account up to the 30th June, 1884, with additions made during the past fiscal year:—

| | Engines. | Passenger Train Stock. | | | Conductors' Vans. | Box Cars. | Platform Cars. | Coal Cars, Capacity in tons. | Snow Ploughs. | Wing Ploughs. | Flangers. |
|-------------------------------|----------|------------------------|------------|--------------------|-------------------|-----------|----------------|------------------------------|---------------|---------------|-----------|
| | | 1st Class. | 2nd Class. | Baggage, Mail, &c. | | | | | | | |
| | No. | No. | No. | No. | No. | No. | Tons. | No. | No. | No. | |
| Total on 30th June, 1884..... | 163 | 68 | 75 | 47 | 51 | 1,529 | 1,441 | 19,200 | 30 | 10 | 20 |
| Additions in 1884-85..... | ..... | 2 | ..... | ..... | ..... | ..... | 1 | 9,000 | ..... | ..... | ..... |
| Total, 30th June, 1885..... | 163 | 70 | 75 | 47 | 51 | 1,529 | 1,442 | 28,200 | 30 | 10 | 20 |

The following rolling stock has been rebuilt during the year at the cost of working expenses to maintain the stock:

| | Engines. | Passenger Train Stock. | | | Conductors' Vans. | Box Cars. | Platform Cars. | Coal Cars. | Snow Ploughs. | Wing Ploughs. | Flangers. |
|------------------------------|----------|------------------------|------------|--------------------|-------------------|-----------|----------------|------------|---------------|---------------|-----------|
| | | 1st Class. | 2nd Class. | Baggage, Mail, &c. | | | | | | | |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| During the year 1884-85..... | | | | | | | 2 | 320 | ..... | ..... | ..... |

The road and rolling stock have continued to receive careful attention, and are in good condition. The introduction of 67-lbs. steel rails has proceeded as the old 56-lb steel rails have worn out and been removed from the track, rendering the road much more solid and more suitable to the heavier traffic which it is called upon to bear.

The volume of ocean borne traffic through the port of Halifax showed a very sensible increase during the year, and it may be hoped that the good despatch given to this class of business will have the effect of still further developing it. Several cargoes of grain were successfully shipped from Halifax, and the volume of export live stock business was well maintained.

The European mails, landed at Halifax in winter and at Rimouski in summer, have received prompt despatch over the Intercolonial.

The St. Charles Loop Line and the Dalhousie Branch have both been in operation during the year, and have proved to be of great convenience to the travelling public.

Capital Account.

The expenditure on works under this heading during the year was \$1,050,278.30, consisting of:

| | |
|--|--------------|
| Construction of Branch Lines..... | \$573,226 94 |
| Increased accommodation at the winter ports of St. John and Halifax..... | 133,312 69 |

| | |
|---|-----------------------|
| Payment on account of awards by the Intercolonial Railway Commission and official arbitrators in connection with old claims arising out of the construction of the Railway, and for legal expenses connected therewith..... | 56,524 70 |
| Additional Rolling Stock to accommodate increased traffic..... | 287,213 91 |
| | <u>\$1,050,278 30</u> |

Of the six branch lines under construction, two only, the Dalhousie Branch and the St. Charles Loop Line, have been completed and opened for traffic, of the remaining four, three are in a forward state, Dartmouth Branch, the Rivière du Loup Town Branch and the Indian Town Branch. Upon the Paspebiac Branch, the work has been confined to surveys and location.

The increased accommodation provided at St. John and Halifax has proved to be of great advantage to the business of those parts; and with some addition to wharf accommodation and shed room, it may be regarded as sufficient for the present traffic.

The rolling stock is generally fully employed, and, as I have stated, the managers of coal mines are urging the necessity of providing at least 500 additional gondola coal cars. I am of opinion that the existing stock would be sufficient if it could be kept upon the Intercolonial Railway. But when once it goes on to foreign roads, it is beyond the control of the management, and great difficulty is experienced in having it promptly returned.

EASTERN EXTENSION RAILWAY.

The operation of this railway has continued to be separate from that of the Intercolonial Railway, in the absence of legislation to authorize its being worked as a part of that road. The cost of operation is therefore higher than it would be if the line formed part of the trunk system; for although it is operated under the general direction of the chief officers of the Intercolonial Railway, a separate staff is employed at New Glasgow.

The cost of operating this railway for the year under consideration exceeded the earnings by \$5,223.64; but it is believed that when it forms part of the Intercolonial system, and its accounts are merged with those of the trunk line, so that no separate staff will be required—superintendent, mechanical superintendent, book-keeper, &c.—the era of deficits will cease; and, in spite of the above deficit, I am satisfied that the road is a good feeder to the Intercolonial, and indirectly of great service to it.

The Haggas system of water service is in use upon this railway, but it would be of advantage to the traffic to replace it by the elevated system.

The Port Hastings wharf, on the Cape Breton side of the Strait of Canso, on which the railway steamer lands goods during the winter season, is very much out of repair, and although it does not belong to the railway, it will be necessary to make a small expenditure upon it in order to render it safe and serviceable.

The road and rolling stock are in a good state of efficiency.

WINDSOR BRANCH RAILWAY.

This railway has continued to be maintained by the Government and operated by the Windsor and Annapolis Railway Company, in connection with their own line, upon the same terms as in former years, the company paying to the Government one-third of the gross earnings in consideration of maintenance. The one-third of the gross earnings during the year under consideration exceeded that of the preceding year by \$1,432.42, and fully sufficed to cover the cost of maintenance.

It should be remembered, however, that no charge is made against this railway for any portion of the services of the chief officers of the Intercolonial Railway, under whose supervision the work of maintenance is done, and whose salaries, &c., are borne by the trunk line.

The road has been well maintained, and is in good working order, and the company has been so fortunate as not to have a wheel leave the track during the whole twelve months.

PRINCE EDWARD ISLAND RAILWAY.

On the 22nd January, 1885, the Cape Traverse Branch of this railway was opened for traffic, adding 13 miles to the road in operation, and making its total length $212\frac{1}{2}$ miles, or equal to an average of 210 miles for the year. The traffic, though somewhat improved, is still very small. It is only in autumn, for a few weeks before the close of navigation, when the rolling stock is worked up to its full capacity; at other seasons a large portion of it remains idle.

| | | |
|--|--|--------------------|
| The net result of the year's operation is more satisfactory than hitherto, the working expenses being. | | \$211,207 01 |
| Earnings..... | | 158,588 06 |
| Loss | | \$ 52,618 95 |
| Loss during preceding year..... | | 91,924 01 |
| Difference in favor of last year..... | | \$ 39,305 06 |
| Which was brought about by a reduction of the working expenses by..... | | \$ 25,221 12 |
| And an increase in earnings of..... | | 14,083 94 |
| | | <u>\$39,305 06</u> |

The road is in a very efficient condition, and the rolling stock has been well maintained; and when the balance of the original freight car stock, 40 box and 12 platform cars, is rebuilt, the entire stock will be in first class order, and of much greater carrying capacity than the original car stock, cars of a capacity of 10 tons being substituted for the old 8-ton cars in the process of renewing.

The rolling stock provided on Capital account consists of:—

| | |
|---|-----|
| Engines..... | 21 |
| First class cars | 17 |
| Second class and baggage..... | 15 |
| Postal and smoking..... | 3 |
| Box and cattle..... | 175 |
| Platform | 125 |
| Conductors' vans..... | 3 |
| Paymaster's car..... | 1 |
| Snowploughs..... | 8 |
| Flangers..... | 7 |
| Of this stock the following was rebuilt during the year:— | |
| Box cars..... | 43 |
| Platform cars..... | 11 |
| Snowploughs..... | 1 |

The Cape Traverse Branch performed the mail service during last winter in connection with the ice-boats plying between Cape Traverse on the Island, and Cape Tormentine, on the mainland. The despatch thus given to the mails is said to have been of great service to the mercantile community, though the advantages afforded

by the Branch will not be fully realized until the completion of the New Brunswick and Prince Edward Island Railway, from Sackville, on the Intercolonial, to Cape Tormentine. This, I understand, is likely to be effected before the close of navigation this season.

Capital Account.

The cost of the road and rolling stock up to 30th June last was \$3,731,312.56, or \$17,559.12 per mile.

GENERAL REMARKS.

Every effort has been made by the officers of the Government railways to develop the business and to encourage traffic, and also to keep the expenditure within reasonable limits; and although the net results are not so favorable as might have been desired, I nevertheless feel that, for the excess of expenditure over earnings, the Government has full value in improvements, extensions and additions to its properties, obtained at the cost of working expenses. All the Government railways are certainly in a state of very high efficiency, to maintain which neither care or effort will be spared.

Very full information may be obtained from the reports of the Chief Superintendent, Superintendent, Chief Engineer and Mechanical Superintendent attached hereto, as well as from the accounts also submitted herewith.

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

COLLINGWOOD SCHREIBER,
Chief Engineer and General Manager.

INTERCOLONIAL RAILWAY.

OFFICE OF THE CHIEF SUPERINTENDENT,
MONCTON, N.B., 4th November, 1885.

COLLINGWOOD SCHREIBER, Esq.,
Chief Engineer and General Manager Government Railways,
Ottawa.

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, 1885.

I enclose the Reports of the Chief Engineer and the Mechanical Superintendent, and also 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 | (" " 2). |
| " 5. | Maintenance of ways and works | (" " 3). |
| " 6. | Station expenses | (" " 4). |
| " 7. | General charges | (" " 5). |
| " 8. | General stores account. | |
| " 9. | General balance. | |
| " 10. | Comparative statement of averages. | |

The length of railway in operation during the year was 861 miles. On the 21st July, 1884, the St. Charles Branch, so called, 14 miles in length, was opened for traffic, thus making 14 miles more of railway in operation this year than last year.

CAPITAL ACCOUNT.

| | | |
|---|-----------------|-----------------|
| The total cost of road and equipment on the 30th June, 1884, was according to last year's report..... | \$42,582,231 71 | |
| Deduct refunds on account of the previous year's expenditure | 4,915 22 | \$42,577,316 49 |

The additions during the year were as follows:—

| | | |
|--|--------------|--------------|
| For Halifax extension..... | \$ 16,580 01 | |
| Increased accommodation, St. John..... | 116,732 68 | |
| Completion of the Intercolonial Railway..... | 56,117 34 | |
| Rolling stock..... | 287,213 97 | |
| St. Charles Branch | 257,125 71 | |
| Dartmouth Branch | 164,456 75 | |
| Dalhousie Branch..... | 52,723 78 | |
| River du Loup Town Branch..... | 46,256 01 | |
| Indian Town Branch | 48,497 48 | |
| Paspebiac Branch | 4,167 21 | |
| Miscellaneous works | 407 36 | |
| | | 1,050,278 30 |

Making the total cost to the 30th June, 1885..... \$43,627,594 78

The deduction made in this year's accounts from the cost of the railway, on the 30th June, 1884, was made under the authority of the Auditor-General. The amount consists of cheques issued to pay for land and works, which cheques were cancelled, because the persons in whose favor they were drawn neglected or refused to accept the amounts offered them.

The expenditure at Halifax was in connection with the improvements of the place.

The expenditure at St. John was for the new passenger station which is nearly completed, and for making connection with the railway of the St. John Bridge and Railway Company.

The amount for completion of the Intercolonial Railway consists of payments on account of claims in connection with the construction of the line, and of the legal and other expenses of settling the same.

The expenditure for rolling stock was to provide an additional supply of large coal cars to carry coal to the West. These were provided at the request of the coal mining companies.

Work on the St. Charles Branch was so far advanced that it was opened for traffic on the 21st July, 1884, and it now forms the main line for passenger traffic to and from Quebec.

At Lévis a substantial and commodious station has been provided in a central position and close to the Quebec Ferry.

These improvements have made travel to and from Quebec over the Intercolonial Railway much more easy and pleasant than heretofore.

At Harlaka, on the new line, five miles from Lévis, the Quebec Central Railway has made a junction, and the trains of that railway, to and from Lévis now run between Lévis and Harlaka, over the Intercolonial, under a temporary arrangement.

The sums claimed for land damages in connection with the St. Charles Branch are very large. A considerable number of the claimants are still unpaid, the claim being under inquiry.

The Dartmouth Branch is not yet completed, but it is expected that it will be opened for traffic this autumn.

The Dalhousie Branch was completed, and the contractors were settled with.

The greater portion of the work of grading and tracklaying on the River du Loup Town Branch was completed.

The construction of the Indian Town Branch was commenced, and the contractor made some progress with the work.

REVENUE ACCOUNT.

The gross earnings of the year were \$2,368,153.65, being a slight increase when compared with last year.

| | |
|------------------------------|----------------|
| The earnings in 1884-85..... | \$2,368,153 65 |
| do do 1883-84..... | 2,353,647 26 |

Increase.... \$ 14,506 39

This increase was entirely in the freight traffic.

The increase in freight was in through freight which increased in quantity 18,000 tons.

The gross tonnage carried was somewhat less than in the previous year.

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 years:—

| | 1883-84 | 1884-85 | Increase. | Decrease. |
|-----------------------|-------------|-------------|-----------|-----------|
| Barrels flour..... | 815,641 | 907,102 | 91,461 | |
| Bushels grain..... | 654,635 | 729,707 | 75,072 | |
| Lumber, in feet. | 131,120,948 | 137,387,675 | 6,266,727 | |
| Head of live stock... | 62,090 | 65,513 | 3,423 | |
| Other goods in tons.. | 729,923 | 678,035 | | 51,888 |

The following shows the quantity of each of the above articles carried each year for six years:—

| — | 1879-80. | 1880-81. | 1881-82. | 1882-83. | 1883-84. | 1884-85. |
|--------------------------|------------|------------|------------|-------------|-------------|-------------|
| Barrels flour..... | 525,248 | 672,310 | 692,095 | 983,916 | 815,641 | 907,102 |
| Bushels grain..... | 324,021 | 565,678 | 560,253 | 1,195,601 | 654,635 | 729,707 |
| Lumber, in feet..... | 55,462,654 | 72,841,388 | 78,356,418 | 104,633,417 | 131,120,948 | 137,387,675 |
| Head of live stock..... | 70,990 | 61,574 | 73,479 | 68,338 | 62,090 | 65,513 |
| Other goods, in tons ... | 422,256 | 544,354 | 647,561 | 704,608 | 729,923 | 678,035 |

It will be seen that there is a large increase in flour, grain, lumber and live stock.

There has also been a large increase in the quantity of coal carried to the Upper Provinces. For the last few years this has steadily and rapidly increased.

The quantity of goods landed at Halifax, from ocean steamships for transport over the railway, was much larger than in any previous winter. It exceeded the winter of 1883-84 by 8,000 tons.

The European mails and passengers were landed and embarked at Rimouski during the summer season, as usual, and during the winter they were landed and embarked at Halifax.

The opening of the Dalhousie Branch for traffic enabled the steamer "Albion," which runs on the Bay Chaleurs during the navigable season, to connect with the intercolonial at Dalhousie instead of at Campbellton as heretofore.

The number of passengers carried was rather less than last year.

The number of local passengers carried was 8,000 more than last year, and the number of through passengers 14,000 less, so that the whole number carried was slightly less than last year.

| | |
|--------------|---------|
| 1883-84..... | 920,870 |
| 1884-85..... | 914,785 |
| | 6,085 |

EXPENDITURE.

The working expenses for the year were \$2,441,477.91.

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

| Per mile run by engines :— | Cents. |
|----------------------------|--------|
| 1883-84..... | 53.19 |
| 1884-85..... | 50.47 |
| Decrease..... | 2.72 |

| Per mile run by trains :— | |
|---------------------------|-------|
| 1883-84..... | 64.17 |
| 1884-85..... | 61.15 |
| Decrease..... | 3.02 |

| Per mile of railway :— | |
|------------------------|------------|
| 1884-85..... | \$2,835 65 |
| 1883-84..... | 2,791 16 |
| Increase..... | \$ 44 47 |

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

The work of relaying the main line with heavier steel rails, to make the track more strong and solid, was continued, and 57½ miles of steel rails, weighing 56 pounds to the yard, were taken up and replaced with new steel rails, weighing 67 pounds to the yard.

There were 197,491 new sleepers put into the main track.

Sixty-seven miles of the main track were ballasted.

Thirty-seven new sidings were put in at various stations along the line.

The fences were repaired, where necessary, and one hundred and thirty miles of new fences were erected. Twenty miles of this fencing built on a part of the line which had never before been fenced.

Two miles of new snow fences were built, and three thousand lineal feet of snow sheds were rebuilt.

Several new freight houses and station houses were built, and the buildings on all parts of the line received necessary repairs.

Eight new semaphore signals were erected.

A new track scale to weigh cars loaded with coal was put in at Stellarton.

Improved turntables, made of wrought iron, were put in the engine houses at Campbellton and Rivière du Loup.

The wharves at the several ports received repairs, and in the case of those at Richmond and Pictou Landing the renewals were extensive and costly.

Two bridges carrying the railway over streets in the town of New Glasgow were raised several feet in order to give more headway on the streets underneath; this improvement necessitated the raising of the railway track and embankment for a considerable distance in each direction, so as to maintain a proper gradient.

The iron bridge over the La Planche River was raised 4 feet to avoid risk of damage from the ice, and the railway track and embankment for some distance in each direction was raised to suit.

Two new iron overhead bridges were erected to take the place of wooden ones. The cost of all these improvements and additions, and of others which I have not specified, forms part of the working expenses.

The new building for the general offices of the railway was completed and occupied.

The expenditure on it during the year was \$29,000. This, and indeed the entire cost of the building, was charged to the working expenses.

The improvement of the water supply, by erecting new tanks of greatly increased capacity, was continued, and three tanks, each of 50,000 gallons capacity, were erected. These and the reservoirs, pipes and steam pumps in connection with them cost \$6,300, the whole cost being charged to the working expenses.

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

Three hundred and twenty-two cars having been worn out were replaced by new ones, and the cost charged to working expenses.

Much more difficulty than usual was experienced last winter in keeping the track clear of snow, and the cost, which forms part of the working expenses, was consequently very great. The direct expenditure for this purpose was over \$76,000, being \$19,000 more than in any previous year.

The total expenditure for the year exceeded the gross earnings by seventy-three thousand three hundred and twenty-four dollars, twenty-six cents, as follows:—

| | |
|----------------------|----------------|
| Expenditure | \$2,441,477 91 |
| Gross earnings | 2,368,153 65 |
| | \$73,324 26 |

This is due to the unusually large expenditure for improvements, several of which I have already referred to and explained, and the principal items of which may be summarized as follows:—

| | |
|--|----------|
| Additional sidings..... | \$19,000 |
| New station buildings and semaphores..... | 4,000 |
| Fencing part of the line for the first time..... | 10,500 |
| Increased water supply..... | 4,200 |
| New iron overhead bridges | 3,700 |
| Raising bridges..... | 4,500 |
| Completing new general office building..... | 29,000 |
| | \$74,900 |

This expenditure was made in addition to the maintenance and renewal of existing works and was for improvements to the property.

Such expenditures as these are usually charged to capital by railway companies, but in this case they are all charged to working expenses and against the earnings for the year.

Stores.

| | |
|---|---------------|
| The value of stores purchased was..... | \$ 766,090 31 |
| The value of stores used was..... | 1,122,839 31 |
| The value of old material sold was..... | 69,483 56 |

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

| | |
|--|----------------------|
| Ordinary stores, including fuel..... | \$ 413,994 87 |
| Iron and steel rails..... | 125,400 05 |
| Second-hand materials serviceable..... | 58,454 35 |
| Old material for sale..... | 125,935 00 |
| Total stores on hand..... | \$ 723,784 27 |

The old material for sale consists of scrap metals of various kinds, which will be sold as soon as the market for such articles becomes more favorable.

I have the honor to be, Sir,

Your obedient servant,

D. POTTINGER,
Chief Superintendent.

INTERCOLONIAL RAILWAY.

CHIEF ENGINEER'S OFFICE,
MONCTON, N.B., 3rd November, 1885.

SIR,—I have the honor to submit my report of the working of the Engineering Department for the year ending 30th June, 1885.

TRACK.

The mileage of the main line and branches in actual operation is 861 miles.

During the year 57½ miles of old steel rails in the main line, weighing 56 pounds to the lineal yard, were taken up and replaced with new steel rails, weighing 67 pounds to the lineal yard.

SIDINGS.

Thirty-seven new sidings have been put in at various points along the line, making additional accommodation to the extent of about four miles.

SLEEPERS.

During the year 197,491 sleepers have been renewed on the main line.

BALLASTING.

About 67 miles on the main line have been rebalasted.

SEMAPHORE SIGNALS.

Eight semaphores have been put up during the past year.

SNOW SHEDS AND FENCES.

About 3,000 feet of snow shedding on northern divisions, numbers 1, 2 and 3 have been practically renewed, and a further quantity thoroughly overhauled and repaired.

About two miles of new snow fences have been erected on these divisions.

In addition to the ordinary repairs of fences, 130 miles of new barbed wire and Everett lath wire fencing have been erected.

About 20 miles of this fencing was erected on parts of the line that have never before been enclosed.

TURNABLES.

At RIVIERE DU LOUP AND CAMPBELLTON—the 46 feet diameter cast iron tables were replaced with 50 feet diameter tables fitted with wrought iron arms and end girders.

WHARVES AND COAL TRESTLES.

At RICHMOND—the coal wharf was taken down and rebuilt from low water mark at an expense of about \$4,000. The cribs were wholly renewed with cedar and may now be expected to last thirty years. The deep water wharf and coal trestle were thoroughly overhauled and repaired at an expense of \$1,413. Two additional coal chutes were provided for the coal trestle.

At the DEEP WATER TERMINUS, HALIFAX—a coal drop was provided on the high trestle on the north side of the wharf suitable for coaling the largest ocean steamships. A moveable coal chute similar to those in use on the Northern Pacific Railway, at Seattle, Puget Sound, was provided for the north side of the bunker coal wharf.

At STEWIACKE—a large number of the piles were renewed in the wharf.

The wharf was also lowered about 4 feet, the piles re-capped, and top recovered with 3-inch deals. The two hoisting cranes on this wharf were reset on new foundations.

PICTOU LANDING—wharf received extensive repairs costing \$5,142.

At POINTE DU CHÊNE, DALHOUSIE AND RIMOUSKI—necessary repairs were made to the wharves.

BUILDINGS AND PLATFORMS.

At the DEEP WATER TERMINUS, HALIFAX—a large coal shed for local business was made and divided into separate compartments for each of the coal companies. A portion of the wharf near the large freight shed was double planked, and the freight shed floor repaired. The roof of the south of the freight shed erected was covered with what is known as the Brokenshire roofing. This being very unsatisfactory, it was stripped off and re-covered with tar and gravel roofing. The two wharves occupied by the Marine and Fisheries Department were thoroughly overhauled and repaired, at a large cost.

At NORTH STREET STATION—The galvanized iron covering of the roof of the Halifax train shed was repaired and painted inside and outside, at an expense of \$3,090. The painting was absolutely necessary to prevent the galvanized iron from rusting out in a very short time. A shed 100 by 20 feet, for the storage of hard coal, was nearly erected.

At RICHMOND—a hay shed, 150 by 35 feet, was erected; also a loading platform for the accommodation of the Windsor and Annapolis Railway. A new gate house and fence enclosing the Richmond reservoir were erected. The roof of freight shed on the deep water wharf was reshingled. A new floor was laid in the car repair shop. The old tool house near the round house was torn down, and a new one provided, at the east end of the blacksmith's shop. The roofs and walls of the machine shops were overhauled and repaired.

At BEDFORD—the roofs of station and agent's dwelling were repaired.

At WELLINGTON, SHUBENACADIE AND STEWIACKE—necessary repairs were made to the stations.

At TRURO—the platforms on either side of the station and restaurant were renewed with pine deals. The outside walls of station and restaurant were repaired and painted two coats. The roofs were also repaired and painted. A building was

erected for an oil house and express goods at the west end of station. A large water closet for the accommodation of the officers and public was erected. A new loading platform 150 feet long was provided and repairs made to the old one. Two new ventilators were provided for the roundhouse, and necessary repairs made to the pits and floors.

At RIVERSDALE—new sills were put under the station and the agent's dwelling moved further back from the track.

At WEST RIVER—a new loading platform for 8 cars was built.

The yard was also graded and very much improved.

At BATTERY HILL—a new freight house was erected.

At GLENGARRY—a loading platform for 6 cars was provided.

At STELLARION—necessary repairs were made to the station and engine-house; and a new track scale of 60,000 pounds capacity was provided for weighing coal.

At NEW GLASGOW—the stone station was thoroughly overhauled and the joints repointed with Portland cement. The platform in front of the station was renewed, and that at the ends repaired.

At DEBERT—new cattle pens were provided.

At LONDONDERRY—the oil-room was converted into a baggage-room.

A pair of cattle guards and necessary sign boards were provided for a public road-crossing at south end of station ground.

At OXFORD—the station was raised up two feet and repaired.

At SPRING HILL—the engine house was repaired and enlarged to admit of the largest engines. The wooden rails on the coal trestle leading from the coal company's shed to the chute were removed and replaced with iron rails. This trestle also received extensive repairs.

At MACCAN—the roof of station was shingled.

At AMHERST—a bonded warehouse was provided in freight shed. The approaches to station were graded and gravelled.

At AULAC—a kitchen was added to the dwelling apartments of the agent.

At SACKVILLE—the road approaches to Station were diverted, graded, gravelled and side ditched.

At MEMRAMCOOK—a kitchen was built in connection with the dwelling apartments of the agent, and considerable repairs made to the station.

At SHEDIAC STATION—the roof was reshingled and the walls and ceilings of waiting rooms repaired.

At POINTE DU CHÈNE—the freight shed and platform were lowered two feet to facilitate the handling of traffic from the Island boats.

At MONCTON—the Train Despatchers' offices were removed to the rooms formerly occupied by the General Passenger Agent. The rooms formerly occupied by the Despatchers were re-arranged and fitted up for the accommodation of the Western Union Telegraph Company. Necessary repairs were made to the dining-room. An addition of 300 by 25 feet was made to the car repair shop, and the floor of the repair shop renewed. Necessary repairs were made to the round house and machine shops. Eleven new terra cotta smoke stacks were provided for the roundhouse.

At SALISBURY, PETITCODIAC AND ANAGANCE—repairs were made to the platforms.

At PENOBSQUIS—the siding at the rear station was taken up, the yard graded and gravelled, and a new loading platform provided.

At PLUMWESEEP—a new flag station was built.

At SUSSEX—the room used as a post office was rearranged, and fitted up as a lamp and baggage room. The loading platform as well as the station platform received extensive repairs.

At HAMPTON—a baggage room was built.

At QUISPAMIS STATION—the platform was extended 50 feet at either end of station.

At ST. JOHN STATION—the freight shed at the Deep Water Terminus was levelled up and repaired. The iron turntables on wharf were also repaired. A loading ground and platform were built on the site of the old passenger station. The new passenger station, retaining walls, grading tracks, and improvements in connection with St. John yard, have all been completed.

At YORK POINT ST. JOHN—a timber crib was built across the mouth of the dock and the dock has been filled in with waste material from the city. A connection was made with the passenger and freight tracks of the St. John Bridge and Railway Extension Company. A considerable amount of filling and grading was necessary for this connection.

At BERRY'S MILLS—a coal shed was erected.

At CANAAN—a new freight shed and loading platform were provided.

At ADAMSVILLE—a flag station was erected.

At WELDFORD—the roof of the station was reshingled. The baggage room in station was converted into a ladies' waiting room, and a new baggage room provided in the freight shed. Considerable repairs were made to the dwelling apartments of the agent.

At KENT JUNCTION—an approach was made to the freight house.

At ACADIEVILLE—the freight shed was moved across the track, fitted up, and the necessary approaches provided.

At ROGERSVILLE—the floors of office and waiting room were renewed.

At DERBY—a small coal shed was built and the loading platform repaired.

At NEWCASTLE—the roofs of station and freight house were thoroughly overhauled and repaired. The tar and gravel roofing of the roundhouse was renewed with Sparham roofing.

At BATHURST—an addition of 60 by 20 feet was made to the freight shed. The floors of waiting rooms and offices were repaired.

At PETIT ROCHER AND JACQUET RIVER—necessary repairs were made to the platforms and stations. A cattle pen was built at the latter place.

At DICKIE'S SIDING—a flag station and platform were rebuilt.

At NASH'S CREEK—the approaches to the siding were made up, and the flag station overhauled and repaired.

At CHARLO—a room was fitted up for the accommodation of the agent.

At CAMPBELLTON—a stone ash pit, 60 feet long, was built on the main track leading to the engine house. Accommodation was made in the car shed for 4 locomotives. The roof of this shed and also the roof of the boiler house were repaired. Four iron smoke stacks were provided for the car shed, and ten iron smoke stacks were renewed on the roundhouse. The roof of the station house was overhauled and repaired. The roof of the dining room was coated with Sparham roofing and the flashings repaired around the windows.

At FLAT LANDS—a flag station was erected and the platform lengthened.

At CEDAR HALL—the station was raised and repaired.

At SAYABEC—necessary repairs were made to the station.

At ST. MOISE—a new station and platform were erected at a cost of \$1,610.

At LITTLE METIS STATION—the platform was extended.

At ST. OCTAVE—a new freight shed and platform were built.

At ST. FLAVIE—the roof of engine house was wholly renewed with the best tar and gravel roofing.

At RIMOUSKI—a shelter for baggage was erected on the platform and a new freight shed.

At ST. SIMON—a cattle yard was made.

At TROIS PISTOLES—necessary additions were made in the dwelling apartments of the dining rooms.

At ST. ELOI, and at nearly all other stations on Northern Division. A small coal shed was erected.

At ST. ARSENE—the station was painted.

At CACOUNA—the platform was extended and thoroughly repaired.

At RIVIERE DU LOUP—one-half of the roof of engine house was renewed with best tar and gravel roofing, and the other half repaired and made water-tight.

The coal trestle near the roundhouse was almost wholly renewed.

At NOTRE DAME DU PORTAGE—outside sashes were provided for the station.

At ST. ANDRÉ—the station yard was graded with coal ashes.

At KING'S SIDING—a loading platform 100 feet long was erected.

At L'ISLET, CAP. ST. IGNACE, ST. PIERRE AND ST. FRANÇOIS—general repairs were made to the stations.

At ST. CHARLES STATION—the freight room was converted into a waiting room, and a new freight shed built.

The high level coal shed and trestle was removed from Chaudière Junction to St. Charles.

At Enfield, Stewiacke, Hopewell, Valley, Aulac, Painsec Junction, Nanwigewank Model Farm, Coal Branch, Rogersville, Bartibogue, Derby, Assametquaghan, Bic, St. Arsène, St. Valier, Elmsdale, Brookfield, Wellington, Folly Lake, Sackville, Penobscuis, Passekeag, Berry's Mills, Kent Junction, Barnaby River, Red Pine, Petite Rocher, St. Moïse, Isle Verte, St. Pierre, St. Henri, Milford, West River, Glengarry, Riversdale, Petitcodiac, Apolaqui, Brookville, Chanaan, Chatham Junction, Beaver Brook, Belledune, Cedar Hall, St. Fabien, St. André, St. François, Notre Dame du Portage. New water closets were provided at the following stations:—

BRIDGES AND CULVERTS.

At SHUBENACADIE BRIDGE—the cutwaters which were partially washed away in the heavy freshets of last spring, were repaired. The old floor timbers were renewed and replaced with the standard floor.

Near TRURO—a pile bridge of 30 feet span was erected last winter, where a culvert had partially washed out.

At NEW GLASGOW—two iron bridges over streets in the town were raised 2½ feet to permit fire engines passing under them. The approaches on either side were also raised.

At FOLLY RIVER VIADUCT—a footway for trackmen was provided.

LA PLANCHE BRIDGE—was raised 4 feet and the embankments graded out at either end. This was rendered necessary on account of the aboiteau in the public road below being removed, and thus admitting large blocks of ice being carried up under the railway bridge by the tide.

At AULAC—a pile trestle bridge was partially removed and replaced with a solid embankment, the balance of it was renewed.

At HUMPHREY'S CROSSING, NEAR SACKVILLE—the old overhead wooden bridge was replaced with an iron structure of three spans.

At PALMER'S POND, NEAR DORCHESTER—a pile bridge was built.

At PAINSEC—Reuben's trestle bridge was renewed.

SCOUDOUC BRIDGE—the superstructure was raised 18 inches, and the old timbers replaced with a standard floor.

POINTE DU CHÈNE Bridge was repaired.

At PETITCODIAC, PASSEKEAG, HAMPTON AND DARLING'S—standard floors were put on the bridges.

At PASSEKEAG, MODEL FARM, LAWLOR'S LAKE, STANLEY STREET AND GARDEN STREET, ST. JOHN—the floors of the overhead bridges were renewed.

At DERBY—the wooden overhead bridge was replaced with an iron structure of three spans, one central span of 81 feet, and two side spans of 21 feet each, on foundations of substantial masonry.

At NIGADOO, LOUISON'S BROOK, GRANT'S BROOK, ELM TREE, ADAMS AND MCKINNON'S—standard floors were furnished on the bridges on Northern Divisions Nos. 1 and 2.

Near BATHURST—an overhead wooden bridge was replaced with an iron structure of four spans, one of 74 feet, and three of 21 feet each.

At RIVIERE DU LOUP AND ST. HENRI BRIDGES—necessary repairs were made to the cutwaters injured by the spring freshets.

Between SHUBENACADIE AND STEWIACKE—two-box culverts were renewed.

Between RIVIERE DU LOUP AND HADLOW—heavy general repairs were made to the masonry on the line.

GENERAL.

Five spans of iron, ranging from 12 to 22 feet, were put in place of wooden stringers at various points on the line.

Gangs of painters and rivetters were engaged the whole season in painting and doing general repairs to iron structures.

BRANCH LINES.

The ST. CHARLES BRANCH has been opened for traffic.

At POINTE LÉVIS—the grading of the “Pond” was completed and a number of sidings put in.

Some snow shedding and fencing and other necessary work remain to be completed.

RIVIÈRE DU LOUP TOWN BRANCH.

The contract for grading this branch, referred to in my Report for last year, has been completed. The track has also been laid and ballasted.

DARTMOUTH BRANCH.

The bridge at the NARROWS—referred to in my Report of last year was completed in December last, also the grading throughout its whole length. A portion of the tracklaying and ballasting remained to be completed at the end of the year.

INDIANTOWN BRANCH.

The grading of this branch is far advanced toward completion. Arrangements are being made for combined passenger and freight stations to be erected at Millerton and at Indiantown.

This Branch extends from Derby Station on the main line to Indiantown on the Miramichi River, a distance of 13 miles. The track is being laid.

I am, Sir,

Your obedient servant,

P. S. ARCHIBALD,
Chief Engineer.

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

 INTERCOLONIAL RAILWAY.

MONCTON, N.B., 15th September, 1885.

DEAR SIR,—I beg to submit for your information the following statements, showing the operations of the Mechanical Department for the year ending 30th June, 1885:—

A.—Statement showing the number of locomotives and the various classes of cars.

B.—Statement showing the locomotive and car mileages, and the average number of passenger and freight cars handled 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 there were purchased on account of capital, two first class cars, one platform car, 450 20-ton coal cars. There were rebuilt during the year, two platform cars, 320 improved 6-ton hopper cars to take the place of an equal number of hopper cars condemned. The rolling stock generally is in good condition.

WATER SERVICES.

At West Cock, Spring Hill and Stellarton, fifty thousand gallon tanks were erected, the two former supplied with steam pumps, and the latter is fed by gravitation.

The cost of erecting these was about \$6,300.

At Campbellton, St. Flavie, L'Islet, St. Aloïse, Weldford and Hampton, it is proposed to erect new 50,000-gallon tanks. When this work is completed the water service will be in a greatly improved 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, 1884, and on the 30th June, 1885.

| | The Various Classes of Cars. | | | | | | | | | | | | | | Total. | | |
|---|------------------------------|------------------------|-------------------------|---------------------|----------------------|-------|-------|---------|------------------------------|-----------------------|-------------------|--------------------|--------|---------------|--------|---------------|-----------|
| | Locomotives. | First Class Passenger. | Second Class Passenger. | Postal and Smoking. | Baggage and Express. | Vans. | Box. | Cattle. | Platform—10, 15 and 20 tons. | Hoppers—5 and 6 tons. | Gondolas—20 tons. | Coal cars—20 tons. | Total. | Snow Ploughs. | | Wing Ploughs. | Flangers. |
| On hand, 1st July, 1884, serviceable | 163 | 68 | 75 | 17 | 25 | 48 | 1,456 | 69 | 1,439 | 595 | 782 | ..... | 4,578 | 30 | 10 | 20 | 60 |
| do condemned ..... | ..... | ..... | ..... | ..... | 1 | 3 | 1 | 3 | 2 | ..... | 1 | ..... | 11 | ..... | ..... | ..... | ..... |
| Total | 163 | 68 | 75 | 17 | 30 | 51 | 1,457 | 72 | 1,441 | 595 | 783 | ..... | 4,589 | 30 | 10 | 20 | 60 |
| Purchased on Capital Account..... | ..... | 2 | ..... | ..... | ..... | 4 | ..... | ..... | 1 | ..... | ..... | 450 | ..... | ..... | ..... | ..... | ..... |
| Changed from baggage and express to vans..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Total, 30th June, 1885..... | 163 | 70 | 75 | 17 | 26 | 55 | 1,457 | 72 | 1,442 | 595 | 783 | 450 | 5,042 | 30 | 10 | 20 | 60 |
| Condemned on hand, 1st July, 1884..... | ..... | ..... | ..... | ..... | 1 | 3 | 1 | 3 | 2 | ..... | 1 | ..... | 11 | ..... | ..... | ..... | ..... |
| do during the year..... | ..... | 1 | 2 | ..... | ..... | 2 | 21 | 1 | 83 | 320 | 2 | ..... | 432 | ..... | ..... | ..... | ..... |
| Total condemned..... | ..... | 1 | 2 | ..... | ..... | 6 | 22 | 4 | 86 | 320 | 3 | ..... | 443 | ..... | ..... | ..... | ..... |
| Less—Re-built ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 320 | ..... | ..... | 322 | ..... | ..... | ..... | ..... |
| Condemned, 30th June, 1885..... | ..... | 1 | 2 | ..... | ..... | 5 | 22 | 4 | 83 | ..... | 3 | ..... | 121 | ..... | ..... | ..... | ..... |
| Add—Serviceable and repairing..... | 163 | 69 | 73 | 17 | 25 | 50 | 1,435 | 68 | 1,359 | 595 | 780 | 450 | 4,921 | ..... | ..... | ..... | ..... |
| Total stock, 30th June, 1885..... | 163 | 70 | 75 | 17 | 26 | 55 | 1,457 | 72 | 1,442 | 595 | 783 | 450 | 5,042 | ..... | ..... | ..... | ..... |

B.—INTERCOLONIAL RAILWAY.

STATEMENT of Locomotive and Car Mileage for Year ending 30th June, 1885.

| Months. | Locomotive Mileage. | | Car Mileage. | | | | Snow Ploughs. | | |
|--------------------|---------------------|-----------|--------------|------------------------------|------------|------------|---------------|--------------------|------------------|
| | Passenger. | Freight. | Passenger. | Express, Postal and Baggage. | Freight. | Total. | | Average Passenger. | Average Freight. |
| 1884—July | 89,319 | 230,159 | 390,506 | 180,562 | 3,247,098 | 3,818,166 | 6.57 | 14.11 | ..... |
| August | 87,842 | 219,114 | 400,425 | 167,655 | 3,197,679 | 3,765,759 | 6.46 | 14.60 | ..... |
| September | 80,977 | 219,196 | 374,580 | 168,350 | 3,208,918 | 3,751,848 | 6.70 | 14.64 | ..... |
| October | 83,000 | 262,402 | 343,794 | 160,835 | 3,971,136 | 4,475,765 | 6.08 | 15.13 | ..... |
| November | 75,495 | 261,108 | 299,896 | 148,442 | 3,866,050 | 4,314,388 | 5.93 | 14.80 | ..... |
| December | 72,156 | 252,252 | 299,751 | 154,033 | 3,380,736 | 3,834,520 | 6.28 | 13.40 | 4.463 |
| 1885—January | 71,228 | 236,450 | 286,962 | 148,678 | 2,965,531 | 3,401,171 | 6.11 | 12.54 | 7.584 |
| February | 65,043 | 220,266 | 237,513 | 135,596 | 2,776,434 | 3,149,543 | 5.73 | 12.60 | 14.347 |
| March | 68,764 | 242,002 | 277,583 | 144,226 | 3,235,065 | 3,656,874 | 6.12 | 13.36 | 11.857 |
| April | 72,242 | 310,284 | 322,615 | 154,179 | 4,419,452 | 4,896,246 | 6.60 | 14.24 | 3.748 |
| May | 68,449 | 265,811 | 288,389 | 140,094 | 4,024,460 | 4,452,943 | 6.25 | 15.06 | 3.08 |
| June | 80,546 | 250,162 | 310,231 | 152,612 | 3,611,127 | 4,075,970 | 5.74 | 14.43 | 4.48 |
| Total | 915,051 | 2,969,206 | 3,832,245 | 1,855,262 | 41,903,686 | 47,591,193 | 6.22 | 14.11 | 42.755 |

C.—INTERCOLONIAL RAILWAY.

ABSTRACT of Locomotive Returns for Year ending June 30th, 1885.

| Months. | Hours in Steam. | Locomotive Mileage. | Consumption. | | | Average Consumption per 100 Miles. | | | | | |
|-------------------|-----------------|---------------------|---------------|---------------|----------------|------------------------------------|-----------------------------|--------------|------------|----------------|---------------|
| | | | Tons of Coal. | Pints of Oil. | Pounds Tallow. | Pounds Waste. | Miles Run to hour in Steam. | Pourds Coal. | Pints Oil. | Pounds Tallow. | Pounds Waste. |
| 1884—July..... | 35,391 | 383,784 | 9,561 | 27,306 | 11,272 | 6,670 | 10.84 | 5,580 | 7.11 | 2.94 | 1.74 |
| August..... | 34,530 | 369,408 | 9,439 | 26,529 | 12,826 | 6,618 | 10.70 | 5,724 | 7.18 | 3.47 | 1.79 |
| September..... | 34,232 | 364,477 | 9,486 | 25,370 | 12,603 | 6,667 | 10.65 | 5,830 | 6.96 | 3.46 | 1.83 |
| October..... | 40,099 | 416,562 | 11,687 | 26,637 | 14,188 | 7,429 | 10.39 | 6,285 | 6.39 | 3.41 | 1.78 |
| November..... | 40,084 | 408,566 | 11,637 | 24,926 | 12,994 | 6,580 | 10.20 | 6,380 | 6.10 | 3.18 | 1.61 |
| December..... | 40,654 | 403,899 | 11,409 | 24,984 | 12,687 | 7,005 | 9.94 | 6,327 | 6.19 | 3.14 | 1.73 |
| 1885—January..... | 40,288 | 3 4 749 | 11,539 | 23,948 | 11,581 | 6,533 | 9.80 | 6,548 | 6.07 | 2.93 | 1.65 |
| February..... | 41,163 | 379,986 | 11,218 | 24,681 | 11,459 | 5,989 | 9.23 | 6,613 | 6.50 | 3.02 | 1.58 |
| March..... | 47,443 | 423,601 | 12,512 | 25,530 | 12,539 | 6,701 | 8.93 | 6,616 | 6.03 | 2.96 | 1.58 |
| April..... | 49,275 | 477,550 | 13,049 | 31,069 | 13,070 | 7,459 | 9.69 | 6,121 | 6.51 | 2.74 | 1.57 |
| May..... | 40,121 | 409,471 | 10,441 | 25,755 | 12,282 | 7,196 | 10.21 | 5,712 | 6.29 | 3.00 | 1.76 |
| June..... | 38,055 | 404,874 | 10,037 | 26,900 | 12,454 | 7,131 | 10.64 | 5,553 | 6.64 | 3.08 | 1.76 |
| Total..... | 481,325 | 4,836,927 | 132,015 | 313,635 | 149,955 | 82,008 | 10.05 | 6,114 | 6.48 | 3.10 | 1.70 |

D.—INTERCOLONIAL RAILWAY.

STATEMENT of the cost of Locomotive Power for each month, from 1st July, 1884, to 30th June, 1885.

| Months. | Miles run by Engines. | Driver's and Fireman's Wages. | Fuel. | Oil, Tallow and Waste. | Repairs to Engines, Tenders and Tools. | Water. | Miscellaneous, including Engine-houses and Staff. | Total. | Averages 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. |
| 1884—July | 383,784 | 14,855 23 | 24,691 34 | 4,122 15 | 15,789 60 | 1,184 19 | 2,967 48 | 63,609 99 | 3 99 | 6 43 | 1 06 | 4 11 | 0 31 | 0 78 | 16 58 |
| August | 369,408 | 13,635 13 | 22,788 97 | 4,054 05 | 12,302 29 | 2,184 09 | 3,637 33 | 58,601 86 | 3 69 | 6 16 | 1 09 | 3 34 | 0 59 | 0 99 | 15 86 |
| September | 364,477 | 13,967 01 | 23,040 81 | 3,896 70 | 18,589 70 | 1,443 55 | 3,797 95 | 64,735 72 | 3 83 | 6 34 | 1 06 | 5 10 | 0 39 | 1 04 | 17 76 |
| October | 416,562 | 15,895 45 | 30,275 71 | 4,492 63 | 18,486 10 | 1,534 99 | 4,535 55 | 76,220 43 | 3 81 | 7 27 | 1 08 | 4 44 | 0 37 | 1 09 | 18 06 |
| November | 408,566 | 15,361 85 | 31,501 43 | 4,424 47 | 18,708 05 | 4,297 74 | 3,770 66 | 78,064 20 | 3 76 | 7 71 | 1 08 | 4 58 | 1 05 | 0 92 | 19 10 |
| December | 403,899 | 15,563 68 | 20,351 25 | 4,528 99 | 14,350 72 | 2,976 80 | 4,672 97 | 62,444 41 | 3 85 | 5 04 | 1 12 | 3 55 | 0 74 | 1 16 | 15 46 |
| 1885—January | 394,749 | 16,109 83 | 21,345 23 | 3,333 51 | 10,447 72 | 2,258 05 | 3,320 94 | 56,815 28 | 4 08 | 5 42 | 0 84 | 2 65 | 0 57 | 0 84 | 14 40 |
| February | 379,936 | 15,086 67 | 20,136 6 | 2,882 87 | 8,332 58 | 1,280 66 | 1,729 30 | 49,448 69 | 3 97 | 5 30 | 0 76 | 2 19 | 0 34 | 0 45 | 13 01 |
| March | 423,601 | 16,009 15 | 21,977 17 | 3,317 45 | 9,378 59 | 3,139 51 | 3,123 29 | 56,945 16 | 3 78 | 5 19 | 0 78 | 2 21 | 0 74 | 0 74 | 13 44 |
| April | 477,550 | 18,750 06 | 24,361 62 | 3,628 61 | 9,456 38 | 1,642 08 | 2,717 22 | 60,555 97 | 3 92 | 5 10 | 0 75 | 1 98 | 0 34 | 0 59 | 12 68 |
| May | 409,471 | 16,272 75 | 18,750 49 | 4,354 48 | 12,316 49 | 1,077 49 | 3,510 74 | 56,282 44 | 3 97 | 4 58 | 1 06 | 3 01 | 0 26 | 0 86 | 13 74 |
| June | 404,874 | 15,225 75 | 17,360 02 | 3,871 38 | 8,839 88 | 1,669 00 | 2,576 70 | 49,542 73 | 3 76 | 4 29 | 0 96 | 2 18 | 0 41 | 0 64 | 12 24 |
| Total | 4,836,927 | 186,732 56 | 276,580 65 | 46,907 29 | 156,998 10 | 24,688 15 | 40,360 13 | 732,266 88 | 3 86 | 5 72 | 0 97 | 3 25 | 0 51 | 0 83 | 15 14 |

E.—INTERCOLONIAL RAILWAY.

GENERAL STATEMENT of the Expenses of the Mechanical Department, for the Year ending 30th June, 1885.

| | \$ | cts. |
|--|------------|------|
| The miles run by trains were..... | 3,992,506 | |
| do engines were | 4,836,927 | |
| do cars were..... | 47,591,193 | |
| do snow ploughs were | 42,755 | |
| | | |
| The cost of locomotive power..... | 732,266 | 88 |
| | | |
| The cost of car repairs : | | |
| Repairs to passenger cars | 56,318 | 80 |
| do postage, express and baggage cars | 20,353 | 40 |
| do freight cars and vans | 197,650 | 68 |
| Oil and waste for packing..... | 26,978 | 64 |
| Miscellaneous..... | 181 | 74 |
| | | |
| The cost of locomotive power per 100 miles run by trains was..... | 18 | 34 |
| do do do engines | 15 | 14 |
| do do do cars..... | 1 | 54 |
| | | |
| The cost of repairs to cars per 100 miles run by trains was | 6 | 87 |
| do do engines | 5 | 67 |
| do do cars..... | 0 | 57 |
| | | |
| The cost of oil and waste for packing per 100 miles run by trains was..... | 0 | 68 |
| do do do engines | 0 | 56 |
| do do do cars | 0 | 06 |
| | | |
| The cost of repairs to passenger cars per 100 miles run by them was | 1 | 46 |
| do postal, express and baggage do | 1 | 09 |
| do freight cars and vans do | 0 | 47 |

No. 2.—INTERCOLONIAL RAILWAY.

DR.

REVENUE ACCOUNT, Year ending 30th June, 1885.

CR.

| Previous Year. | Expenditure. | Year ending 30th June, 1885. | Previous Year. | Earnings. | Year ending 30th June, 1885. |
|----------------|-----------------------------|------------------------------|----------------|-------------------------|------------------------------|
| \$ cts. | | \$ cts. | \$ cts. | | \$ cts. |
| 757,162 49 | Locomotive power | 732,266 88 | 760,045 05 | Passenger traffic..... | 709,927 24 |
| 531,215 91 | Car expenses do | 555,566 31 | 1,451,540 12 | Freight do..... | 1,516,628 43 |
| 560,801 18 | Maintenance of way works do | 687,605 08 | 142,062 09 | Mails and sundries..... | 141,697 98 |
| 325,873 10 | Station expenses do | 327,887 14 | | Balance..... | 2,368,153 65 |
| 171,776 70 | General charges do | 161,330 16 | | | 73,324 26 |
| 2,346,829 38 | Car mileage..... | 2,434,655 57 | | | |
| Cr. 2,250 29 | | Cr. 6,822 34 | | | |
| 2,344,579 09 | Balance..... | | 2,353,647 26 | | |
| 9,068 17 | | | | | |
| 2,353,647 26 | | 2,441,477 91 | | | 2,441,477 91 |

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1885.

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

| Previous Year. | — | Year ending 30th June, 1885. |
|----------------|---|------------------------------|
| \$ cts. | | \$ cts |
| 7,820 65 | Mechanical Superintendent's salary, Clerk's Office and Travelling expenses..... | 7,838 37 |
| 175,444 71 | Wages, Drivers, Firemen and Cleaners | 186,732 56 |
| 265,551 75 | Fuel..... | 276,580 65 |
| 50,232 96 | Oil, Tallow, Waste and small Stores..... | 46,907 29 |
| 178,909 93 | Repairs to Engines, Tenders and Engine Tools | 156,998 10 |
| 38,702 29 | Water, including Pump and Tank repairs..... | 24,688 15 |
| 40,500 20 | Miscellaneous | 32,521 76 |
| 757,162 49 | | 732,266 88 |

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1885.

No. 4.—INTERCOLONIAL RAILWAY.

CAR EXPENSES—(Abstract No. 2.)

| Previous Year. | — | Year ending 30th June, 1885. |
|-------------------|--|------------------------------------|
| \$ cts. | | \$ cts. |
| 62,522 38 | Repairs to Passenger cars. | 56,318 80 |
| 18,203 49 | do Postal, Express and Baggage cars. | 20,353 40 |
| 181,146 73 | do Freight cars and Vans | 197,650 68 |
| 177,628 79 | Wages of Conductors, Train Baggage Masters and Brakesmen. | 194,029 06 |
| 33,097 86 | Oil and Waste for packing..... | 26,978 64 |
| 42,441 72 | Small Stores and Fuel..... | 45,531 65 |
| 16,174 94 | Miscellaneous..... | 14,704 08 |
| 531,215 91 | | 555,566 31 |

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1885.

No. 5.—INTERCOLONIAL RAILWAY.

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

| Previous Year. | | Year ending 30th June, 1885. |
|----------------|--|------------------------------|
| \$ cts. | | \$ cts. |
| 3,804 73 | Chief and Assistant Engineer, Salaries, Clerks, Office and Travelling expenses..... | 4,911 35 |
| 280,153 41 | Wages in repairing Roadway, Fences and Semaphores, including new Sidings laid in..... | 300,441 53 |
| 18,770 54 | Rails and Fastenings, including new Sidings laid in | 55,788 79 |
| 46,968 78 | Sleepers..... | 41,665 65 |
| 38,792 39 | Timber, Lumber, etc., for repairs to Bridges, Cattle Guards, Crossings, Snow-sheds, Fences, etc..... | 71,307 08 |
| 6,686 48 | Repairs to Wharves..... | 13,419 67 |
| 105,929 71 | Repairs to Buildings and Platforms, including extensions of and additions to same..... | 90,061 48 |
| 15,738 56 | Repairs to Snow Ploughs, Flangers and Tools..... | 17,988 91 |
| 41,660 32 | Clearing Ice and Snow..... | 58,081 15 |
| 2,296 26 | Miscellaneous..... | 3,939 47 |
| 560,801 18 | | 657,605 08 |

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1885.

No. 6.—INTERCOLONIAL RAILWAY.

STATION EXPENSES—(Abstract No. 4).

| Previous Year. | | Year ending 30th June, 1885. |
|----------------|---|------------------------------|
| \$ cts. | | \$ cts. |
| 254,396 66 | Salaries and Wages of Station Masters, Agents, Clerks, Telegraph Operators, Station Baggage Masters, Switchmen, Watchmen and Laborers and Yard Masters..... | 260,440 86 |
| 71,476 44 | Fuel, Oil, Light, Stationery, Tickets and other incidental expenses..... | 67,416 28 |
| ..... | Miscellaneous..... | ..... |
| 325,873 10 | | 327,887 14 |

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1885.

No. 7.—INTERCOLONIAL RAILWAY.

GENERAL CHARGES—(Abstract No. 5).

| Previous Year. | — | Year ending 30th June, 1885. |
|----------------------|---|------------------------------------|
| \$ cts. 63,016 07 | Chief Superintendent, District Superintendents, Train Despatchers, General Freight Agent, General Passenger Agent, Clerks, office and travelling expenses | \$ cts. 65,415 42 |
| 19,448 87 | Accounting Department—Salaries of the Chief Accountant and Treas- urer, Traffic Auditor, Paymaster, Cashier, Clerks, office and travelling expenses.. .. | 20,392 93 |
| 17,083 30 | Damages to men, animals and goods. | 10,025 41 |
| 22,566 09 | Ferry service..... | 21,311 67 |
| 2,261 93 | Telegraph expenses (not including pay to operators).... | 4,346 87 |
| 31,107 32 | Miscellaneous—Printing, advertising, &c. | 25,982 76 |
| 15,893 12 | Agency expenses | 13,855 10 |
| 171,376 70 | | 161,330 16 |
| 400 00 | Special vote, Mrs. E. C. Ennis, Indemnity for injuries to her late hus- band, E. C. Ennis ..... | ..... |
| 171,776 70 | | 161,330 16 |

THOMAS WILLIAMS,

Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1885.

No. 9.—INTERCOLONIAL RAILWAY.

GENERAL BALANCE, 30th June, 1885.

DR.

CR.

| | \$ | cts. | \$ | cts. |
|---|---------|------|--------|------|
| Cash..... | | | 33,935 | 91 |
| General Stores :— | | | | |
| Ordinary stores, including fuel..... | 413,994 | 87 | | |
| Iron and steel rails and fastenings..... | 126,400 | 06 | | |
| Second hand material, serviceable..... | 58,454 | 35 | | |
| Old material for sale..... | 126,935 | 00 | | |
| Stations..... | 723,784 | 27 | | |
| Rents..... | 77,242 | 14 | | |
| Accident insurance..... | 1,496 | 69 | | |
| Unclaimed freight..... | 16,560 | 63 | | |
| Grand Trunk Railway, general account..... | 272 | 21 | | |
| do traffic account..... | 17,596 | 91 | | |
| Windsor and Annapolis Railway, new account..... | 862 | 08 | | |
| do do old account..... | 6,684 | 48 | | |
| Spring Hill and Parrshoro' Railway..... | 15,893 | 35 | | |
| Western Counties Railway, general account..... | 1,657 | 42 | | |
| do traffic account..... | | | | |
| Windsor Branch Railway..... | 17,550 | 77 | | |
| Prince Edward Island Railway..... | 545 | 95 | | |
| St. Martin's and Upham Railway..... | 2,486 | 13 | | |
| Elgin Branch Railway..... | 4,107 | 39 | | |
| Canadian Pacific Railway, old account..... | 736 | 10 | | |
| do do..... | 123 | 70 | | |
| Oxford Branch Railway..... | 3,961 | 59 | | |
| Halifax and Cape Breton Railway..... | 12,324 | 80 | | |
| Chatham Branch Railway..... | 1,546 | 82 | | |
| Nova Scotia, or Eastern Extension Railway..... | 1,565 | 27 | | |
| Quebec Central Railway..... | 2,158 | 27 | | |
| Northern and Western Railway of New Brunswick..... | 879 | 07 | | |
| Caranquet Branch Railway..... | 174 | 18 | | |
| New Brunswick and Prince Edward Island Railway..... | 75 | 50 | | |
| Cumberland Railway and Coal Co..... | 20,501 | 93 | | |
| Great Eastern Line..... | 684 | 84 | | |
| Acadia Coal Co..... | 2 | 00 | | |
| | 3,220 | 77 | | |

..... Dominion of Canada.....
 Suspense Account.....
 Prince Edward Island Steam Navigation Co.....

Carried forward.....

Carried forward.....

No. 9.—INTERCOLONIAL RAILWAY.—Concluded.
 GENERAL BALANCE, 30th June, 1885.—Concluded.

DR.

| | \$ | cts. | \$ | cts. | Brought forward..... | \$ | cts. | \$ | cts. |
|---|--------|-------|-----------|------|----------------------|-------|-------|-------|-------|
| Intercolonial Coal Co. .... | ..... | ..... | 700 | 48 | ..... | ..... | ..... | ..... | ..... |
| Vale Coal and Iron Co. .... | ..... | ..... | 232 | 35 | ..... | ..... | ..... | ..... | ..... |
| Steel Company of Canada. .... | ..... | ..... | 22,033 | 09 | ..... | ..... | ..... | ..... | ..... |
| Intercolonial Express Co. .... | ..... | ..... | 1,481 | 88 | ..... | ..... | ..... | ..... | ..... |
| Moncton Sugar Refining Co. .... | ..... | ..... | 9,445 | 18 | ..... | ..... | ..... | ..... | ..... |
| Halifax Cotton Co., siding. .... | ..... | ..... | 11,863 | 38 | ..... | ..... | ..... | ..... | ..... |
| Canadian Locomotive and Engine Co. .... | ..... | ..... | 790 | 53 | ..... | ..... | ..... | ..... | ..... |
| Moncton Cotton Co., siding. .... | ..... | ..... | 30 | 50 | ..... | ..... | ..... | ..... | ..... |
| Pullman Palace Car Co. .... | ..... | ..... | 281 | 45 | ..... | ..... | ..... | ..... | ..... |
| Goldbrook Rolling Mills. .... | ..... | ..... | 1,967 | 41 | ..... | ..... | ..... | ..... | ..... |
| Schooner "Mary Jane", .... | ..... | ..... | 71 | 30 | ..... | ..... | ..... | ..... | ..... |
| Bloomfield Station. .... | ..... | ..... | 25 | 21 | ..... | ..... | ..... | ..... | ..... |
| Coal Branch Station. .... | ..... | ..... | 65 | 84 | ..... | ..... | ..... | ..... | ..... |
| Weldford Station. .... | ..... | ..... | 55 | 00 | ..... | ..... | ..... | ..... | ..... |
| Ste. Luce Station. .... | ..... | ..... | 80 | 00 | ..... | ..... | ..... | ..... | ..... |
| Bic Station. .... | ..... | ..... | 22 | 00 | ..... | ..... | ..... | ..... | ..... |
| St. Arsène Station. .... | ..... | ..... | 27 | 00 | ..... | ..... | ..... | ..... | ..... |
| National Car Co. .... | ..... | ..... | 8 | 00 | ..... | ..... | ..... | ..... | ..... |
| Steamer "Contest" .... | ..... | ..... | 1,348 | 75 | ..... | ..... | ..... | ..... | ..... |
| Dredge "Canada" .... | ..... | ..... | 82 | 50 | ..... | ..... | ..... | ..... | ..... |
| Steamer "Admiral" and OWNERS. .... | ..... | ..... | 1,079 | 86 | ..... | ..... | ..... | ..... | ..... |
| Departmental Accounts:— | | | | | | | | | |
| Post Office. | 52,133 | 57 | | | | | | | |
| Militia. | 7,223 | 23 | | | | | | | |
| Agriculture. | 136 | 33 | | | | | | | |
| Interior. | 147 | 70 | | | | | | | |
| Dorchester Penitentiary. | 0 | 53 | | | | | | | |
| Individual accounts. | | | 59,641 | 36 | | | | | |
| | | | 18,394 | 56 | | | | | |
| | | | 1,083,958 | 99 | | | | | |

THOMAS WILLIAMS,
 Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1885

No. 10.—INTERCOLONIAL RAILWAY.

COMPARATIVE STATEMENT of Averages, Year ending 30th June, 1885.

| | 1885. | 1884. |
|---|------------|------------|
| Mileage of railway..... | 861 | 840 |
| Engine mileage..... | 4,836,927 | 4,407,655 |
| Train do | 3,992,506 | 3,653,961 |
| Car do | 47,591,193 | 41,741,080 |
| | \$ cts | \$ cts. |
| Receipts per engine mile | 48 96 | 53 40 |
| do mile of railway..... | 2,750 47 | 2,801 96 |
| | Per cent | Per cent. |
| Percentage of passenger earnings to gross earnings..... | 29·98 | 32·29 |
| do freight do od | 64·04 | 61·67 |
| do other do do | 5·98 | 6·04 |
| Expenses per engine mile— | | |
| Drivers, Firemen and Cleaners' wages..... | 3·86 | 3·98 |
| Fuel | 5·72 | 6 02 |
| Oil, tallow, waste and small stores..... | ·97 | 1·14 |
| Repairs to engines..... | 3·25 | 4·06 |
| Water and tank repairs..... | ·51 | ·88 |
| Miscellaneous | ·67 | ·92 |
| Total..... | 14·98 | 17·00 |
| Mechanical Superintendent's salary, office and travelling expenses..... | ·16 | ·18 |
| | 15·14 | 17·18 |
| Locomotive power per engine mile..... | 15·14 | 17·18 |
| Car expenses do | 11·49 | 12·05 |
| Maintenance of way and works do | 13·59 | 12·72 |
| Station expenses do | 6·78 | 7·39 |
| General charges do | 3·33 | 3·90 |
| Car mileage..... | 50·33 | 53·24 |
| | ·14 | Cr. ·05 |
| Total per engine mile..... | 50·47 | 53·19 |
| Locomotive power per train mile..... | 18·34 | 20·72 |
| Car expenses do | 13·92 | 14·54 |
| Maintenance of way and works do | 16·47 | 15·35 |
| Station expenses do | 8 21 | 8 92 |
| General charges do | 4·04 | 4·70 |
| Car mileage..... | 60·98 | 64·23 |
| | ·17 | Cr. ·06 |
| Total per train mile | 61·15 | 64·17 |
| Working expenses per mile of railway..... | \$2,835 63 | \$2,791 16 |

THOMAS WILLIAMS,
Chief Accountant and Treasurer.

MONCTON, N.B., 30th June, 1885.

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred on the Line

(This Return is made up in compliance with the Provisions

| Date. | Time of Day or Night. | Number of Train. | Description of Train. | Name of Conductor. | Name of Driver. | No. of Engine. |
|------------|-----------------------|------------------|-----------------------|-----------------------|------------------------|----------------|
| 1884. | | | | | | |
| July 2... | 4.45 p.m. | ..... | Shunting..... | ..... | P. Fogarty | 34 |
| do 4... | 2.00 p.m. | ..... | do | G. Upham | M. Tobin | 98 |
| do 5... | 8.10 a.m. | Special.. | Freight | James Daley..... | G. Milne..... | 127 |
| do 10... | 6.55 p.m. | do ... | Ballast..... | A. Moreau..... | J. Valcourt..... | 76 |
| do 12... | 5.25 p.m. | do ... | Freight | O. B. Humphrey | Neil McLean..... | 37 |
| do 14 .. | 9.00 a.m. | do ... | do | Geo. Logan | F. Probert..... | 67 |
| do 15... | 9.12 a.m. | 41 | do | F. Dumond..... | A. Sharp..... | 140 |
| do 17... | 9.10 a.m. | 40 | do | A. McPherson | E. S. White..... | 138 |
| do 19... | 2.35 p.m. | 41 | do | D. Morin | Jas. Scott | 111 |
| do 22... | 2.24 p.m. | ..... | Shunting..... | ..... | P. Fogarty | 34 |
| do 24... | 11.47 p.m. | 45 | Freight | B. Walker..... | S. Jolivet | 45 |
| do 25... | 11.00 a.m. | Special.. | Ballast..... | E. S. Vye | W. E. Turner | 143 |
| do 26... | 10.25 p.m. | do ... | Freight | C. A. Atkinson | J. McQuiggan | 20 |
| do 27... | 7.00 a.m. | do ... | do ..... | ..... | Stratton J. Cook | 144, 41 |
| do 30... | 3.30 p.m. | do ... | do | Geo. Logan | B. Cook..... | 7 |
| do 30... | 9.50 a.m. | 18 | do | J. W. Miller..... | G. Feetham | 9 |
| July 31... | 12.00 p.m. | Special.. | Rail train | Albert Davison..... | Samuel Wilson | 44 |
| Aug. 9... | 12.20 p.m. | 20 | Freight | Geo. W. McCully | — McCarthy..... | 145 |
| do 11... | 8.20 p.m. | Special.. | Special..... | N. McPherson | D. Pineo..... | 66 |
| do 14... | 8.35 p.m. | 33 | Express | F. Derouin | G. Cameron | 133 |

RAILWAY.

of the Intercolonial Railway, during the Year ending 30th June, 1885.

of the Railway Act of 1868, 31 Vic., cap. 68, sec. 43.)

| Place of Accident. | Name of Person Injured. | Whether Passenger or Employé. | Particulars of Accident. | Extent of Injury. | Verdict of Coroner's Jury. |
|--------------------------|-------------------------|-------------------------------|---|---|----------------------------|
| Moncton | Wm. Fogarty... | Employé.. | While coupling, finger injured. | Slightly bruised. | |
| Richmond | Wm. Hinch..... | do ... | While coupling, hand crushed. | Badly bruised... | |
| Painsec | John Carroll ... | do ... | While coupling, hand injured. | do | |
| St. Charles Branch. | Alf. Bégin..... | do ... | While getting on ballast train fell between cars and had arm and leg broken and head cut. | 1 arm and 1 leg broken, head badly cut..... | |
| Dickey's Siding.. | Mr. Hunter..... | Neither... | Train collided with platform, tearing it up. | Head cut | |
| Miller's Siding... | Sedley Johnson | Employé. | While shunting..... | Slightly bruised. | |
| 2 miles east Capsascal. | Samuel Dupère | do ... | Hand car on which he was riding struck by train. | Leg broken, head cut and arm bruised | |
| Coal Branch..... | Chs. Campbell. | do ... | Coupling cars | Arm crushed..... | |
| Rimouski..... | — Martin (little boy). | Neither... | Found between main line and siding. | Leg broken. | |
| Moncton..... | C. Myshrall.... | Employé. | Coupling cars | Hand injured. | |
| St. Philippe de Néri. | E. Sandon | do ... | While going round engine, fell into culvert. | Both legs hurt... | |
| Charlo | Alex. McIntyre. | do ... | Caught foot in guard rail. | Ankle sprained. | |
| 1 mile west of Weldford. | James Reed. ... | Neither... | Attempting to cross in front of train. | Fatal..... | Accidental. |
| Moncton | M. Lockhart.... | Employé.. | Attempting to get on train. | Knee hurt | |
| River Philip grade. | H. R. Black ... | Neither ... | Getting off train in motion. | Leg broken..... | |
| Malcolm's Siding | G. McElhenny. | Employé.. | Coupling cars..... | Hand bruised ... | |
| Moncton | W. Marshall.... | Employé.. | Coupling car to engine... | Back hurt | |
| Nappan | Benj. Peterson. | do ... | Loading plaster. | Finger jammed .. | |
| New Mills | Jas. McMillan . | Neither... | Attempting to cross in front of train, was struck by engine. | Arm broken and head cut. | |
| Trois Pistoles ... | Théo. Bélanger (child). | do | While standing on track was struck by train. | Not seriously injured. | |

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred

| Date. | Time of Day or Night. | Number of Train. | Description of Train. | Name of Conductor. | Name of Driver. | No. of Engine. |
|------------|-----------------------|------------------|-----------------------|------------------------|----------------------|----------------|
| 1884. | | | | | | |
| Aug. 18... | 3.00 a.m. | ..... | Shunting | C. Cudle, Stat. Mast'r | John Leonard | 95 |
| do 20... | 9.30 p.m. | Special. | Freight | J. W. Henderson..... | N. Sinclair | 108 |
| do 23... | 2.00 p.m. | do .. | do | Wm. Crockett..... | Geo. Manning | 37 |
| do 25... | 10.00 a.m. | ..... | Shunter ..... | ..... | J. McDermott..... | 99 |
| do 26... | 11.00 a.m. | ..... | do ..... | ..... | R. James..... | 100 |
| do 29... | 6.10 p.m. | Special. | Ballast | A. Bouchard..... | Jas. Valcourt..... | 16 |
| Sept. 1... | ..... | do .. | Coal | A. B. Vance..... | — Ferguson..... | 125 |
| do 2... | 9.35 p.m. | 44 | Freight | G. Maxwell..... | J. Miller..... | 1 |
| do 2... | 8.00 a.m. | 42 | do | D. Morin | Jas. Scott | 6 |
| do 3 & 4.. | Bet. 11 p.m. & 4 a.m. | ..... | ..... | ..... | ..... | ..... |
| do 3 & 4.. | do .. | ..... | ..... | ..... | ..... | ..... |
| do 5... | 8.00 p.m. | Special. | Freight | J. B. Chatigny..... | J. G. McDonald | 103 |
| do 6... | 10.20 p.m. | 9 | Express | Jas. Millican..... | A. Donald..... | 150 |
| do 13... | 11.00 p.m. | 44 | Freight | H. Aubin..... | N. Parcau..... | 17 |
| do 14... | 12.21 a.m. | 39 | do | M. Cummings | S. Wilson | 44 |
| do 20... | 2.50 p.m. | Special | Ballast..... | E. S. Vye | P. H. Moore | 138 |
| do 20... | ..... | do .. | Freight..... | A. Chamberland..... | L. Boulé..... | 117 |
| do 24... | ..... | do .. | do | do | — Bernier | 30 |
| do 26... | 7.00 a.m. | 36 | Accommodation. | N. McDougall | W. D. Martin | 42 |
| Oct. 5... | 3.30 p.m. | ..... | Shunter ..... | ..... | Jas. Langlois..... | 14 |
| do 6... | 4.00 p.m. | ..... | do ..... | ..... | A. B. White ..... | ..... |

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. |
|--------------------------------|--|---------------------------------|--|--|----------------------------|
| Truro | Jas. Whalley... | Employé.. | Coupling cars..... | Thigh injured.... | |
| Canaan | Geo. McGinn... | do ... | do | Arm bruised..... | |
| 4 miles west of Berry's Mills. | — Turner (child). | Neither... | While sitting on side of track was struck by train. | Not seriously hurt. | |
| Moncton | Joseph Fenton. | Employé.. | Coupling cars | Finger crushed.. | |
| St. John..... | Chas. James... | do ... | do | Chest jammed ... | |
| 3 miles east of Point Levis. | Philéas Guay... | do ... | Train struck hand car on which he was riding. | Slightly hurt... | |
| Drummond Sid-ing. | A. B. Vance... | do ... | Slipped when getting off van. | Leg injured | |
| St. Fabien | Auguste Rioux. | do ... | Coupling cars | Arm crushed. ... | |
| St. Arsène..... | Henri Michaud. | do ... | Unloading freight, puncheon of molasses rolled on him. | Body injured. ... | |
| Near Norton..... | Ths. Nickerson. | Neither... | Lying on track intoxicated. | Foot taken off... | |
| do | Wm. Hogan.... | do ... | do do ... | Fatal | Accidental. |
| ½ mile east of Cedar Hall. | Baptiste Dubé. | Employé.. | Fell off cars | Slightly injured. | |
| Thomson | Sedley Johnson | do ... | Supposed to have been lying on track, struck by train. | Fatal | do |
| Ste. Luce | Aug. Courbron | do ... | Walking round train, fell into culvert. | Knee hurt | |
| Weldford..... | Albert Hope... | do ... | Fell off box car on to end of draw bar. | Shoulder hurt... | |
| 3 miles west of New Mills. | Benj. Braham.. | Neither ... | Fell between cars..... | Arm cut off..... | |
| Ste. Anne | E. Jean | Employé . | Coupling cars | 1 finger crushed. | |
| L'Islet | F. Beaubien ... | do ... | Taking off brakes, slipped | Knee hurt | |
| Charlo Tank... | { Mrs. Taylor ... Mr. Metzler..... Dr. Harris..... | { Passenger do ... do ... | { Broken rail threw first-class car off. } | { Face scratched.. Side bruised..... 1 finger cut..... | |
| Chaudière | J. St. Ange..... | Employé.. | Coupling cars | Hand caught, lost part finger. | |
| Moncton..... | G. Armstrong. | do ... | do | Hand torn..... | |

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred

| Date. | Time of Day or Night. | Number of Train. | Description of Train. | Name of Conductor. | Name of Driver. | No. of Engine. |
|-----------|-----------------------|------------------|-----------------------|-----------------------|--------------------|----------------|
| 1884. | | | | | | |
| Oct. 7... | 6.30 p.m. | Special. | Freight..... | J. H. Henderson | Geo. Manning | 20 |
| do 10... | ..... | do .. | do | W. M. Thomson..... | N. Sinclair | 37 |
| do 11... | 10.00 a.m. | 19 | Express | E. C. Davidson..... | J. McDowell..... | 72 |
| do 16... | 2.15 p.m. | Special. | Freight | John Casey | J. Cook | 127 |
| do 23... | 1.00 a.m. | ..... | do | C. Quimper..... | J. Oakleaf..... | 2 |
| do 20... | 10.15 p.m. | ..... | do | Geo. Logan | J. Ferguson..... | 97 |
| do 24... | 8.50 p.m. | ..... | Shunter ..... | ..... | M. White | 18 |
| do 28... | 4.30 p.m. | ..... | Freight | E. S. Vye. | J. Rolston..... | 142 |
| do 28... | 9.20 a.m. | ..... | do | B. Walker | W. Brock | 77 |
| Nov. 3... | 5.00 p.m. | ..... | ..... | ..... | ..... | ..... |
| do 6... | 4.30 a.m. | Special. | Passenger cars... | T. Bouchard..... | J. Miller..... | 1 |
| do 6... | 12.00 noon | ..... | ..... | ..... | ..... | ..... |
| Nov. 7... | 7.00 a.m. | 14 | Accommodation. | W. H. Donkin | G. Feetham | 56 |
| do 7... | 6.23 p.m. | 12 | Freight | R. A. Rannie | W. J. Hunter | 48 |
| do 10... | 2.40 p.m. | 11 | do | A. W. Melick | Geo. McAuley | 51 |
| do 11... | 1.45 a.m. | 31 | Express | A. E. Olive..... | J. Brownell..... | 148 |
| do 11... | 7.00 a.m. | ..... | ..... | ..... | ..... | ..... |
| do 11... | 8.30 a.m. | Special.. | Freight..... | G. Langlais | A. J. Sharp..... | 146 |
| do 17... | 2.05 p.m. | 11 | do | A. W. Melick | S. Watson | 51 |
| do 19... | 3.15 p.m. | 31 | Express..... | E. McKenna | C. E. Sawyer | 133 |
| do 22... | 9.00 p.m. | ..... | ..... | ..... | J. Robert | 8 |
| do 23... | ..... | ..... | ..... | ..... | ..... | ..... |

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. |
|---------------------------|-----------------------------------|-------------------------------|--|--|----------------------------|
| Derby | W. B. Thomson | do ... | do | Hand jammed.... | |
| Newcastle | John B. Cook.. | do ... | Shunting | Ankle sprained . | |
| Truro | J. A. McDonald | Passenger | Got on wrong car, and in getting off | Broke and dislocated a nkle, causing lameness. | |
| Memramcook | M. Connoly..... | Employé.. | Pulling down semaphore. | 1 finger bursted. | |
| Ste. Flavie | Chas. Lepage... | do ... | Running to get on train, fell. | Arm broken | |
| Bedford | Wm. Sweeney. | Neither.... | Lying on track | Fatal | Accidental. |
| Moncton..... | Jas. Lockhart. | Employé.. | Coupling cars | Leg jammed..... | |
| Joal Branch..... | S. Hillson. | do ... | Fell off car | Leg hurt | |
| Levis..... | A. B. Dionne... | do ... | Coupling cars ... | Chest squeezed.. | |
| Richmond | Hedley Walker | Neither.... | Entering hole below floor and inside of freight shed on wharf, fell into dock. | Drowned | do |
| Between Bic and Rimouski. | Ovide Perron... — Lefèvre..... | Employé.. Neither... } | Ran into washout..... | { Slightly hurt.... Shoulder dislocated. | |
| Truro yard | Wm. Lee (child). | do ... | Playing among cars with other children, head caught and crushed. | Fatal | |
| Winfield | Thos. Johnson. | Employé . | Got hand caught in car door. | Finger hurt..... | |
| Bothesay | John Henderson | do ... | Jumped off car | Ankle sprained.. | |
| Sauwigewauk .. | Fred. Palmer... | do ... | Unloading freight..... | Wrist sprained.. | |
| Moncton | P. C. Ayer | do ... | Coupling cars | Hand smashed... | |
| St. John..... | Wm. Kelly | do ... | Unloading baggage, fell on track. | Side slightly injured. | |
| St. Flavie | — Couillard ... | do ... | Coupling cars | Lost tips 2 fingers | |
| Hampton..... | Irvine Deacon . | do ... | Fell between cars; train passed over him. | Fatal | Accidental. |
| Les Trois Pistoles .. | Achille Rioux... | Neither... | Attempting to take plank off track, was thrown against pile of lumber. | do | do |
| Moncton.. | H. Wright | Employé.. | Coupling cars | Chest jammed.... | |
| Truro | Jas. Sutton..... | do ... | Fell off train..... | Head cut..... | |

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred

| Date. | Time of Day or Night. | Number of Train. | Description of Train. | Name of Conductor. | Name of Driver. | No. of Engine. |
|-----------|-----------------------|------------------|-----------------------|--------------------|------------------------|----------------|
| 1884. | | | | | | |
| Dec. 3... | 3.30 a.m. | Special. | Freight | G. Margeson..... | J. Ferguson | 35 |
| do 4... | 2.00 p.m. | ..... | Shunting ..... | ..... | J. W. Boyd | 95 |
| do 9... | 3.00 p.m. | ..... | do ..... | ..... | A. LaCroix.... | 96 |
| do 10... | 4.15 p.m. | ..... | do ..... | ..... | E. Tobin | 85 |
| do 19... | 9.00 p.m. | Special. | Freight | E. S. Watts..... | I. Grattan..... | 114 |
| do 19... | 11.20 p.m. | ..... | do | L. J. Paulet | I. Oaklet..... | 2 |
| do 22... | ..... | ..... | ..... | ..... | ..... | ..... |
| do 23... | Day | 2 | Express..... | G. H. Trueman ... | S. Trider..... | 58 |
| do 23... | ..... | 39 | Freight | M. Cummings | T. Ashe | 86 |
| do 23... | 5.30 a.m. | Special | do | A. V. Fiola..... | D. Gallan..... | 28 |
| do 23... | do ... | do ... | do | do | do | 28 |
| do 24... | 11.15 p.m. | do ... | do | J. Daucett..... | J. McGuigan..... | 47 |
| do 27... | 7.40 a.m. | 34 | Express | Thos. Corbett..... | J. Brownell | 152 |
| do 31... | ..... | Special. | Freight | R. W. Vye..... | N. McLean..... | 160 |
| 1885. | | | | | | |
| Jan. 2... | 12.45 p.m. | Special. | Freight..... | F. Bellemere..... | O. Jolivet..... | 45 |
| do 13... | 9.40 p.m. | 47 | do | F. Derouin..... | A. Doig | 3 |
| do 19... | 12.35 p.m. | 41 | do | M. Audet | W. Bastain.... | 154 |
| do 20... | 2.35 a.m. | 33 | Express..... | P. Corbett..... | I. Brownell. | 152 |
| do 24... | 12.30 p.m. | Special. | Freight..... | I. Craigie..... | I. Probert..... | 39 |
| do 26... | 9.40 p.m. | do . | do | W.M. Thompson..... | James Cooke..... | 141 |
| Feb. 2... | 11.30 p.m. | 24 | do | John Casey..... | D. A. Cameron | 79 |
| do 2... | 3.20 a.m. | Special. | Snow train..... | ..... | S. Prider..... | 58 |
| do 2... | 8.00 p.m. | 4 | Accommodation. | John Fayden | M. F. Jones..... | 53 |
| do 3... | 2.30 p.m. | 45 | do ... | Geo. Levesque..... | A. Dolg and P. Brenier | 3 & 1 |

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. |
|-------------------------------|-------------------------|------------------------------|--|----------------------------|----------------------------|
| Spring Hill | Chas. Tupper... | do ... | Fell off tender taking coal | Head cut..... | |
| Truro | Alex. Stevenson | do ... | Coupling cars..... | Finger smashed | |
| Chaudière | Chas. Morency. | do ... | Shunting, slipped and fell | Hurt internally.. | |
| Richmond | E. M. Power ... | do ... | Coupling cars | Thumb and finger hurt. | |
| Rogerville..... | F. McClure..... | do ... | do | 2 fingers off..... | |
| ½ mile east of Little Métis. | Anseline Turgeon. | do ... | Fell off train..... | Fatal | Accidental. |
| St. John..... | R. Irvine..... | do ... | Coming out of shunter's house, steps gave away. | Both ankles hurt. | |
| Near Amherst ... | Miss 'Bella McDonald. | Passenger | While on train | Died from natural causes. | |
| Rogersville Tank | F. Dixon | Employé.. | Fell off box car | Shoulder and chest hurt. | |
| Trois Pistoles ... | Geo. Beaubien. | do ... | Jumped from engine in collision. | Leg broken | |
| do ... | N. Handry | do ... | do | Hurt slightly..... | |
| ¼ mile west of Berry's Mills. | W. Doyle..... | do ... | Fell off train..... | Fatal | do |
| Newcastle | L. Conneil | do ... | Uncoupling engine..... | Head badly hurt. | |
| Near Barnaby River. | J. Welsh..... | do ... | Applying brakes, spindle broke. | Back hurt | |
| St. Alexandre ... | Louis Ruaist... | Employé.. | While coupling..... | Hand crushed... .. | |
| Rivière du Loup | Chas. Soucy... .. | do ... | Fell off box car | Hurt chest..... | |
| Sayabec..... | Alphonse Dion. | do ... | While coupling..... | Finger crushed. | |
| Newcastle..... | Wm. Gardner.. | do ... | Fell off tender..... | Hurt side and shoulder. | |
| Spring Hill..... | N. Hopper | do ... | While coupling..... | Finger hurt..... | |
| Bartibogue..... | Martin Haley... .. | do ... | do | Hand jammed... .. | |
| Amherst... .. | Martin Conelly | do ... | do | Hand injured... .. | |
| Moncton..... | Wm. Arbing... .. | do ... | Struck by flat car..... | Shoulder injured slightly. | |
| Near Shediac... .. | John Thompson | do ... | Train broke apart, rear portion colliding with engine. | Hips injured..... | |
| St. Pierre..... | P. Bernier | do ... | Fell out of engine. | Fatal | do |

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in

| Date. | Time of Night or Day. | Number of Train. | Description of Train. | Name of Conductor. | Name of Driver. | No. of Engine. |
|------------|-----------------------|------------------|-----------------------|----------------------|--|----------------|
| 1885. | | | | | | |
| Feb. 7... | 8.40 a.m. | 1 | Express..... | D. Rutherford | I. H. Hunter..... | 59 |
| do 14... | 9.00 a.m. | Special. | Snow train. | P. Bellemere..... | L. Langlois..... | 16 |
| do 14... | 9.00 a.m. | do .. | do | do | do | 16 |
| do 15... | 10.45 a.m. | do .. | Freight..... | W. Crocket..... | J. Gilfillan..... | 91 |
| do 16... | 4.10 a.m. | do .. | do | Jas. McDonald..... | Jos. Probert..... | 8 |
| do 21... | 7.35 p.m. | 33 | Express..... | Geo. Conturier. | John McDonald... .. | 157 |
| do 25... | 7.00 a.m. | ..... | Shunting engine ..... | ..... | I. J. Smith..... | 26 |
| do 26... | 5.10 a.m. | Special. | ..... | A. S. Piola..... | C. Walker..... | 133 |
| March 2... | 11.50 a.m. | 38 | Freight..... | N. Merrill..... | J. Stratton | 144 |
| do 7... | 10.15 a.m. | Special. | do | E. L. Watts | { J. Stewart, jun..... E. Rushton..... | 106 161 |
| do 13... | 7.30 p.m. | ..... | Shunting engine | H. Garrett..... | Wm. Lovitt | 93 |
| do 13... | 6.15 p.m. | ..... | do ..... | ..... | J. McDermott..... | 99 |
| do 14... | 8.50 a.m. | 16 | Freight | J. W. Miller | H. McAuley..... | 9 |
| do 14... | 11.00 p.m. | ..... | Shunting engine. .... | ..... | Chas. McHugh..... | 18 |
| do 16... | 1.00 a.m. | Special. | Freight..... | A. Bernier..... | D. McQuarry | 90 |
| do 19... | 10.00 p.m. | ..... | Shunting engine. .... | ..... | P. Fogarty | 27 |
| do 22... | 6.45 a.m. | Special. | Plough..... | C. B. Humphrey | { Jno. Devereaux. Jno. Cameron | 5 153 |
| do 24... | 8.00 p.m. | do .. | do ..... | ..... | A. Sharpe | 140 |
| do 27... | 8.00 a.m. | ..... | Shunting engine. .... | ..... | R. James..... | 48 |
| do 27... | 11.50 a.m. | 39 | Freight..... | Jas. Daley..... | J. Morton | 29 |
| do 28... | 11.15 a.m. | 50 | do | L. Proulx..... | L. Boulé..... | 117 |
| do 28... | 7.00 p.m. | 42 | Accommodation. | — Aubin..... | W. Bastain | 154 |
| do 29... | 8.30 a.m. | Special. | Freight..... | A. Armstrong..... | John Gilker..... | 163 |
| April 2... | 8.30 a.m. | ..... | Shunting engine. .... | ..... | P. Fogarty..... | 101 |
| do 6... | 12.30 a.m. | 34 | Express | A. McLellan..... | E. Lutes..... | 147 |

RAILWAY.

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

| Place of Accident. | Name of Persons Injured. | Whether Passenger or Employé. | Particulars of Accident. | Extent of Injury. | Verdict of Coroner's Jury. |
|-----------------------------|-----------------------------------|-------------------------------|---|------------------------------------|----------------------------|
| Shubenacadie.... | Miss McGuire... | Passenger | Fell off car steps..... | Slightly injured. | |
| Harlaka Junct'n | Louis Brulot... | Employé.. | Fell off car..... | do ... | |
| do ... | Philius Gagné. | do ... | do | do ... | |
| East of Canaan. | Albert Hope.... | do ... | Fell off box car..... | Fatal | Accidental. |
| Windsor Junct'n | J. E. Blair | do ... | Fell off train..... | Back injured..... | |
| Trois Pistoles... | P. Gosselin..... | do ... | While coupling..... | Fatal..... | No inquest held |
| Moncton..... | M. Wilcox | do ... | do | Hip jammed | |
| East Assemet- quaghan | { C. Walker and Joseph Rioux } | do ... | Collision between two specials. | Fatal..... | Accidental. |
| Nash's Creek ... | McLean..... | Neither... | Struck by and carried along by snow plough. | Not injured | |
| } Dalhousie Junction. | C. Rushton..... | Employé .. | While coupling..... | Hand injured. ... | |
| Richmond... .. | Jno. McEachern | do ... | do | do ... | |
| Moncton..... | Geo. Kidd..... | do ... | do | Hand crushed.... | |
| Polly Bog..... | John Pollock... | Employé.. | Fell off box car | Wrist sprained and hip injured. | |
| Moncton | Geo. Oliver.... | do ... | While coupling..... | Hand injured.... | |
| Partague | B. Dubé..... | do ... | While protecting train.. | Foot frozen..... | |
| Moncton..... | Chas. Smith ... | do ... | Struck and knocked down by cattle cars. | Ankle broken and back inj'd. | |
| } East Assemet- quaghan. | L. Levesque.... | do ... | Plough and engine No. 5 left track and upset. | Fatal..... | do |
| St. John Station. | Wm. Kelly | do ... | Unloading baggage | Hand injured.... | |
| St. John..... | Chas. James.... | do ... | Slipped from foot board of engine. | Leg crushed..... | |
| Dalhousie Junc. | J. Carroll..... | do ... | While coupling | Hand injured.... | |
| St. Charles Junc. | O. Fournier | do ... | Was struck by switch post and knocked under car. | Arm crushed..... | |
| Ste. Flavie..... | E. Dubé..... | do ... | While coupling | Hand injured.... | |
| do | A. Michaud ... | do ... | do | do ... | |
| Moncton | S. Boyd | do ... | do | do ... | |
| Newcastle | John Milburn... | do ... | do | do ... | |

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in

| Date. | Time of Day or Night. | Number of Train. | Description of Train. | Name of Conductor. | Name of Driver. | No. of Engine. |
|-----------|-----------------------|------------------|-------------------------------|----------------------|----------------------|----------------|
| 1885. | | | | | | |
| March 7 | 10.15 a.m. | Special. | Freight | C. B. Humphrey | T. Wilkins..... | ..... |
| do 8... | 8.30 a.m. | ..... | Shunting engine. .... | ..... | Thos. Scott..... | 60 |
| do 15... | 5.40 a.m. | 12 | Express | Y. C. Campbell | J. Clark..... | 149 |
| do 17 .. | 7.00 a.m. | 52 | Accommodation. J. McLeod..... | T. Scott..... | ..... | 37 |
| do 17... | 8.00 a.m. | ..... | Shunting engine. .... | ..... | — Mackie | 14 |
| do 17... | 3.33 p.m. | Special. | Freight | M. Cummings | D. McQuarry | 23 |
| do 19... | 12.30 a.m. | do .. | do | H. Drummond | N. McNeil..... | 91 |
| do 29... | 11.00 a.m. | do ... | do | J. E. Evans | T. Wilkins..... | 53 |
| do 30... | 7.35 p.m. | do ... | do | F. Morency | A. Doig..... | 3 |
| May 6... | 1 10 p.m. | 42 | Accommodation. H. Aubin..... | Jos. Scott..... | ..... | 146 |
| do 6... | 1.35 a.m. | 43 | Freight | G. Maxwell..... | T. G. Scott..... | 141 |
| do 6... | ..... | ..... | ..... | ..... | ..... | ..... |
| do 18... | 10.00 a.m. | Special. | Freight | R. W. Vye | John Dalton..... | 91 |
| do 18... | 4.20 p.m. | 20 | Express | E. C. Davidson..... | J. McDowell..... | 70 |
| do 25... | 8.00 a.m. | 38 | Freight | P. Merrill | J. Stratton | 144 |
| do 28... | 7.20 p.m. | ..... | Shunting engine ..... | ..... | John Leonard..... | 95 |
| do 31... | 10.30 a.m. | ..... | do .. | ..... | Geo. Sears..... | 94 |
| June 1... | 3 40 p.m. | 4 | Accommodation J. McFadyen.. | M. F. Jones ..... | ..... | 51 |
| do 1... | ..... | Special. | Freight..... | H. Gauvreau..... | J. Valcourt | 131 |
| do 3... | 9.00 p.m. | ..... | Shunting engine ..... | ..... | Chas. McHugh..... | 18 |
| do 4... | 4.00 a.m. | Special.. | Freight | Jos. Paradis..... | J. Devereaux | 103 |
| do 7... | 5.30 a.m. | ..... | Shunting engine ..... | ..... | M. O'Brien | 99 |
| do 12... | 9.30 a.m. | ..... | do .. | ..... | P. Fogarty | 101 |
| do 13... | 11.30 a.m. | ..... | do .. | ..... | Jas. McDermett | 99 |

RAILWAY.

Canada, on the line of the Intercolonial Railway, &c.—Continued.

| Place of Accident. | Name of Persons Injured. | Whether Passenger or Employé. | Particulars of Accident. | Extent of Injury. | Verdict of Coroner's Jury. |
|------------------------------------|--------------------------|-------------------------------|--|---------------------------------|----------------------------|
| Derby | Jos. Holland ... | do ... | While signalling to driver, fell. | Knee injured ... | |
| Campbellton ... | E S Vye | do ... | While coupling | Hand injured ... | |
| Sackville | — Talbot | Passenger | Stabbed himself..... | Not seriously injured | |
| Dalhousie Junc. | A. Nickerson... | Employé.. | While coupling | Hand injured ... | |
| Rivière du Loup. | — Pelletier..... | do ... | do | Chest squeezed. | |
| Beaver Brook ... | A. McPherson. | do ... | Struck by piece of torpedo. | Cut leg | |
| East Newcastle. | H. Drummond. | do ... | Ladder on box car gave way. | Arm broken and elbow dislocat'd | |
| Chatham Junc... | H. Atkinson ... | do ... | While coupling | Hand bruised ... | |
| St. Alexandre ... | D. Fournier | do ... | do | Side bruised | |
| Ste. Luce. | H. Aubin..... | Employé .. | While getting out of box car. | Sprained ankle.. | |
| Cedar Hall..... | C. Caron | do ... | Part of driving wheel broke, and came thro' cab. | Injured about body. | |
| Deep water terminus shed, Halifax. | Thos. Kelly. ... | do ... | Carrying chest of tea..... | Ran nail into hand. | |
| Newcastle. | — Tingley | do ... | While coupling. | Hand injured | |
| Valley. | E. C. Davidson | do ... | Slipped and fell | Broke ankle..... | |
| Dalhousie Junc. | D. Haines. | do ... | Fell off box car. | Back and ankle injured. | |
| Truro | John Leonard . | do ... | Gauge glass broke | Hand scalded.... | |
| Campbellton. ... | Thos. Brown ... | do ... | While coupling. | Chest squeezed .. | |
| Boundary Creek. | — Wilson | do ... | Attempting toboard train | Broke leg | |
| Assemetquaghan | A. Michaud. '... | do ... | Brake chain broke | Sprained wrist... | |
| Moncton | H. Melouson... | do ... | Caught foot in rail..... | Ankle sprained.. | |
| Assemetquaghan | B. Dubé. | do ... | While coupling. | Hand injured.... | |
| Moncton..... | M. Russell | do ... | Fell off car. | Two ribs broken. | |
| do | Geo. Oliver. ... | do ... | While coupling..... | Chest crushed... | |
| do | Geo. Seamons. | do ... | do | Arm crushed. ... | |

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in

| Date. | Time of Day or Night. | Number of Train. | Description of Train. | Name of Conductor. | Name of Driver. | N |
|------------|-----------------------|------------------|-----------------------|-----------------------|--------------------|-----|
| June 18... | ..... | 10 | Express | Jas. Millican.. ..... | ..... |  |
| do | 22... 9.00 p.m. | ..... | Shunting engine ..... | ..... | Jas. Cole. | 18 |
| do | 24... 1.45 p.m. | 33 | Express | J. Barry | A. Shickle..... | 129 |
| do | 29... 8.30 a.m. | ..... | ..... | ..... | ..... |  |
| do | 29... 2.25 a.m. | Special. | Freight | J. E. Evans | Fred. Moore | 5 |

RAILWAY.

Canada, 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. |
|--------------------|--|-------------------------------|---------------------------------|-----------------------------|----------------------------|
| Salt Springs | A little child, daughter of Mrs. J. A. McDonald. | Passenger | Died on train. | Natural cause.... | |
| Moncton..... | F. Gayton..... | Employé. | While coupling. | Hand injured.... | |
| Lévis | S. Brosseau... .. | Neither.... | Caught between fence and train. | Arm and collar bone broken. | |
| Halifax..... | Robt. Gauld ... | Employé. | Piece of iron fell off truck | Toes crushed. ... | |
| Bathurst | Fred. Robins ... | do ... | While coupling. | Hand injured.... | |

 EASTERN EXTENSION RAILWAY.

OFFICE OF THE CHIEF SUPERINTENDENT,
 MONCTON, N.B., 4th November, 1885.

SIR,—I have the honor to submit the following report on the working of the Eastern Extension Railway for the fiscal year which ended 30th June, 1885.

I enclose 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 Accountants and Auditor:—

| | |
|----------------------------------|-------------------|
| No. 1. Capital Account. | |
| 2. Revenue Account. | |
| 3. Locomotive Power. | (Abstract No. 1.) |
| 4. Car Expenses. | (" 2.) |
| 5. Maintenance of Way and Works. | (" 3.) |
| 6. Station Expenses. | (" 4.) |
| 7. General Charges. | (" 5.) |
| 8. General Balance. | |

The length of railway operated was the same as last year—eighty miles.

The cost of the road and equipment on the 30th June, 1884, was \$1,284,311.97. No additions were made to Capital Account during the year.

The general offices of this railway are at New Glasgow, and it is worked by a staff stationed there, under the general direction of the chief officials of the Intercolonial Railway.

| | |
|---------------------------------------|-------------|
| The expenditure for the year was..... | \$78,273 65 |
| The gross earnings were..... | 73,050 01 |
| | <hr/> |
| Loss..... | \$5,223 64 |

It is impossible to make a comparison with the previous year, as the railway only came into the possession of the Government of Canada on the 9th January, 1884.

The whole railway and rolling stock were maintained in good running order, and considerable improvements were made in both during the year.

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.

CHIEF ENGINEER'S OFFICE,
 MONCTON, N.B., 3rd November, 1885.

SIR,—I have the honor to submit the following report on the maintenance of the Eastern Extension Railway for the year ending 30th June, 1885.

The length of this road is 80 miles.

SIDINGS.

A siding 950 feet long was erected to Matheson's foundry.

FENCINGS.

Six miles of barbed wire and Everett lath wire fencing [were erected in place of decayed board and pole fencing.

Extensive repairs were also made to the old fence.

SLEEPERS.

Thirty-nine thousand eight hundred and ninety-one sleepers were renewed.

CLEANING, CUTTINGS AND BALLASTING.

The cuttings and side ditches were thoroughly cleaned from one end of the road to the other. Thirty-four hundred yards of ballast were put in track in wet cuttings, and at the other points where needed.

BRIDGES AND CULVERTS.

A new trestle was erected under Pine Tree and West River pile bridge.

Three small 2 by 2 box culverts were provided in place of pole drains, which were found insufficient.

About 500 yards of rip-rap were deposited to protect embankment, where disturbed by the high freshets of last spring.

Sixty feet of crib work was built up at Brierley Brook, for the protection of the embankment.

BUILDING, &c.

A flag station was put up at Tracadie.

Necessary repairs have been made to a number of the stations and platforms. 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 Intercolonial Railway,
Moncton, N.B.

INTERCOLONIAL RAILWAY.

MECHANICAL SUPERINTENDENT'S OFFICE,
MONCTON, N.B., 4th November, 1885.

DEAR SIR,—I beg to submit the following statement concerning the rolling stock on the Eastern Extension Railway.

It consists of—

- 9 engines.
- 6 first-class cars.
- 4 second-class cars.
- 4 postal, baggage and express cars.
- 2 conductors' vans.
- 25 box cars.
- 5 cattle cars.
- 70 platform cars.
- 150 5 ton hopper coal cars.

Two of the engines and two passenger cars have had a thorough repair, at the shops of the Intercolonial Railway, and the others have been kept in running order at the shop at New Glasgow.

The remaining engines will soon require considerable repair; and the balance of the passenger and baggage stock will have to be repaired and painted during the coming year.

Owing to an improper arrangement of certain parts of the trucks, under the passenger cars, they were rendered very uncomfortable to ride in. This was remedied, and they now ride very easily.

The water service is in the same condition as last year, and, as I stated in my former report, an expenditure of about \$10,000 is needed to put it in an efficient condition.

I am, Sir,

Your obedient servant,

H. A. WHITNEY,

Mechanical Superintendent.

D. POTTINGER, Esq.,

Chief Superintendent Intercolonial Railway,
Moncton, N.B.

**No. 1.—EASTERN EXTENSION RAILWAY.
CAPITAL ACCOUNT, Year ending 30th June, 1885.**

CR.

DR.

| | \$ | cts. | 1885. | | \$ | cts. |
|-------------------------------------|-----------|------|---------------|----------------------------|-----------|------|
| 1885. June 30..... | | | June 30 | By Dominion of Canada..... | 1,284,311 | 97 |
| To cost of road and equipment | 1,284,311 | 97 | | | 1,284,311 | 97 |
| | 1,284,311 | 97 | | | 1,284,311 | 97 |

NEW GLASGOW, N. S., 30th June, 1885.

G. G. BULLEY,
Accountant and Auditor.

No. 2.—EASTERN EXTENSION RAILWAY.
REVENUE ACCOUNT, Year ending 30th June, 1885.

Cr.

Dr.

| Expenditure. | Amount. | Earnings. | Amount. |
|--|--------------|-------------------------|--------------|
| Locomotive power (Abstract No. 1)..... | \$ 18,631 87 | Passenger traffic..... | \$ 37,668 89 |
| Car expenses (do) | 10,608 88 | Freight traffic..... | 26,522 76 |
| Maintenance of way and works (Abstract No. 3)..... | 26,411 18 | Mails and sundries..... | 9,868 37 |
| Station expenses (do 4)..... | 8,537 74 | | |
| General charges (do 5)..... | 15,098 98 | Balance..... | 73,050 01 |
| | | | 5,223 64 |
| | 78,273 65 | | 78,273 65 |

G. G. BULLEY,
Accountant and Auditor.

NEW GLASGOW, N.S., 30th June, 1885.

No. 3.—EASTERN EXTENSION RAILWAY.
LOCOMOTIVE POWER—(Abstract No. 1).

| | Year ending 30th June, 1885. |
|--|------------------------------------|
| | \$ cts. |
| Mechanical Superintendent's salary, Clerk's, Office and travelling expenses..... | 1,200 79 |
| Wages, Drivers, Firemen and Cleaners..... | 4,657 11 |
| Fuel..... | 4,437 75 |
| Oil, Tallow, Waste and small Stores..... | 1,506 10 |
| Repairs to Engines, Tenders and Engine Tools..... | 6,737 44 |
| Water, including Pump and Tank repairs..... | 16 16 |
| Miscellaneous..... | 66 52 |
| | 18,621 87 |

G. G. BULLEY,
Accountant and Auditor.

NEW GLASGOW, N.S., 30th June, 1885.

No. 4.—EASTERN EXTENSION RAILWAY.
CAR EXPENSES—(Abstract No. 2).

| | Year ending 30th June, 1885. |
|--|------------------------------------|
| | \$ cts. |
| Repairs to Passenger cars..... | 1,534 00 |
| do Postal, Express and Baggage cars..... | 176 04 |
| do Freight cars and Vans..... | 2,146 78 |
| Wages of Conductors, Train Baggage Master and Brakesmen..... | 4,882 93 |
| Oil and Waste for packing..... | 432 29 |
| Small Stores and Fuel..... | 1,023 83 |
| Miscellaneous..... | 413 01 |
| | 10,608 88 |

G. G. BULLEY,
Accountant and Auditor.

NEW GLASGOW, N.S., 30th June, 1885.

No. 5.—EASTERN EXTENSION RAILWAY.
MAINTENANCE OF WAY AND WORKS—(Abstract No. 3).

| | Year ending 30th June, 1885. |
|---|------------------------------------|
| | \$ cts. |
| Wages repairing Roadway, Fences, Semaphores, including new Sidings laid in | 13,511 62 |
| Rails and Fastenings, including new Sidings laid in | 937 09 |
| Sleepers..... | 5,097 53 |
| Timber, Lumber, &c., for repairs to Bridges, Cattle-guards, Crossings, Snow-sheds, Fences, &c..... | 3,914 18 |
| Repairs to Wharves..... | 78 05 |
| do Buildings and Platforms, including extensions and additions | 145 16 |
| do Snow Ploughs, Flangers and Tools..... | 324 87 |
| Clearing ice and snow..... | 1,249 15 |
| Miscellaneous..... | 123 53 |
| | 25,411 18 |

G. G. BULLEY,
Accountant and Auditor.

NEW GLASGOW, N.S., 30th June, 1885.

No. 6.—EASTERN EXTENSION RAILWAY.
STATION EXPENSES—(Abstract No. 4).

| | Year ending 30th June, 1885. |
|---|------------------------------------|
| | \$ cts. |
| Salaries and wages of Station Masters, Agents, Clerks, Telegraph Operators, Station Baggage Masters, Yard Masters, Switchmen, Watchmen and Laborers..... | 6,902 83 |
| Fuel, Oil, Light, Stationery, Tickets and other incidental expenses..... | 1,321 72 |
| Miscellaneous..... | 313 19 |
| | 8,537 74 |

G. G. BULLEY,
Accountant and Auditor.

NEW GLASGOW, N.S., 30th June, 1885.

No. 7.—EASTERN EXTENSION RAILWAY.

GENERAL CHARGES—(Abstract No. 5).

| | Year ending 30th June, 1885. |
|---|------------------------------------|
| | \$ cts. |
| Superintendent, Train Despatchers' salaries, Clerks, Office and Travelling expenses | 4,181 90 |
| Accounting Department, salary of the Accountant and Auditor, Clerks, Office and Travelling expenses | 1,894 55 |
| Advertising..... | 288 53 |
| Damages to men, animals and goods..... | 85 37 |
| Telegraph expenses (not including pay to Operators)..... | 45 75 |
| Miscellaneous, including Ferry service | 8,597 88 |
| | 15,093 98 |

G. G. BULLEY,
Accountant and Auditor.

NEW GLASGOW, N.S., 30th June, 1885.

EASTERN EXTENSION RAILWAY.

RETURN of Accidents and Casualties which have occurred on the Line of the Eastern Extension Railway, during the Year ended 30th June, 1885.

| Date. | Time of Night or Day. | No of Train. | Description of Train. | Name of Conductor. | Name of Driver. | No. of Engine. | Place of Accident. | Name of Person Injured. | Whether Passenger or Employé. | Particulars of Accident. | Extent of Injury | Verdict of Coroner's Jury. |
|---------------------|-----------------------|--------------|-----------------------|--------------------|-----------------|----------------|-----------------------|-------------------------|-------------------------------|--|------------------|----------------------------|
| 1884. July 18... | 8.40 p m | 3 | Accom. | S. McKay | E. Cummings. | ... | Near Mulgrave | Wm. Levaugie. | Neither ... | Walking on track, was struck by train. | Fatal | Accident. |
| 'Sept. 16... | 6.00 p.m. | Special. | Ballast. | Jas. Holmes ... | R. Smith | ... | Near Antigonish. | R McLeilan | do ... | Attempting to cross in front of train. | Slightly injured | do |
| 'Dec. 20... | 10 30 a.m. | do ... | Plough. | M. F. Punch... | John Dunbar . | ... | Near Glentworth lock. | A. McInnis. | do ... | Attempting to cross in front of train. | Fatal | do |

WINDSOR BRANCH RAILWAY.

OFFICE OF THE CHIEF SUPERINTENDENT,
 MONCTON, N.B., 4th November, 1885.

SIR,—I have the honor to submit the following statements, showing the result of the working of the Windsor Branch Railway for the year which ended 30th June 1885.

- 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.

The gross earnings for the year amounted to \$24,451 35

The expenditure for maintenance of way and works was 18,751 96

Net gain \$ 5,699 39

The gross earnings show a slight increase, when compared with last year as follows:—

1884-85..... \$24,451 35

1883-84..... 23,018 93

Increase..... \$ 1,432 42

The permanent way and all the works belonging to this railway are maintained in good working order, and some improvements were made.

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.—WINDSOR BRANCH RAILWAY.

REVENUE ACCOUNT, Year ending 30th June, 1885.

DR.

CR.

| Previous Year. | Expenditure. | Year ending 30th June, 1885. | Previous Year. | Receipts and Earnings. | Amount, Year ending 30th June, 1885. |
|----------------|--|------------------------------|----------------|-------------------------|--------------------------------------|
| \$ cts. | | \$ cts. | \$ cts. | | \$ cts. |
| 22,140 86 | Maintenance Way and Works (Abstract No. 1.) | 18,761 96 | 8,126 22 | Passenger traffic | 7,869 73 |
| | | | 13,932 84 | Freight traffic..... | 15,621 75 |
| | | | 959 87 | Mails..... | 959 87 |
| 878 08 | Balance | 5,699 39 | | | |
| 23,018 93 | | 21,461 35 | 23,018 93 | | 24,451 35 |

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

MONCTON, N.B., 30th June, 1885.

No. 2.—WINDSOR BRANCH RAILWAY.
 MAINTENANCE OF WAY AND WORKS—(Abstract No. 1).

| Previous Year. | Particulars. | Amount. |
|----------------|---------------------------------------|----------|
| \$ cts. | | \$ ct. |
| 5,217 62 | Repairs to track..... | 6,403 9 |
| 3,210 05 | Rails and fastenings | 472 2 |
| 6,844 22 | Sleepers..... | 3,196 2 |
| 276 16 | Bridges..... | 193 0 |
| 108 93 | Signals..... | 97 5 |
| 301 66 | Culverts and cattle guards | 187 4 |
| 389 78 | Buildings and platforms | 4,671 7 |
| ..... | Wharf at Windsor..... | 556 8 |
| 13 80 | Switch locks | 6 9 |
| 3,803 48 | Fencing | 749 9 |
| 29 14 | Hand cars and trollies..... | 43 5 |
| 253 12 | Tools and repairs | 210 0 |
| 435 74 | Snow ploughs and flangers | 722 0 |
| 1,257 16 | Accountant's Office and expenses..... | 1,209 2 |
| ..... | Miscellaneous..... | 31 0 |
| 22,140 86 | | 18,751 8 |

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

MONCTON, N.B., 30th June, 1885.

No. 3.—WINDSOR BRANCH RAILWAY.

MONTHLY STATEMENT of Receipts—One-third Earnings.

| Month. | Passengers | | Freight. | | Mails. | | Totals. | |
|-------------------|------------|------|----------|------|--------|------|---------|------|
| | \$ | cts. | \$ | cts. | \$ | cts. | \$ | cts. |
| 1884—July..... | 895 | 67 | 1,199 | 19 | 80 | 76 | 2,175 | 62 |
| August..... | 1,080 | 77 | 889 | 06 | 80 | 76 | 2,050 | 59 |
| September..... | 1,049 | 94 | 1,528 | 19 | 80 | 75 | 2,658 | 88 |
| October..... | 718 | 94 | 1,930 | 83 | 80 | 76 | 2,730 | 53 |
| November..... | 630 | 92 | 1,859 | 38 | 80 | 75 | 2,571 | 05 |
| December..... | 593 | 51 | 1,478 | 33 | 80 | 76 | 2,152 | 60 |
| 1885—January..... | 431 | 75 | 910 | 26 | 78 | 71 | 1,420 | 72 |
| February..... | 305 | 27 | 920 | 38 | 78 | 71 | 1,304 | 35 |
| March..... | 389 | 73 | 1,376 | 92 | 78 | 71 | 1,845 | 36 |
| April..... | 499 | 12 | 1,261 | 15 | 79 | 74 | 1,840 | 01 |
| May..... | 556 | 87 | 1,105 | 47 | 79 | 73 | 1,742 | 07 |
| June..... | 717 | 24 | 1,162 | 59 | 79 | 73 | 1,959 | 56 |
| | 7,869 | 73 | 15,621 | 75 | 959 | 87 | 24,451 | 35 |

R. B. BOGGS,

MONCTON, N.B., 30th June, 1885.

Acct., W. B. Ry.

No. 4.—WINDSOR BRANCH RAILWAY.

DR.

GENERAL BALANCE.

CR.

| 1885. | | \$ | cts. | 1885. | | \$ | cts. |
|---------|-----------------------------|-------|------|---------|----------------------------|-------|------|
| June 30 | Windsor & Annapolis Railway | 2,391 | 38 | June 30 | Intercolonial Railway..... | 545 | 95 |
| | | | | | Dominion Account..... | 1,845 | 43 |
| | | 2,391 | 38 | | | 2,391 | 38 |

R. B. BOGGS,

MONCTON, N.B., 30th June, 1885.

Acct., W. B. Ry.

INTERCOLONIAL RAILWAY.

CHIEF ENGINEER'S OFFICE,

MONCTON, N.B., 3rd November, 1885.

SIR,—I have the honor to submit the following report on the maintenance of the Windsor Branch for the year ending 30th June, 1885.

The length of this Branch is 32 miles.

SLEEPERS.

Thirteen thousand three hundred and seventy-six sleepers were renewed.

BALLASTING (NEAR WINDSOR.)

A ballast pit was opened up, a siding 1,264 feet long was laid into it, and 2,10 yards of ballast put out for repairs of track.

SIDINGS.

Sidings were put in at Hay's Mill, Grooves' Road, and at Mount Uniacke. The sidings and switches were rearranged in Windsor yard.

FENCING.

Two miles of barbed wire fencing were put up in place of old zig-zag pole fence. Seven pairs of farm gates were renewed. Extensive repairs were made to the old pole fencing.

BUILDINGS AND PLATFORMS.

A new combined passenger freight station and agent's dwelling was erected Mount Uniacke, at a cost of \$2,000.

A tank house, with tub and fittings complete, was erected about a mile west Mount Uniacke station.

A new hay shed was built at Windsor.

Repairs were made to stations at Beaver Bank, Ellershouse and Windsor.

A bonded warehouse was made in freight shed at Windsor.

New platforms were erected at Mount Uniacke and Windsor.

Necessary repairs were made to the platforms at Beaver Bank, Ellershouse, Newport and Windsor.

BRIDGES, CULVERTS, &C.

Carroll's wooden bridge was renewed and replaced with an iron span of 20 feet. The masonry of this bridge was also overhauled and thoroughly repaired.

Necessary repairs were made to the timber-work and masonry of Jordan and Sackville bridges.

New cattle guards were put in at Hibbard's Crossing and at Mount Uniacke.

The planking, chocks and fenders of the wharf at Windsor were renewed.

The track scales at Windsor, which were badly worn and rusted, were taken sent to Montreal, thoroughly repaired and replaced.

Not a wheel has been off the track on this branch during the year.

The track is in good order.

I am, Sir,

Your obedient servant,

P. S. ARCHIBALD,

Chief Engineer.

D. POTTINGER, Esq.,

Chief Superintendent Intercolonial Railway,
Moncton, N.B.

PRINCE EDWARD ISLAND RAILWAY.

SUPERINTENDENT'S OFFICE,

CHARLOTTETOWN, 14th September, 1885.

SIR,—I have the honor to submit the following report of the operation of the Prince Edward Island Railway for the year ending 30th June, 1885, and to transmit herewith the accounts for the same period, comprising:—

- | | |
|---|-------------------|
| No. 1. Capital Account. | |
| 2. Revenue Account. | |
| 3. Locomotive Power | (Abstract No. 1.) |
| 4. Car Expenses | (" " 2.) |
| 5. Maintenance of Way and Works | (" " 3.) |
| 6. Station Expenses | (" " 4.) |
| 7. General Charges | (" " 5.) |
| 8. Monthly Statement of Earnings. | |
| 9. Statement of General Stores Account. | |
| 10. General Balance. | |
| 11. Comparative Statement of Averages. | |

I also enclose the report, accompanied by statements, of the Mechanical Superintendent and Storekeeper.

CAPITAL ACCOUNT.

| | | |
|--|-----------------------------|-----------------------------|
| The total expenditure on Capital Account to 30th June, 1884, was.. | \$3,654,356 00 | |
| Less refunds on account of previous expenditure..... | 1,487 53 | |
| | <u> </u> | \$3,652,868 47 |
| Add to which the expenditure on Cape Traverse Branch..... | | 78,444 09 |
| | | <u> </u> |
| Making the total expenditure to 30th June, 1885.. | \$3,731,312 56 | |

The rolling stock provided on Capital Account up to the 30th June, 1884, was:

- 20 locomotives.
- 16 first-class passenger cars.
- 14 second-class and baggage cars.
- 3 postal and smoking cars.
- 175 box and stock cars.
- 125 platform cars,
- 3 conductors' vans.
- 7 snow ploughs.
- 6 flangers.
- 1 pay car.

And during the year ended 30th June last this stock has been increased, in connection with the Cape Traverse Branch, by:—

- 1 locomotive.
- 1 first-class passenger car.
- 1 second-class and baggage car.
- 1 snow plough.
- 1 flanger.

REVENUE ACCOUNT.

Owing to the fact that the "Northern Light," about mid-winter, became blocked by ice in Georgetown harbour, until navigation was open, the railway lost the transportation of a large number of passengers and a very large quantity of freight which was stored at Pictou Landing, to be forwarded by the "Northern Light," but which was brought direct to Charlottetown and other points on the island by water.

| | |
|--|---------------------|
| The gross earnings for the year amounted to..... | \$153,588 06 |
| Previous year..... | 144,504 12 |
| Increase..... | \$ 14,083 94 |

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

| | |
|-------------------------------------|-----------------|
| 1883-84..... | \$727 98 |
| 1884-85..... | 784 44 |
| An increase per mile of..... | \$ 56 46 |

| | |
|--|--------------------------|
| The average length of road operated in 1885 was..... | Miles. 202 $\frac{1}{2}$ |
| Previous year..... | 198 $\frac{1}{2}$ |
| And the total length of road operated at the 30th June, 1885, was..... | 210 |

STATEMENT.

| | Passengers Carried. | Earnings. |
|----------------------|---------------------|-------------------|
| 1883-84..... | 118,988 | \$62,926 26 |
| 1884-85..... | 130,423 | 66,054 32 |
| Increase..... | 11,435 | \$3,128 06 |

| | Tons of Freight Carried. | Earnings. |
|----------------------|--------------------------|--------------------|
| 1883-84..... | 51,841 | \$70,701 74 |
| 1884-85..... | 57,346 | 74,213 84 |
| Increase..... | 5,505 | \$ 3,512 10 |

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

| | |
|----------------------|---------------|
| 1883-84..... | 291,760 |
| 1884-85..... | 311,443 |
| Increase..... | 19,683 |

The trains mileage, compared with last year, was:—

| | |
|----------------------|---------------|
| 1883-84..... | 238,130 |
| 1884-85..... | 249,878 |
| Increase..... | 11,748 |

The car mileage compared with last year was:—

| | |
|---------------|---------------|
| 1883-84 | 1,208,423 |
| 1884-85 | 1,233,476 |
| Increase..... | <u>25,053</u> |

The above increases in engine, train and car mileages were caused by train service on the Cape Traverse Branch.

EXPENDITURE.

The operating expenses, as compared with the previous year, are as follows:—

| Ordinary. | Renewals, Rolling Stock, Rails and Fastenings. | Total. |
|---------------------------|--|--------------|
| 1883-84.....\$216,856 67 | \$19,571 46 | \$237,428 13 |
| 4-85..... 180,553 54 | 30,653 47 | 211,207 01 |
| Increase..... | \$11,082 01 | ..... |
| Decrease..... \$36,303 13 | ..... | \$25,221 12 |

Included in the above, expended on new work, are the following items:—

| | |
|---|-------------------|
| Increased freight accommodation at Charlottetown... .. | \$ 850 00 |
| Apparatus for fire service at Charlottetown | 550 30 |
| New barbed wire fence built between Ellerslie and Brae Stations..... | 205 00 |
| otal..... | <u>\$1,605 30</u> |

The increased freight accommodation at Charlottetown refers to a loading platform which was built at the west end of Charlottetown freight house. It gives good satisfaction to shippers and the railway, as freight can now be loaded on cars directly from teams, and *vice versa*. This platform is a substantially-built structure. It has a strong fence, with gates opening on to the street, to enable teams to pass in or out. These gates are closed up and locked at night.

The apparatus for fire service, in the event of a fire taking place in or about the shops, will, no doubt, be found of great benefit.

TRACK.

Six and one-half miles were re-laid with steel rails.

A new siding, 268 feet long, was put in at Richmond.

Two hundred and sixty feet were added to the siding at Freetown, and it was made a thorough siding. This change was necessary to enable trains to cross at this point.

New patent safety switches have been placed in Charlottetown and Summerside yards.

Twenty-one tons of steel fish-plates have been used to replace broken iron plates. Thirteen hundred iron rails, seven steel rail frogs, eleven sets of switch sleepers and twenty-one head blocks, with switch frames, were renewed.

SLEEPERS.

During the year 45,634 sleepers have been put in track. The sleepers on the whole line east of Alberton are now laid 2 feet from centre to centre.

BALLASTING.

Nine thousand three hundred and six cubic yards of ballast were distributed during the year, and the road was lifted where considered necessary.

Thirty miles of ditching was done.

Fifty car loads of clay were taken out of the cutting leading to the wharf at Souris.

BRIDGES, CATTLE GUARDS, &C.

Carrols, Morell, St. Peters, Naufrage and Five Houses bridges received repairs. All other bridges had the necessary attention.

Fifteen cattle guards were repaired and five were rebuilt.

Twelve cattle guard stringers were renewed.

Eleven new timber culverts to carry off surface water were put down.

The sewer leading from Summerside station house to the high water line at wharf was re-built.

BUILDINGS AND PLATFORMS.

All buildings in connection with Charlottetown station and shops were re-shingled where required, 10,000 shingles being used.

Large sky-lights were put in roof of paint shop. Gravel roof of round house was repaired. Five pits in round house were re-built with brick and cement, and five others repaired. A new foundation, with 3-inch plank floor, was put in machine shop. Two forges, with chimneys, were re-built in blacksmith shop. New floors were put down in one of the Mechanical Department offices, in the Cashier's office and the baggage room at Charlottetown.

All offices in connection with Charlottetown station and the Mechanical Department were whitewashed.

New sills were put under the south side of train shed, and the side sheathed up 3 feet high, and painted. Braces were cut away from one side of this building, and knees substituted, to allow the large passenger cars to pass through.

A loading platform, 90 feet long, 30 feet wide and 4 feet high, was built at the west end of Charlottetown freight house, and a fence, 7 feet high, having three gates, with openings of 13 feet, was placed thereon. A large quantity of hemlock timber, ballast and brush, was used in connection with this work.

The cattle pen at Charlottetown station was moved and rebuilt.

The hard-coal shed and washhouse were moved across Charlottetown yard, to make room for the loading platform. Both of these buildings were painted and color washed.

The roof of Lot 40 station, and one side of the roofs of North Wiltshire station and Summerside engine houses, were re-shingled. The roof of Morell station was partly re-shingled.

Two-thirds of Hunter River station platform was re-built.

Platforms have been re-built at North Wiltshire, Elliott's, New Annan, Travellers' Rest, Brae, Cardigan, St. Peter's, Douglas, Ashton and Harmony stations.

Extensive repairs were made to Summerside coal shed. Six new outside doors were put on freight shed on Summerside wharf, to prevent the spray from dashing in and injuring freight. Repairs were made to the shingling on walls of this building. The platform in front and rear of this freight house was re-laid.

The flag station at Brae was re-built.

The cattle pens at O'Leary and Port Hill were re-built.

A shed was built in connection with the Station Master's dwelling at Alberton. North Wiltshire station building was painted and color washed outside, and several of the flag stations and buildings have been painted and color washed inside and out.

Georgetown, Souris, St. Peter's and Royalty Junction stations have been white-washed inside.

New floors were laid in Georgetown and Mount Stewart offices, and counters were put up. A counter was also placed in St. Peter's office.

Five hundred yards of clay were used in grading station ground at Bear River. All stations, &c., received slight general repairs.

WHARVES, &c.

Forty-five tons of timber and scantling, and fifty tons of stone ballast, were used to repair breastwork at Charlottetown wharf, damaged by storm on 5th November last. Fifteen fenders and one mooring post were renewed at Georgetown wharf, and 100 tons of stone ballast were used in its repair.

Extensive repairs were made to Summerside wharf, and fenders were placed around both sides, for a distance of 400 feet. A portion of this wharf was replanked, and the planking had general repairs.

Souris and St. Peter's wharves received repairs.

FENCING.

Four thousand two hundred and twenty-two lineal feet of new barbed wire fence was built between Ellerslie and Brae stations.

Twenty-seven thousand three hundred and seventy-two feet of fence was renewed with barbed wire.

Three thousand nine hundred and eighty-eight feet of pole fence, and 2,140 feet of board fence, have been renewed.

Forty miles of old fence, 228 gate posts, and 123 farmers' gates, were renewed.

One thousand one hundred and seventy-five feet of snow fence, blown down by gales during the summer, were rebuilt.

A large quantity of fence which had been burned was repaired.

SEMAPHORE SIGNALS, &c.

The semaphore, east of Summerside Station, was removed 600 feet further out, so as to better protect the siding.

All semaphores, switch frames, targets, telegraph signals, and most of the outside lamps, were painted.

WATER SUPPLY.

The "Haggas" water system is still in use, and continues to give good satisfaction.

ROLLING STOCK.

One new locomotive, built for the Cape Traverse Branch, has been added to the rolling stock, and charged to Capital.

Forty-three 10-ton box cars, eleven 10 ton platform cars, and one snow plough, have been rebuilt in the workshops of the railway, at Charlottetown, and are charged to working expenses.

The rolling stock has received the necessary repairs, and is now in good condition.

Forty box and twelve platform cars yet remain to be rebuilt.

STORES.

The purchases of stores during the year amounted to \$77,039.57

The value of stores on hand, 30th June, 1885, was :—

| | |
|--------------------------------|--------------------|
| General stores..... | \$60,715 89 |
| Coal..... | 569 57 |
| Rails and fastenings | 20,948 96 |
| Old material, serviceable..... | 7,282 00 |
| | <hr/> |
| | <u>\$89,516 42</u> |

The stores have, for the most part, been purchased by tender and contracts, which follows out the practice of previous years.

Cape Traverse Branch.

This branch was open for traffic on the 22nd January, 1885. It forms a junction with the main line at County Line station and runs to Cape Traverse, a distance of about 13 miles. Ice boats, with passengers and mails, land at this point in winter.

The opening of the line proved a great accommodation to the public during the past winter, as mails leaving Cape Tormentine in the morning frequently arrived in Charlottetown, *via* this route, before noon of the same day.

I submit herewith a comparative statement, for 1883-84 and 1884-85, of the quantities of the various classes of freight carried, and of the earnings from this source.

I have much pleasure in stating that the officers and employés have performed their duties in a satisfactory and efficient manner.

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

JAMES COLEMAN,
Superintendent.

COLLINGWOOD SCHREIBER, Esq.,
Chief Engineer and General Manager Government Railways,
Ottawa.

No. 1.—PRINCE EDWARD ISLAND RAILWAY.

CAPITAL ACCOUNT.

DR.

CR.

| | | \$ | cts. | | | \$ | cts. |
|------------|---|-------------|------|------------|-----------------------------|-----------|------|
| 1884. | | | | 1884. | | | |
| June 30... | To cost of Road and Equipment to date..... | \$3,654,356 | 00 | June 30... | By Dominion of Canada..... | 3,652,868 | 47 |
| 1885. | | | | | | | |
| June 30.. | Less—Refunds on account of previous expenditure | 1,487 | 53 | | | | |
| | To Expenditure, year ended 30th June, 1885— On Cape Traverse Branch..... | | | June 30... | By Dominion of Canada | 78,444 | 09 |
| | | | | | | | |
| | | | | | | 3,731,312 | 56 |

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1885.

No. 2.—PRINCE EDWARD ISLAND RAILWAY.

REVENUE ACCOUNT for the Year ended 30th June, 1885.

| Previous Year. | Expenditure. | Year ended 30th June, 1885. | Previous Year. | Receipts. | Year ended 30th June, 1885. |
|----------------|------------------------------|-----------------------------|----------------|-------------------------|-----------------------------|
| \$ cts. | | \$ cts. | \$ cts. | | \$ cts. |
| 65,402 87 | Locomotive Power | 55,782 13 | 62,926 26 | Passenger Traffic | 66,054 32 |
| 36,718 15 | Car Expenses | 45,068 63 | 70,701 74 | Freight Traffic..... | 74,213 84 |
| 81,954 16 | Maintenance of Way and Works | 73,486 15 | 10,876 12 | Mails and Sundries..... | 18,319 90 |
| 24,452 69 | Station Expenses | 25,285 15 | | Total Receipts..... | 168,588 06 |
| 27,900 96 | General Charges | 11,564 95 | 144,504 12 | Balance | 52,618 95 |
| | Totals..... | 211,207 01 | 236,428 13 | Totals..... | 211,207 01 |

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1885.

No. 3.—PRINCE EDWARD ISLAND RAILWAY.

LOCOMOTIVE POWER—(Abstract No. 1).

| Previous Year. | Details. | Year ended 30th June, 1885. |
|----------------|---|-----------------------------|
| \$ cts. | | \$ cts. |
| 1,281 31 | Mechanical Superintendent's salary, Clerks, Office and Travelling expenses. | 1,272 61 |
| 13,404 71 | Wages of Drivers, Firemen and Cleaners | 14,148 15 |
| 16,402 69 | Fuel | 15,162 95 |
| 2,378 01 | Oil, Tallow, Waste and small Stores | 2,565 63 |
| 29,346 22 | Repairs to Engines, Tenders and Engine Tools | 20,178 93 |
| 340 07 | Water, including Pump and Tank repairs | 864 53 |
| 2,249 86 | Miscellaneous..... | 1,589 33 |
| 65,402 87 | Totals..... | 55,782 13 |

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1885.

No. 4.—PRINCE EDWARD ISLAND RAILWAY.

(CAR EXPENSES—Abstract No. 2).

| Previous Year. | Details. | Year ended 30th June, 1885. |
|----------------|---|-----------------------------|
| \$ cts. | | \$ cts. |
| 7,239 29 | Repairs to Passenger cars | 7,227 24 |
| 2,163 11 | do Postal and Baggage cars | 6 7 72 |
| 13,036 09 | do Freight cars and Vans | 22,037 93 |
| 11,057 06 | Wages of Conductors, Train Baggage Masters and Brakesmen..... | 11,532 16 |
| 669 17 | Oil and Waste for packing..... | 537 67 |
| 2,049 35 | Small Stores and Fuel..... | 2,428 39 |
| 504 08 | Miscellaneous..... | 667 52 |
| 36,718 15 | Totals | 45,068 63 |

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1885.

No 5.—PRINCE EDWARD ISLAND RAILWAY.
MAINTENANCE OF WAY AND WORKS—(Abstract No. 3).

| Previous Year. | Details. | Year ended 30th June, 1885. |
|----------------|--|-----------------------------|
| \$ cts. | | \$ cts. |
| 369 96 | Engineer's salary, Clerks, Office and Travelling expenses..... | 369 96 |
| 40,154 87 | Wages in repairing Roadway, Fences and Semaphores | 37,911 73 |
| 14,720 13 | Rails, Chairs and Spikes..... | 11,700 35 |
| 13,457 85 | Sleepers | 10,922 91 |
| 2,172 40 | Timber and Lumber for repairs to Bridges, Cattle-guards, Fences, &c..... | 4,417 81 |
| 1,415 80 | Repairs to Wharves | 953 12 |
| 4,846 52 | do Buildings and Platforms | 4,022 31 |
| 3,158 64 | do Snow Ploughs, Flangers and Tools..... | 2,078 63 |
| 1,657 99 | Clearing ice and snow | 1,109 33 |
| 81,954 16 | Totals | 73,486 15 |

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1885.

No. 6.—PRINCE EDWARD ISLAND RAILWAY.
STATION EXPENSES—(Abstract No. 4).

| Previous Year. | Details. | Year ended 30th June, 1885. |
|----------------|---|-----------------------------|
| \$ cts. | | \$ cts. |
| 18,022 45 | Salaries and wages of Station Masters, Agents, Clerks, Telegraph Operators, Station Baggage-men, Yardmasters, Switchmen, Watchmen and Laborers. | 18,854 89 |
| 6,430 14 | Fuel, Oil, Light, Stationery, Tickets and other incidental expenses..... | 6,430 26 |
| 24,452 59 | Totals | 25,285 15 |

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1885.

No. 7.—PRINCE EDWARD ISLAND RAILWAY.
GENERAL CHARGES—(Abstract No. 5).

| Previous Year. | Details. | Year ended 30th June, 1885. |
|----------------|---|-----------------------------|
| \$ cts. | | \$ cts |
| 5,303 87 | Superintendent's and Train Despatcher's salaries, Clerks, Office and travelling expenses..... | 5,249 14 |
| 5,267 94 | Accountant and Auditor's, Paymaster's and Cashier's salaries, Clerks, Office and travelling expenses..... | 5,167 21 |
| 480 70 | Advertising..... | 477 07 |
| 16,262 52 | Damages to men, animals and goods..... | 239 51 |
| 342 46 | Telegraph expenses (not including pay to Operators)..... | 326 59 |
| 242 87 | Miscellaneous..... | 125 43 |
| 27,900 36 | Totals..... | 11,584 65 |

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1885.

No. 8.—PRINCE EDWARD ISLAND RAILWAY.
MONTHLY STATEMENT OF RECEIPTS.

| Months. | Passenger Traffic. | Freight Traffic. | Mails and Sundries. | Totals. |
|----------------|--------------------|------------------|---------------------|------------|
| 1884. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| July..... | 9,135 21 | 7,261 46 | 703 85 | 17,100 52 |
| August..... | 7,500 07 | 6,021 46 | 709 18 | 14,230 71 |
| September..... | 5,615 23 | 6,794 82 | 705 00 | 13,115 05 |
| October..... | 7,913 17 | 7,895 03 | 726 00 | 16,534 20 |
| November..... | 5,780 96 | 10,204 93 | 7 0 00 | 16,695 89 |
| December..... | 5,279 19 | 6,025 71 | 1,651 00 | 12,955 90 |
| 1885. | | | | |
| January..... | 3,665 25 | 2,874 07 | 2,924 77 | 9,464 09 |
| February..... | 2,326 16 | 2,953 51 | 2,638 00 | 7,917 67 |
| March..... | 2,997 00 | 4,017 21 | 3,051 00 | 10,065 21 |
| April..... | 4,689 11 | 5,069 26 | 2,993 00 | 12,751 37 |
| May..... | 5,409 58 | 9,052 97 | 703 75 | 15,166 30 |
| June..... | 5,743 39 | 6,043 41 | 804 35 | 12,591 15 |
| Totals..... | 66,054 32 | 74,213 84 | 18,319 90 | 158,588 06 |

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1885.

No. 9.—PRINCE EDWARD ISLAND RAILWAY.

STATEMENT of General Stores Account, Year ended 30th June, 1885.

| 1884. | | Dr. | \$ cts. | \$ cts. |
|------------|-------------------------------------|-------------------------------------|-------------|------------|
| June 30... | To Balance brought forward | | | 86,076 25 |
| 1885. | | | | |
| June 30... | To Purchases during the year..... | | 77,039 57 | |
| | Charges from other Departments..... | | 22,687 16 | |
| | Pay-rolls..... | | 2,930 40 | |
| | | | | 102,657 13 |
| 1885. | | Cr. | | 188,733 38 |
| June 30... | By Issues during the year | | | 99,216 96 |
| | Balance. | (Ordinary Stores | \$60,715 89 | |
| | | (Fuel..... | 569 57 | |
| | | (Rails and Fastenings on hand..... | 20,948 96 | |
| | | (Old Material, serviceable..... | 7,282 00 | |
| | | | | 89,516 42 |

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1885.

No. 10.—PRINCE EDWARD ISLAND RAILWAY.

DR.

GENERAL BALANCE.

CR.

| | \$ cts. | | \$ cts. |
|----------------------------------|-------------------|-------------------------|-------------------|
| General Stores | 89,516 42 | Dominion Account..... | 100,106 93 |
| Cash..... | 828 13 | Accident Insurance..... | 4,039 01 |
| Stations | 790 94 | | |
| Militia Department | 104 90 | | |
| Anglo-American Telegraph Co..... | 46 43 | | |
| Judge Weatherbee..... | 30 00 | | |
| Sidney Grey..... | 25 00 | | |
| Post Office Department..... | 11,823 00 | | |
| Intercolonial Railway..... | 981 12 | | |
| Total..... | 104,145 94 | Total..... | 104,145 94 |

W. T. HUGGAN,

Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1885.

No. 11.—PRINCE EDWARD ISLAND RAILWAY.

COMPARATIVE STATEMENT of Averages for Year ended 30th June, 1885.

| Details. | 1885. | 1884. |
|--|--------------|--------------|
| *Mileage of railway open | 210 | 198½ |
| Engine mileage | 311,443 | 291,760 |
| Train do | 249,878 | 238,130 |
| Car do | 1,233,476 | 1,208,423 |
| Receipts per engine mile..... Cents | 50·92 | 49·52 |
| do mile of railway..... \$ | 784·44 | 727·98 |
| Percentage of passenger earnings to gross receipts..... | 41·65 | 43·55 |
| do freight do do | 46·80 | 48·92 |
| do other do do | 11·65 | 7·53 |
| Expenses per engine mile :— | | |
| Drivers', Firemen's and Cleaners' wages..... | 4·54 | 4·59 |
| Fuel..... | 4·87 | 5·62 |
| Oil, Tallow, Waste and small Stores..... | ·82 | ·82 |
| Repairs to engines | 6·48 | 10·06 |
| Water and tank repairs | ·28 | ·12 |
| Miscellaneous | ·51 | ·77 |
| Mechanical Superintendent's salary, Office and Travelling expenses | 17·50 | 21·98 |
| | ·41 | ·44 |
| Total..... Cents | 17·91 | 22·42 |
| Locomotive power per engine mile | 17·91 | 22·42 |
| Car expenses do | 14·47 | 14·58 |
| Maintenance of way and works do | 2·59 | 28·08 |
| Station expenses do | 8·12 | 8·38 |
| General charges do | 3·72 | 9·57 |
| Total per engine mile..... Cents | 67·81 | 81·03 |
| Locomotive power per train mile..... | 22·32 | 27·46 |
| Car expenses do | 18·04 | 15·42 |
| Maintenance of way and works do | 29·41 | 34·41 |
| Station expenses do | 10·12 | 10·27 |
| General charges do | 4·63 | 11·72 |
| Total per train mile..... Cents | 84·52 | 99·28 |
| Working expenses per mile of railway..... \$ | 1,044·72 | 1,191·07 |

* Average miles of railway for 1885—202½.

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., 30th June, 1885.

PRINCE EDWARD ISLAND RAILWAY.

DESCRIPTIVE STATEMENT of Freight Earnings, for the Year ended 30th June, 1885.

| Description of Freight. | Quantities. | | Tons. | | Amount. | |
|-----------------------------------|-------------|-----------|--------|--------|-----------|-----------|
| | 1884. | 1885. | 1884. | 1885. | 1884. | 1885. |
| | | | | | \$ cts. | \$ cts. |
| Oats..... Bush. | 507,291 | 473,657 | 8,624 | 8,052 | 12,103 24 | 10,156 09 |
| Wheat and other grain..... " | 6,134 | 4,401 | 180 | 131 | 317 17 | 247 17 |
| Potatoes and roots..... " | 52,164 | 35,999 | 1,565 | 1,080 | 1,736 20 | 1,413 21 |
| Flour..... Brls. | 25,789 | 36,222 | 2,579 | 3,622 | 3,917 70 | 5,724 59 |
| Mackerel..... " | 14,490 | 10,212 | 2,174 | 1,532 | 2,289 14 | 1,670 69 |
| Herring..... " | 2,449 | 1,798 | 367 | 268 | 577 68 | 402 47 |
| Cod and other fish..... | | | 200 | 204 | 421 97 | 434 90 |
| Canned fish and meats..... Cases. | 26,068 | 35,862 | 912 | 1,255 | 1,623 01 | 2,109 13 |
| Oysters..... Brls. | 3,658 | 3,679 | 366 | 368 | 543 76 | 493 92 |
| Fish barrels..... No. | 5,139 | 4,426 | 235 | 268 | 249 40 | 207 90 |
| Timber, hewn and unhewn... O. ft. | 110,706 | 101,155 | 2,848 | 2,726 | 2,077 98 | 2,142 46 |
| Lumber, sawn..... Sup. ft | 3,305,281 | 4,206,143 | 4,283 | 5,539 | 3,889 23 | 4,368 41 |
| Shingles..... M. | 8,886 | 11,869 | 1,333 | 1,780 | 1,383 64 | 1,849 31 |
| Cordwood and tanbark..... Cords. | 2,808 | 3,059 | 5,329 | 5,844 | 2,945 50 | 2,935 38 |
| Single timber, &c..... Cars. | 64 | 292 | 669 | 2,837 | 606 25 | 2,746 95 |
| Coal..... " | 134 | 123 | 1,351 | 1,403 | 742 10 | 832 64 |
| Lime..... Brls. | 3,703 | 3,689 | 377 | 384 | 426 30 | 424 92 |
| Limestone..... Cars. | 84 | 162 | 935 | 1,760 | 283 86 | 567 09 |
| Brick and building stone..... " | 70 | 49 | 712 | 478 | 351 15 | 271 31 |
| Mussel mud..... " | 196 | 266 | 1,975 | 2,740 | 647 13 | 922 53 |
| Salt..... | | | 898 | 849 | 864 82 | 890 86 |
| Live stock..... No. | 4,957 | 5,007 | 1,179 | 1,201 | 2,440 91 | 2,418 68 |
| Pressed hay..... | | | 67 | | 74 67 | |
| Fresh beef..... | | | 24 | 33 | 71 33 | 100 61 |
| Pork in carcass..... | | | 273 | 322 | 759 38 | 885 99 |
| do barrels..... Brls. | 795 | 1,960 | 162 | 294 | 165 38 | 438 40 |
| Butter and cheese..... | | | 43 | 56 | 136 31 | 170 04 |
| Eggs..... Pkgs. | 28,175 | 30,856 | 1,005 | 1,091 | 2,517 80 | 2,532 15 |
| Farina starch..... Cars. | 136 | 62 | 1,362 | 623 | 1,417 62 | 724 08 |
| Merchandise..... | | | 9,814 | 10,606 | 23,805 69 | 24,582 36 |
| Wharfage, storage, &c..... | | | | | 1,315 39 | 1,549 60 |
| | | | 51,841 | 57,346 | 70,701 74 | 74,213 84 |

STATEMENT OF PASSENGER TRAFFIC.

| | 1884. | 1885. |
|--|-------------|-------------|
| Total number carried..... | 118,988 | 130,423 |
| Receipts..... | \$62,926 26 | \$66,054 32 |
| Receipts for each passenger, in cents..... | 52.88 | 50.65 |

 PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL SUPERINTENDENT'S OFFICE,
 CHARLOTTETOWN, 29th August, 1885.

SIR.—I beg to submit the following statements, showing the operations of the Mechanical Department of this railway for the fiscal year ending 30th June, 1885:—

- A. Monthly statement of 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 1883-84 and 1884-85.

The locomotives have been increased by one, which was purchased and charged to capital.

By reference to Statement D it will be seen that our first and second-class passenger cars, snow ploughs and flangers, have also been increased by one each. These have also been charged to capital.

During the year we have rebuilt forty-three 10-ton box cars and eleven 10-ton flat cars, to replace an equal number of the old 8-ton cars. These cars have been re-built at a cost of \$22,099.36, which sum is included in the working expenses. We have also rebuilt one snow plough.

Our stock of locomotives, cars and snow ploughs, provided on capital account, now 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 all our rolling stock is in good condition.

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

J. UNSWORTH,
Mechanical Superintendent and Storekeeper.

JAMES COLEMAN, Esq.,
 Superintendent Prince Edward Island Railway,
 Charlottetown.

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 and Small Stores. | Repairs. | Water, including Tank and Pump Repairs. |
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| 1884—July..... | 32,053 | 1,272 04 | 1,656 65 | 250 01 | 1,257 65 | 117 41 |
| August..... | 31,010 | 1,282 25 | 1,351 62 | 226 79 | 1,468 20 | 26 22 |
| September..... | 28,058 | 1,234 91 | 1,286 74 | 227 98 | 1,120 72 | 336 98 |
| October..... | 30,231 | 1,255 11 | 1,618 55 | 254 10 | 1,439 34 | 144 52 |
| November..... | 28,537 | 1,202 77 | 1,503 07 | 240 57 | 2,104 12 | 32 05 |
| December..... | 23,550 | 1,093 81 | 1,416 84 | 213 09 | 2,605 44 | 51 22 |
| 1885—January..... | 21,186 | 1,204 27 | 1,179 43 | 194 96 | 2,202 47 | 25 87 |
| February..... | 20,652 | 1,178 97 | 1,259 98 | 198 96 | 1,918 60 | 87 70 |
| March..... | 23,315 | 1,325 23 | 1,463 02 | 231 75 | 2,013 74 | 14 64 |
| April..... | 20,848 | 1,112 49 | 1,061 10 | 171 61 | 1,871 94 | 10 25 |
| May..... | 22,306 | 1,021 79 | 860 62 | 177 91 | 131 36 | 3 67 |
| June..... | 29,697 | 964 51 | 505 33 | 177 90 | 2,045 35 | 14 00 |
| Totals..... | 311,443 | 14,148 15 | 15,162 95 | 2,565 63 | 20,178 93 | 864 53 |

ISLAND RAILWAY.

DEPARTMENT.

Power, for the Year ended 30th June, 1885.

| Miscellaneous, including expenses of Office and Engine-houses. | | Average Cost per Mile run. | | | | | | | |
|--|-----------|----------------------------|------------|------|------------------|----------|--------|----------------|--------|
| | | Total. | Enginemen. | Fuel | Oil, Tallow, &c. | Repairs. | Water. | Miscellaneous. | Total. |
| ¢ | cts. | \$ | cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| 231 86 | 4,785 62 | 3·97 | 5·16 | 0·78 | 3·92 | 0·37 | 0·73 | 14·93 | |
| 133 95 | 4,489 03 | 4·13 | 4·35 | 0·73 | 4·73 | 0·09 | 0·44 | 14·47 | |
| 199 52 | 4,406 85 | 4·40 | 4·59 | 0·82 | 3·99 | 1·19 | 0·71 | 15·70 | |
| 279 69 | 4,991 31 | 4·15 | 5·35 | 0·84 | 4·76 | 0·48 | 0·93 | 16·51 | |
| 217 68 | 5,300 26 | 4·21 | 5·27 | 0·84 | 7·37 | 0·11 | 0·77 | 18·57 | |
| 301 38 | 5,681 76 | 4·64 | 6·01 | 0·90 | 11·07 | 0·22 | 1·28 | 24·12 | |
| 385 49 | 5,192 49 | 5·68 | 5·57 | 0·92 | 10·39 | 0·12 | 1·82 | 24·50 | |
| 286 11 | 4,930 32 | 5·71 | 6·10 | 0·96 | 9·29 | 0·43 | 1·38 | 23·87 | |
| 281 00 | 5,329 38 | 5·68 | 6·28 | 0·99 | 8·64 | 0·06 | 1·20 | 22·85 | |
| 189 08 | 4,416 47 | 5·33 | 5·09 | 0·82 | 8·98 | 0·05 | 0·91 | 21·18 | |
| 179 84 | 2,375 19 | 4·59 | 3·85 | 0·80 | 0·59 | 0·01 | 0·80 | 10·64 | |
| 176 36 | 3,883 45 | 3·25 | 1·70 | 0·59 | 6·89 | 0·04 | 0·60 | 13·07 | |
| 2,861 94 | 55,782 13 | 4·54 | 4·86 | 0·83 | 6·48 | 0·28 | 0·92 | 17·91 | |

J. UNSWORTH,
Mechanical Superintendent and Engineer.

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. |
| 1884—July | 4,295 | 11,531 | 13,960 | 3,000 | 44 | 28,535 | 250 | 6,268 | 35,053 |
| August..... | 3,938 | 11,504 | 13,824 | 970 | 17 | 26,315 | 171 | 6,192 | 32,678 |
| September..... | 3,858 | 10,634 | 13,178 | 2,643 | 40 | 26,495 | 201 | 5,297 | 31,993 |
| October..... | 4,169 | 11,145 | 13,824 | 2,987 | ..... | 27,956 | 121 | 5,903 | 33,980 |
| November..... | 3,730 | 10,545 | 12,781 | 2,198 | ..... | 25,524 | 153 | 5,590 | 31,267 |
| December..... | 2,999 | 4,096 | 14,080 | ..... | ..... | 18,176 | ..... | 5,374 | 23,550 |
| 1885—January..... | 3,000 | 2,253 | 13,907 | ..... | 408 | 16,568 | 134 | 4,484 | 21,186 |
| February..... | 2,965 | 1,963 | 12,155 | ..... | 2,406 | 16,524 | 52 | 4,076 | 20,652 |
| March..... | 3,521 | 2,452 | 13,497 | ..... | 2,906 | 18,855 | 86 | 4,374 | 23,315 |
| April..... | 3,121 | 2,453 | 13,196 | ..... | 232 | 15,881 | 184 | 4,783 | 20,848 |
| May..... | 3,039 | 2,646 | 14,043 | 274 | 154 | 17,117 | 116 | 5,370 | 22,603 |
| June..... | 3,327 | 10,642 | 13,362 | ..... | ..... | 24,004 | 74 | 5,619 | 29,697 |
| Totals.. | 41,962 | 81,864 | 161,807 | 12,072 | 6,207 | 261,950 | 1,542 | 63,330 | 326,822 |

ISLAND RAILWAY.

DEPARTMENT.

of Locomotives, for the Year ended 30th June, 1885.

| Total Mileage. | | * Average of Cars per mile run with Train. | Average Mileage. | | Consumption. | | | | Consumption per 100 Miles run by Engines. | | | |
|----------------|---------------|--|----------------------------|---------------------------|-----------------|---------------|-------------------|------------------|---|---------------|-------------------|------------------|
| Cars. | Snow Ploughs. | | Miles to one hour in Steam | Of Cars to one of Engine. | Bushels of Coal | Pints of Oil. | Pounds of Tallow. | Pounds of Waste. | Bushels of Coal | Pints of Oil. | Pounds of Tallow. | Pounds of Waste. |
| 161,865 | ..... | 5.68 | 8.16 | 4.61 | 15,447 | 1,500 | 1,107 | 644 | 44.06 | 4.27 | 3.15 | 1.83 |
| 138,750 | ..... | 5.28 | 8.30 | 4.24 | 12,060 | 1,355 | 1,013 | 497 | 36.90 | 4.14 | 3.10 | 1.52 |
| 146,850 | ..... | 5.55 | 8.29 | 4.59 | 12,584 | 1,503 | 1,051 | 470 | 39.33 | 4.70 | 3.28 | 1.46 |
| 154,042 | ..... | 5.51 | 8.15 | 4.53 | 15,219 | 1,449 | 1,085 | 540 | 44.78 | 4.26 | 3.19 | 1.50 |
| 124,245 | 185 | 4.86 | 8.38 | 3.97 | 13,559 | 1,227 | 970 | 466 | 43.36 | 3.93 | 3.10 | 1.49 |
| 92,015 | 2,803 | 5.06 | 7.85 | 3.90 | 10,900 | 934 | 732 | 425 | 46.28 | 3.96 | 3.10 | 1.80 |
| 75,655 | 2,215 | 4.68 | 7.06 | 3.57 | 9,191 | 932 | 686 | 380 | 43.38 | 4.39 | 3.23 | 1.79 |
| 63,746 | 6,963 | 4.51 | 6.96 | 3.08 | 9,536 | 972 | 709 | 355 | 46.17 | 4.70 | 3.43 | 1.71 |
| 80,913 | 6,918 | 5.07 | 6.62 | 3.47 | 9,254 | 1,084 | 937 | 425 | 39.69 | 4.64 | 4.01 | 1. |
| 81,099 | 1,156 | 5.18 | 6.68 | 3.89 | 8,350 | 886 | 738 | 352 | 40.05 | 4.24 | 3.54 | 1.68 |
| 103,661 | 185 | 6.05 | 7.43 | 4.58 | 9,281 | 874 | 742 | 351 | 41.06 | 3.86 | 3.28 | 1.55 |
| 107,625 | ..... | 4.48 | 8.92 | 3.62 | 9,319 | 1,187 | 934 | 495 | 31.38 | 3.99 | 3.14 | 1.66 |
| 1,330,466 | 20,425 | 5.20 | 7.79 | 4.07 | 134,700 | 13,903 | 10,704 | 5,400 | 41.21 | 4.25 | 3.27 | 1.65 |

* Deduct piloting in making these averages.

J. UNSWORTH,
Mechanical Superintendent and Storekeeper.

PRINCE EDWARD ISLAND RAILWAY.

MECHANICAL DEPARTMENT.

C.—MONTHLY STATEMENT of Car Mileage, for Year ended 30th June, 1885.

| Months. | First-class | Second-class and Baggage. | Postal and Smoking. | Box, Stock and Hay. | Platform. | Total. |
|-----------------------|-------------|---------------------------|---------------------|---------------------|-----------|-----------|
| 1884—July | 30,300 | 31,001 | 11,642 | 46,381 | 42,541 | 161,865 |
| August | 28,800 | 31,892 | 14,511 | 39,900 | 23,647 | 138,750 |
| September | 24,090 | 29,251 | 7,751 | 42,262 | 43,496 | 146,850 |
| October | 27,963 | 32,044 | 5,917 | 47,767 | 40,351 | 154,042 |
| November | 23,743 | 28,673 | 3,721 | 49,769 | 18,339 | 124,245 |
| December | 18,621 | 20,480 | 6,734 | 34,881 | 11,299 | 92,015 |
| 1885—January | 16,336 | 15,662 | 7,015 | 22,800 | 13,842 | 75,655 |
| February | 14,346 | 14,176 | 5,146 | 16,346 | 13,732 | 63,746 |
| March | 15,511 | 15,531 | 5,464 | 21,772 | 22,635 | 80,913 |
| April | 16,110 | 16,707 | 7,891 | 28,206 | 12,185 | 81,099 |
| May | 17,209 | 18,475 | 6,045 | 44,569 | 17,373 | 103,661 |
| June | 25,339 | 26,304 | 7,087 | 36,503 | 12,392 | 107,625 |
| Totals | 258,368 | 280,196 | 88,924 | 431,146 | 271,832 | 1,330,466 |
| LESS—Ballasting | 140 | 3,716 | 3,544 | 501 | 89,289 | 96,990 |
| Balance | 258,228 | 276,480 | 85,380 | 430,845 | 182,543 | 1,233,476 |

J. UNSWORTH,
Mechanical Superintendent 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, 1884 and 1885.

| Particulars. | Locomotives. | Classification of Cars. | | | | | | | | Snow Ploughs. | | Total. |
|--|--------------|-------------------------|------------------------|---------------------|----------------|-----------|-------|----------|--------|---------------|-------|--------|
| | | 1st Class. | 2nd Class and Baggage. | Postal and Smoking. | Box and Stock. | Platform. | Vans. | Pay Car. | Total. | Flangers. | | |
| On hand 30th June, 1884, serviceable..... | 20 | 16 | 14 | 3 | 134 | 119 | 3 | 1 | 290 | 7 | 6 | 13 |
| do do condemned..... | ..... | ..... | ..... | ..... | 41 | 6 | ..... | ..... | 47 | ..... | ..... | ..... |
| Total Stock, 30th June, 1884..... | 20 | 16 | 14 | 3 | 175 | 125 | 3 | 1 | 337 | 7 | 6 | 13 |
| Purchased and charged to Capital..... | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Built at Charlottetown Railway Works and charged to Capital..... | ..... | 1 | 1 | ..... | ..... | ..... | ..... | ..... | 2 | 1 | 1 | 2 |
| Total Stock, 30th June, 1885..... | 21 | 17 | 15 | 3 | 175 | 125 | 3 | 1 | 339 | 8 | 7 | 15 |
| Condemned on hand 1st July, 1884..... | ..... | ..... | ..... | ..... | 41 | 6 | ..... | ..... | 47 | ..... | ..... | ..... |
| do during the year..... | ..... | ..... | ..... | ..... | 42 | 17 | ..... | ..... | 59 | 1 | ..... | 1 |
| Less rebuilt..... | ..... | ..... | ..... | ..... | 83 | 23 | ..... | ..... | 106 | 1 | ..... | 1 |
|  | ..... | ..... | ..... | ..... | 43 | 11 | ..... | ..... | 54 | 1 | ..... | 1 |
| Add serviceable and repairing..... | ..... | ..... | ..... | ..... | 40 | 12 | ..... | ..... | 52 | ..... | ..... | ..... |
| | 21 | 17 | 15 | 3 | 135 | 113 | 3 | 1 | 287 | 8 | 7 | 15 |
| Total on record..... | 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, 1885.

| | 1884. | 1885. |
|---|-----------|-----------|
| The miles run by trains were | 238,130 | 249,878 |
| do engines were | 291,760 | 311,443 |
| do cars were..... | 1,208,423 | 1,233,476 |
| do snow-ploughs..... | 22,990 | 20,425 |
| | \$ cts. | \$ cts. |
| The cost of locomotive power was | 65,402 87 | 55,782 13 |
| do repairs to cars was..... | 22,438 49 | 29,902 89 |
| do labor, oil and waste, for packing, was | 669 17 | 537 67 |
| do repairs to passenger cars was..... | 7,239 29 | 7,227 24 |
| do do postal and smoking cars | 2,163 11 | 617 72 |
| do do freight cars and vans was | 13,036 09 | 22,057 93 |
| The cost of locomotive power per 100 miles run by trains was..... | 27 46 | 22 32 |
| do do do engines was..... | 22 41 | 17 91 |
| do do do cars was..... | 5 41 | 4 52 |
| The cost of repairs to cars per 100 miles run by trains was..... | 9 42 | 11 60 |
| do do do engines was..... | 7 69 | 9 60 |
| do do do cars was..... | 1 85 | 2 42 |
| The cost of labor, oil and waste for packing per 100 miles run by trains was... | 0 28 | 0 21 |
| do do do engines was | 0 09 | 0 17 |
| do do do cars was.... | 5 47 | 0 04 |
| Repairs to passenger cars per 100 miles run by trains were..... | 3 04 | 2 89 |
| do postal and smoking cars were..... | 0 90 | 0 24 |
| do freight cars and vans were..... | 5 47 | 8 82 |

J. UNSWORTH,
Mechanical Superintendent and Storekeeper.

RETURN of Accidents and Casualties which have occurred on the Prince Edward Island Railway, during the Year ended 30th June, 1885.

| Date. | Time of Night or Day. | No. of Train. | Description of Train. | Name of Conductor. | Name of Driver. | No. of Engine. | Place of Accident. | Names of Persons Injured. | Whether Passenger or Employé. | Particulars of Accident. | Extent of Injury. | Verdict of Coroner's Jury. |
|---------|-----------------------|---------------|-----------------------|--------------------|-----------------|----------------|--------------------|---------------------------|-------------------------------|--|-----------------------------------|----------------------------|
| 1884. | | | | | | | | | | | | |
| Aug. 14 | 6.10 a.m. | 6 | Mixed | J. Thomson ... | J. Hughes | 11 | Summerside | James Daly | Employé. | Fell from top of car. | Sprained shoulder | |
| Sept. | 8.00 p.m. | 5 | do | do | W. Watson..... | 11 | Nod Siding..... | W. Watson..... | do | Collision between train and flat car. | Badly injured. | |
| do | 8.00 p.m. | 5 | do | do | do | 11 | do | H. Craswell | do | do | do | |
| Oct. 11 | 11 a.m. | 13 | Shunting. | G. W. Hibbert | C. Moore | 16 | Georgetown | Frank Doucette. | do | Fell from front of engine | Leg broken; died from gangrene. | |
| 1885. | | | | | | | | | | | | |
| May | 5.20 a.m. | 8 | Mixed | I. R. Scott.... | A. J. McLaine. | 13 | Near Souris | W. D. Oantwell | do | Fell between tender of engine and flat cars. | Leg broken, & shoulder dislocated | |

JAMES COLEMAN,
Superintendent.

APPENDIX No. 6.

No. 1.

DEPARTMENT OF RAILWAYS AND CANALS,
SUPERINTENDING ENGINEER'S OFFICE,
MONTREAL, 27th November, 1885.

SIR,—I have the honor to submit my report on the various works under my charge for the fiscal year 1884-5, ended on 30th June last, as called for by your letter No 66812.

These works are the Lachine and Beauharnois Canals, on the River St. Lawrence; the Chambly Canal and St. Ours Lock and Dam, on the Richelieu River.

They 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 upper and lower entrance of each canal, and on each mitre sill of St. Ours Lock.

LACHINE CANAL.

All the works were maintained in good order, and no interruption to the trade occurred during the navigable season.

This canal was closed by ice on the 30th November, 1884, and opened for traffic again on 4th May, 1885. The water was drawn off on the 23rd April, but owing to very sudden rise of the River St. Lawrence, caused by an ice jam above the Victor Bridge, which flooded Point St. Charles, the town of St. Gabriel and adjoining land the canal had to be refilled on the 25th, with a view of protecting the River St. Pierre culvert. Cofferdams were also raised around the Wellington Basin and portion of the towing path between Wellington street Bridge and Lock No. 3, prevent the flood water from flowing into the canal. The flood fell rapidly, after having risen to within 9 inches of the top of the coping of Wellington Basin, and admitted of the water being again drawn off from the two upper reaches on the 27th, when the necessary repairs below the water line were effected.

The principal item of work done during the year, and chargeable to repairs, was the renewal of the sills, the lower half of the posts and a large portion of the flooring of the two St. Gabriel sheds, for which a special appropriation was granted. This work was done during the winter months.

Owing to the low water in Lake St. Louis, and the great thickness of ice in the canal, the mills and factories which are supplied with power from the canal, were obliged to work from the 16th of February to the 14th of April, one-half of them at night and the remainder by day, so as not to draw down the summit level, and lowering the ice, displace the side walls. The ice measured three feet in thickness and the water on the upper sill of the guard lock at Lachine measured only 8 feet 6 inches at the lowest, and 10 feet 11 inches at the highest, during that time.

The new lock and entrance at Lachine were opened to the trade on the first of June last, which completed the opening of all the weir locks and enlarged canals throughout.

Ordinary repairs were made to the locks, weirs, bridges, buildings, &c., where required, and the whole kept in perfect order.

The towing paths were trimmed up and all drains and ditches cleaned. The roads and approaches to flour sheds, wharves and bridges were also repaired and kept in good condition.

Some dredging, chargeable to construction, was done between the main channel of the canal and Cantin's Basin, above St. Gabriel Lock, to bring it to the depth of 3 feet.

I would again call attention to the want of booms in the new lumber basin on section No. 1, at Lachine, and also to the urgent necessity for a proper system of lighting, the new locks and basins at the lower end of the canal.

CONTRACT WORK.

Bridges.

Two compound bridges were built by Mr. John McDougall during the winter. They replace the old wooden bridges at Côte St. Paul and Brewsters or Napoleon road.

Macadamized Road—From Lachine to Côte St. Paul Road.

The contractors for this road, and the stone fence between it and the adjoining farms, have made fair progress. The fencing was finished in the fall of last year and the road will be completed by the close of the season.

St. Gabriel Basins Nos. 3 and 4.

Work on these basins was continued until stopped by the frost in December last. Operations were resumed early in the spring, and at the close of the fiscal year the state of the work was such as to guarantee an early completion of the unfinished work, consisting chiefly of wharves and roads.

Works of Enlargement.

At the date of last report the whole of these works were completed, and the contractors settled with, except on Section No. 11. On this section drilling and dredging were completed on the submarine work, 19th July, 1884; and from that date until September 27th a force was employed clearing up the bottom with divers and derrick. During this time also walls upon 30' cribwork were trimmed, and filling between walls completed and levelled up.

On September 27th the bottom of submarine work was thoroughly tested by gauges sweeping the whole width of the channel, at a level of three inches above grade.

BEAUHARNOIS CANAL.

The canal was closed on the 1st December, 1884, and opened to navigation on the 3rd May, 1885. No accident occurred, and consequently no interruption to the navigation during the fiscal year.

LOCKS AND LOCK GATES.

A pair of gates were built and placed in the upper end of Lock No. 9. The old gates were taken to pieces, and the construction of another pair for Lock No. 10 has been commenced. Sundry small repairs have also been made to the gates of locks Nos. 6, 9, 10 and 12.

Two pairs of gates were also built for the River Yamaska Lock, which gates will soon be placed in position.

The wooden suspension blocks of the lower gates of Locks Nos. 6, 7, 8, 9, 10, 11, 12 and 13, also the foot bridges at Locks Nos. 6, 7 and 8 were puttied and received two coats of paint.

Three fender posts were renewed at different locks, and several others repaired.

BRIDGES.

Two swing bridges were built, one of which has been placed at Lock No. 9, and the other will shortly be placed at Lock No. 13. These bridges have been made one foot wider than they were before, so as to enable the farmers to pass more easily with their reaping machines.

Considerable repairs were made to the bridges of Locks Nos. 7, 8 and 10.

The end piers and posts, as well as the ballast boxes of these bridges were renewed. Many of the weir bridges have been partly renewed or repaired; and many of the small bridges over ditches and discharges have been rebuilt and others repaired.

BANKS, DAMS, DYKES.

The Dykes at Hungry Bay have been repaired, and a considerable portion of these dykes have been raised.

The dam at "Ile aux Chats" is at present occupied by and under the care of the Canada Atlantic Railway Company, and they have laid their railway track on it.

A wharf has been built in front of the dam at "Grande Ile" along its whole length. This wharf has been well finished, filled with stones and covered with gravel. It is a great benefit to the navigation.

The lower pier on the south at the St. Timothy Bridge, and also the upper one on the north side have been rebuilt above the water line. All other wharves have been kept in good order.

At many points the canal banks were raised and the side walls repaired. All culvert wells, side ditches and discharges were cleaned last summer, and in the spring the snow and ice were removed.

According to custom the weeds were mowed on both sides of the canal at the proper time.

One hundred and ten new mooring posts were placed and many others taken up and reset.

BUILDINGS, FENCES, &c.

The Lockmen's house of Lock No. 11 has been rebuilt. Considerable repairs were made to the Lockmaster's house of Lock No. 6. All the other dwelling houses and their outbuildings have been kept in repair.

The ground adjoining the Superintendent's house was levelled, fenced and planted with trees.

Fences were repaired at the houses of the Collector and of the Lockmen at Locks No. 8 and 12, and at the Government workshop.

A small building $13\frac{1}{2}$ by 18 feet was erected for the Lockmen at Lock No. 9.

Two new scows were built and the others repaired.

DRAINAGE.

In addition to the ordinary cleaning of ditches previously mentioned, the ditch on the south side of the canal below Valleyfield was enlarged and deepened four feet in width, for a length of 3,500 feet.

LAKE ST. FRANCIS.

On the north side between Coteau Landing and St. Zotique, the shore had been washed away to such an extent as to endanger the public road. To prevent further encroachment of the lake and to save the road from destruction a dry stone revetment wall, on a bed of fascines, has been built at the most exposed points, for a total length of 3,494 feet.

This work was suspended on the 24th October, 1884, as the appropriation was exhausted. The wall suffered no damage from ice or high water, and has answered the intended purpose in every respect.

This wall should be continued for a length of 8,450 feet on parts of the shore which are still suffering damage from the same cause.

CHAMBLY CANAL.

This canal was closed by ice on the 30th November, 1884, and re-opened on the 14th May, 1885. No accident or interruption of any kind occurred.

The work done during the fiscal year is divided under two heads, viz.: "Ordinary Repairs" and "Improvements chargeable to Income."

The ordinary repairs were principally as follows:—

LOCKS.

Lock No. 1.

During the month of July portions of the upper wing-walls of this lock were taken down and rebuilt, and two new foot bridges were placed on the lower gates.

Lock No. 2.

One new sluice gate and frame, and two new foot bridges were placed in position.

Lock No. 3.

One new sluice gate and frame were built and the lower gates were furnished with new foot bridges.

Lock No. 4.

One pair of new gates were placed in the upper recesses and new foot bridges were made for the lower gates.

Lock No. 5.

A new balance beam and two foot bridges were provided for the upper gates.

Lock No. 6.

The piers at the lower entrance were partly rebuilt and new fenders placed.

Lock No. 7.

A trench was cut behind the wall and filled with puddle to prevent leakage. One new sluice gate and a pair of foot bridges were placed at the lower gates.

Lock No. 9.

The top bars of the lock gates were renewed and two new sluice gates were built and placed.

The walls of all the locks were pointed and grouted with Portland cement during the month of April.

BRIDGES AND BY-WASHES.

The old stone pier of Bridge No. 1 was taken down and rebuilt with square timber, and new flooring was placed where required on the other bridges.

Swing bridge No. 3 was replaced by a new one. Six towing path bridges on St. Thérèse Island were rebuilt.

By-washes Nos. 1 and 2 were repaired, and temporary repairs were made at Fryer's By-wash, it being intended to rebuild it next spring.

BANKS AND DITCHES.

During the month of April, the sidewalls between Locks Nos. 1 and 7 were repaired and the bottom was cleared of all loose stones.

Three culverts and six miles of side ditches were cleaned.

One hundred and fifty snubbing posts were made and placed on the banks where required.

BUILDINGS AND FENCES.

Necessary repairs were made to the dwelling houses of the Lockmasters and Bridge Keepers.

The fences along the line of the canal were repaired and rebuilt at different places.

WHARVES.

About sixty feet of the wharf above Lock No. 7 was replanked and new fenders placed. The wharf below Lock No. 9 at lower entrance had part of the planking repaired and renewed.

SCOWS.

Four scows were repaired and caulked, and two of them were painted.

WORKS OF IMPROVEMENT—(CHARGEABLE TO INCOME.)

Steam Dredge.

The steam dredge which had been working below St. Thérèse Island was sent to St. Ours Lock, on the 6th July, 1884, and returned to the Chambly Canal on the 5th September, where it was employed until the close of navigation in deepening at different points from By-wash No. 3 (Fryer's) down to a little below Lock No. 6. The material excavated was used for raising and widening the banks, and where not required was placed in spoil banks for future use.

In the spring the dredging fleet was put in thorough repair, and at the opening of navigation the dredge proceeded to St. John's where she continued to work at different places between Langelier's Bridge and James' Bridge. The material excavated was partly placed on the wharves and piers.

This dredge is under orders to proceed to the Beauharnois Canal after the first of July.

LOCKS.

During the winter and spring the upper wing walls, recess walls and chamber walls, on both sides of Lock No. 4 were taken down and rebuilt; the lower tiers being built of timber with concrete backing and the upper portion of ashlar stone and cement mortar.

The wall on the east side of Lock No. 5 was taken down and rebuilt in the same manner.

RICHELIEU RIVER.

A thorough survey with soundings is being made of the Richelieu River from below St. John's to Rouse's Point.

In connection with this survey permanent iron bench marks have been placed on Government property at various points along the river between the Province line and Orel.

I enclose herewith a detailed report by Mr. L. G. Papineau on works of improvement at St. Ours Lock and in connection with the hydrographic survey of the Michelieu from Rouse's Point to St. John's, P.Q.

ST. OURS LOCK AND DAM.

The navigation closed at this lock on 26th November, 1884, and opened again on 23rd April, 1885. The high water prevented the use of the locks from the 25th April to 1st of May, during which time vessels passed over the dam. There was no other interruption.

Six new piers were built, two above the lock on the island side and four below the lock—two on each side of the channel.

One of the lower gates of the lock received new chains, and the other chains were examined and repaired by the diver.

The dry wall below the lock was taken down and rebuilt. The old piers at each end of the lock were repaired, and one of the new piers above the lock, which had been displaced by the ice, was put back in position.

A landing place was made at the upper pier on the island, and a road about 100 feet long, with mooring posts, was made, to facilitate the handling of heavy tows coming from below.

The ice was cut away from the lock gates and from the piers, and the gates were loaded to prevent their being lifted by high water in the spring.

The old lock gates were taken to pieces for rebuilding. A small store house was rebuilt for the safe keeping of cement and other materials.

The booms were removed in the fall and replaced in the spring.

The dam was repaired and made level on top. Three scow loads of gravel were placed on the upper side to prevent leakage. A large scow was built for the service of the dam, and a small one for use either at the dam or the piers.

Usual repairs were made at the Superintendent's house, outbuildings, fences, &c.

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

E. H. PARENT,
Superintending Engineer.

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

No. 2.

ST. OURS LOCK & DAM.

LACOLLE, 7th November, 1885.

SIR,—I have the honor to transmit my Report on the different works under my control during the fiscal year 1884-85.

ST. OURS.

The works at this place consisted in certain improvements to approaches to the lock. As these operations were only begun in June, 1884, but carried on and completed during the fiscal year 1884-85, they will be here described as belonging to that year.

These works were a continuation of those made in 1883-84, viz., building detached piers to support booms leading the vessels to the lock and deepening the

channel between these piers and the old landing piers on the island side above and below the level. In 1883-84 we had built five piers above and five below as well as booms to fill the space between them.

Lower Entrance.

In 1884-85 the line of piers below the lock was extended by adding two new ones, and two booms 125 feet in length, thus reaching a total distance of 750 feet from the lock.

Besides this, on the island side we lengthened the old landing pier by building two new piers and two booms, located so as to reach in a direct way the deep channel which lies towards the west shore from this point downwards.

The last of these piers forms a new pier head, and is higher than the others, in order to be above water as soon as navigation opens. It may be used to carry the red light showing this entrance.

In view of this and also for the convenience of boatmen, it is provided with steps from low water level to its top.

The two upper sides being exposed to the current are inclined at an angle of 45 degrees, and form an ice breaker as shown on the plan accompanying this report.

The space comprised between the two lines of piers was dredged to a uniform depth of 8 feet, and the channel widened to 220 feet, opposite the new pier head.

Dredge No. 1 was employed at this work from the middle of June to the 16th of August, 1884, and from that date until it left for Chambly it was employed at the upper entrance.

Upper Entrance.

The old landing pier at this entrance was in a similar manner lengthened 250 feet, by building two piers and two booms, thus allowing more space for vessel while waiting after passing the lock.

The channel was deepened as far as the line of these new piers.

We have thus, in all, built in 1884-85 at St. Ours Lock six new piers, of which one is 25 by 15 and the others 20 by 12; also, six booms 3 feet wide and of a total length of 700 feet, and the dredge has deepened an area of about 10,700 square yards.

In order to avoid carrying the piers to too great a depth, they were built on the bottom, without dredging previously, and sheet piles were driven along the side facing the channel.

By following this course a noticeable saving was effected, and, as there is but little current, it seems safe enough against sliding towards the channel.

These sheet piles were driven with a pile driver, which had to be rebuilt completely, as nothing but the hammer remained of the original one.

These works complete the lower entrance, and answer well to the present need of navigation. The upper entrance might be further improved by lengthening the row of piers on the shore side by 300 or 400 feet, and adding one pier towards the upper extremity of the island.

The works at St. Ours were completed about the 12th of September, 1884.

SURVEY.

From St. Ours the staff went to St. John's, and then to Pointe-à-la-Mule, to begin a hydrographic survey of the upper part of River Richelieu. During the autumn 1884 we surveyed the distance between the lighthouses at Pointe-à-la-Mule and Sturgeon Point, and more particularly the flats of Pointe-à-la-Mule, the crossing at St. Valentin opposite South River, and the channel on the west side of Isle-au-Noix.

The maps of this part of the river were sent to the Department, and help form an idea of the improvements or alterations that might be made in the channel at these different points.

The outside work of the survey was continued until the 20th of December, 1884. During winter of 1885 the maps of these different surveys were made, and also plans for a proposed tunnel under the Lachine Canal to facilitate traffic between the two parts of Wellington street.

In the month of July the survey of the Richelieu River was resumed, and is still continued to this date.

I have the honor to be, Sir,
Your most obedient servant,
L. G. PAPINEAU.

E. H. PARENT, Esq.,
Superintending Engineer,
Montreal.

LACHINE CANAL.

STATEMENT of Fines and Damages collected during the Fiscal Year ended 30th June, 1885.

| Date. | Name of Vessel. | Name of Owner. | Fines. | Damages. | Totals. |
|------------|----------------------------|-----------------------------|---------|----------|---------|
| 1884. | | | \$ cts. | \$ cts. | \$ cts. |
| July 4... | Steamer South Eastern..... | Longneuil Navigation Co.... | ..... | 4 50 | 4 50 |
| Sept. 8... | B. J. Bright | Lower | 4 00 | 0 63 | 4 63 |
| Nov. 26... | B. Melinda | Lussier | 10 00 | 25 00 | 35 00 |
| | | Totals..... | 14 00 | 30 13 | 44 13 |

M. CONWAY,
Superintendent.

LACHINE CANAL OFFICE,
MONTREAL, July, 1885.

LACHINE CANAL.

STATEMENT of Amounts collected for Bank Dues and Wintering Vessels, during the Fiscal Year ended 30th June, 1885.

| Date. | Items. | Number. | Rate. | Amounts. |
|------------|------------------------|---------|---------|----------|
| | | | \$ cts. | \$ cts. |
| 884-85.... | Firewood..... | ..... | ..... | 1,055 96 |
| | Wintering vessels..... | ..... | ..... | 136 58 |
| | Total..... | ..... | ..... | 1,192 54 |

JOHN O'NEILL,
Collector.

CANAL OFFICE,
MONTREAL, July, 1885.

LACHINE CANAL.

STATEMENT of Basin, Firewood and Bank Dues collected during the Fiscal Year ended 30th June, 1885.

| Date. | Items. | Amounts. |
|-------------|---------------------|----------|
| | | \$ cts. |
| 1884-85.... | Basin dues | 1,052 96 |
| | Firewood dues | 74 40 |
| | Bank dues | 82 00 |
| | Total..... | 1,209 36 |

J. B. DESCHAMPS,
Pro Collector.

CANAL OFFICE,
LACHINE, July, 1885.

LACHINE CANAL.

STATEMENT showing the Depth of 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, 1885. (From Lockmaster's Returns.)

| Months. | Lock No. 1, Lower Sill. | | Lock No. 5, Upper Sill. | |
|-----------------|-------------------------|---------|-------------------------|---------|
| | Highest. | Lowest. | Highest. | Lowest. |
| 1884. | ft. in. | ft. in. | ft. in. | ft. in. |
| July | 19 9 | 18 9 | 12 6 | 11 10 |
| August | 19 4 | 18 1 | 12 4 | 11 5 |
| September | 18 1 | 17 5 | 11 6 | 11 0 |
| October | 17 11 | 17 5 | 11 5 | 11 0 |
| November | 18 9 | 17 4 | 11 7 | 10 8 |
| December | * 34 2 | 17 5 | 12 3 | 10 10 |
| 1885. | | | | |
| January | † 35 3 | 29 1 | 14 2 | 11 4 |
| February | 29 11 | 27 0 | 12 2 | 10 4 |
| March | 28 1 | 25 0 | 10 4 | 9 0 |
| April | ‡ 38 6 | 26 2 | 15 5 | 8 11 |
| May | 34 1 | 22 10 | 15 7 | 13 11 |
| June | 23 0 | 20 10 | 14 5 | 13 2 |

* 30th December, 1884.

† 7th January, 1885.

‡ 26th April, 1885.

BEAUHARNOIS CANAL.

STATEMENT showing the Depth of River Water on the Mitre Sills of Lock No. 6 at lower entrance, and Lock No. 14 at upper entrance, during the Fiscal Year ended 30th June, 1885. (From Lockmaster's Returns.)

| Months. | Lock No. 6, Lower Sill. | | Lock No. 14, Upper Sill. | |
|----------------|-------------------------|---------|--------------------------|---------|
| | Highest. | Lowest. | Highest. | Lowest. |
| 1884. | ft. in. | ft. in. | ft. in. | ft. in. |
| July..... | 12 6 | 12 0 | 13 0 | 12 6 |
| August..... | 12 5 | 11 10 | 12 8 | 12 3 |
| September..... | 11 9 | 10 9 | 12 8 | 12 3 |
| October..... | 10 10 | 10 7 | 12 4 | 11 10 |
| November..... | 11 2 | 10 9 | 12 4 | 11 9 |
| December..... | 12 8 | 10 9 | 12 10 | 11 7 |
| 1885. | | | | |
| January..... | 15 10 | 12 9 | 12 11 | 11 11 |
| February..... | 22 0 | 16 6 | 12 11 | 11 11 |
| March..... | 22 8 | 16 6 | 11 0 | 9 0 |
| April..... | 17 6 | 15 9 | 13 2 | 9 6 |
| May..... | 16 0 | 14 5 | 12 9 | 12 3 |
| June..... | 14 0 | 13 3 | 13 0 | 12 3 |

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, 1885. (From Lockmaster's Returns.)

| Months. | Lock No. 9, Lower Sill. | | Lock No. 1, Upper Sill. | |
|----------------|-------------------------|---------|-------------------------|---------|
| | Highest. | Lowest. | Highest. | Lowest. |
| 1884. | ft. in. | ft. in. | ft. in. | ft. in. |
| July..... | 11 11 | 9 11 | 9 0 | 7 8 |
| August..... | 10 0 | 8 9 | 8 1 | 7 2 |
| September..... | 8 11 | 8 0 | 7 8 | 6 8 |
| October..... | 8 5 | 7 7 | 7 4 | 6 8 |
| November..... | 10 3 | 8 2 | 7 6 | 7 0 |
| December..... | 11 2 | 9 1 | 8 6 | 7 3 |
| 1885. | | | | |
| January..... | 14 8 | 12 1 | 9 1 | 8 7 |
| February..... | 12 10 | 11 5 | 9 1 | 8 7 |
| March..... | 13 7 | 12 1 | 8 8 | 8 3 |
| April..... | 21 0 | 13 8 | 11 9 | 8 4 |
| May..... | 19 6 | 14 1 | 11 7 | 10 2 |
| June..... | 14 0 | 11 4 | 10 0 | 8 5 |

ST. OURS LOCK.

STATEMENT showing the Depth of River Water on the Mitre Sills of St. Ours Lock during the Fiscal Year ended 30th June, 1885. (From Lockmaster's Returns.)

| Months. | Lower Sill. | | Upper Sill. | |
|----------------|-------------|---------|-------------|---------|
| | Highest. | Lowest. | Highest. | Lowest. |
| 1884. | ft. in. | ft. in. | ft. in. | ft. in. |
| July | 10 7 | 9 8 | 10 5 | 9 3 |
| August..... | 10 1½ | 8 5½ | 9 5 | 8 6 |
| September..... | 8 11 | 7 9 | 8 9 | 8 0 |
| October..... | 8 11 | 7 11 | 8 10 | 7 9 |
| November..... | 10 5 | 8 1 | 8 9 | 8 2 |
| December..... | 12 4 | 8 6 | 10 4 | 8 7 |
| 1885. | | | | |
| January..... | 14 4 | 10 10 | 11 11 | 8 8 |
| February..... | 13 6 | 11 10 | 9 10 | 9 2 |
| March..... | 12 9 | 10 2 | 9 6 | 8 11 |
| April..... | 23 7½ | 10 8 | 19 6½ | 9 2 |
| May..... | 21 11 | 15 0 | 17 7½ | 12 0 |
| June..... | 15 14 | 12 2 | 12 1 | 9 11 |

No. 3.

OTTAWA RIVER CANALS.

REPORT FOR THE FISCAL YEAR ENDING 30TH JUNE 1885.

OTTAWA, 2nd September, 1885.

SIR,—I have the honor herewith to transmit my Annual Report upon the various works under my charge, taking first those coming under the head of "Construction" and second what have been required for the purposes of "Maintenance."

I have the honor to be, Sir,

Your obedient servant,

D. STARK,

Superintending Engineer, O.R.C.

A. P. BRADLEY, Esq.,

Secretary Department Railways and Canals.

CONSTRUCTION.

STE. ANNE.

At the beginning of the present year the contract for the construction of the lock and basin here, let Messrs. Baskerville, O'Connor and Cassidy, contractors, be finished, and the blasting and dredging of the new channel to the upper entrance

the hands of the Messrs. E. E. Gilbert & Sons had advanced to a distance, from its eastern extremity, of 700 feet up the river.

The dredge used by this firm began work on the 22nd July and closed on the 4th November, 1884.

Recommencing on the 15th June they have pushed on the work satisfactorily. The many improvements made during the intervening winter, both in the machinery and plant, have rendered this season's progress considerably more rapid than last.

Upon reaching a point suitable for the purpose, a cut in a northerly direction was made through a narrow shoal into another channel connecting with the main river avigation. By the channel so opened vessels were given access to the locks without interruption to the progress of the work of deepening and dredging.

This cut will, however, by acting as an alternative one in the event of a rush of traffic, or a block of any kind, prove itself a permanently useful adjunct to the avigation, especially in view of its close proximity to the lock.

During the year a pair of spare lock gates were built and placed ready for use in case of being required.

CARILLON CANAL.

Dam and Slide.

The work done here during the year has been confined to the extension of the booms and piers on the southern side of the approach to the guard lock, to raising and adding to the number of the piers forming the entrance to the slide at Pointe Fortune on the opposite side of the river and to repairs on the dam, which, though still in progress, are rapidly nearing completion.

Besides the refilling in of the break which occurred in this structure in 1883, its launching and strengthening in the other channels of the river north and south of this, has become a visible necessity, the dam in both showing itself perceptibly undermined. In the north channel it has been found to have sunk at least 18 inches below the level originally given it. The great disadvantage under which this dam has labored has been the too narrow width of apron on the lower side, which, by causing the over-fall to overleap it, has caused a disruption of the river bed close to it, placing the dam, as it were, on the "edge of a precipice," and the refilling of the space made by such disruption, with strong cribwork, will form both an extension of the apron and a support to the dam. This work is now in progress, and when completed, will meet all the requirements necessary to render the structure one which will be found undoubtedly permanent and reliable.

A few days more will see the north channel completed, when attention to the south also will close all the important work to be done.

The space between the slide and the south shore of the Ottawa may probably demand something, but the water there is too shallow to call for work of any extent.

I would remark that the sound condition in which the ice was started last spring layed a considerable amount of havoc among the piers and booms forming the entrance to both the slide and the canal.

The sudden and early rise of the river created by unwonted freshets, lifted the ice and carried it off in an unusual state of solidity, and with unusual velocity, hence the consequences to all structures with which it came into collision were resistible, and every pier it touched was cut down to the water's edge.

Those in the canal entrance were replaced as soon as the water fell low enough to admit of working on them, but on the slide side of the river the damage was such as to have rendered its use this season impracticable.

GRENVILLE CANAL.

Green's Point Entrance.

The works here are now approaching completion. The locks were pointed early in the spring and so rendered permanently ready for traffic, the grounds about them

being properly graded and the necessary fencing erected. The tow paths also on the reaches between and above the locks have been graded and levelled. On the north side of the canal along the Government boundary fence a catch drain has been provided for their protection, rendered necessary by the great rush of water, from the high grounds to the northward which spring annually sends down upon them, and which have heretofore been known to sweep many yards of earth and debris into the canal.

The retaining walls along the reach, the lower entrance and along the upper lock are satisfactorily completed, and snubbing posts have been planted at intervals of 100 feet between each throughout the entire length of the enlargement.

At the lower end of the north retaining wall of the lower entrance, a protection pier 30 feet square has been built which now ends the work here; and opposite this pier on the south side, and abutting on the retaining wall; also a line of crib wharfing for the accommodation of tugs waiting for tows, &c., is being built along the edge of ten feet water and round the point formed by the canal and the river.

Upper Entrance.

This entrance, let to the late James Goodwin, Esq., was completed in September, 1884, the last work done being the removal by dredging of debris, which had been left in the canal bottom, and stood above the level of the mitre sill of the guard lock. No other work in connection with it has been required.

CULBUTE CANAL.

The only work executed here was the completion of the excavation of a shoal above the locks, for which the sum of \$2,000 was originally appropriated.

D. STARK,

Superintendent Engineer, O. R. C.

MAINTENANCE.

STE. ANNE'S CANAL.

Navigation closed here on the 24th November, 1884, and reopened on the 5th of May, 1885.

No interruption of any sort has occurred to it throughout the year.

The booms between the piers forming the channel across the river to Isle Perreault had to be repaired, in consequence of injury received by them on the going out of the ice last spring. 1,000 feet of new boom have been provided and laid along the north wall of the basin for the protection of the masonry, this wall having been hitherto, pending the construction of a special wharf for the purpose, used as a landing place.

Ordinary repairs to lock gates, buildings, &c., have been made with some necessary renewals, also;— the whole wharfing.

CARILLON AND GRENVILLE CANALS.

These canals were closed by ice on the 26th of November, 1884, and reopened on the 7th May, 1885. There has been no interruption from any cause to the traffic through them during the year. The piers and booms in connection with the Carillon Canal required a considerable amount of renewal to make good the damage done by the ice last spring on the southerly side of the upper entrance.

The locks on the Carillon Canal called for no repairs, save a small amount of pointing to the walls and painting of the gates and their machinery.

Prior to the opening of navigation an outlet was made in the guide pier to the upper lock, for the purpose of giving vent to the debris from the river, which, in the shape of slabs, bark and drift wood of all description, completely, at times, blocked the entrance and materially interfered with the proper working of the lock gates.

The gap so made has well answered the purpose sought, and the lock is now freed from such a drawback.

The usual amount of attention has been bestowed upon the roads, fences, &c., under the control of the Department.

The public road along the old canal had again, as last year, to be diverted through its adjoining properties during the season of high water. It is the intention this year to permanently change this portion of the public highway so as to place it for the future beyond the reach of river high water.

CHÙTE À BLONDEAU.

No repairs have been made here this year, but the walls of the lock had to be capped with timber to admit of its being used during high water, when some of the tug boats find it impossible to tow up the current.

Masters of vessels complain of the expense they incur by being compelled to tow up this current, when they are under the necessity of doing so at this place in high water, and I would refer to former reports, submitting alternative schemes for meeting the difficulty.

GRENVILLE CANAL.

Repairs to the five locks in connection with this canal have been slight. The old oak suspension blocks at two of them were removed and replaced by iron straps countersunk into the masonry. Their suspension gearing was also overhauled, and new anchor bolts put in prior to the opening of navigation.

The gates and their machinery were painted and the walls pointed, new friction rollers being also placed under the gates.

The bridges on this canal, with the single exception of the swing at Grenville, are in good order, but the last mentioned will soon require renewal.

The ordinary repairs to the banks, and removal of the debris from both them and the boulder retaining walls along the reaches, have been, as usual, attended to. A very considerable outlay is required on these accounts every year, owing to the unfinished and unprotected condition in which the walls and banks have been left; but it seems useless beginning anything in the shape of repairs until a wholesale renewal is undertaken, which, when it is so, will, no doubt, embrace the much-needed widening in various portions of the canal, to give it the calibre of the improved navigation now otherwise existing between Grenville and Montreal.

CULBUTE CANAL.

Navigation closed here on the 27th November, 1884, and re-opened on the 18th April, 1885.

Some slight repairs to the lock gates have been made.

Twenty-one vessels, aggregating 1,000 tons burden passed through the canal during the season.

The steamers of the Upper Ottawa Boom and Pier Company made use of the upper lock, during the months of September and October, for purposes of repair.

D. STARK,

Superintending Engineer, O. R. C.

No. 4.

CORNWALL CANAL.

CORNWALL, 24th August, 1885.

SIR,—I have the honor to submit the following Annual Report on the works under my charge for the fiscal year ended 30th June, 1885.

The Cornwall Canal was maintained in an efficient state until the 8th December, when it was closed by ice, and opened for navigation on the 8th of May, and continued in good working order up to the 1st of July.

The works executed during the past season come under the head of ordinary repairs, except the building of pontoon by G. R. Miller, repairing one pair of lower and one pair of upper gates, and re-planking lower recess of Lock No. 18, general repairs to all supply weirs and abutment of the Cornwall Bridge, raising slope walls and embankment, cleaning culverts, side drains and ditches.

I have the honor to be, Sir,

Your obedient servant,

D. A. MACDONELL,

Superintendent.

A. P. BRADLEY, Esq.,

Secretary Department Railways and Canals.

CORNWALL CANAL.

STATEMENT showing the Depth of River Water on the Mitre Sills of Lock No. 15, at lower entrance, and Lock No. 21, at upper entrance, during the Fiscal Year ended 30th June, 1885.

| Months. | Lock No. 15, Lower Sill. | | Lock No. 21, Upper Sill. | |
|-----------------|--------------------------|---------|--------------------------|---------|
| | Highest. | Lowest. | Highest. | Lowest. |
| | Ft. in. | Ft. in. | Ft. in. | Ft. in. |
| 1884. | | | | |
| July | 11 8 | 11 5 | 12 0 | 11 4 |
| August | 11 7 | 11 2 | 11 7 | 11 2 |
| September | 11 11 | 10 10 | 11 4 | 10 0 |
| October | 11 10 | 10 3 | 11 1 | 10 0 |
| November | 10 6 | 10 1 | 11 2 | 9 8 |
| December | 17 6 | 10 1 | 10 8 | 9 6 |
| 1885. | | | | |
| January | 24 4 | 12 0 | 10 11 | 9 4 |
| February | 22 0 | 17 0 | 12 2 | 9 0 |
| March | 21 10 | 18 2 | 10 8 | 8 7 |
| April | 21 2 | 11 4 | 10 7 | 8 5 |
| May | 11 3 | 11 1 | 11 0 | 10 0 |
| June | 11 4 | 10 11 | 11 9 | 10 0 |

No. 5.

WILLIAMSBURGH CANALS.

MORRISBURG, 8th August, 1885.

SIR,—I have the honor to submit my report on the working and condition of the Williamsburgh Canals, under my charge, for the fiscal year ending 30th June, 1885.

These canals, embracing the Farran's Point, Rapide du Plat, Point Iroquois Junction and Gallops Canals, were closed for the season of 1884 on the 7th December, and re-opened for traffic on the 4th May, 1885. They were maintained in good repair, and no interruption to navigation occurred during the season.

FARRAN'S POINT CANAL.

A new block for pivot and swinging gate was placed on the coping and other repairs made to gates. New sheaves placed in chain-holes and crabs repaired. The pier and ice-breaker at the foot of the canal were repaired, and timber has been got out for the repairs to piers at the head and foot of this canal to be undertaken during the current season. The banks are in good repair. The lock houses were re-shingled and repaired, and a fence built on grounds attached to Lockmaster's house.

RAPIDE DU PLAT CANAL.

One of the gates at Lock No. 23 was taken down and new valves put in. Repairs were made to gates at Locks Nos. 23 and 24. Some new sheaves were placed in chain holes. The pier or wharf at the foot of this canal was repaired and general repairs done to the banks. This canal requires dredging in some places.

POINT IROQUOIS JUNCTION AND GALLOPS CANAL.

General repairs were done to the gates at Lock No. 25. New valves, bedplates and rollers were put in gates at Lock No. 26. New knees and binder put in gate at Lock No. 27. The repairs to the pier at the head of Gallops Canal were completed, and the wharf at the foot of Point Iroquois Canal extended and rebuilt. The ditch on the south side of Point Iroquois Canal was opened. The cellars of the lock houses were stoned and drains made from them. The banks of these canals and the booms in the Iroquois Canals have been kept in good repair.

The swing bridges over Locks 25 and 26 were repaired, pivot stones raised, pivots adjusted and tracks levelled.

The buoy boat was taken out and a thorough repair given it. The buoys between Johnston's and Dickinson's Landing were replaced and maintained in their proper positions.

The water in the St. Lawrence continuing high furnished a good depth of water in these canals.

I annex a statement showing the extreme depth of water on the sills of the several Locks at the entrances and outlets of these canals during the year.

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

A. G. MACDONELL,
Superintendent Williamsburgh Canals.

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

WILLIAMSBURGH CANALS.

STATEMENT showing extreme depth of Water on the Sills of the several Locks during the year ending 30th June, 1885.

FARRAN'S POINT CANAL.

| Months. | Lock No. 22, Lower Sill. | | Months. | Lock No. 22, Lower Sill. | |
|----------------|--------------------------|---------|----------------|--------------------------|---------|
| | Highest. | Lowest. | | Highest. | Lowest. |
| 1884. | Ft. in. | Ft. in. | 1885. | Ft. in. | Ft. in. |
| July | 11 6 | 10 8 | January | 9 10 | 8 10 |
| August..... | 11 1 | 10 0 | February | 12 0 | 9 10 |
| September..... | 10 9 | 10 0 | March | 9 11 | 8 9 |
| October | 10 5 | 9 4 | April | 10 0 | 8 6 |
| November | 10 0 | 9 0 | May..... | 10 7 | 9 11 |
| December | 9 10 | 9 0 | June | 10 10 | 10 0 |

RAPIDE DU PLAT CANAL.

| Months. | Lock No. 23, Lower Sill. Foot of Canal. | | Lock No. 24, Upper Sill. Head of Canal. | |
|-----------------|--|---------|--|---------|
| | Highest. | Lowest. | Highest. | Lowest. |
| 1884. | Ft. in. | Ft. in. | Ft. in. | Ft. in. |
| July..... | 11 5 | 10 11 | 12 3 | 10 11 |
| August..... | 11 3 | 10 3 | 11 9 | 10 9 |
| September | 10 10 | 9 9 | 12 0 | 10 6 |
| October | 10 5 | 9 0 | 10 6 | 9 3 |
| November | 10 2 | 8 5 | 9 9 | 8 9 |
| December | 10 0 | 8 3 | 9 9 | 8 0 |
| 1885. | | | | |
| January | 10 6 | 8 3 | 9 10 | 7 0 |
| February | 10 11 | 9 2 | 7 9 | 6 9 |
| March | 9 6 | 7 5 | 7 10 | 7 0 |
| April | 10 2 | 6 6 | 10 0 | 7 0 |
| May..... | 10 7 | 9 11 | 10 6 | 9 10 |
| June | 11 2 | 10 1 | 12 0 | 01 0 |

POINT IROQUOIS JUNCTION AND GALLOPS CANAL.

| Months. | Point Iroquois. Lock No. 25, Lower Sill. Foot of Canal. | | Gallops. Lock No. 27, Upper Sill. Head of Canal. | |
|-----------------|---|---------|--|---------|
| | Highest. | Lowest. | Highest. | Lowest. |
| 1884. | Ft. in. | Ft. in. | Ft. in. | Ft. in. |
| July | 15 3 | 14 0 | 12 6 | 11 2 |
| August | 14 4 | 13 4 | 11 8 | 11 1 |
| September | 13 10 | 12 4 | 11 9 | 10 7 |
| October | 13 0 | 11 2 | 11 3 | 10 0 |
| November | 12 6 | 11 6 | 11 7 | 9 9 |
| December | 13 4 | 11 2 | 12 0 | 9 3 |
| 1885. | | | | |
| January | 13 0 | 9 6 | 11 2 | 8 4 |
| February | 12 0 | 10 0 | 8 9 | 8 0 |
| March | 11 0 | 7 4 | 9 2 | 7 9 |
| April | 12 10 | 8 0 | 10 8 | 8 3 |
| May | 13 1 | 12 5 | 11 1 | 10 6 |
| June | 14 10 | 12 10 | 11 9 | 10 2 |

No. 6.

WELLAND CANALS.

SUPERINTENDENT'S OFFICE,

ST. CATHARINES, 24th September, 1885.

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, 1885.

The canals have been operated satisfactorily throughout the year, and without serious accident, except in the case of the Schooner "Westside" bound up, when she ran into the superstructure of the swing bridge at Humberstone before the bridge had been fully opened, displacing the bridge, but fortunately not sufficiently to cause it to drop into the canal. I had the bridge jacked until in line with rest pier, thus preventing obstruction to navigation and admitting of the necessary repairs being proceeded with to completion. I put on a temporary ferry for foot passengers until all was made right again.

Since my last report I have placed a vessel measuring gauge at foot of Lock No 1, New Canal, and we are at last enabled to check the draft of all vessels before they enter the canal, at either end, which has had an excellent effect in preventing overloading.

The canals were closed on 4th December, 1884, and opened 5th May, 1885.

NEW WELLAND CANAL—DETAILS OF WORKS OF REPAIRS AND MAINTENANCE.

DIVISION No. 1—FROM PORT DALHOUSIE HARBOR TO FOOT OF LOCK No. 13.

Gate Yard and Shop, Port Dalhousie.

One large lathe made for turning snubbing posts and capstans. Made eight fence gates and stone boats, eighty-two snubbing posts turned out and iron capped, made 390 oak wedges, and 405 oak boxes for water wheel shafts. Sundry repairs to Collector's office, Harbor and Lockmaster's houses and premises, and fenced around the harbor.

Gate-lifter or pontoon hauled out on to ways and considerably strengthened, also floating pile driver. Strengthened and made new horse power. Large tank made and sunk in ground for engine boiler supply, and fire protection. Made ten new large boxes for tools, oil, coal, &c., for lockmen. Made and erected 9 bridge signs and sign posts.

Built and completed one first-class strong crane scow for lifting lock gates and fixing heavy repairs, 50 feet keel, 23 feet beam, and $7\frac{1}{2}$ feet hold. One old stone scow hauled out on to skids, and put in first-class order and converted into floating pile driver. Several lock gates hauled out on to skids and received extensive repairs. Made two very large skeleton reels for winding heavy falls on after use to dry and prevent rot.

Two tramway cars made to run heavy castings and logs into shop. Built large double W. C. in yard for use of employés and sailors. Enclosed yard with board fence 221 feet long, 8 feet high.

Old lifting scow "Red Rover" hauled out, rebuilt and converted into ferry scow for Air Line Ferry.

Old pile driver hauled out and cut through centre lengthwise, and made into two flats for working around locks, weirs, scows, &c., &c. Built two hand dredges complete for cleaning locks, mud pockets, &c. Made two ladders and two small derricks for hoisting stuff from bottom of locks. Rebuilt tool scow, as good as new, and repaired thirty wheelbarrows.

Lock No. 1, Bridge No. 1, and Level.

Foot gates taken out. Steps raised with boiler plates. Right gate taken out, brought to yard and drawn out on to skids to repair valve and placed them in position again.

Built and put in place vessel measuring gauge to ascertain correct draft.

Drove 172 oak piles to form cradles to receive spare lock-gates, cut off same to level and bolted walings and caps for same complete. New chain well sheaves put in east side of lock. Extensive repairs to floor of long wash weir bridge near Neelson's Mills. Bridge painted two coats. Lock and machinery thoroughly overhauled and put in good working order. Chamber and mud pockets cleaned out by hand dredge and large quantities of mud and stone taken out that were left in by contractors. Additional new extra strong safety cables put on head gates to prevent gates being carried out by accident.

Lock No. 2, and Level.

One set of new gearing put on waste weir for hoisting the valves.

Some snubbing posts braced with extra heavy braces to admit of the larger class of vessels snubbing on them when entering the lock.

Cleaned out mud and rubbish from lower lock gates.

All the lock machinery thoroughly overhauled and put in good working order and removed when required.

Water wheels fitted in cases to make them run true.

Locking gear for holding lock gates back when opened, taken off and repaired and placed in position again.

Lock chamber and mud pockets cleaned out by hand dredge, and large quantities of mud and stones taken out that were left in by contractors.

Put new walings on head gates.

Lock No. 3, Bridge No. 2, and Level.

Bridge painted two coats.

Locking gear of bridge taken off. Stone work built up to receive catch and all placed in position again. One set of new gearing, for hoisting the valves, put on waste weir, twelve set of gearing put in order with new shafts, couplings, wheels, wheel cases and thirty-four oak wood boxes, and wood screws put on shafts. New steel cables put on in place of worn out copper cables. Turntable and carriage frame of bridge overhauled and put in good working order.

Lock No. 4, and Level.

Foot gates taken out. Steps raised with boiler plates and gates rehung at place.

One set of new gearing, for hoisting the valves, put on waste weir. Snubbing posts braced with extra heavy braces. Five hundred feet ditching made with an average depth of 3 feet to drain pond.

Lock No. 5, and Level.

One set of new gearing, for hoisting the valves, put on waste weir. Snubbing posts braced with extra heavy braces. Cables taken off, oiled, and put on again. Put on ten new oak boxes for shafts. Additional new extra strong safety cables put on head gates to prevent them being carried out by accident. New steel cables put on in place of worn out copper cables. Four hundred and twenty-six feet of ditch, cut at foot of embankment and filled with stone, and built off—take culvert under roadway.

Bridge No. 3, (Lake Street).

Five hundred feet of ditching made on towpath side to drain water off roadway approaching bridge. Repaired floats. New eye bolts and chains where required. Stone cap repaired.

Bridge No. 4 (Railway Bridge).

Repaired floats and walings. New eye bolts and chains where required.

Lock No. 6, and Level.

Fourteen new oak boxes put on shafts, and new steel cable put on in place of worn out copper cable.

Bridge No. 5, (Geneva Street).

Stone raised to receive the catch. Bridge painted two coats.

Lock No. 7, and Level.

The right head gate taken out and replaced by new spare gate. The old gate taken to yard, Port Dalhousie, hauled out on to skids, repaired and placed away on berths for future use.

One thousand nine hundred and seventy-six feet of surface ditching made at base of embankment to carry off lockage water from canal, and 960 feet ditching made, stoned and covered to carry off lockage from canal.

Eight hundred and thirty-four feet of roadway made at base of the bank to make connection with the side roads (cut off by the embankment of canal) for the public.

Cleared ice, slush and snow out of main ditch during severe freezing weather. Eleven new oak boxes put on shafts.

New storehouse built, 24 by 24, two storeys high, for keeping canal stores near Storekeeper's house. Converted partly finished house (bought along with the land when purchased a few years since) into residence for Storekeeper, so that he would always be quickly available in case of accidents and for regular distribution of supplies.

Bridge No. 6, Niagara Street.

Two new sign posts erected and caution signs placed on same at each end of bridge. Bridges thoroughly painted, also the approach fences. Roadway, south side, raised and graded to form highway; also, on north side, raised to turn water off. Fenders, walings and floats thoroughly repaired. New eye bolts and chains.

Cluster piles cut down, put on new walings and extra braces.

Lock No. 8, and Level.

Twenty-six new oak boxes put on shafts and new wood screws. One set of new gearing, for hoisting the valves, put on waste weir.

Lock No. 9, and Level.

Additional extra strong safety cables put on head Gates to prevent their being carried out by accident; also extra braced post placed at head of lock. One set of new gearing, for hoisting the valves, put on waste weir.

Foot gates taken out. Steps raised with $\frac{7}{8}$ inch boiler plate. Gates re-hung in place again.

Bridge No. 7 (Queenston Road).

Bridge painted. Fender works and floats repaired. The old, worn out planking taken off and re-planked with new. Road approach to the bridge raised and graded up so as to turn surface water off.

Lock No. 10, and Level.

Snubbing posts braced with extra heavy braces. One set of new gearing, for hoisting the valves, put on waste weir. Foot gates taken out. Steps raised with 1-inch boiler plate, and gates rehung in place.

Additional new extra strong safety cables put on head gates, to prevent their being carried out by accident. Level drawn off and new wrist pins put in valves of both foot gates and screws adjusted.

Bridge No. 8 (Homer Road).

Bridge painted. Fenders, floats and walings thoroughly repaired. New eye bolts and chains, &c.

Lock No. 11, and Level.

Eleven new oak boxes put on shaft. Four new cables, one water wheel and one new matrix put on lock gates.

Lock bottom cleaned out so as to allow the gates to work easily:

Lock No. 12, and Level.

Snubbing posts braced with extra heavy braces. One set of new gearing, for hoisting the valves, put on waste weir. Foot gates taken out. Steps raised with heavy boiler plate, and gates rehung in place.

DIVISION NO. 2.—FROM THE FOOT OF LOCK NO. 13 TO BRIDGE NO. 13 (MARLATTS).
Lock No. 13, Bridge No. 9, and Level.

One set of new gearing, for hoisting the valves, put on waste weir.
 Braced snubbing posts with extra heavy braces.
 Built platform in front of lock house and concreted floor of cellar to same.
 Put on two new cables and one intermediate gear. Bridge painted.

Lock No. 14, and Level.

Put on one new steel collar under cannon, and new oak boxing on shafts.
 Built platform in front of lock house and concreted floor of cellar to same.
 Put on extra heavy braces to snubbing posts.
 Put on one new cable, and one new brass matrix. Put two steel plates under cannon, and two new adjusting screws.

Lock No. 15, and Level.

Put new oak boxing on shafts, also one new adjusting screw and one new cable.
 Foot gates taken out. Steps raised with boiler plate, and gates rehung.
 One foot gate taken out and replaced by new spare gate. The old gate brought to yard, Port Dalhouse, and repaired and placed on berths for future use.
 Concreted cellar floor of lock house.
 Snubbing posts braced with extra heavy braces.

Lock No. 16, and Level.

Put on new boxes to shafts, also four new cables.
 One extension step and two new matrices. Snubbing posts braced with extra heavy braces. Built platform in front of the lock house and concreted cellar floor to same.
 Two watch houses 8 by 10 feet, built at David's Road Tunnel.

Lock No. 17, and Level.

Put on new oak boxes to shafts, also three new cables. Foot gates taken out, steps raised with boiler plate and gates rehung in place. Snubbing posts braced with extra heavy braces. Built platform in front of lock house and concreted cellar floor to same. Put on one new lever for water wheel shaft, also one new stand for lever.
 One new lock-gate put in place of one damaged. Thrashed out a quantity of clover seed for sowing banks.
 Two new valves, two cables, three shafts, one water wheel and three brass matrices put on gates.

Lock No. 18, and Level.

Put new oak boxes on shafts, also put on one new pinion. One intermediate gear, five cables, and two adjusting screws on lock gates.
 Snubbing posts braced with extra heavy braces.
 Built platform in front of lock house and concreted cellar floor to same.
 Two watch houses, 8 by 10 feet, built at Grand Trunk Railway Tunnel.

Lock No. 19, and Level.

Put four new cables, one matrix, two shafts, one mast, six valves and one water wheel on lock gates.
 Snubbing posts braced with extra heavy braces.
 Built platform in front of lock house and concreted cellar floor.
 Put one new adjusting screw and two pinions.
 Repaired leak in bank at waste weir.

Lock No. 20, and Level.

Put on four new cables, three intermediate gear, one standard, two steel collars, and one new lever on lock gates.

Snubbing posts braced with extra heavy braces.

Built platform in front of lock house and concreted cellar floor.

Lock No. 21, and Level.

Snubbing posts braced with extra heavy braces.

Built platform in front of lock house and concreted cellar floor.

Drove ninety-five piles to form berths for new spare lock gates, and capped same, laid away spare gates and quarried out stone to sink them.

Put on one new clutch post and three new clips.

Lock No. 22, and Level.

Put new oak boxes on shafts. Put five new pinions, three intermediate gear, three shafts, one matrix, and seven cables on lock gates. One head gate taken out and replaced by new spare gate, the old head gate brought to yard Port Dalhousie, repaired and placed on berth for future use. Built platform in front of lock house and concreted cellar floor.

Snubbing posts braced with extra heavy braces.

Lock No. 23, and Level.

Put on three new cables, one coupling and two brass matrices on lock gates.

Built platform in front of lock house and concreted cellar floor.

Snubbing posts braced with extra heavy braces.

Lock gate heel post dressed off.

Repaired slide in bank at head of lock.

Lock No. 24, Bridge No. 10, and Level.

Put on six new cables, two brass matrices, one intermediate gear, one pinion, two rollers on lock gates.

Built platform in front of lock house and concreted cellar floor.

Snubbing posts braced with extra heavy braces.

Painted store-house, derrick, and horse power.

Put two gates at toe of bridge along roadway. Built 50 feet board fence to guide teams over canal bridge, also 225 feet barb wire and 40 feet board fence to enclose the gate yard at head of lock. Made and put on gate, towpath side, to keep cattle off the banks.

Built office 12 by 16 by 10 feet, completed same for Overseer. Lifted foot gates and dressed heel posts, put new steps under same and spliced two binders.

Bridge No. 11 (Railway Bridge).

Painted fender works of railway bridge, also Bridge-tender's house and put on new cornice.

Lock No. 25, Bridge No. 12, and Level.

Put four new cables and two steel collars on lock gates.

Enclosed banks and Government lands with 1455 feet barb wire and 60 feet board fencing, hung two gates.

Painted bridge house and put on new cornice also laid new floor. Repaired doors and windows.

Built 40 feet railing at end of bridge.

Put up two caution sign boards at each end of bridge.

Put 30 cords stone at end of waste weir apron to prevent wash out.

Faced banks along Marlatt's Pond with stone, old canal side.

Guard Lock and Level.

Raised and reset twenty-two snubbing posts from guard lock to Allanburgh.

Enclosed banks and Government lands with 1,584 feet barb wire fence on east side of canal and 214 feet board fence. Made and hung one gate.

Put in one new Lock gate and removed old one to Port Dalhousie shop.

Repaired and painted Guard Lock house and put on new cornice.

Made 540 feet of drain from Bear's Dams, culvert 2 feet at top 1 foot at bottom feet deep, filled in with broken stone to carry off soakage from canal. Cleaned out 5 feet ditch between culverts to keep water from over-flowing highway during freshets.

Bridge No. 13 (Marlatt's).

Painted fender work of bridge.

Built two watch houses for Marlatt's, two for Higgins' and two for Davidsons' tunnels.

Shingled, painted and put on new cornice, bridge house.

Raised and set thirty-two snubbing posts, west side of canal, between Bridge No. 16 and Allanburgh.

DIVISION No. 3.—FROM BRIDGE No. 13 (MARLATT'S) TO THE AQUEDUCT AT WELLAND.

Bridge No. 14 (Allanburgh).

Repaired fender floats. Repaired waste weir and put on coping stone.

Bridge No. 15 (Port Robinson).

Repaired fender floats. Repaired road approach to bridge.

Repaired also wing walls at entrance of lock.

Repaired the lock gates. Repaired bridge on Hurricane Road.

Filled up mud hole at Port Robinson, and dug long ditch to drain off stagnant water from Lowry's Pond. Filled several stagnant ponds (small).

Bridge No. 16 (Quaker Road).

Repaired bridge damaged by propeller "Monteagle." Built new bridge across Quaker Road, over Government ditch, and repaired road east end of Bridge No. 16 (Quaker), by ditching and grading.

Welland Lock (New).

Cleaned out lock chamber. Reset crabs and relaid floor around them. Put new garing pins in foot gates, and caulked same. Repaired railing of gates and put new stanchions above valves on both head and foot gates.

Put down nine new snubbing posts.

Removed iron and put on new wood drums to all the crabs.

Banks.

Excavated for and set sixteen snubbing posts, and painted same. Repaired banks both sides of canal from Bridge No. 13 to Welland. Cleaned out and opened and put in box culverts in several places across canal tow path. Repaired fence found and boarded up windows and doors of parsonage house, near Welland.

DIVISION No. 4.—FROM AQUEDUCT 'WELLAND' TO PORT COLBORNE HARBOR.

Aqueduct (Welland).

Built temporary shanty for Aqueduct Inspector's use passing vessels.

Two additional iron snubbing posts let into masonry and thoroughly secured.

Built one 16-foot punt for use at old aqueduct.
Removed semaphore north side of aqueduct 280 feet further south.

Old Swing Bridge (Welland).

Raised and repaired old swing bridge several times.

Bridge No. 17 (Welland).

Removed semaphore wires from approach to swing bridge out of the contractor's way.

Bridge No. 19 (Junction).

In good condition.

Bridge No. 21 (Humberstone).

Bridge damaged by schooner "Westside," being displaced 3 feet to the south and warped 2 feet out of shape. Several small castings broken, along with the double gear, rack and angle irons in centre of bridge; also ring around roller doubled and with several bolts broken.

Bridge raised and carried to place. Castings, double gear, rack and angle iron &c., all renewed.

Rock Cut.

Removed floats out of the contractor's way.

Repaired old floats frequently, and built 1,350 feet new floats and placed all in place.

Back Ditches.

Built bridge across back ditch between Humberstone and Port Colborne. Repaired apron at outlet of back ditch into canal, west side, and improved outlet.

Opened up back ditch between Humberstone and Port Colborne; also back ditch east side of canal, between Grand Trunk Railway and lake, and ditch west side of canal, near Lyon's Creek, and ditch north of Humberstone, west side and east side of canal, between Humberstone and Ranny's Bend.

Put rack across culvert east side of canal.

Bridge No. 23 (Port Colborne Lock and Harbor).

Repaired old breakwater and Lock tenders' houses. Cleaned out mitre sill of Port Colborne Lock and put on one cannon. Raised and reset snubbing posts around harbor along banks to bridge No. 21 (Humberstone). Repaired vessel measuring gear at Port Colborne Lock. Built 200 feet tramway and trucks for building breakwater.

Built one new ferry boat—18 feet keel, 5 feet beam—side seats and slat floor.

Built 1,295 feet fencing around Government property.

GENERALLY.

Diver frequently engaged in cleaning mud and obstructions from mitre sill throughout.

All Locks and water-wheel gearing and shafts, waste weir machinery and bridge gearing continually overhauled and kept in order throughout the year. Ditches and culverts everywhere cleaned out and deepened throughout the charge.

Driftwood and sunken logs hauled out of channels. All thistles and noxious weeds cut down on all Government property.

FINES AND DAMAGES.

I have collected during the fiscal year from masters and owners of vessels a sum of \$762.47 in fines and damages for violation, of canal regulations and for

ges to the works, which amounts have been handed to H. H. Collier and W. B. Clarke, Esquires, Collectors of Canal Tolls, the former at St. Catharines, and the latter at Port Dalhousie, and I append a detailed statement herewith marked "A."

| | |
|-------------------------------------|----------|
| Amount paid H. H. Collier, Esq..... | \$335 86 |
| Amount paid W. B. Clarke, Esq..... | 426 61 |
| Total..... | \$762 47 |

I also append a statement marked "B," showing the greatest and lowest depth of water on the mitre sills at Port Dalhousie and Port Colborne Locks in each month during the year; also a comparative statement of the average depth for the month of June, 1884 and 1885, which shows the water has been one-half inch higher at Port Dalhousie and two and one-half inches higher at Port Colborne than for the same month in the year 1884.

OLD WELLAND CANAL.

DETAILS OF REPAIRS AND MAINTENANCE OF WORKS ON THE OLD WELLAND CANAL.

Lock No. 1, Bridge and Level.

Dams were put in at the head and foot of Lock No. 1, and after much difficulty on leakages pumped out the water, when the mitre sills, planking of chamber throughout, aprons and mud pockets were found to require renewals and extensive repairs, so new well hole sheaves required throughout. Old gates were taken out and new spare ones substituted. New and improved hangings being used. Rebuilt destroyed east wall. Old king and mitre sills and concrete removed and new substituted throughout. Mitre sills faced with heavy boiler plate. Repaired and removed the old injured stone coping, and built new in place of same. Track segment taken up, planed to equal thickness and reset. Put in five 40-foot pine sticks, 12 by 12, to form mud pocket and properly bolted same. Two steam pumps and boilers were required night and day to overcome leaks for couple of days, and one for several weeks. Drove twelve new oak piles along floating towpath in place of rotten ones, and capped same. Replanked parts of floor where required.

Lock No. 2, Bridge and Level.

Raised canal bridge on pivot several times. Built new heel approach and filled the same with stone and gravel. Adjusted rods of bridge. Put new cap on galleys same, changed rollers on bridge, and put on extra rollers. Put two pieces of track under bridge and renewed some of the planking.

Swing Bridge (Over Railway).

Raised bridge on pivot, replanked toe of bridge with 3-inch plank. Put new needle beam under bridge, also new caution sign.

Built new heel approach with timber and filled in the same with stone.

Raised crib under bridge, and put stone foundation under same. Renewed timbers under track and put all in proper adjustment.

St. Paul Street Bridge.

Stripped old planking off toe. Put false 3 by 6-inch stringers on top of present girders so as to make the bridge level on top whole length, and laid new planking. Laid cap stringers on top of floor and bolted same in place.

Put up new caution sign post and sign north end of bridge.

Lock No. 3, and Level.

In good condition.

Canal Office.

Lowered top masts of flag-staff. Repaired shrouds. Made seven window screens. Struck top masts of flag-staff; rove copper wire halyards. Put top mast in place and adjusted stays.

Some repairs made to office buildings.

Lock No. 4, Bridge and Level.

Raised canal bridge on pivot. Repaired stationary bridge below lock; put new caps 10 by 12 inches on top of bents, covered inside with 2-inch pine plank to retain clay and stone. Put on new stringers covered with 3-inch pine; through bolted side of bridge 40 by 12 feet.

Shifted anchors and crab on foot gates heel path side, and reset same.

Tightened bolts in bridge. Repaired floating toe-path. Put up new caution sign on bridge to prevent fast driving over same.

Put in box culverts across towpath.

Faced heel-path with stone.

Lock No. 5, Bridge and Level.

Raised canal bridge on pivot; put new rollers under toe of same; adjusted rod and braces.

Put new timbers under heel track of bridge. Painted bridge. Built new bridge 52 by 6 feet across waste weir, put railing on both sides 2 feet 9 inches high. Painted same; all complete.

Put new screw in valve, head gate towpath side. Moved lock house to Lock No. 6. Took down waste weir wing walls, and rebuilt same, and raised them 1 foot 6 inches higher with new stone work. Old work pointed, dug out and puddle behind wing walls.

Dug out foundation for abutments new bridge heel path side.

Lock No. 6, and Level.

Built new bridge 16 by 18 feet across waste weir head of lock heel path side and two stringers 8 by 12 inches. Covered with 3-inch pine planking and 6 by 8 inches cap stringers through bolted to stringers of bridge.

Built new roadway bridge 12 by 8 feet, head of lock; covered 3-inch pine planking and 6 by 8 inches cap stringers through bolted.

Spliced bents under bridge towpath side put new planking on inside to retain clay and stone. Dug out old abutments and rebuilt same toe-path bridge. Faced banks with stone.

Lock No. 7, Bridge and Level.

Painted bridge. Put new timber under and reset crab. Repaired float head lock.

Hydraulic Race.

Removed hospital building, overhanging race, and put foundation under same. Built truss bridge across race, back of hospital, 40 feet by 4 feet 8 inches. Drove 398 feet oak sheet piling, 9 feet long, along weak parts of banks confining raceway. Took down two old double rotten bulkheads and spillway near McDermott's foundry and substituted single one, 68 feet by 14 feet, and gates in line. Built 155 feet supporting wall throughout on both sides. Thoroughly puddled bulkheads (2) and sheet piled. Built flume 20 feet by 3 feet by 4 feet, to foundry; bulkhead and gates for same. Relaid bottom of chute, and protected from ice by old iron gate bars.

screwed and bolted to planking. Built foot walk 90 feet long alongside, to allow men to keep ice clear. Took down old rotten bulkhead at head of shute or spillway, near head of aqueduct. Built new one 14 feet by 16 feet, properly lined and shuted, and finished with two controlling gates or valves, puddled thoroughly and connected with adjoining works. Made one drop gate and gearing for end of aqueduct.

Washout 162 feet long of Race Embankment near Gas Works.

Drove twenty-three oak piles 7 feet; centre-lined same with two thickness of 2-inch dressed and jointed, and third thickness of 1-inch dressed and jointed to make all water-tight. Laid extensions of solid timber at each end, 45 and 70 feet long, properly backed and puddled, and lined with 1-inch dressed and jointed.

Built 78 lineal feet high retaining wall, back of Holder's Nursery. Drove thirty-six oak piles foot of bank to form unyielding footing for new embankment that had to be built up from bottom of slope to fill up long gap, washed out, and filled all vacancy in front of same with concrete.

Built temporary sidewalk and hand-rail 100 feet long across gap. Built rod truss bridge across race, 40 feet by 5 feet; hand rail both sides.

Put down seven large anchor hold-back posts, and connected with tie rods to piles driven opposite side of race, until solid embankment could be brought up in layers to original height of the bank; after that was done, and all became consolidated, the anchor posts and rods were removed.

Drove oak sheet piling for a distance of 204 feet from end of break along weak parts of bank to prevent recurrence of similar disaster.

Deepened, widened and straightened the raceway, back of hospital, for a distance of 216 feet, and in vicinity of Holder's, for a length of 510 feet. Rebuilt 1,325 feet protection wire fence, and 50 feet dry retaining wall.

Gate Yard and Shop (St. Catharines).

Completed four low lift lock gates. Hauled out and stripped old gates from locks Nos. 13 and 15. Repaired and rebuilt same, when necessary, also partly completed others.

Framed pair lock gates for foot of Lock No. 3, and when completed laid them away in pond. Completed pair spare gates for Lock No. 2 and laid them away in pond.

Repaired and caulked lifting scow. Made twenty-four rammers or pounders.

Repaired forty-one wheel barrows, and made four new ones.

Made two frames for derrick gear. Set up derrick, and laid 145 feet track into shop, and made truck for same. Made five caution signs for swing bridges. Made and iron capped four snubbing posts. Made dumping boxes, also concrete mixing boxes. Made two through backed foot boards.

Gate Yard and Shop (Thorold).

Made seven ice chisels. Got out material and dressed the same for two new swing bridges.

Built two stone boats for quarry.

Built new derrick complete, and put same on deck of scow "Mud Hen," to hoist stones for rebuilding breakwater at Port Colborne.

Took crane scow "Hercules" to Welland.

Stripped the old lock, took out the foot gates and brought them down to yard and rebuilt them for Lock No. 25.

Put up derrick in yard for lifting heavy gate timber, &c. Hung spare gates and brought old ones to yard for repairs.

Lock No. 8, and Level.

Put new irons on foot boards of lock gates.

Put new railing on waste weir, 70 feet long, 2 feet 9 inches high. Painted same two coats.

Lock No. 9, and Level.

Put new timbers under and reset crab, head gate. Put new foot board irons on foot gates. Put temporary bridge across head of lock for winter use, and new railing, both sides same. Raised bridge across raceway at knitting factory, and put new bents under same, and new mud sill under the bents.

Lock No. 10, and Level.

Painted Lock-tenders' dwellings, two coats outside.

Lock No. 11, and Level.

Painted Locktenders' dwellings, two coats outside.

Lock No. 12, and Level.

Raised stationary bridge, head of lock, 36 by 12 feet, four stringers 8 by 12 inches covered with 2-inch pine plank.

Lock No. 13, and Level.

Took out broken head gate and replaced same with new. Put new anchors on in place of old broken ones; also new collar. Took broken lock gate to gate yard, St. Catharines, to be rebuilt. Put new timbers under and reset crabs, both sides of lock head gates.

Lock No. 14, and Level.

Built new sills under crab, and bolted same down.

Lock No 15, Bridge and Level.

Took out old broken head gate and put in new gate brought from pond at Lock No. 10, and took broken gate to yard at Thorold (Lock No. 21) to be rebuilt. Built new stone ballast box under bridge; also new toe approach 12 by 18 feet. Replanked bridge; adjusted braces and under rail; drew level down, and replanked apron of waste wier, 16 by 60 feet.

Put in two long timbers across hole at head of lock, towpath side.

Concreted between floor timbers, and put new bottom and apron to lock.

Put in new sheave block and reset crab.

Repaired washout in bank and fitted up approach of swing bridge.

Lock No 16, and Level.

In good condition.

Lock No. 17, and Level.

Rebuilt floats.

Lock No. 18, and Level.

Rebuilt four tiers of floating bridge crib timbers.

Put new slash boards on the waste wier.

Lock No. 19, and Level.

In good condition.

Lock No. 20, and Level.

Put new anchor on lock gate.

Lock No. 21, and Level.

Put down two new snubbing posts.

Built to top of water a skidway or tramway for hauling out gates and scows for repairs and renewals.

Repaired Lock-tender's house and washout in bank of waste weir.

Lock No. 22, Keefer Bridge, and Level.

Level drawn off, pumped out apron pit of waste weir, and filled up with thirteen cords of stone.

Erected new composite trussed swing bridge across canal, 75 by 14 feet (Keefer's).

Lock No. 23, and Level.

Repaired railing and painted same, and put new screws in valves of lock gates.

Lock No. 24, Bridge, and Level.

Put new post and knee under swing bridge.

Painted railing of waste weir bridge two coats.

Concreted between floor timbers, and put new bottom and apron to lock.

Built temporary bridge across lock for use of public during the erection of new swing bridge. Took down old swing bridge. Built new cut stone foundation for bridge track, segment and heel rest, and rubble stone for toe rest and heel approach; also protection wall of bridge on wing wall of lock.

Built new stationary bridge across waste weir approaching to bridge 22 by 32 feet, double sidewalk and railing, also two slope, retaining walls to same.

Built new fences each side of approaches; made and hung two 10-foot gates across heel path.

Built new composite truss swing bridge, 30 by 14 feet, across foot of lock, and new approaches to same, with side walk 4 feet wide on one side of bridge. Painted all.

Lock No. 25, and Level.

Rebuilt 2 feet in depth of the cement wall back of flume gates to mill pond; put in new sheet piling across head of flume.

Built new spillway, 35 by 8 feet sides, 5 by 30 feet through, bolted to every 6 feet, bottom 2 by 4 feet, edge, sides and bottom covered with dressed inch jointed. Put 6 new posts, and one sill in bulkhead, covered sides and bottom of bulkhead with inch lumber, dressed and jointed, bottom of bulkhead 3 feet thick, sides 2 feet.

Put railing across head of spillway, 3 feet high, dressed and chamfered; railing 32 feet long. Painted same two coats.

Dug out for new spillway and filled in again with puddle, &c.

Guard Lock, Hursts and Marlatts, Bridges and 3 Mile Level.

Laid a cement bottom back of valves Higgins' flume; excavated behind wing walls. Took down waste weir wing walls, rebuilt same, and raised them 2 feet higher with new stone work. Old work pointed, and filled up behind walls with puddle, &c.

Built new bridge across waste weir, 22 by 4 feet 6 inches, covered with 2 inch pine plank; changed head castings from face to top of breast wall; lengthened lifting rods of valves rendered necessary by bridge being raised. Faced towpath, little deep cut, with stone 550 feet long.

Allanburgh Bridge, Lifts and Guard Lock.

Put in dam at head of guard lock and waste weir adjoining to allow lock to be thoroughly repaired, and put in new plank floor to lock throughout and new apron;

made extensive repairs to mitre sills and lock gates and afterwards removed dam with hand dredges.

Cemented between floor timbers of lift lock; put in new bottom and apron.

Put new wrist pins and brasses in two valves and four new step brasses under lock gates.

Painted Bridge-tender's dwelling.

FEEDER JUNCTION TO DUNNVILLE AND PORT MAITLAND, 23 MILES.

From Dunnville to Stromness, and Port Maitland, distance $6\frac{1}{2}$ miles, there are two locks, four swing bridges, three waste weirs with thirty-six stop-gates. Toll bridge 600 feet long by 18 feet wide, and apron below dam 640 feet long. Eleven piers, 10 by 18 by 15 feet, and twenty-six flood gates. Toll-keeper's house, 1,000 feet boom timber in Grand River, 1,735 feet embankment, eight head gates at entrance to mill ponds, twelve stationary bridges with an aggregate length of 2,000 feet. Two Lock-tenders' houses, two bridge houses, five culverts. Overseer's house and office, work shop, repair scow and two 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 10 feet at low water line. From Stromness to Boulton Ditch, Marshville and Junction, $16\frac{1}{2}$ miles. One lock, three swing bridges, two stationary bridges, one sluiceway, three culverts and two ditches.

The supply of water has been greater than for many previous years, sufficient to furnish the mills and manufactories along the line to run with full supply to the close of the season.

There have been no accidents or delays caused to vessels, barges or rafts passing through the Feeder during the year. The mitre sills of Dunnville, Port Maitland and Junction Locks have been carefully cleaned out, and face planking repaired, screws and winches cleaned.

All sunken logs and other obstructions have been removed out of Feeder channel and entrance of waste weir.

The Stromness, Hall and Sunfish culverts, top timbers which were put on in 1855 had become, at the exposed ends, so decayed they were removed to low water line and replaced with five courses of 10 by 12 oak timber. The outsides were sheathed and topped covered with 2 and 3-inch plank.

The severe frosts of last winter lifted the piles under the seat of Stromness and Marshville swing bridges, and the caps had to be taken off and the tenons on the piles cut down so as to allow the turntable to come in proper line with the heel and the approaches.

All worn out and broken planks in the apron below the dam have been removed and new ones put in their places.

The old swing bridge which carried the roadway across the Junction Lock with its two approaches, built in the year 1858, has been taken down and replaced by new bridge on an improved plan. It is a substantial structure and can be turned by a pressure of 20 pounds.

It is the same length as the old one but two feet less in width.

The bridges have all been painted with lead and oil. The Lock-tender's house at Port Maitland has been painted and a board and a wire fence, with cedar posts, built around same. The flood gates on dam and waste weirs have been repaired.

The rubbish which was carried down the ditches off the low lands during the spring freshets, and lodged in great quantities in front of culverts has been taken out, piled and burnt, and logs, stumps, &c., removed from back ditches. The repair scow has been caulked, painted and the floor repaired. Two new landings have been built at the end of Fetch's Road foot bridges. The bridge repaired, also new chains attached so that the bridge can be opened or closed on either side.

Built one new chimney on Overseer's house; cleaned out and enlarged back ditch between Mossips' Culvert and Inman Road, a distance of $1\frac{1}{2}$ miles.

Built stone wall 60 feet long, 4 feet thick and 10 feet high, in rear of embankment in front of Scott's Woollen Factory. Removed the old bridge and filled the space with clay, to save the expense of another bridge.

Put in new drain of 7-inch sewer pipe in rear of canal bank, on north side, between guard lock and open swing bridge at Dannville, to carry off the water that found its way through the bank into the cellars of the stores.

The boom timber on the south side of Grand River, which was partly broken and carried down by ice during spring freshets has been replaced and the chains repaired.

The lock and bridge shanties have been shingled, and received other minor repairs. Considerable repairs have been made on the canal banks during the past year by filling up the gullies made by heavy traffic, and widening and raising the banks with clay, as well as facing and strengthening them with gravel and stones, and filling muskrat holes.

The embankment across Grand River has been repaired, and holes levelled up with gravel.

Built new bridge across waste weir at Junction, 20 by 60 feet, seventy-five stringers, 6 by 12 inches, covered with 3-inch oak cap, stringers on floor, 6 by 8 inches through, bolted to stringers of bridge. Put new cap on centre bent 12 by 14 inches by 16 feet, oak. Repaired rollers and put on new panels.

GENERALLY.

All locks, waste weirs and bridges overhauled and kept in order whenever necessary, and ditches everywhere cleaned out and deepened throughout the charge.

All bridges blocked up for winter use.

All thistles and noxious weeds cut down on all Government property.

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

WILLIAM ELLIS,
Superintendent.

"A."

STATEMENT of Fines and Damages collected from Vessels Contravening Canal Regulations, for the Fiscal Year ending 30th June, 1885.

| Date Collected. | Name of Vessel. | Fines. | Damages. | Total. |
|-----------------|---------------------------------|----------|----------|----------|
| 1884. | | \$ cts. | \$ cts. | \$ cts. |
| July 7..... | Barge "Bavarian"..... | | 95 00 | * |
| do 7..... | Tug "Metamora"..... | 20 00 | | * |
| do 21..... | Propeller "Armenia"..... | 5 00 | 241 61 | † |
| Sept. 23..... | do "Mont Eagle"..... | | 80 00 | † |
| do 23..... | Tug "S. Neelon"..... | 20 00 | | * |
| Oct. 7..... | do "Bruce"..... | | 36 25 | * |
| do 13..... | Steamer "Empress of India"..... | | 49 85 | * |
| Nov. 18..... | Propeller "Mont Eagle"..... | 100 00 | | † |
| 1885. | | | | |
| Jan. 26..... | Propellor "Sir L. Tilley"..... | | 114 76 | * |
| | Totals..... | \$145 00 | 617 47 | \$762 47 |

* Handed to H. H. Collier, Esq., Collector, St. Catharines.

† do H. B. Clark, Esq., Collector, Port Dalhousie.

" B "

STATEMENT showing Depth of Water on the Lower Mitre Sill of Lock No 1, Welland Canal, at Port Dalhousie, for the Fiscal Year ending 30th June, 1885.

| Months. | Lower Sill. | | Months. | Lower Sill. | |
|----------------|-------------|---------|---------------|-------------|---------|
| | Highest. | Lowest. | | Highest. | Lowest. |
| 1884. | Ft. in. | Ft. in. | 1885. | Ft. in. | Ft. in. |
| July..... | 15 1 | 14 6 | January..... | 13 0 | 12 5 |
| August..... | 14 8 | 14 3 | February..... | 12 10 | 12 5 |
| September..... | 14 5 | 13 8 | March..... | 12 9 | 12 4 |
| October..... | 13 11 | 13 2 | April..... | 13 10 | 12 1 |
| November..... | 13 4 | 12 10 | May..... | 14 0 | 13 7 |
| December..... | 13 2 | 12 6 | June..... | 14 2 | 13 8 |

Ft. in.

Average, June, 1884..... 13 11

do 1885..... 13 11½

STATEMENT showing the Depth of Water on the Upper Sill of Lock No. 27, Welland Canal, at Port Colborne, for the Fiscal Year ending 30th June, 1885.

| Months. | Upper Sill. | | Months. | Lower Sill. | |
|----------------|-------------|---------|---------------|-------------|---------|
| | Highest. | Lowest. | | Highest. | Lowest. |
| 1884. | Ft. in. | Ft. in. | 1885. | Ft. in. | Ft. in. |
| July..... | 14 5 | 13 0 | January..... | 14 11 | 10 4 |
| August..... | 14 4 | 12 11 | February..... | 12 2 | 11 0 |
| September..... | 13 11 | 12 0 | March..... | 12 2 | 11 2 |
| October..... | 13 8 | 11 11 | April..... | 14 0 | 11 4 |
| November..... | 14 2 | 11 8 | May..... | 13 5 | 11 10 |
| December..... | 15 0 | 11 3 | June..... | 14 2 | 13 0 |

Ft. in.

Average, June, 1884..... 13 3

do 1885..... 13 5½

No. 7.

BURLINGTON BAY CANAL.

SUPERINTENDENT'S OFFICE,

St. CATHARINES, 24th September, 1885.

SIR,—I have the honor to submit my report on the working and condition of the Burlington Bay Canal, for the year ending 30th June, 1885.

The canal was closed on the 18th December, 1884, and open on 1st May, 1885.

No interruption to the passage of vessels has occurred during the year.

The ferry scow was hauled out and found to require extensive repairs. It is now nearly equal to new.

No other outlay of importance has been necessary.

Your obedient servant,

WILLIAM ELLIS,
Superintendent.

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

NO. 8.

RIDEAU CANAL.

RIDEAU CANAL OFFICE,
OTTAWA, 30th September, 1885.

SIR,—I have the honor to submit the Annual Report on the state of the works under my charge for the fiscal year ending 30th June, 1885.

Navigation closed at Ottawa on 24th November, and at Kingston Mills, 18th November.

The through opening of navigation this year was delayed until 23rd, June owing to the damage caused by the spring freshet to the bulkheads of Long Island and the Hog's Back.

Navigation from Kingston to Manotick opened 11th May, and locking up to the Basin at Ottawa commenced 8th May.

The water in the different reaches, both ascending and descending, was well maintained until the close of navigation, except on the reach between Lower Brewer's and Kingston Mill, where it fell below navigation height by the end of August, and continued to fall until the close of navigation, when it was seven inches under.

This spring, owing to the long, steady winter and the depth of snow on the ground, extraordinary freshets occurred on the Rideau River at this end of the canal, and owing to the thickness and solidity of the ice when it commenced moving, serious damage was caused to the bulkheads at Long Island and Hog's Back, through which structures the flood waters are discharged.

At Long Island the high water found a passage underneath the frost line, through some old crib-work which had been left in the embankment, and in twenty-four hours a breach 60 feet wide by 30 feet deep, was made in the bank which joined the bulkhead with the main stone dam.

Owing to the high water nothing could be done to temporarily repair the damage until the 23rd of May, when a crib 73 by 56 by 16 feet, was sunk in the gap, and filled with stone. On top of this a temporary flat dam 13 feet high was built, enabling navigation to be opened by 23rd of June. The repairs have stood the pressure of 30 feet of water without any signs of failure so far.

This winter a framed bulkhead will take the place of the flat dam, which will increase the area of discharge 600 square feet, just double what it was previously. This with the openings at Manotick will be ample in future to discharge the heaviest freshets.

At the Hog's Back the bents of the bulkhead stood the pounding of the solid ice as it swept through the openings for two days when it finally gave way.

To illustrate the force of the current passing through the bulkhead, the fall being about 40 feet, one of the bents almost intact was found two miles down the river in a ploughed field. The others were carried down the stream, and rock, several tons weight, piled on them. The long apron below the bulkhead was entirely undermined, and a channel, from 70 to 30 feet wide, excavated out of the rock, on which it was built.

As soon as the water would permit an examination, the foundation of the bulkhead proper was found to be uninjured.

A temporary flat dam was at once built across the opening and navigation resumed.

The repairs to the apron have been commenced, and will be completed before winter sets in.

The renewal of the bulkheads at both Long Island and Hog's Back will have to be done during the winter after navigation closes.

Minor damages were done at Old Slys. The road bridge over the waste weir being carried away.

On the levels descending towards Kingston the water was exceedingly high also, at the White Fish Dam it was with great difficulty the flood could be controlled; men were kept on night and day repairing the dam as material was carried away by the water.

The principal repairs to the works have been as follows :—

KINGSTON MILLS.

Gravel and stone on dam and repairs to lower sill of upper lock.

BREWERS LOWER MILLS.

New stone house and repairs to Lock Master's house.

BREWER'S UPPER MILLS.

Swing bridge renewed, and new stone house built.

JONES' FALLS.

Repairs to lower sill of upper lock. New sluice frames, and repairs to machinery.

WHITE FISH DAM.

Two side piers built, and stone on dam.

DAVIS' STATION.

Repairs to Lockmaster's house. Cofferdam put in at head of lock. Wing walls and piers repaired. Two new sluice frames.

NEWBORO'.

Two pairs of lock gates framed and erected.

NARROWS.

Swing bridge renewed, and repairs to lock house.

POONAMALIE.

Rebuilt long dam and new bulkhead.

SMITH'S FALLS.

Clay delivered on basin to stop leakage.

OLD SLYS.

One pair of lock gates renewed, and new bulkhead.

MERRICKVILLE.

One pair of lock gates renewed. Two new bulkheads, and repairs to machinery.

CLOWES.

One pair of additional foot boards; repairs to bulkhead.

NICHOLSON'S.

Two additional foot boards and sundry repairs.

BURRITT'S.

Stone and gravel on embankment.

MANOTIC.

Repairs to swing bridge.

LONG ISLAND.

Repairing break in embankment, caused by spring freshet, and building temporary flat dam.

BLACK RAPIDS.

Planked back of long dam; one new pier, and repairs to moving piers.

HOG'S BACK.

Building temporary flat dam across the site of bulkhead, carried away by the spring freshet. Repairs to Lockmaster's house. Gravel on dam.

HARTWELL'S.

Repairs to Lockmaster's house.

DOW'S SWAMP.

Repairs to embankment and retaining wall built to widen and strengthen dam.

OTTAWA.

New stone sill put in Lock No. 5. General repairs to machinery, and repairs to wharves around basin.

The house of Collector's and Lockmaster's offices was completed last fall and occupied this spring.

With the exception of the delay to the opening, navigation was uninterrupted.

TAY CANAL.

Since my last report, Lock No. 2 has been completed, as well as the dredging required at the entrance of Lock No. 1,

BEVERIDGE'S BAY.

During the winter the contractors transported their dredge over land to the swamp at Station No. 27. It has been kept steadily at work excavating a channel through the swamp to the Tay River. Fair progress was made in the rock excavation under water in the river. The cuts at Frigell's and Dawson's being now nearly finished.

The high water this spring did considerable damage to their dams, all of which required to be overhauled as soon as the river fell to its usual stage.

Lock No. 1 has been commenced, but owing to the heavy leakage coming through seams in the rock underneath their dam, the lock pit was several times flooded, and a great deal of delay occasioned.

The cribs for the entrance piers are nearly all framed ready for sinking as soon as the lake falls to its low water stage.

Should the winter prove favorable for work the canal should be completed by next year.

Timber for the lock gates with all the necessary iron work was delivered ready for framing as soon as the locks are sufficiently advanced to warrant us making a commencement.

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

FRED. A. WISE,
Superintending Engineer.

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

— — —
No. 9.

TRENT CANAL.

ENGINEER'S OFFICE,
PETERBOROUGH, 31st August, 1885.

SIR,—I have the honor to submit the Annual Report on the works temporarily under my charge for the fiscal year ending 30th June, 1885.

From 1st July, 1884, the water on the several stretches was maintained at a height of 5 feet on the mitre sills of the locks.

The total number of lockages was 1,777. The greatest number at any one station was 1,225.

Navigation on the upper stretches closed about 10th November, and on the lower stretches, 12th November. It opened again 25th March. Navigation continued throughout the year uninterrupted.

The traffic on these waters has considerably increased this season. Four new steamboats being added to the fleet already on this route.

The following is a brief statement of the repairs executed at each of the stations during the year.

FENELON FALLS.

The boom dividing the steamboat channel from the log channel was repaired and placed in position. The new locks and canal under construction at this station are nearing completion.

LINDSAY.

The hulls of several old steamboats have been left in the river. One of these which had sunk near the wharf was removed last fall.

SCUGOG RIVER.

The sunken logs and snags which had drifted into the navigation channel were removed.

BOBCAYGEON.

The cribwork on the north side of the upper entrance to the canal was raised one stick and the whole filled with gravel. This now constitutes a solid embankment. A coat of Portland cement was placed on top of the pier of the swing bridge. The dams, which retain the water at Sturgeon Lake at navigable height, are in a very decayed condition and leak very badly. A new dam is urgently needed. A line of crib work was placed on the shore of the island at the lower entrance of the lock, to prevent boats and barges from grounding. This has been of great benefit to navigation.

BUCKHORN.

The piers of the south sluice were raised four courses high. The new lock and canal at this station are completed with the exception of the lock gates.

BURLEIGH.

The works at this station were erected for the benefit of the lumbermen, by a committee appointed by themselves. The works are much out of repair, and a memorial has, I believe, been addressed to the Department praying that the necessary repairs be done. New locks and dam are under construction at this point.

YOUNG'S POINT.

The new dam at this station has been about completed. The channel between the island and the Dummer shore was cleared of boulders to enable the logs to pass through.

LAKEFIELD.

The trade between this point and the upper lakes has much increased of late. A new steamboat has been placed on these waters this season. A boom is being placed on the stretch between here and Young's Point to separate the steamboat channel from the log channel. This will be of great benefit to navigation as the blocking of navigation by logs has been a great source of annoyance.

PETERBOROUGH.

The accumulations of sawdust in the lake and river have become so great that navigation in many places will cease in a very short time. An appropriation was made some two years ago for the removal of the sawdust, which was done, but it has all filled up again. The entrance of the river into Rice Lake is by three mouths, two of which formerly used for navigation have been closed by sawdust. Boats are now compelled to take the western channel, which adds considerably to the length of the route.

WHITLAW'S RAPIDS.

A cribwork 150 feet long was placed on the east side of the lower entrance of the lock to prevent the current from the river striking vessels approaching the lock. The upper lock gates were removed and some repairs done to the rollers and track. The sawdust is also a great source of annoyance here, as it banks up against the gates rendering them almost impossible to open.

HASTINGS.

Two new courses were placed on the tops of all the lock gates, and the opening gearing repaired. The back of the lock wall next to the river was rebuilt with loose masonry. The swing bridge received some slight repairs.

HEELY'S FALLS.

This dam retains the water between this point and the village of Hastings, a distance of about 15 miles. A break occurred in the dam during the spring of 1884. This was repaired.

CHISHOLMS.

The dam at this station was replanked. The lock chamber was painted with Portland cement. The sluiceway on the south side of the dam was prepared for the

passage of timber. Logs will now be kept on the south side instead of passing over in front of the dam to the north side. A small steamboat has been placed on this stretch.

I have the honor to be, Sir,

Your obedient servant,

RICHARD B. ROGERS,

Acting Superintending Engineer.

A. P. BRADLEY, Esq.,

Secretary Department Railways and Canals.

No. 10.

ST. PETER'S CANAL.

OTTAWA, 16th September, 1885.

SIR,—I have the honor to submit the following relative to the St. Peter's Canal.

Owing to the opening of the Eastern Counties Railway to the Strait of Canso, an increase took place in the traffic through the canal, and a large class of steamers was placed on the route to Sydney, C.B. These, owing to their breadth and height above the water, found it somewhat difficult to pass without touching the rocky sides and the retaining wall, and though floating fenders had been placed to prevent this they were found not to be serviceable. During the summers of 1883-84-85, hanging fenders and posts and guards were placed at intervals on both sides of the canal, and though some of the former have been carried away or damaged by reason of carelessness on the part of those navigating vessels, yet they have proved to be of much benefit.

An experiment is being tried in the use of fenders made of "withes," which are bound into bundles, and when struck yield to the pressure, and when relieved recover their shape.

To define the Northern or Bras d'Or entrance, it became necessary to build a retaining wall on the eastern side, 331 feet in length, which was brought to completion at the close of 1884.

The retaining wall on the western side of the canal has been raised to an average height of 7 feet above the surface of the water. The Lockmaster's house has been thoroughly painted and the storehouse whitewashed. The boundary fence has been put in repair. A number of new joists have been placed in the swing bridge, the flooring of which has been renewed and the whole structure painted.

As much difficulty was experienced in opening the swing bridge during high winds, a couple of "winches" have been placed in small sheds to assist at such times.

During the past year the wood work in the gates and the portions of the retaining wall below water were examined with the view of ascertaining if the "sea-worm" (*teredo navalis*), so disastrous in their effects at St. Peter's, had attacked them, and it gives me much pleasure to state that the precautions I took at the time of their construction, when the canal was enlarged, have been most successful in repelling their attacks.

The gates and swing bridge are in good order, and work as well as when first placed in position.

Navigation through the canal closed on the 2nd January, and opened on the 1st May of the present year.

The following is a statement of the traffic through the canal during the fiscal year ended 30th June, 1885 :—

| Year. | Vessels. | | Tonnage. | | Tolls Collected. | |
|----------------|----------|--------|---------------------|--------|------------------|----------|
| | North. | South. | North. | South. | North. | South. |
| 1884. | No. | No. | Tons. | Tons. | \$ cts. | \$ cts. |
| July..... | 88 | 60 | 15,164 | 1,121 | 202 10 | 113 22 |
| August..... | 130 | 93 | 20,606 ⁿ | 1,101 | 180 21 | 321 13 |
| September..... | 88 | 102 | 6,432 | 10,517 | 162 11 | 224 52 |
| October..... | 122 | 107 | 5,670 | 14,211 | 230 19 | 260 70 |
| November..... | 80 | 68 | 6,268 | 8,206 | 189 22 | 225 43 |
| December..... | 36 | 23 | 2,207 | 2,116 | 62 32 | 32 95 |
| 1885. | | | | | | |
| January..... | 2 | 2 | 80 | 140 | 2 40 | 2 41 |
| April..... | | 1 | | 56 | | 1 12 |
| May..... | 79 | 60 | 4,901 | 2,516 | 46 05 | 80 15 |
| June..... | 90 | 103 | 5,607 | 9,344 | 70 10 | 38 30 |
| Totals..... | 715 | 619 | 66,935 | 49,328 | 1,144 70 | 1,299 93 |

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

HENRY F. PERLEY,
Engineer in Charge.

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

No. 11.

UPPER ST. LAWRENCE AND TRENT VALLEY CANALS.

PETERBOROUGH, 23rd November, 1885.

SIR,—I beg to enclose herewith my Annual Report of the works in my charge, for the fiscal year ending 30th June, 1885.

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

TOM. S. RUBIDGE.

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

PETERBOROUGH, 1st November, 1885.

SIR,—I have the honor to report on the works under my charge for the fiscal year 1884-85, and generally to the present date.

These works are, the Murray Canal and Galops Rapid improvements on the Upper St. Lawrence River, the surveys for the proposed Trent Valley Canal, and the works of construction authorized and in progress in connection therewith, viz.,

the dams at Lakefield and Young's Point, and the canals at Burleigh Falls, Buckhorn Rapids and Fenelon Falls.

UPPER ST. LAWRENCE RIVER.

Murray Canal

Connects the Bay of Quinté, the natural head of river navigation, with the harbour of Presqu'île on Lake Ontario. It is situated in the County of Northumberland, about seventy-five miles west of Kingston, and 120 miles from Port Dalhousie, the entrance to the Welland Canal.

The works extend over a distance of nine and a half miles, of which fully six miles, representing the canal proper—a through cut across the Isthmus of Murray, four and a quarter miles in length, and entrances thereto—are located on a perfectly straight line, extending from the navigable channel off twelve O'clock Point in the Bay of Quinté, to deep water in Presqu'île Harbor, near the wharf.

Thence to the open lake, off the lighthouse on Presqu'île Peninsula, about three and a half miles, some detached stretches of submarine excavation occur on the surrounding shoals, of which, that crossing the middle ground is the most important, and is intended to form the new entrance to the harbor.

The work of excavating the channel continues to be performed wholly by dredging, and has now been carried over the entire extent of the canal proper, *i.e.*, from the Bay of Quinté to Presqu'île Harbor. The progress made has been uniform, and in every way satisfactory; seven powerful dredges having been constantly employed, throughout the season, and are stationed as follows, *viz.* :—

“Central City” at the Bay of Quinté entrance; “St Charles” and “Ontario in Dead Creek Marsh, Laugh-a-Ballagh and “Wolverine” at Gould's Clearing and the “Goliath” and “John Page” in Presqu'île Harbor.

The nature of the excavation agrees generally with the information obtained on the location survey, as represented to intending contractors.

The culverts or inlets for diverting Dead Creek, have been constructed; and all the cribs for the Bay of Quinté entrance piers have been framed, and are intended to be sunk this season.

The masonry and cribwork of the Trenton Road Bridge, which was built to high water level last season, and of the Central Ontario Railway Bridge, commenced in June last, have both been completed, and are ready for the superstructure. On the 1st of July, by arrangement with the railway authorities, the track was temporarily deflected to the west of the bridge pit, to admit of construction being proceeded with more expeditiously, it being understood that no unnecessary delay would take place in providing the superstructure and restoring the original alignment.

The contract was entered into with Messrs. J. D. Silcox & Co., on the 24th August, 1882, to be completed 1st July, 1885.

Galops Rapid Improvements.

This rapid, the first of the series which obstruct navigation, in descending the St. Lawrence, is situated about seven miles below Prescott, at the commencement of the Williamsburgh Canals.

The improvements consist in the formation by submarine excavation of a straight channel through the rapid, two hundred feet wide on bottom, with a minimum depth of seventeen feet at ordinary low water.

The new channel extends over a distance of three-quarters of a mile, traversing, in descending order, the undermentioned rocky shoals, known as the “Upper Bar,” the “North,” “Caledonia” and “Island Shoals” and the “Lower Bar.” Of these “Lower Bar” and “Island” (the most extensive) together with “Caledonia,” “North” and part of the “Upper Bar” have been drilled and blasted.

The "Island" and also the greater portion of the "Lower Bar," have been dredged and completed.

Season of 1885.

The torpedo scow resumed drilling and blasting operations on the "Lower Bar" 7th May, and finished 4th August. She was next engaged between 6th and 21st August in reducing the Caledonia Shoal and from thence moved over to "North Shoal," completing the work there on 2nd September. On 8th September she commenced work on the north side of the "Upper Bar," the only remaining shoal, and where she will be continued until the season closes.

The chain vessel or dredge, which during last winter, underwent extensive repairs at Montreal, arrived up on 13th June and on the 25th commenced dredging operations on the "Lower Bar," which will be continued during the remainder of the season.

The whole of the contractor's plant engaged on the works, including the chain vessel, and torpedo scow, will be wintered in the neighborhood of the rapid.

The work now nearing completion was commenced in 1880, under the skilled management of the present contractors, who have been exceptionally successful in conducting their very difficult undertaking.

The contract was originally entered into with Messrs. William Davis & Sons, 5th August, 1879; subsequently, 30th June, 1882, with the consent of the Government, it was transferred to Messrs. E. E. Gilbert & Sons, the present contractors.

TRENT VALLEY CANAL.

Surveys.

The additional information relating to Baird's original project, *i. e.*, the closer adherence to the rivers and lakes, suggested as an alternative route, so far as has been obtained, points to the conclusion that no material reduction can be made in its estimated cost as compared with the direct line, of which, the general results have already been communicated to the Honorable the Minister.

And as pertinent to the cost of this vast undertaking, and more particularly in the event of further works being authorized, an important element, apart from the actual construction, presents itself for the consideration of the Government. I refer to the excessive claims of riparian owners for damages, as exemplified in connection with the Fenelon Falls Canal, and other isolated works now in progress or completed, on the Back Lakes Division from Balsam Lake to Lakefield, and upon the Trent and Otonabee Rivers.

Throughout this chain of waters, the inhabitants, for whose benefit the completed improvements and other works in progress were designed, now complain of the injury they have caused, and seek redress therefor. Under these circumstances, it appears to me, if the projected canal possesses even a limited share of the importance which is attributed to it by those locally interested, or is deemed worthy of improvement by the general Government, it should readily be conceded that the bed and waters of the rivers and intermediate lakes, traversed by the main line between the Lakes Huron and Ontario, are public property and belong to the State, and that therefore, manufacturers, steamboat owners and other private persons have no right to encroach upon them. Also, that all claims of riparian owners to rights in hydraulic power, and the bed of these rivers and lakes, should be disallowed by the Government, except in Ontario cases, as when the water power has been so long used as to have become a prescriptive right.

I, therefore, respectfully submit for the consideration of the Honorable the Minister, that as a preliminary step to proceeding further with any new works, the necessity which in my opinion exists for an immediate and thorough investigation by the proper authority of the whole subject of riparian rights, in order that the ultimate position of the Government may be determined and defined.

TRENT NAVIGATION.

CONSTRUCTION.

The works authorized in connection with the Trent Valley Canal, and in various stages of progress, are as follows:—

Lakefield Dam.

This structure, which replaces a private dam built by the mill owners, and expropriated by the Government in 1882, is situated in the village of Lakefield, at the head of the Nine Mile Rapids of the Otonabee, and is designed to regulate the level of Katchiwannoe Lake for the purposes of navigation.

The contractor, from a desire to avoid undue interference with the steamboat and milling and lumbering interests, postponed its commencement until late in the season of 1884, when by vigorously prosecuting the work during the winter months, he succeeded in so far completing the dam as to render it available during the ensuing spring freshet.

It has been completed during the freshet season, together with all necessary anchor piers and booms connected with the timber slide, and fully answers the purpose for which it is designed.

The contract was entered into with Mr. Charles Wynn, 9th March, to be completed 1st December, 1884.

Young's Point Dam

is situated on the Otonabee River, between Lake Katchiwannoe and Clear Lake, and also replaces a private dam. It regulates and controls the levels of the navigable reach, extending upwards through Clear and Stony Lakes to the Burleigh Canal.

The work was commenced in July, 1884, and practically finished, ready for use, on the opening of navigation last spring. It is now fully completed, including anchor piers, booms, &c., and, like the dam at Lakefield, of which it is a counterpart, answers all the purposes for which it is intended, and is, moreover, a credit to the contractor, who is highly commended for his unflinching exertions in prosecuting and completing both works, notwithstanding the adverse action of lumbermen and others, whose private interests, should not in future be permitted to interfere with the progress of public works.

Both dams were submitted to an extraordinary test during the abnormal stage of water which prevailed in the spring of 1885.

The navigation on Katchiwannoe and Clear Lakes has been uninterrupted during the whole of the past season, and their new levels have been maintained without difficulty.

The contract was entered into with Mr. Charles Wynn, 23rd January, 1884, to be completed 1st December, 1884.

Burleigh Canal.

This work extending from Burleigh Bay on Stony Lake to Deer Bay Lake, a distance of about two and a quarter miles, consists in the construction of two combined locks and the necessary bridge piers at Burleigh Chute; also of the main regulating dam, and other dams in the immediate neighborhood of the chute. And of a lock and regulating dam at the Lovesick Rapids, with detached dams at the other outlets from Deer Bay.

Since my last annual report the work up the end of August, 1885; was practically abandoned; subsequently, however, the contractor has exhibited a disposition to proceed with it, and has already made some progress with the excavation both at Burleigh and Lovesick.

In April last, in anticipation of further action in reference to this contract, it was considered advisable to test the practicability of closing the Burleigh Chute by

utilizing the existing stop logs, as stated in the specification; this was accordingly done by special arrangement with Mr. Charles Wynn, who succeeded in converting the structure into an effective coffer dam at a cost of \$750.

The contract was entered into with Mr. George Goodwin, 27th September, 1882, to be completed 1st July, 1885.

Buckhorn Canal.

Comprises a lock and short reach of canal located on the north bank of the Upper Rapids, between Deer Bay and Buckhorn Lakes; also the improvement of the channel through Little Buckhorn or Lower Rapids.

The work was commenced in March, 1883, and completed in December, 1884.

A small expenditure for maintenance was rendered necessary, in consequence of the failure during the spring freshet of the stop logs in the lock, and the partial destruction of the temporary road bridge supplied by the contractor.

The contract was entered into with Mr. George Goodwin, 27th September, 1882, to be completed 1st September, 1884.

Plans and specifications for the lock gates have been prepared.

Fenelon Falls Canal.

This work is situated at the Falls, between Cameron and Sturgeon Lakes, in the centre of the Village of Fenelon Falls, it consists in the formation of two combined locks and a short reach of canal leading upwards to Cameron's Lake. The contract also includes the construction of piers and abutments in connection with an opening to be formed in the centre span of the Victoria Railway Bridge.

Work was commenced on the 16th October, 1882, and prosecuted to its completion on the 22nd October, 1885.

In connection with the canal and upper lock, a headrace of masonry for hydraulic purposes has been constructed by the contractor under special arrangement; and to avoid further conflict with persons claiming riparian rights, the contractor has been relieved of the construction of the central, or pivot pier of the opening required to be formed in the railway bridge.

The work throughout has been conducted and completed in a highly satisfactory manner, and reflects the greatest credit on the contractor.

The contract was entered into with A. F. Manning & Co, 14th October, 1882, to be completed 1st July, 1885.

Plans and specification have been prepared for the lock gates required on this work.

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

TOM S. RUBIDGE,
Engineer-in-Chief.

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

APPENDIX No. 12.

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. | 52 | North-West Transportation Co. |
| 2 | Richard Fuller. | 53 | Barrow Hematite Steel Co. |
| 3 | F. J. Barnard. | 54 | Guest & Co. |
| 4 | Oliver, Davidson & Co. | 55 | West Cumberland Iron and Steel Co. |
| 5 | Joseph Whitehead. | 56 | The Kellogg Bridge Co. |
| 5 _a | Joseph Whitehead. | 57 | The Truro Patent Frog Co. |
| 6 | Guest & Co. | 58 | W. Hazelhurst. |
| 7 | Ebbw Vale Steel, Iron and Coal Co. | 59 | Whitehead, Ruttan & Ryan. |
| 8 | Murray Steel and Iron Co. | 60 | D. O. Mills. |
| 9 | West Cumberland Iron and Steel Co. | 61 | D. O. Mills. |
| 10 | West Cumberland Iron and Steel Co. | 62 | D. O. Mills. |
| 11 | Naylor, Benson & Co. | 63 | D. O. Mills. |
| 12 | Hon. A. B. Foster. | 64 | Ryan, Whitehead & Ruttan. |
| 13 | { Sifton & Ward. | 65 | James Crossen. |
| | { Purcell & Ryan. | 66 | Bowie & McNaughton. |
| 14 | { Sifton & Ward. | 67 | Moncton Car Co. |
| | { Jos. Whitehead (completing contract No. 14). | 68 | Ontario Car Co. |
| 15 | Joseph Whitehead. | 69 | North-West Transportation Co. |
| 16 | Canada Central Railway Co. | 70 | North-West Transportation Co. |
| 17 | Anderson, Anderson & Co. | 71 | Toronto Bridge Co. |
| 18 | Red River Transportation Co. | 72 | Ontario Car Co. |
| 19 | Moses Chevette. | 73 | Toronto Bridge Co. |
| 20 | Merchants Lake and River Steamship Co. | 74 | Wm. Gooderham, jun. |
| 21 | Patrick Kenny. | 75 | Pillow, Hersey & Co. |
| 22 | Holcomb & Stewart. | 76 | Cooper, Fairman & Co. |
| 23 | Sifton & Ward. | 77 | Stubbs & Co. |
| 24 | Oliver, Davidson & Co. | 78 | Skead & Haycock. |
| 25 | Purcell & Ryan. | 79 | The Truro Patent Frog Co. |
| 26 | James Isbester. | 80 | James Crossen. |
| 27 | Merchants Lake and River Steamship Co. | 81 | Dunlop & Rannie. |
| 28 | Red River Transportation Co. | 82 | Ontario Car Co. |
| 29 | Cooper, Fairman & Co. | 83 | James Crossen. |
| 30 | Robb & Co. | 84 | Ontario Car Co. |
| 31 | Patent Bolt and Nut Co. | 85 | Nobles & Follis. |
| 32 | Cooper, Fairman & Co. | 86 | Fairbanks, Morse & Co. |
| 32 _a | LeMay & Blair. | 87 | James Crossen. |
| 33 | Kavanagh, Murphy & Upper. | 88 | Walter Oliver. |
| 34 | North-West Transportation Co. | 89 | J. Patterson. |
| 35 | Cooper, Fairman & Co. | 90 | Ferris, Paul & Milwar. |
| 36 | William Robin-on. | 91 | Canadian Pacific Railway Co. |
| 37 | Henev, Charlebois & Flood. | 92 | Andrew Onderdonk. |
| 38 | Edmond Ingalls. | 93 | Andrew Onderdonk. |
| 39 | John Irving. | 94 | Horton & Son. |
| 40 | Gouin, Murphy & Upper. | 95 | Bayliss, Jones & Bayliss. |
| 41 | Purcell & Co. | 96 | Guest & Co. |
| 42 | Manning, Macdonald, McLaren & Co. | 97 | John McDonald. |
| 43 | Joseph Upper & Co. | 98 | Colin Nicol Black. |
| 44 | West Cumberland Iron and Steel Co. | 99 | Canadian Pacific Railway Co. |
| 45 | Barrow Hematite Steel Co. | 100 | A. Onderdonk, station building, Ya ^l |
| 46 | Ebbw Val Steel, Iron and Coal Co. | 101 | A. Onderdonk, station building, Ly ⁿ . |
| 47 | Patent Bolt and Nut Co. | 102 | A. Onderdonk, station building, A ^c croft. |
| 48 | John Ryan | 103 | John Philip Bacon, water tanks. |
| 49 | Richard Dickson. | 104 | A. Onderdonk, station buildings. |
| 50 | Miller Brothers & Mitchell. | 105 | Wilson & McCready, engine house. |
| 51 | Dominion Bolt Co. | 106 | Wrighton & Co., iron piles. |

APPENDIX No. 13.

ST. LAWRENCE NAVIGATION.—TABLE OF DISTANCES.—A.

FROM STRAITS OF BELLE-ILE TO PORT ARTHUR, AT HEAD OF LAKE SUPERIOR, BY WATER.

| From | To | Sections of Navigation. | Statute Miles. | |
|---|--|-------------------------------|-------------------|---|
| | | | Inter- mediate | Total to Straits of Belle-Ile. |
| Straits of Belle-Ile | Cape Whittle..... | Gulf of St. Lawrence..... | 240 | 240 |
| Cape Whittle..... | West Point, Anticosti..... | do | 201 | 441 |
| West Point, Anticosti..... | Father Point | River St. Lawrence..... | 202 | 643 |
| Father Point..... | Rimouski | do | 6 | 649 |
| Rimouski..... | Bic..... | do | 12 | 661 |
| Bic..... | Isle Verte | do | 39 | 700 |
| Isle Verte (opp. Saguenay)..... | Quebec | do | 126 | 826 |
| Quebec | Three Rivers..... | do to Tide-water | 74 | 900 |
| Three Rivers | Montreal | do | 86 | 986 |
| Montreal | Lachine | Lachine Canal..... | 8 $\frac{1}{2}$ | 994 $\frac{1}{2}$ |
| Lachine..... | Beauharnois | Lake St. Louis..... | 15 $\frac{1}{2}$ | 1,009 $\frac{1}{2}$ |
| Beauharnois | Ste. Cécile | Beauharnois Canal | 11 $\frac{1}{2}$ | 1,021 |
| Ste. Cécile | Cornwall | Lake St. Francis..... | 32 $\frac{1}{2}$ | 1,053 $\frac{1}{2}$ |
| Cornwall | Dickinson's Landing..... | Cornwall Canal | 11 $\frac{1}{2}$ | 1,065 $\frac{1}{2}$ |
| Dickinson's Landing..... | Farran's Point..... | River St. Lawrence..... | 5 | 1,070 $\frac{1}{2}$ |
| Farran's Point..... | Upper end of Croyle's Island. | Farran's Point Canal | 3 $\frac{3}{4}$ | 1,071 |
| Upper end Croyle's Island. | Williamsburg or Morrisburg. | River St. Lawrence | 10 $\frac{1}{2}$ | 1,081 $\frac{1}{2}$ |
| Williamsburg | Rapide Plat | Rapide Plat Canal | 4 | 1,085 $\frac{1}{2}$ |
| Rapide Plat..... | Point Iroquois Village | River St. Lawrence..... | 4 $\frac{1}{2}$ | 1,090 |
| Point Iroquois Village | Upper end Presqu'île..... | Point Iroquois Canal..... | 3 | 1,093 |
| Presqu'île..... | Point Cardinal, Edwards- burg | Junction Canal..... | 2 $\frac{3}{8}$ | 1,095 $\frac{3}{8}$ |
| Point Cardinal | Head of Galops Rapids..... | Galops Canal..... | 2 | 1,097 $\frac{3}{8}$ |
| Galops Rapids..... | Prescott..... | River St. Lawrence..... | 7 $\frac{3}{8}$ | 1,105 |
| Prescott..... | Kingston | do | 59 | 1,164 |
| Kingston | Port Dalhousie | Lake Ontario..... | 170 | 1,334 |
| Port Dalhousie..... | Port Colborne | Welland Canal | 26 $\frac{3}{8}$ | 1,360 $\frac{3}{8}$ |
| Port Colborne | Amherstburg | Lake Erie | 232 | 1,592 $\frac{3}{8}$ |
| Amherstburg | Windsor | River Detroit..... | 18 | 1,610 $\frac{3}{8}$ |
| Windsor | Foot of St. Mary's Island..... | Lake St. Clair..... | 25 | 1,635 $\frac{3}{8}$ |
| Foot of St. Mary's Island..... | Sarnia | River St. Clair..... | 33 | 1,668 $\frac{3}{8}$ |
| Sarnia | Foot of St. Joseph's Island..... | Lake Huron | 270 | 1,938 $\frac{3}{8}$ |
| Foot of St. Joseph's Island..... | Foot of Sault Ste. Marie | River St. Mary | 47 | 1,985 $\frac{3}{8}$ |
| Sault Ste. Marie | Head of Sault Ste. Marie | Sault Ste. Marie Canal... .. | 1 | 1,986 $\frac{3}{8}$ |
| Head of Sault Ste. Marie..... | Pointe aux Pins | River St. Mary..... | 7 | 1,993 $\frac{3}{8}$ |
| Pointe aux Pins | Port Arthur | Lake Superior | 266 | 2,259 $\frac{3}{8}$ |
| Port Arthur to Lake Shebandowan..... | | | 45 | |
| Lake Shebandowan to North West Angle..... | | | 312 | |
| North West Angle to Winnipeg | | | 95 | |
| Pointe aux Pins to Duluth | | | 390 | |

Of the 2,259 $\frac{3}{8}$ miles from the Straits of Belle-Ile to the Head of Lake Superior, 71 miles are artificial navigation, and 2,188 $\frac{3}{8}$ 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. 15.

TABLE showing the dates of the closing of the Canals in the Autumn of 1884 and of the opening in the Spring of 1885.

| Canals. | Closing. | Opening. |
|--------------------------------------|---------------------------|-------------------|
| Lachine Canal..... | 30th November, 1884..... | 4th May, 1885. |
| Beauharnois Canal..... | 1st December, 1884..... | 3rd do 1885. |
| Cornwall Canal..... | 8th do 1884..... | 8th do 1885. |
| Williamsburg Canal..... | 7th do 1884..... | 4th do 1885. |
| Welland Canal— | | |
| New Canal..... | } 4th do 1884..... | 5th do 1885. |
| Old Canal..... | | |
| Burlington Bay Canal..... | 18th do 1884.... | 1st do 1885. |
| St. Anne's Lock and Dam..... | 24th November, 1884..... | 5th do 1885. |
| Carillon Canal..... | } 26th do 1884..... | 7th do 1885. |
| Grenville Canal..... | | |
| Culbute Lock and Dam..... | } 27th do 1884..... | 18th April, 1885. |
| Chute à Blondeau..... | | |
| Rideau { Kingston Mills..... | 24th do 1884..... | 11th May, 1885. |
| { Ottawa..... | 18th do 1884..... | 8th do 1885. |
| St. Ours Lock..... | 26th do 1884..... | 23rd April, 1885. |
| Chambly Canal..... | 30th do 1884..... | 4th May, 1885. |
| Erie Canal (New York)..... | 1st December, 1884..... | 11th do 1885. |
| St. Peter's Canal (Cape Breton)..... | 2nd January, 1885.... | 1st do 1885. |
| Trent Canal Works..... | 10th and 12th Nov., 1884. | 25th March, 1885. |

APPENDIX No. 16.

STATEMENT of Contracts entered into between 1st July, 1884, and 30th June, 1885.

| Railways and Canals. | Deed, Letter or otherwise under which contract was made. | Name of Contractor. | Date of Contract. | General Description. |
|---------------------------------|--|------------------------------|-------------------|--|
| Canadian Pacific Railway | Deed No. 7,699..... | A. Onderdonk..... | Nov. 6, 1884 | Erect a combined passenger and freight building, at Yale, B. C., for Canadian Pacific Railway. |
| do | do 7,691..... | do | do | Erect a combined passenger and freight building, at Lytton, B. C., for Canadian Pacific Railway. |
| do | do 7,692. | do | do | Erect a combined passenger and freight building, at Ashcroft, B. C., for Canadian Pacific Railway. |
| do | do 7,693..... | J. P. Bacon | do 20, 1884 | Erect 9 water tanks between Emory's Bar and Savona's Ferry, B. C., for Canadian Pacific Railway. |
| do | do 7,811..... | A. Onderdonk | May 9, 1885 | Erect a combined passenger and freight building, at North Bend, Chinaman's Ranch, and at Panale, B. C. |
| do | do 7,814..... | H. Wrightson & Co. | June 17, 1885 | Supply 212 iron piles for Canadian Pacific Railway wharf, at Port Moody, B. C., say 50 tons. |
| do | do 7,824..... | Wilson & McCready | do 13, 1885 | Build a 10-stall engine house, at North Bend, B. C., for Canadian Pacific Railway. |
| Prince Edward Island Railway .. | do 7,771..... | Rhymney Iron Co. (Limited) | Mar. 5, 1885 | Supply 400 tons steel hange rails, 50 lbs. per yard, with necessary steel angle fish plates, and iron bolts and nuts, for Prince Edward Island Railway, delivered at Charlottetown, P. E. I. |
| do | do 7,800..... | Intercolonial Coal Mining Co | May 19, 1885 | Supply 6,500 tons coal for Prince Edward Island Railway, delivered on railway wharves, Prince Edward Island. |
| Intercolonial Railway | do 7,469..... | Warran Taylor | April 22, 1884 | Extension of wharf, at Dalhousie, N. B., for Intercolonial Railway. |
| do | do 7,578..... | James Crossen..... | do 22, 1884 | Build 400 coal cars and 1 baggage car for Intercolonial Railway, delivered at Chaudiere Junction. |
| do | do 7,580..... | J. Harris & Co..... | July 31, 1884 | Build 12 box and 56 platform cars for Intercolonial Railway, delivered at St John, N. B. |
| do | do 7,582..... | do | do 31, 1884 | Build 1 2nd class passenger car for Intercolonial Railway, delivered at St. John, N. B. |
| do | do 7,606..... | Ontario Car Co..... | Aug. 26, 1884 | Build 50 coal cars for Intercolonial Railway, delivered at Chaudiere Junction, free on track. |

| | | | | | |
|----|---------------------|---|-------|----------|---|
| do | 7,000..... | St. Lawrence Steam Navigation Co | do | 12, 1884 | Steamboat "Contest" to convey mails and passengers between Rimouski wharf and British mail steamer. |
| do | 7,610..... | Robert Mitchell & Co | do | 26, 1884 | Heating apparatus in passenger station, Intercolonial Railway, St. John, N.B. |
| do | 7,613..... | Thomas Giles | July | 28, 1884 | Removal of observatory hill in Her Majesty's dockyard, Halifax, and depositing material on Intercolonial Railway lands. |
| do | 7,615..... | D. Roy et frère | Aug | 30, 1884 | Build passenger station at Harlaks Junction, Intercolonial Railway. |
| do | 7,617..... | John F. Teed | do | 14, 1884 | Build passenger station at Mount Uniacke, Windsor Branch, Intercolonial Railway. |
| do | 7,619..... | Nesbitt & Auger | do | 22, 1884 | Build freight shed at Lévis, P. Q., Intercolonial Railway. |
| do | 7,623..... | J. B. Snowball..... | Sept. | 18, 1884 | Build Indiantown Branch, Intercolonial Railway, from Derby Station to Indiantown, along north shore of South-West Miramichi River, 13½ miles. |
| do | Deed No. 7,626..... | The Starr Manufacturing Co. (Limited) | July | 28, 1884 | Build swing bridge over Narrows at Halifax for Intercolonial Railway. |
| do | 7,628..... | The Blauvon Co. (Limited) | Aug. | 28, 1884 | Supply 1,800 tons steel rails (67 lbs per yard) and fastenings for Intercolonial Railway, delivered at Halifax. |
| do | 7,677..... | E. Chanteloup..... | Nov. | 1, 1884 | Heating apparatus in Hadlow engine house Intercolonial Railway. |
| do | 7,679..... | Wm. Starkey & Co | Nov. | 5, 1884 | Erect 5 frost proof water tanks (50,000 gallons) for Intercolonial Railway, where directed. |
| do | 7,681..... | A. Grant..... | Oct. | 9, 1884 | Erect a freight shed at St. Octave, P. Q., for Intercolonial Railway. |
| do | 7,683..... | do | do | 1884 | Erect a Station at St. Moise, P. Q., for Intercolonial Railway. |
| do | 7,695..... | Carrier, Laine & Co..... | do | 1884 | Erect 2 iron turntables for Intercolonial Railway. |
| do | 7,721..... | Rhodes, Curry & Co..... | Dec. | 15, 1884 | Build a hay shed at Richmond, N.S., for Intercolonial Railway. |
| do | 7,732..... | Oakes & Paw | July | 22, 1884 | Grading Dartmouth Branch, Intercolonial Railway, to Black Rock Point and from Narrows to Sugar Refinery Woodside, if ordered by Minister. |
| do | 7,744..... | Edonard Fontaine..... | Nov. | 12, 1884 | Transshipping freight at Chaudière Junction, Intercolonial Railway. |
| do | 7,745..... | Rhodes, Curry & Co..... | July | 13, 1884 | Build general offices for Intercolonial Railway at Moncton, N.S. |
| do | 7,746..... | do | Dec. | 20, 1883 | Build headhouse of passenger station Intercolonial Railway, at St. John, N.B. |
| do | 7,747..... | M. J. Hogan..... | Jan. | 31, 1884 | Fill the Pond at Point Lévis, for Intercolonial Railway, (100,000 cubic yards). |
| do | 7,748..... | do | April | 18, 1884 | Pile and trestle bridge, Narrows Halifax Harbour, N.S., for Intercolonial Railway. |
| do | 7,750..... | Rhodes, Curry & Co..... | Dec. | 18, 1884 | Build a number of closets for Intercolonial Railway. |
| do | 7,762..... | Ebbw Vale Steel, Iron, and Coal Co. (Limited).. | Feb. | 17, 1885 | Supply 2,000 tons steel flange rails, of 67 lbs. per yards and 200 tons steel flange rails, of 56 lbs. per yards for Intercolonial Railway. |

STATEMENT of Contracts entered into between 1st July, 1884, and 30th June, 1885.—Continued.

| Railways and Canals. | Deed, Letter or otherwise under which contract was made. | Name of Contractor. | Date of Contract. | General Description. |
|-----------------------|--|---|-------------------|---|
| Intercolonial Railway | do 7,763 | Moss Bay Hematite Iron and Steel Co (Limited) | Feb. 20, 1885 | Supply 2,000 tons steel flange rails, of 67 lbs. per yard for Intercolonial Railway. |
| do | do 7,770 | Ebbw Vale, Steel, Iron and Coal Co. (Limited) | March 10, 1885 | Supply 230 tons steel angle fish plates and 7 tons plain steel fish plates and 32 tons bolts and nuts, $\frac{1}{4}$ and $\frac{3}{8}$ inch, delivered f o b, Liverpool, Barrow or Workington, for intercolonial Railway. |
| do | do 7,805 | James Harris & Co. | May 16, 1885 | Build 300 six-t in coal cars for Intercolonial Railway. |
| do | do 7,820 | Turo Foundry and Machine Co. | May 2, 1885 | Build an old U rail bowstring bridge at McLean's Corner $2\frac{1}{2}$ miles north of Londontery Station, Intercolonial Railway. |
| do | do 7,821 | Smith & McPhail. | May 11, 1885 | Interchange of freight at Pointe du Chêne, Shediac, and between it and Buctouche, N.B., re Intercolonial Railway. |
| do | do 7,822 | Arcade Lemieux | May 9, 1885 | Transhipping freight at Chaudière Junction, Intercolonial Railway. |
| do | do 7,832 | John F. Teed | May 27, 1885 | Build a combined passenger station and freight house at Indian town on Derby Branch Intercolonial Railway. |
| do | do 7,833 | do | do 1885 | Build a combined passenger station and freight house at Millerton on Derby Branch, Intercolonial Railway. |
| do | Deed No. 7,836 | John Blagdon & Son | May 14, 1885 | Repair wharf No. 1 at Richmond, Halifax, N.S., for Intercolonial Railway. |
| do | do 7,845 | Steel Co. of Canada (limited) | June 30, 1885 | Supply 460 chilled cast-iron car wheels, delivered free of all charges on cars at Londonderry Station of Intercolonial Railway, guaranteed for three years. |
| do | do 7,862 | Alfred Steeres | May 29, 1885 | Wire fencing along Intercolonial railway, between Hampton and St. John, 2,100 lineal rods. |
| do | do 7,863 | J. B. Calhoun | do | Wire fencing along Intercolonial Railway, between Point du Chêne and Paines Junction, 640 lineal rods. |
| do | do 7,864 | T. H. Wilson | June 1, 1885 | Wire fencing along Intercolonial Railway, between Moncton and Sussex, 1,200 lineal rods, and between Apohaqui and Hampton, 800 lineal rods. |
| do | do 7,865 | do | do | Wire fencing along Intercolonial Railway, between Sussex and Apohaqui, 480 lineal rods. |
| do | do 7,866 | A. K. Thomson | do | Wire fencing along Intercolonial Railway, between Dalhousie Junction and Campbellton, 271 lineal rods. |

STATEMENT of Contracts entered into between 1st July, 1884, and 30th June, 1885.—*Concluded.*

| Railways and Canals. | Deed, Letter or otherwise under which contract was made. | Name of Contractor. | Date of Contract. | General Description. |
|---|--|---|-------------------|---|
| St. Louis, Richibucto and Buctouche Railway Co..... | do 7,772..... | St. Louis, Richibucto and Buctouche Railway Co..... | May 6, 1885 | Subsidy agreement—Richibucto to St. Louis, 7 miles. |
| Albert Southern Railway Co..... | do 7,804..... | Albert Southern Railway Co..... | do | Subsidy agreement—Hopewell Corner (or Albert) to mouth of river Salmon, in parish of Alma, N.B. |
| Elgin, Petitcodiac and Havelock Railway Co..... | do 7,808..... | Elgin, Petitcodiac and Havelock Railway Co..... | do | Subsidy agreement—line from Intercolonial Railway, at Petitcodiac, to Havelock Corner, N.B. |

APPENDIX No. 17.

GENERAL STATEMENT SHOWING :

- 1st. Water Power and other Public Property leased on Canals and Railways during the Fiscal Year ending 30th June, 1885.
- 2nd. Property purchased or damaged by the Department of Railways and Canals, for the Dominion Railways or Canals ; and Property sold by the same Departments, as not being required for said Railways or Canals, during the Fiscal Year ending 30th June, 1885.
- 3rd. 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 ending 30th June, 1885.

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>Beauharnois Canal.</i> | | | | |
| Oct. 20, 1884 | Pleasure of the Government. | Canada Mutual Telegraph Co. | Place poles south side of Canal, 2 miles, Valleyfield. | Telegraph line... |
| do 24, 1884 | do ... | S. A. Bradeur..... | Lot N.E. $\frac{1}{4}$ 21, 1st Con. Catherines-town, above head of Canal, Valleyfield. | Farming..... |
| do 1, 1885 | do ... | Joseph Cardinal..... | Lots 116 and 101, north of Canal, Ste. Cecile, Valleyfield. | Tilling..... |
| July 21, 1885 | do ... | O. Trempe..... | Lot 1, above Guard Lock, north of Canal, Ste. Cecile, Valleyfield. | Wharf and coal shed. |
| April 11, 1885 | do ... | Canada Atlantic Railway Co. | Iron swing bridge over Canal, Ste. Cecile, Valleyfield. | Railway and bridge. |
| June 25, 1885 | do ... | Moise Julien..... | Wharf lot, 200 ft. above St. Timotheé Bridge, south of Canal. | Wharf and store. |
| <i>Lachine Canal.</i> | | | | |
| Oct. 18, 1884 | do ... | Dominion Bridge Co. (Limited). | To lay a 7-in. pipe from Canal, north side, to their works, 1,000 ft. below Guard Lock, Lachine | For boiler and machinery. |
| Dec. 23, 1884 | do ... | Anderson, McKenzie & Co. and A. Hurteau & Bro. | Winterage dues for lumber piled on Wharf of Wellington Basin. | Piling lumber... |
| May 2, 1885 | do ... | St. Lawrence Sugar Refining Co. | Water through 24 in. pipe from Basin No. 2, <i>via</i> Queen street, Montreal, to their factory. | Water supply... |
| do 8, 1885 | do ... | G. E. Jacques & Co. | Lot on Colborne street, Montreal, N.W. of Basin No. 2, near Flour Sheds Nos 4 and 5 | Office. |
| Aug. 28, 1885 | do ... | Canada Sugar Refining Co. | Shed No. 1, St. Gabriel Basin | Storage of sugar. |
| <i>Rideau Canal.</i> | | | | |
| June 11, 1885 | do ... | B. E. & J. F. Chaffey | Part of lot 17, in 8th Con. South Crosby, at Chaffey's Lock. | Grist mill..... |
| do 27, 1885 | do ... | Ottawa Canoe Club. | Part lot at foot of Canal, at Ottawa, in River. | Boat house..... |

MENT SHOWING

and Railways, during the Fiscal Year ended 30th June, 1885.

| 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 Payable each Year. | When first Instalment was Payable | |
| | | | \$ cts. | \$ cts. | | | |
| ..... | ..... | Oct. 20, 1884 | 1 00 | 1 00 | Oct. 1.... | On delivery of lease. | In advance. |
| ..... | 10 arpts 15 $\frac{1}{2}$ perches. | do 1, 1884 | 8 00 | 8 00 | do 1.... | do ... | do |
| ..... | 3 acres..... | June 1, 1883 | 20 00 | 20 00 | June 1.... | do ... | do |
| ..... | 150 x 100 feet. | Sept. 1, 1883 | 40 00 | 40 00 | Sept. 1.... | do ... | do |
| ..... | ..... | April 1, 1885 | 1 00 | 1 00 | April 1.... | do ... | Terminal on 6 mos. notice from either party. |
| ..... | 150 x 70 ft. | June 1, 1885 | 20 00 | 20 00 | June 1.... | do ... | In advance. |
| 7-inch pipe. | ..... | July 1, 1884 | 50 00 | 50 00 | July 1.... | do ... | do |
| ..... | { 170 piles at \$1.00 33 do 1.00 | | 170 00 33 00 | } ..... | ..... | do ... | do |
| 24-inch pipe. | ..... | July 1, 1885 | 750 00 | 375 00 | Jan. 1 and July 1. | do ... | This supersedes lease of July 22nd, 1879. |
| ..... | 18 x 24 ft.. | do 1, 1885 | 25 00 | 25 00 | July 1.... | do ... | In advance. |
| ..... | ..... | Aug. 1, 1885 | 1200 00 | 100 00 per month. | 1st of each month. | do ... | do |
| Surplus water to pass through flume. | 3 rods 18 perches. | July 1, 1883 | 5 00 | 5 00 | July 1.... | July 1, 1883 | This supersedes lease of July 5th, 1884. In advance. |
| ..... | ..... | June 1, 1885 | 1 00 | 1 00 | June 1.... | On delivery of lease. | In advance. |

GENERAL STATEMENT showing : 1st. Water Power and other

| Date of Signature. | Terms of Lease. | Lessees. | Property Leased. | For what purpose used. |
|--------------------|-----------------------------|---------------------------------------|--|--------------------------|
| June 10, 1885 | Pleasure of the Government. | Bell Telephone Co. of Canada. | <p style="text-align: center;"><i>Cornwall Canal.</i></p> <p>Place poles and wires along this and other Canals.</p> <p style="text-align: center;"><i>Williamsburg Canals.</i></p> <p>Place poles and wires along this and other Canals.</p> <p style="text-align: center;"><i>Welland Canal.</i></p> <p>Place poles and wires along this and other Canals.</p> <p style="text-align: center;"><i>Chambly Canal.</i></p> <p>Place poles and wires along this and other Canals.</p> <p style="text-align: center;"><i>Ste. Anne's Canal.</i></p> <p>Place poles and wires along this and other Canals.</p> <p style="text-align: center;"><i>Intercolonial Railway.</i></p> | Telephone..... |
| May 6, 1885 | 10 years..... | Central Vermont R'y Co. to Government | Rooms in building on official lot No. 148, south-east side of St. James street, Montreal. | Gov't. Agent's Office. |
| do 6, 1885 | do | do ... | Company to heat, repair and alter same. | do .. |
| Dec. 31, 1884 | 1 year..... | Chas. A. Demers..... | License to sell books, etc., at Lévis Station, in News Room. | Books, news papers, etc. |
| July 1, 1885 | do | Jos. Fortin..... | License to sell books, etc., on trains between Lévis and Campbellton. | do .. |
| do 1, 1885 | do | Canadian Railway News Co. | License to sell books, etc., on trains between Halifax, Campbellton, St. John and Pointe du Chêne. | do .. |

Public Property leased on Canals and Railways, etc.—Continued.

| 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 Payable each Year. | When first Instalment was Payable | |
| | | | \$ cts. | \$ cts | \$ cts. | | |
| | | June 10, 1885 | 1 00 | 1 00 | June 1 ... | On delivery of lease. | All in one lease. In advance. |
| | | May 1, 1883 | 600 00 | 50 00 | 1st of each month. | do | |
| | | do 1, 1883 | 200 00 | 50 00 | Quarterly. | | |
| | | Dec. 31, 1884 | 50 00 | 25 00 | Dec. 31 & June 30. | On delivery of lease. | Terminable on one month's notice. In advance. |
| | | July 1, 1885 | 400 00 | 33 34 | Monthly... | July 1, 1885. | In advance. |
| | | do 1, 1885 | 1100 00 | 91 67 | do ... | do 1, 1885. | do |

2nd. Property purchased by the Department of Railways and Canals, or damaged, 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, 1885.

| Date of Signature. | Vendors, &c | Purchasers. | Property Purchased, or Sold, or Damaged. | For what Purpose used, &c. | Area of Land. | Amount Paid. | Remarks. |
|--------------------|--|--------------|--|----------------------------|---------------|--------------|----------|
| | | | | | | \$ cts. | |
| Jan. 24, 1885 | John M. Kirby | Her Majesty. | <i>Carillon Canal.</i> Release for damages, flooding lot 15, 1st Con. | Carillon Dam | 2 acres | 200 00 | |
| Feb. 20, 1885 | D. B. Wyman | do .. | do lot 16 | do | do | 50 00 | |
| June 23, 1884 | J. B. & O. Brazeau .. | do .. | do East Hawkesbury | do | do | 50 00 | |
| Nov. 25, 1881 | S. Webster | do .. | do E. pt. 20, Block C, 1st Con. Chatham | do | do | 50 00 | |
| Jan. 8, 1885 | John Fitzgerald, sen | do .. | do do | do | do | 40 00 | |
| do 14, 1885 | James Miller | do .. | do 3 & road on 7 do | do | do | 275 00 | |
| do 14, 1885 | Geo. O'Brien | do .. | do 5 do | do | do | 25 00 | |
| do 23, 1885 | Jos. Fletcher | do .. | do 7 do | do | do | 20 00 | |
| do 23, 1885 | J. Cushing <i>et al</i> , Trustees Congre- gation Presbyterian Church, Chatham. | do .. | do 3 do | do | do | 25 00 | |
| May 1, 1885 | Kane & Mularky ... | do .. | do W 1/2 6 do | do | do | 20 00 | |
| July 24, 1884 | A. L. & A. F. Bradley | do .. | <i>Chambly Canal.</i> Release fences and maintenance on lot 13, or official lot 4, 338, Parish of Chambly | Chambly Canal | do | 150 00 | |
| Aug. 6, 1884 | Aaron Wiggins | Her Majesty | <i>Welland Canal.</i> Release of damages by drain flooding lot 5 in 10th Con. Grantham | Welland Canal | do | 275 00 | |
| Sept. 8, 1884 | John Cloy (owner) .. | do .. | Release of damages by flood, removal of bridges, lot 74, Thorold | do | do | 150 00 | |
| do 9, 1884 | Howland, Jones & Co. (tenants) | do .. | Release of damages, flooding his buildings by railway, west side, Thorold | do | do | 100 00 | |
| do 20, 1884 | Estate Mich. Smith .. | do .. | Release of damages, flooding flour in building by railway, west side, Thorold | do | do | 275 84 | |
| Nov. 27, 1884 | Chas. Lugsdin (tenant) | do .. | Release of damages to lot L, east of East St, Port Colborne | do | do | 150 00 | |
| | | do .. | Release of damages to shop on lot 23, west of West St., Port Colborne | do | do | 200 00 | |

... Release of damages to shop and buildings, lot ...
... Release of damages to shop and buildings, lot ...
... Release of damages to shop and buildings, lot ...

| | | | | | | | |
|---------------|---|--------------|---|---------------------|---------|----------|---|
| Dec 4, 1884 | D. Armstrong <i>et al.</i> | do | ... Release of damages to shop and business, lot 21, west of West St., Port Colborne..... | do | ..... | 400 00 | |
| do 4, 1884 | R. Armstrong. | do | ... Release of damages to shop and business, lot 21, west of West St., Port Colborne..... | do | ..... | 480 00 | |
| do 17, 1884 | Wm. Lewis (tenant). .. | do | ... Release of damages to shop and business, lot 24, west of West St., Port Colborne..... | do | ..... | 175 00 | |
| do 22, 1884 | Jane McCarty. | do | ... Release of damages to shop and business, lot 24, west of West St., Port Colborne..... | do | ..... | 356 00 | |
| do 30, 1884 | S. Burrow (tenant) .. | do | ... Release of damages to shop and business, lot 26, west of West St., Port Colborne..... | do | ..... | 250 00 | |
| Jan. 6, 1885 | S. Hopkins | do | ... Release of damages to buildings on lot 22 west of West St., Port Colborne..... | do | ..... | 91 00 | |
| do 26, 1885 | L. G. Carter..... .. | do | ... Release of damages to buildings on lot 23, west of West St., Port Colborne..... | do | ..... | 356 00 | |
| Feb 4, 1885 | Wm. Walker (tenant)..... | do | ... Release of damages obstructing in front of lot 26, west of West St., Port Colborne..... | do | ..... | 375 00 | |
| July 22, 1885 | Sarah J. Stanton <i>et al.</i> <i>vir</i> , formerly, Mrs. Jos. Hardison. | do | ... Release of damages to tavern, &c., on lots W/O and D, east of East St., Port Colborne..... | do | ..... | 765 00 | |
| Oct. 16, 1885 | C. Fitzlee <i>et al.</i> | do | ... Release of damages to buildings, &c., on lot 25, west of West St., Port Colborne..... | do | ..... | 350 00 | |
| Jan. 7, 1885 | Widow J. T. Willett .. | do | ... Deed of lots 10, 11, on Rodman St., St. Catharines, on lot 17 in 5th Con. Grantham. | do | ..... | 30 00 | Bond of indemnity re claims, if any for marriage settlement of Geo Mckenzie. Government sees, No. 2484. |
| 157 | R. Lowrie <i>et al.</i> | do | ... Release to Government, damages to grist mill, &c., at Port Dalhousie, at waste weir No. 1. | do | ..... | 1,500 00 | |
| do 20, 1885 | Mary Sbaughnessy formerly, O'Connor | do | ... Release to Government, damages by using her lot 26 in 3rd Con. Humberston as dumping grounds..... | do | ..... | 25 00 | |
| Nov. 15, 1884 | J. Batteriel <i>et ux.</i> | do | ... Deed of part lots 13 to 20, Rodman St., St Catharines, on lot 17 in 5th Con. Grantham | do | ..... | 150 00 | |
| June 5, 1885 | J. Bald <i>et voir</i> | do | ... Deed of part lots 20, in 5th Con. Growland..... | do | ..... | 75 00 | |
| Sep. 24, 1885 | Wm. Clark <i>et al.</i> | do | ... Order of Court of Chancery vesting in Government, part lot 10, Con. C, Murray..... | Murray Canal..... | 0-15 do | 51 50 | Costs \$1,051.29. |
| Apr. 10, 1885 | Benj. Rowe..... .. | do | ... Bond of indemnity to Government re lost cheque \$30.80 if claimed..... | Gallops Canal. .... | ..... | 61 60 | |
| July 22, 1881 | J. H. Cunningham.... | Her Majesty. | ... Release for damages by lock at Fenelon Falls, to lot 3, E. of Colborne St., Fenelon Village | Trent Valley Canal | ..... | 200 00 | |

| | | | | | | | | | |
|-------------------------------|--|-------------|-----|----|--|----------------------|----------------|-------------------------------|--|
| do 13, 1884 | Thos. McVeigh | do | ... | do | pt. 26, and pt. 27, 5th Con. Calumet Island | do | 16 do | 80 00 | |
| Jan. 12, 1885 | H. & F. & F. Rose et al. | do | ... | do | pt. 2 & 4, Mansfield | do | 9½ do | 100 00 | |
| Nov. 17, 1884 | Archd. Spencer | do | ... | do | lots 2 and 3, Range B, Mansfield | do | 18½ do | 80 00 | |
| Dec. 4, 1884 | M. Dempsey | do | ... | do | lots 6 and 7, 1st Range, Mansfield | do | 55½ do | 575 00 | |
| Feb. 7, 1885 | O. Dumouchel | do | ... | do | lots 13, 14, North Range, Grand Calumet | do | ..... | 500 00 | |
| do 9, 1885 | W. Rimer | do | ... | do | lot 6, S. of Front St., Village of Bryson | do | ..... | 75 00 | |
| do 10, 1885 | John McCosher | do | ... | do | lot 11, N. of Front St., Village of Bryson | do | ..... | 15 00 | |
| Mar. 2, 1885 | Pat. Davis | do | ... | do | lot 5, in 1st Range, Mansfield | do | ..... | 225 00 | |
| May 26, 1885 | Geo. Carswell (assignee of Jos. Malo) | do | ... | do | lots 17, 18, North Range, Calumet Island | do | ..... | 400 00 | |
| <i>Cornwall Canal.</i> | | | | | | | | | |
| May 13, 1885 | M. Ryan et ux | do | ... | do | Deed of pt of lot E½ 3, in 1st Con. Osnabruck. do | Cornwall Canal ... | 0. 5 acres ... | 225 00 | |
| July 3, 1885 | Wm. J. Brown et ux. | do | ... | do | do | do | 1.06 do ... | 434 00 | |
| do 3, 1885 | Alex. Serviss | do | ... | do | { do E½ 6, in } land taken..... 1st Con. Osnabruck.... } land damaged... | do | 1.19 do ... | 297 50 | |
| <i>Intercolonial Railway.</i> | | | | | | | | | |
| Nov. 1, 1884 | Eliz. Russell | Her Majesty | ... | do | Deed to Government part lot 331, Parish of Durham, N.B., for eight of way..... | Intercolonial Ry.... | 0.81 acres | 36 00 | |
| Feb. 19, 1885 | Mayor, Aldermen and Commonalty of St John City, N.B. ... | do | ... | do | Agreement re division of Smythe Street, St John, N.B. | do | ..... | ..... |  |
| Sept 10, 1883 | Commissioner for executing the office of Lord High Admiral | do | ... | do | Deed to Government of land, and land covered with water on east side of Upper Water, St. Halifax, near H.M.'s dock yard, for wharf and Intercolonial Railway terminus, on Halifax Harbor | do | 4.065 acres | 1 00 | |
| | | | | | | | | \$ cts. | |
| | | | | | | | | And release, 30th July, 1885. | |
| | | | | | | | | Release, 27th July, 1885. | |

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 ex- ceeding in the whole |
| | | | | \$ | \$ |
| Dec. 24, 1884 | Northern and West- ern Railway Co. | From Fredericton to Miramichi River. | 47 Vic., c. 8. | 3,200 | 128,000 |
| do 22, 1884 | Pontiac Pacific Junc- tion Railway Co. | From Hull or Aylmer to Pembroke, crossing Ottawa River at a point not east of Lapasse. | do ... | 3,200 | 272,000 |
| Jan. 20, 1885 | Caraquet Rail way Co. | From Caraquet to Bathurst, N.B. | 46 Vic., c.25. | 3,200 | 115,200 |
| do 20, 1885 | do | From Caraquet to Shippegan Harbor, N.B. | 47 Vic., c. 8. | 3,200 | 76,800 |
| Feb. 14, 1885 | Great Northern Rail- way Co. | From St. Jérôme to New Glasgow, Que. | do ... | 3,200 | 32,000 |
| Mar. 5, 1885 | Kingston and Pem- broke Railway Co. | From a point 15 miles south of Renfrew and between the Mississippi and Renfrew to Renfrew. | do ... | 3,200 | 48,000 |
| May 5, 1885 | St. Louis, Richibucto and Buctouche Railway Co. | From Richibucto to St. Louis, County of Kent, N.B. | do ... | 3,200 | 22,400 |
| do 23, 1885 | Albert Southern Rail- way Co. | From Hopewell Corner (now called Albert) to mouth of Salmon River, Parish of Alma, N.B. | do ... | 3,200 | 51,200 |
| do 25, 1885 | Elgin Petitcodiac and Havelock Rail- way Co. | From Intercolonial Railway, at Petit- codiac, to Havelock Corner, N.B. | 46 Vic., c.25. | 3,200 | 38,400 |

aid in the construction of Railways, entered into by certain Railway Companies the Fiscal Year ending 30th June, 1885.

| No. of miles to be subsidized. | Maximum Grade:— Feet to the mile. | Radius of Curvature, not less than— Feet | Width of Clearing, each side. | | Width of Cuttings. | Embankments. | Rails. | | Line to be completed. | Remarks. |
|--------------------------------|--------------------------------------|---|-------------------------------|-----|--------------------|--------------|--------|---|--|----------|
| | | | Ft. | Ft. | | | Feet. | Lbs |  |  | If steel. | If iron. |
| 40 | 70 | 955 | 50 | 20 | 16 | 56 | 60 | July 1, 1888. | | |
| 85 | 53 | 1,433 | 50 | 22 | 16 | 56 | ..... | Sept. 1, 1885—27 miles from Aylmer; July 1, 1886—27 miles following; July 1, 1887—whole line. | Government to retain \$28,000 to meet established liabilities of Company. | |
| 36 | 60 | 1,000 | 50 | 20 | 16 | 50 | 56 | { May 25, 1887. July 1, 1888. | | |
| 24 | | | | | | | | | | |
| 10 | 60 | 1,146 604 | 50 | 20 | 16 | 56 | ..... | July 1, 1885..... | Government to retain \$5,000 to meet liabilities. | |
| 15 | * | 6° or 955 feet. | 50 | 18 | 15 or more. | 56 | 56 | March 5, 1886. | | |
| 7 | 45 | 1,000 | 50 | 20 | 16 | 56 | ..... | Dec. 31, 1885. | | |
| 16 | 120 | 6° or 955 feet. | 50 | 20 | 16 | 56 | ..... | July 1, 1887. | | |
| 12 | 70 | 955ft. except at Junction of Intercolonial Ry. where it may be 637ft. | 50 | 20 | 15 | 50 | ..... | Oct. 1, 1886..... | Culverts 10 in. square cedar; piers of cedar; crib-work filled with stone. | |

*On 6° curves (rad. 955), rising southerly (against the load), 60 feet per mile.
 On curves of larger radii to maximum on tangent (against the load), 79 feet per mile.
 On 6° curves rising northerly (favourable to load), 79 feet per mile.
 On curves of larger radii to maximum on tangent (favourable to load), 100 feet per mile.

APPENDIX No. 19.

STATEMENT of Claims reported or awarded on by the Official Arbitrators in connection with the Department of Railways and Canals during the Fiscal Year ended 30th June, 1885.

| Claimants. | Nature of Claims. | When Referred. | To whom referred. | Whether for Award or Report. | Amount claimed. \$ cts. | Amount Awarded or Recommended. \$ cts. | Date of Award or Report. | Remarks. |
|-----------------------------|--|----------------|-------------------|------------------------------|-------------------------|--|--------------------------|---|
| Amable St. Laurent... | I. C. R.—Five sheep killed..... | April 19..... | One arbitrator. | Report.. | 12 00 | 12 00 | May 12, 1885 | |
| J. B. Plante..... | I. C. R.—St. Charles Branch — Two horses killed. | Feb. 1, 1883 | do | do | 150 00 | Nil. | July 3, 1884 | |
| A. J. White..... | I. C. R.—Damage to land through flooding from. | June 8, 1885 | Full Board..... | do | 150 00 | Nil. | Aug. 4, 1884 | Referred to full Board for award. |
| C. L. Vaughan..... | C. P. R.—Land expropriated but not used for. | ..... | do | do | Not stated | 400 00 | Sept. 15, 1884 | |
| J. W. Nelson..... | C. P. R.—Land taken for the Pembina Branch. | July 13, 1885 | do | do | do | 100 00 | do 15, 1884 | |
| Geo. Kitchen..... | I. C. R.—Ties used and not paid for.... | Feb. 27, 1883 | One arbitrator | do | 700 00 | Nil. | Oct. 1, 1884 | |
| Jos. Pouliot..... | I. C. R.—Damage to land by flooding. | Nov. 6, 1883 | do | do | 448 00 | 450 00 | Nov. 7, 1884 | Referred to full Board. |
| Stanislas Meunier and Hardy | St. Ours Dam—Damage by flooding.. | Oct. 16, 1882 | do | do | Not stated | Nil. | do 7, 1884 | |
| Major-Gen. Laurie..... | I. C. R.—Horse killed by..... | Feb. 23, 1884 | do | do | 200 00 | 200 00 | Mar. 25, 1885 | |
| Daniel Pugsley..... | I. C. R.—Damage by fire to a barn..... | ..... | do | do | ..... | ..... | ..... |  |
| Sylvester Neelon..... | Welland Canal—Damage to propeller "Europa," and counter claim. | Mar. 30, 1885 | Full Board | do | Not stated | Nil. | May 12, 1885 | Both cases being dismissed, or nothing reported in favor of claimants. |
| Mrs. Chas. Langelier... | Chambly Canal—For maintenance of a bridge over. | June 13, 1884 | One arbitrator. | do | 365 00 | 300 00 | do 29, 1885 | |
| H. Riendeau..... | Chambly Canal—Damage by water... | April 16, 1884 | do | do | 300 00 | Nil. | June 2, 1885 | But recommending to give a parcel of land to claimant which is useless to Govt. |
| J. B. Robertson..... | I. C. R.—Damage to machinery caused by removal for the purpose of. | May 21, 1884 | do | do | Not stated | Nil. | Jan. 1, 1885 | |
| Wm. Wagner..... | C. P. R.—Land taken for and damages do | July 16, 1883 | Two arbitrators | Award.. | 3,769 56 | 608 00 | Sept. 11, 1884 | |
| James Park..... | do do | June 11, 1884 | do | do | 40 00 | 40 00 | do 11, 1884 | |
| Andrew Hepburn..... | do do | do 11, 1884 | do | do | 60 00 | 60 00 | do 11, 1884 | |

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|-----------------------------------|-------|----------------|-----------------|-----------|------------|---------------|-----------|--|
| James Ishester..... | do do | May 21, 1884 | do | do | 762 25 | do 11, 1884 | 762 25 | do 11, 1884 |
| W. W. Doherty..... | do do | April 7, 1884 | Full Board..... | do | 400 00 | do | 650 00 | Dec. 10, 1884 |
| Chas. Gallagher..... | do do | Sept. 29, 1883 | do | do | 100 00 | do 10, 1884 | 100 00 | do 10, 1884 |
| Robt. Cochrane..... | do do | April 17, 1884 | do | do | 1,341 00 | do 10, 1884 | 870 50 | do 10, 1884 |
| Peter Jackson <i>et al.</i> | do do | Sept 5, 1884 | do | do | 1,385 00 | do 10, 1884 | Nil. | In appeal now. |
| W. Charland..... | do do | Aug. 2, 1883 | do | do | 37,273 00 | May 16, 1885 | 4,155 61 | do |
| John Hosehke..... | do do | June 5, 1883 | do | do | 577 50 | do 16, 1885 | 225 00 | do |
| David Leich <i>et al.</i> | do do | Feb. 23, 1883 | do | do | 2,000 00 | do 16, 1885 | 500 00 | do |
| H. Hubert..... | do do | Mar. 27, 1884 | do | do | 91,097 10 | do 18, 1885 | 9,216 00 | do |
| Chas. Wilson..... | do do | Oct 9, 1882 | do | do | 7,262 50 | do 11, 1885 | 845 00 | do |
| J. T. Davie (3 cases)... | do do | Aug. 2, 1883 | do | do | 246,488 16 | do 20, 1885 | 35,637 67 | do |
| Chas. Duquette <i>et al.</i> ... | do do | April 8, 1884 | do | do | Not stated | do 15, 1885 | 1,087 50 | do |
| James McLeod..... | do do | Feb. 6, 1884 | One arbitrator | Report... | 435 00 | Dec. 29, 1884 | 274 00 | Case now referred to full Board for award. |
| L. Guay..... | do do | ..... | do | do | ..... | Jan. 16, 1885 | 150 00 | Negotiated for by Mr. Munn, O.A., and approved of by Mr. Schreiber, Jan. 16, 1885. |
| A. Guay..... | do do | ..... | do | do | ..... | do 16, 1885 | 12 00 | |
| R. Turgeon..... | do do | ..... | do | do | ..... | do 16, 1885 | 4 00 | |
| R. Roy..... | do do | ..... | do | do | ..... | do 16, 1885 | 7 00 | |
| Andrew McConnell..... | do do | April 3, 1884 | do | do | ..... | Aug 23, 1884 | 560 00 | |
| | | | Canal. | | & interest | | | |

CHAS. THIBAUT,
Secretary of Official Arbitrators.

OTTAWA, 25th November, 1885.

APPENDIX No. 20.

CANADIAN PACIFIC RAILWAY.

OFFICE OF THE ENGINEER IN CHIEF,

OTTAWA, 31st December, 1885.

SIR,—On the 10th of October last, I had the honor to submit my Annual Report of the progress made with the works of construction upon the Canadian Pacific Railway up to that date, and as it has been the practice to give the latest information in regard to the condition of the works before Parliament meets, I now beg leave to report on the advancement with the works subsequent to that date, and in as much as the rail connection was made from ocean to ocean on the 7th November last, at which date the road may be accepted as practically completed, the moment appears opportune to offer a few remarks upon the progress made with the construction of this stupendous undertaking from the first breaking of ground.

This great enterprise, as is well known, was first undertaken as a Government work and the first contract for the construction of any portion of the Trunk line was entered into on the 3rd of April, 1875, being for the section lying between Fort William and Sunshine Creek, a distance of 27 miles; the work of construction was at once engaged in, and this may be considered the date at which actual construction was commenced and continuously prosecuted. From time to time contracts for further sections were let until the entire distance of 422 miles between Fort William and the Red River, opposite Winnipeg, was covered. Whilst this work was in progress contracts were let for the construction of 200 miles from Winnipeg westward, and of 127 miles in British Columbia, extending from Savona's Ferry to Emory's Bar, thus aggregating 749 miles which were under construction as Government work in May, 1880, the last contract having been entered into on the 3rd of that month.

Shortly after this, negotiations were entered into for the construction by a company, resulting in the Canadian Pacific Railway Company entering into an agreement to construct 1,909 miles and equip the entire Trunk line from Callander to Port Moody, 2,550 miles, assuming the work done west of Winnipeg and paying the cost thereof, in consideration of the Government granting them \$25,000,000 and 25,000,000 acres of land, together with a constructed road composed of 641 miles of Trunk line and the Pembina Branch, 65 miles in length. This contract is dated the 21st of October, 1880, and was ratified by Parliament on the 15th of January, 1881, upon which the company at once set to work to organize a force for carrying on the work.

In May of that year active operations of construction were commenced, when the works west of Winnipeg, which consisted of about 70 miles of graded road and 66 miles of track laid, together with a quantity of rails and other material, were transferred to them.

In February, 1882, the last sub-section of the Government sections, viz., that from Emory's Bar to Port Moody, a distance of 86 miles was placed under contract.

The progress made with the work on the Government sections of the Trunk line, viz.: Port Arthur to Red River (opposite Winnipeg), 428 miles; and Savona's Ferry to Port Moody, 213 miles—in all, 641 miles, at the close of each calendar

year may be stated, as regards the length of road which was so far completed as to admit of the running of regular trains thereon, to be as follows, viz:—

| | Each year. Miles. | Total Miles. |
|--------------------------------------|----------------------|-----------------|
| During and at the close of 1875..... | 0 | 0 |
| “ “ 1876..... | 45 | 45 |
| “ “ 1877..... | 17 | 62 |
| “ “ 1878..... | 136 | 198 |
| “ “ 1879..... | 35 | 233 |
| “ “ 1880..... | 66 | 299 |
| “ “ 1881..... | 102 | 401 |
| “ “ 1882..... | 49 | 450 |
| “ “ 1883..... | 77 | 527 |
| “ “ 1884..... | 111 | 638 |
| On the 30th June, 1885..... | 3 | 641 |

In July, 1885, the sections of the road undertaken as a Government work, 641 miles in length, may be said to have been practically completed.

I have already stated that the Canadian Pacific Railway Company, under contract dated 21st October, 1880, undertook to construct 1,909 miles of Trunk line and to equip the entire road from Callander to Port Moody, 2,550 miles, and that active operations commenced in the month of May following.

The progress made by the Company up to the end of each calendar year, as regards the length of line which was so far completed as to admit of the running of regular trains thereon, may be stated as follows:—

| | Each year. Miles. | Total Miles. |
|--------------------------------------|----------------------|-----------------|
| During and at the close of 1881..... | 161 | 161 |
| “ “ 1882..... | 440 | 601 |
| “ “ 1883..... | 473 | 1,074 |
| “ “ 1884..... | 358 | 1,432 |
| “ “ 1885..... | 477 | 1,909 |

Thus the entire 1,909 miles, which the Company undertook to construct, were practically completed on the 7th day of November, 1885, the day on which the last rail was laid, forming a continuous rail connection from ocean to ocean. The company is still operating a temporary section of 9 miles near Mount Stephen, which was constructed for the purpose of avoiding some heavy work, including a tunnel of 1,400 feet, which would have greatly delayed the completion of the through line. This temporary line is in first-rate running condition, and seems to be operated without difficulty.

Exclusive of this nine mile section a small expenditure only is required to place the road in such a condition as to comply with the requirements of the contract.

The entire line is equipped with rolling stock of a high standard.

The 641 miles constructed by the Government were commenced in April, 1875, and practically completed in June, 1885, ten years and three months.

The 1,909 miles constructed by the Company were commenced say, in February, 1881, and practically completed on the 7th of November, 1885, four years and nine months.

The following are statements of the revenue and expenditure for the years ending the 31st of December, 1884 and 1885, published by the Canadian Pacific Railway Company:—

| | 1884. | 1885. |
|-------------------------|-----------------------------|-----------------------------|
| Gross earnings | \$5,750,521 | \$8,348,500 |
| Gross expenditure | 4,558,630 | 5,124,400 |
| | <u> </u> | <u> </u> |
| Net earnings | <u>\$1,191,890</u> | <u>\$3,224,100</u> |

These figures give indications of a most successful enterprise and of a most valuable property, especially when it is considered that a large section of the country through which the road passes is at present sparsely settled, and hitherto unserved by railway facilities, with but very limited opportunities for a development of trade, and I think there can be no doubt this section of country will become speedily populated and trade will rapidly develop.

I have the honor to be, Sir,

Your obedient servant,

(Signed)

COLLINGWOOD SCHREIBER,

Chief Engineer.

A. P. BRADLEY, Esq.
Secretary Railways and Canada.

APPENDIX No. 21.

ALPHABETICAL List of Subsidies Granted.

| Number. | Name of Railway. | Under what Act subsidized. | Subsidy per mile. | Total Subsidy not to exceed— | Subsidy for a term of years. | Total Subsidy. |
|---------|--|-------------------------------------|--------------------|------------------------------|------------------------------|----------------|
| | | | \$ | \$ | \$ | \$ |
| 1 | Annapolis to Digby | 47 Vic, c. 8... | 3,200 | 64,000 | ..... | 64,000 |
| 2 | Baie des Chaleurs Railway..... | 46 Vic, c. 25... | 3,200 | 320,000 | ..... | 320,000 |
| 3 | Brockville, Westport and Sault Ste. Marie Ry | 48 Vic, c. 59... | 3,200 | 128,000 | ..... | 128,000 |
| 4 | { Belleville and North Hastings Railway.. Madoc to junction with Central Ontario at Eldorado | 48 Vic, c. 59... | 1,500 | 10,500 | ..... | ..... |
| 5 | { Caraquet Railway..... do | 46 Vic, c. 25... 47 Vic, c. 8... | 3,200 3,200 | 115,200 76,800 | } | 192,000 |
| 6 | Central Railway, head of Grand Lake, to Intercolonial Railway at Sussex..... | 47 Vic, c. 8... | 3,200 | 128,000 | ..... | 128,000 |
| 7 | Central Ontario Railway..... | 48 Vic, c. 59... | 3,200 | 64,000 | ..... | ..... |
| 8 | Canada Southern Ry., Comber to Lake Erie. | 48 Vic, c. 59... | 3,200 | 44,800 | ..... | ..... |
| 9 | { Canada Atlantic, Valleyfield to Lacolle } do terminus to Chaudière Falls } | 48 Vic, c. 59... | { 1,600 3,200 } | { 96,000 | ..... | ..... |
| 10 | Derby to Indian Town..... | 47 Vic, c. 8... | 10,000 | 140,000 | ..... | 140,000 |
| 11 | Erie and Huron Railway..... | 47 Vic, c. 8... | 3,200 | 96,000 | ..... | 96,000 |
| 12 | { Gravenhurst to Callander | 45 Vic, c. 14... | 6,000 | 660,000 | } | 1,320,000 |
| | do do | 46 Vic, c. 8... | 6,000 | 660,000 | | |
| | Gatineau Valley Railway..... | 46 Vic, c. 25... | 3,200 | 160,000 | | |
| 13 | { do do | 47 Vic, c. 8... | 3,200 | 160,000 | } | 320,000 |
| | do do (Cancel Act 46 and 47 Vic.) | 48 Vic, c. 59... | ..... | 320,000 | | |
| 14 | Great European and Short Line Railway, Canso to Louisburg..... | 46 Vic, c. 25... | 3,200 | 256,000 | ..... | 256,000 |
| 15 | { Grand Piles to Lake Edward | 47 Vic, c. 8... | 3,200 | 217,600 | } | 217,600 |
| | Grand Piles, on River St. Laurent, to its junction with the Lake St. John Rail- way. (Cancel Act of 47 Vic, c. 8.).... | 48 Vic, c. 59... | 4,352 | 217,600 | | |
| 16 | Great Northern Railway (St. Jérôme to New Glasgow)..... | 47 Vic, c. 8... | 3,200 | 32,000 | | |
| 17 | Hopewell to Alma..... | 47 Vic, c. 8... | 3,200 | 51,200 | ..... | 51,200 |
| 18 | International Ry., Sherbrooke to Boundary. | 46 Vic, c. 25... | 3,200 | 156,800 | ..... | 156,800 |
| 19 | Intercolonial Ry., Petitcodiac to Havelock. | 46 Vic, c. 25... | 3,200 | 38,400 | ..... | 38,000 |
| 20 | Intercolonial Ry. Branch, Metapedia towards Paspebiac..... | 47 Vic, c. 8... | 15,000 | 300,000 | ..... | 300,000 |
| 21 | Irondale, Bancroft and Ottawa Railway..... | 47 Vic, c. 8... | 3,200 | 160,000 | ..... | 160,000 |
| 22 | Indian Town to Boistown, N.B..... | 48 Vic, c. 59... | 3,200 | 140,800 | ..... | ..... |
| 23 | Jacques Cartier Railway, and bridge con- necting Union Junction with Canadian Pacific Railway and the North Shore Railway | 47 Vic, c. 8... | ..... | 200,000 | ..... | 200,000 |
| 24 | Kingston and Pembroke Railway, Mississippi to Renfrew..... | 47 Vic, c. 8... | 3,200 | 48,000 | ..... | 48,000 |
| 25 | Long Sault and Lake Temiscamingue..... | 48 Vic, c. 59... | 3,200 | 25,600 | ..... | ..... |
| 26 | Montreal and Champlain Junction, Railway, Brousseau to Dundee | 48 Vic, c. 59... | 500 | 30,000 | ..... | ..... |
| 27 | { Montreal and Halifax, a line of railway connecting..... | 47 Vic, c. 8... | ..... | ..... | 170,000 for 15 years | ..... |
| | { The Act of 1884, makes the whole loan \$250,000 for 20 years..... | 48 Vic, c. 58... | ..... | ..... | 80,000 for 20 years. | ..... |

ALPHABETICAL List of Subsidized Railways—*Concluded.*

| Number. | Name of Railway. | Under what Act subsidized. | Subsidy per mile. | Total Subsidy not to exceed— | Subsidy for a term of years. | Total Subsidy. |
|---------|--|---------------------------------------|-------------------|------------------------------|--|----------------|
| | | | \$ | \$ | \$ | \$ |
| 28 | Montreal to Sorel Railway..... | 48 Vic., c. 59.. | 1,600 | 72,000 | ..... | 72,000 |
| | do Quebec, Provincial Gov't..... | 47 Vic., c. 8... | 6,000 | 954,000 | }..... | 2,394,000 |
| 29 | do Ottawa do | 47 Vic., c. 8... | 12,000 | 1,440,000 | | |
| 30 | do and Western Ry., St. Jérôme... | 46 Vic., c. 25... | 3,200 | 160,000 | }..... | 320,000 |
| | do do Westward..... | 47 Vic., c. 8... | 3,200 | 160,000 | | |
| | Northern and Western Railway to Dumphy's..... | 46 Vic., c. 25... | 3,200 | 102,400 | }..... | 147,200 |
| 31 | Northern and Western Railway to Dumphy's. (Cancel Act of 46 Vic.)..... | 47 Vic., c. 8... | 3,200 | 128,000 | | |
| | Northern and Western Railway to Dumphy's, from north end of 40 miles to Boistown | 48 Vic., c. 59... | 3,200 | 19,200 | }..... | 159,600 |
| 32 | Napanee and Tamworth Railway..... | 46 Vic., c. 25... | 3,200 | 89,600 | | |
| | Tamworth towards Rogart (Cancelled)... Cancel Act of 47 Vic. | 47 Vic., c. 8... 48 Vic., c. 59... | 3,200 4,375 | 70,400 70,000 | }..... | 118,400 |
| 33 | New Brunswick and Prince Edward Isl'd Railway, Sackville to Cape Tormentine | 48 Vic., c. 59... | 3,200 | 118,400 | | |
| 34 | Oxford to New Glasgow..... | 45 Vic., c. 14... | 3,200 | 224,000 | }..... | 224,000 |
| | Oxford, Sydney to Louisburg..... | 47 Vic., c. 8... | for 15 years. | ..... |  |  |
| | | | | | \$30,000 per annum for 15 years, and transfer Eastern Extension from New Glasgow to Canso. | |
| 35 | Ontario Pacific Ry. (Cornwall to Perth).... | 47 Vic., c. 8... | 3,200 | 262,400 | ..... | 262,400 |
| 36 | Ottawa, Waddington and New York Ry..... | 48 Vic., c. 59... | 3,200 | 166,000 | ..... | 166,400 |
| 37 | Pontiac Pacific Junction Railway | 47 Vic., c. 8... | 3,200 | 272,000 | ..... | 272,000 |
| 38 | Quebec Central Railway | 47 Vic., c. 8... | 3,200 | 211,200 | ..... | 211,200 |
| | Rivière du Loup to Edmonton..... | 45 Vic., c. 14... | 3,200 | 240,000 | }..... | 498,000 |
| 39 | do do | 48 Vic., c. 59... | 2,800 | 210,000 | | |
| | do do | 48 Vic., c. 59... | 6,000 | 48,000 | | |
| 40 | Richibucto and St. Louis..... | 47 Vic., c. 8... | 3,200 | 22,400 | ..... | 22,400 |
| | St. Raymond and Lake St. John | 45 Vic., c. 14... | 3,200 | 384,000 | }..... | 560,000 |
| 41 | St. Raymond and Lake St. John (Quebec and Lake St. John Railway)..... | 46 Vic., c. 8... | 3,200 | 80,000 | | |
| | St. Raymond to Junction with North Shore, (Quebec and Lake St. John Ry.).. | 48 Vic., c. 58... | 3,200 | 96,000 | ..... | 500,000 |
| 42 | St. John Bridge, Railway Extension | 46 Vic., c. 25... | ..... | 500,000 | ..... | 500,000 |
| 43 | St. Martin's Junction to Quebec | 47 Vic., c. 8... | 6,000 | 960,000 | }..... | 1,300,000 |
| | do do | 48 Vic., c. 58... | 2,125 | 340,000 | | |
| 44 | St. Andrew's and Lachute..... | 47 Vic., c. 8... | 3,200 | 22,400 | ..... | 22,400 |
| 45 | Thunder Bay Colonization Railway, Murillo to east end of Whitefish Lake..... | 48 Vic., c. 59... | 3,200 | 92,000 | ..... | ..... |

APPENDIX No. 22.

REPORT OF SURVEY FOR THE RESTIGOUÇHE AND VICTORIA RAILWAY.

OTTAWA, 18th January, 1886.

SIR,—I have the honor to submit my report upon the progress made with surveys prosecuted under my direction during the past season.

1st.—SHORT LINE RAILWAY.

Montreal to the Harbors of St. John, St. Andrews and Halifax.

In August last I was authorized by the Right Honorable the Premier to proceed with a location survey of the unconstructed portions lying between the River St. Lawrence and Mattawamkeag, and also to make a preliminary survey between Harvey and Salisbury, on the route adopted as the shortest and best practicable line connecting the city of Montreal with the harbors of St. John, St. Andrews and Halifax, with a view of obtaining such information as would enable capitalists to judge of the sufficiency, or otherwise, of the subsidy granted by Parliament in aid of the construction and securing of a direct through line. Accordingly, I at once organized an engineering staff for this purpose, placing the several sections of the surveys to be undertaken in charge of the officers named below, viz.:—

No. 1. Lachine to near Orford Lake. (Location survey, in charge of Mr. McLean.)

No. 2. Near Orford Lake to Lennoxville. (Location survey, in charge of Mr. Foose.)

No. 3. Moosehead Lake to Mattawamkeag. (Location survey, in charge of Mr. Middleton.)

No. 4. Harvey, towards Salisbury. (Preliminary survey, in charge of Mr. Bright.)

No. 5. Salisbury, towards Harvey. (Preliminary survey, in charge of Mr. Brown.)

The field work is all completed, except about 20 miles near Mattawamkeag, which is rapidly being brought to a termination by Mr. Middleton. The results of these surveys are very satisfactory, the distance in each case being a few miles less than those given in my previous report. On the St. Lawrence,—Lennoxville section,—there are no grades of greater severity than 53 feet per mile, and no curves exceeding 6 degrees, with moderately light work, as a whole. The plans and profiles are not yet completed, nor has the engineer made his report upon this section.

On the Moosehead,—Mattawamkeag section,—the maximum grade is 58 feet per mile, and the maximum curvature 6 degrees, the work being reported moderately heavy, but with very little solid rock. Neither plans or profiles are completed, nor has the engineer made his final report.

On the Harvey and Salisbury section the maximum grade is 57 feet per mile, and the maximum degree of curvature will certainly not exceed 6 degrees, with very light work. The plans and profiles of this section are completed, and the engineers in charge have made their reports. As soon as the work in all the sections is fully completed, I shall at once report progress, submitting the plans, profiles and engineers' reports.

So satisfactory are the results of the surveys, that the International Railway Company, of which Mr. Duncan McIntyre is President, are evidently convinced that the subsidy granted by Parliament is sufficient to warrant them in undertaking the work, and they have entered into a contract with the Dominion Government for carrying this enterprise through to completion.

2ND.—CAPE BRETON RAILWAY.

Amongst the surveys for which appropriations were made by Parliament at its last Session was that for a line of railway through the Island of Cape Breton, in Nova Scotia, commencing opposite the terminus of the Eastern Extension Railway, in the Strait of Canso, and extending to either Sydney or Louisburg. In August I was authorized by the Department to proceed with this survey, and I forthwith placed Mr. Hiram Donkin in charge, and at once commenced field operations, by running a line to Louisburg, crossing the St. Peter's Canal and passing south of the Bras d'Or Lake. The field work on this line is completed, and the plans and profiles are being prepared. With the results, I am rather disappointed. The grades will be severe, being 80 feet to the mile, and the work heavy. The distance is 83 miles. When the survey of this line was nearing completion an earnest appeal was made to have the line to Sydney surveyed. The request was granted, and Mr. Donkin is now engaged making a survey of a line commencing at the same point in the Strait of Canso as the Louisburg line, and running west and north of the Great Bras d'Or Lake, until the Narrows are reached and crossed, after which, taking as direct a line as possible to Sydney. About two-thirds of this line is surveyed, and the grades prove to be severe and the works of construction heavy.

When the survey is completed, the plans and profiles prepared, and report of the engineer in charge received, they will be submitted.

3RD.—RESTIGOUCHE AND VICTORIA RAILWAY.

Under instructions from the Department to have an exploration made of the proposed route for this railway, I detailed Mr. Duffy for the service, who, accompanied by Mr. Heckman, left Ottawa in August to take the field.

This proposed railway is to form a junction with the Intercolonial Railway about 8 miles west of Campbellton, to cross the divide between the waters of the Restigouche and those of the St. John rivers, and form a junction with the New Brunswick Railway at Grand Falls.

The above named gentlemen explored the entire route on foot, the whole distance being through a dense forest, in which they report a very large quantity of very fine timber. Careful barometrical observations were taken, with a view of ascertaining the elevations to be overcome and the severity of the grades necessary to surmount them with a railway. Mr. Duffy reports light grades and easy curvature can be obtained throughout, and is of opinion that the work of construction will not be costly, the work being generally very light. The total length of this proposed line, from its connection with the Intercolonial Railway, on the Restigouche River, to its junction with the St. John River, is estimated at 108 miles. I submit herewith Mr. Duffy's report.

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

COLLINGWOOD SCHREIBER,
Chief Engineer Government Railways.

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

OTTAWA, 29th September, 1885.

SIR,—In accordance with your letter of instructions, dated 11th August, 1885, I have the honor to report that the proposed Restigouche and Victoria Railway will require to leave the Intercolonial Railway about 4 miles west of Campbellton, and follow the original bank of the Restigouche river for about $1\frac{1}{2}$ mile, where the valley of Christopher's Brook is reached, thence, following the valley of said brook to the forks of the east and west branches, keeping up the valley of the

west branch to its head waters, which are reached about the 13th mile from the Intercolonial Railway, and is about 235 feet above the sea.

It would require a grade of 14 feet per mile to reach this point, but this will be very much broken up in practice, and necessitate steeper grades at different points, none of which need exceed 53 feet per mile. The above brook will require to be crossed and re-crossed at several points, to avoid heavy side hill work and sharp curvature, as the several structures will require openings of 30 feet, and bridge timber being plentiful, the cost will be less to bridge than excavate.

From the source of Christopher's Brook there will be a stretch of nearly level country for about 1 mile, where the source of Meadow Brook is reached. The line will require to follow this brook for a distance of about 2 miles, when it will be necessary to run in a southerly direction, so as to strike the bank of the Upsalquitch River, about $1\frac{1}{2}$ miles above the mouth of Meadow Brook, or the "Little Falls," on the Upsalquitch.

The banks at the proposed point of crossing are high, and composed of shale rock, lying on nearly perpendicular beds. Even with this latter objection, a good foundation can be had for the abutments. The river is shallow, there only being $2\frac{1}{2}$ to 3 feet of water, with gravel bed lying on shoal rock.

The spring freshets bring the water up about 9 feet. There is no ice flow worth mentioning, on account of the shallow water, the ice being all broken up before the spring freshets set in.

The bridge over this river will require two spans of 100 feet each.

From the bridge over the Upsalquitch the line will keep the west bank till the mouth of Boland's Brook is reached; thence, it will follow the valley of the latter stream to the mouth of Four-Mile stream; it will then follow the latter stream to its head waters, which flow out of a small lake that empties its waters north and south, north into Burnt Land Brook and south into Four-Mile Brook. The summit is reached about $30\frac{1}{2}$ miles from the Intercolonial Railway, and is about 638 feet above the sea. The grades on this part of the line will be very light, except that portion up the valley of Four-Mile Brook, which will require a grade of 63 feet per mile for about 1 mile. The curvature on the whole of this section will be very light, in no place exceeding 1,910 feet radius. There will be some shale rock excavation at different points along the Upsalquitch River, but in no place will it exceed 15,000 to 20,000 cubic yards per mile. The line cutting will principally be in gravel.

From $30\frac{1}{2}$ miles there will be about half a mile of nearly level country along the margin of the small lake mentioned above. It will then follow the valley of Burnt Land Brook to near its junction with the north-west branch of the Upsalquitch River, which is reached about the 35th mile, and is about 538 feet above the sea.

It will require a continuous grade of about 33 feet per mile to reach this point. The curvature will be light on this portion. The line cuttings will principally be in loam and gravel, with very little rock work.

From the 35th mile the line will follow up the valley of the north-west branch of the Upsalquitch River to its source, which is reached about the 60 mile, and is about 1,219 feet above the sea. It will require a continuous grade of 27 feet per mile to reach this point, but as the grades will necessarily be very much broken up in practice, the grades will have to be increased at different points but in no case need they exceed 53 feet per mile, and that only for a short distance. The sharpest curve on this portion will not exceed 955 feet radius, and that only in two or three places, and for a short distance. In following up the Upsalquitch, it will be found necessary to cross and re-cross it at different points, to avoid heavy side-hill cutting through shaly rock bluffs, which approach close to the river edge. The structures required for the above work will range from 30 to 100 feet openings, but as bridge timber is plentiful, and close to the different sites, they will cost less than the rock excavation. The line cuttings will principally be in loam, gravel, and a little shale rock in a few places. The river is very shallow all the way up, there not being over from 2 to 3 feet of water. The spring freshets bring it up about 7 feet. The bed is gravel and rock.

From the 60th mile to Five-Finger Brook, which is reached at the 65th mile by a gradually descending grade, and is 931 feet above the sea, the grade on this portion is 57 feet per mile; but on a location survey it will be necessary to keep about $1\frac{1}{2}$ miles further west than the line I walked over. The ground being much lower in that direction, the grades will be very much improved. The curvature will be very light, in no place exceeding 1,910 feet radius.

The line cuttings will be in loam and clay. The Five-Finger Brook will require an opening of 70 feet. The banks are high, and the bed of the river is gravel, lying upon shale rock.

From the 65th mile or Five-Finger Brook, the ground gradually ascends to the 71st mile, when the summit is reached at an elevation of 1,119 feet above the sea. This is surmounted by an ascending grade of 30 feet per mile. The line cuttings on this portion are partly loam and gravel with a little rock. The curvature is very light, not exceeding 1,910 feet radius at any point.

From the 71st to the 77th mile, where the source of Grand River is reached, the ground gradually descends to an elevation of 935 feet above the sea and is reached by a grade of 31 feet per mile.

From the 77th to the 80th mile the ground gradually ascends to an elevation of 980 feet above the sea, and is reached by a grade of 15 feet per mile.

From the 80th mile the line will follow the valley of the Little River to about the 100th mile, when it will be necessary to gradually leave the river, to enable the line to gain the table land on the west bank, that the New Brunswick Railway may be reached on the north bank of the St. John River, and a connection made with that railway close to the present bridge, thereby being enabled to use the track and bridge to reach Grand Falls, which is about half a mile east of the bridge.

The line cuttings from the 71st mile of the New Brunswick Railway (108 miles) will principally be through clay and gravel. Rock will also be encountered at different points, but not in large quantities.

The country which the line will traverse is well timbered with spruce, birch and cedar, but has only been partly lumbered in, on account of the expense of taking in supplies. The only means lumbermen have of doing this work at present is by horses and scows on the Restigouche and Upsalquitch Rivers, and it being an expensive and dangerous operation, lumbering is carried on on a very small scale on that account; but with railway facilities there is no doubt lumbering would be entered into on a larger scale. It would also open up the industry in birch timber, which, at present, is a dead letter in that part of the country.

There are also good mill sites, with plenty of water power, on the Upsalquitch River, at Grand Falls; also on the north-west branch of the Upsalquitch there is another fall of about 30 feet (about 30 miles from the forks), and on Burnt Land Brook, Five-Finger's and Boland's Brook. I have no doubt mills would be built on all of them for the manufacture of board and shingles. For the manufacture of the latter there is abundant timber to last for years.

The country in general is well adapted for agricultural purposes, and, no doubt, the land would soon be taken up if railway facilities could be had.

I have the honor to attach a small scale plan and profile, showing the general direction and approximate, grades.

I have the honor to be, Sir,

Your obedient servant,

AMBROSE DUFFY,

Engineer-in-Charge.

COLLINGWOOD SCHREIBER, Esq.,
Chief Engineer of Government Railways.